

January 19, 2005

Reference No. 030264-65

Ms. Francine Gallego  
NEW YORK STATE DEPARTMENT  
OF ENVIRONMENTAL CONSERVATION  
Region 9, Division of Spills  
270 Michigan Avenue  
Buffalo, NY 14203-2999

**RECEIVED**

JAN 20 2005  
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Dear Ms. Gallego:

Re: GM Powertrain Group – Tonawanda, New York  
Endoline Area Semiannual Groundwater Monitoring Report

Conestoga-Rovers & Associates (CRA) has prepared this Semiannual Groundwater Monitoring Report on behalf of the General Motors Powertrain Group (GMPTG) Tonawanda Engine Plant (Site). The purpose of this report is to summarize groundwater monitoring activities and results for the Endoline Area as discussed in the Remedial Action Work Plan dated April 30, 2003. The Work Plan was required by the New York State Department of Environmental Conservation (NYSDEC) to address residual unleaded gasoline contamination at the Endoline Area. To date, no response has been received from the NYSDEC on that document.

GM had initially proposed to begin sampling in May 2003; however, implementation of the work plan was delayed for one year due to ongoing construction activities in and around the Endoline Area. Several of the temporary 1-inch monitoring wells were damaged as a result of these activities. Prior to the first sampling event, the 13 1-inch temporary monitoring wells previously installed during the subsurface investigations were replaced with 13 2-inch permanent monitoring wells. The temporary wells were over-drilled and the permanent wells were installed in the same locations. All of the permanent wells were installed to a depth of 15 feet below ground surface (bgs). Installation of the permanent wells was completed on June 4, 2004. Monitoring well locations are shown on the attached figure.

#### SEMI-ANNUAL GROUNDWATER MONITORING ACTIVITIES

The first round of semi-annual groundwater sampling took place on June 11, 2004. Seven of the 13 wells were purged, sampled, and analyzed for the volatile organic compounds (VOCs) listed in the NYSDEC Spill Technology and Remediation Series (STARS) Memo #1. The remaining six wells were dry and no samples could be collected. The six wells were monitored for the presence of water and were sampled on July 28, 2004 in order to complete the data set for the sampling event. All samples were sent to Severn Trent Laboratories (STL) of North Canton, Ohio and analyzed by United States Environmental Protection Agency (USEPA) SW-846 Method 8260B for the STARS list of VOCs. The second round of semi-annual groundwater



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sampling took place on October 21, 2004. All of the wells contained sufficient water for sample collection. Sample analysis was completed by STL of North Canton, Ohio.

### **SEMI-ANNUAL GROUNDWATER MONITORING RESULTS**

Table 1 summarizes the results of the first round of sampling completed in June/July 2004 during which, all wells were sampled for STARS parameters and an additional sample was collected from MW-2 and analyzed for target compound list (TCL) parameters to verify the presence of chlorinated solvents. Table 2 summarizes the results of the second round of sampling completed in October 2004 during which all wells were sampled for TCL parameters (including STARS VOC parameters). Table 3 summarizes the results for STARS parameters from all sampling events (January 1999 to present) and is provided for comparison of contaminant concentrations to evaluate the effectiveness of natural attenuation.

#### **ROUND 1**

The reporting limits for the sample collected from MW-2 on June 11, 2004 were elevated due to the detection of tentatively identified compounds (TICs) not listed in the STARS Memo. This caused the data for the STARS VOCs to be unusable, as all data was non-detect at detection limits well above the NYSDEC groundwater standards. The laboratory stated that a large peak on the chromatogram was responsible for obscuring the STARS compound peaks, thus requiring significant dilution. The large peak was identified as 1,1,1-trichloroethane (1,1,1-TCA) at a concentration of 110,000 micrograms per liter ( $\mu\text{g}/\text{L}$ ). MW-2 was resampled on July 20, 2004 to confirm the presence of 1,1,1-TCA and generate usable data for the STARS VOC parameters. The sample was split between STL and Ecology and Environment, Inc. Analytical Services Center (ASC) of Lancaster, New York. 1,1,1-TCA was detected in the groundwater samples from MW-2 by both laboratories at concentrations of 34,000  $\mu\text{g}/\text{L}$  (ASC) and 64,000  $\mu\text{g}/\text{L}$  (STL). Related degradation compounds were also detected, including 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene, chloroethane, and tetrachloroethene.

To determine whether the detections of chlorinated solvents were the result of a recent release or were due to historical issues, CRA reviewed the analytical report associated with the September 2002 sampling event. Chopra-Lee, Inc. had used Method 8260 to analyze the samples in 2002, but no mention of the observance of chlorinated solvents was made in the data report. Matrix interference was noted, but the interfering compounds were not qualified or quantified. In accordance with standard practice, the laboratory would not have quantified or reported additional compounds that were not part of the NYSDEC required parameter list under STARS. As part of the current investigation, CRA requested that Chopra Lee review the raw data to determine if the interference observed in 2002 had been due to 1,1,1-TCA. Upon further review, Chopra-Lee has identified the presence of 1,1,1-TCA and 1,1-DCA in the

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September 2002 sample from MW-2, but is unable to quantify the data at this time due to the absence of calibration data from 2002.

### ROUND 2

During the second round of semiannual groundwater monitoring, all wells were sampled and analyzed for TCL VOC parameters by USEPA SW-846 Method 8260B in order to verify the presence and concentration of chlorinated solvents, in addition to the STARS list of VOC parameters. The reporting limits for MW-2 and MW-11 were again elevated due to the presence of chlorinated solvents at elevated concentrations. The data for MW-2 relative to the STARS parameters is unusable due to the high reporting limits.

### DISCUSSION

Round 1 and 2 results from MW-1 were consistent with the 2002 results showing no significant increase in concentrations. Although there was a slight increase in the concentration of p-isopropyltoluene that exceeded the standard in July 2004, the concentration was below the standard in October 2004. As stated above, the data for MW-2 is unusable due to the elevated reporting limits and therefore, no conclusions can be made to evaluate the effectiveness of natural attenuation in relation to STARS parameters. Results for MW-3 exhibited a decrease in concentrations from the 2002 results; however, methyl tert butyl ether (MTBE), 1,2,4-trimethylbenzene, 1,3,4-trimethylbenzene, isopropyl benzene, naphthalene, and n-propylbenzene concentrations still slightly exceeded the groundwater standards. The results at MW-4 were consistent with the 2002 sampling for most parameters; however, the standards for benzene and MTBE were slightly exceeded in October 2004. Results for MW-5 were also consistent with the 2002 sampling with concentrations below the standards for all parameters with the exception of MTBE, which exceeded the standard by 1 µg/L in October 2004. All parameters continued to be below groundwater standards at MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-13. Toluene was detected in MW-11 at an estimated concentration of 33 µg/L, above the groundwater standard of 5 µg/L; however, this may be due to the elevated detection limits and interference associated with the presence of chlorinated solvents.

### PLAN OF ACTION

#### UNLEADED GASOLINE CONTAMINATION

Overall, the results of these first two rounds of semiannual sampling continued to decrease in concentrations from the 1999 and 2002 results. In addition, exceedances of groundwater standards in general were slight, 0.5 to 1 µg/L in many cases. As stated in the Remedial Action Work Plan (RAWP), semi-annual groundwater monitoring would continue for a period of

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1 year or until the VOC concentrations meet the groundwater standards if there continued to be a pattern of reduction but VOC concentrations continued to exceed the standards. Therefore, GM will continue to conduct semi-annual groundwater monitoring for all the wells at the Endoline Area to address the residual unleaded gasoline contamination through 2005. The samples will be analyzed for the STARS list of VOC parameters by Method 8260B. A progress report will be submitted to the NYSDEC for each sampling event.

#### CHLORINATED SOLVENT CONTAMINATION

Based on the results of the first two rounds of semiannual groundwater sampling in 2004 that included TCL VOC parameters and the review of the 2002 data, it is evident that in addition to the residual unleaded gasoline contamination there is some historical chlorinated solvent contamination adjacent to the Endoline Area. Based on the analytical results of the samples collected from MW-2, MW-11, and MW-12, the chlorinated solvent plume appears to extend from beneath the building at or near MW-2 and follow the path of the storm sewer line leading north toward manhole SAN-D. Concentrations significantly decrease moving north from MW-2 to MW-12.

Although the previous subsurface investigations associated with the Endoline Area included the collection of soil and groundwater samples from selected points, the samples were not analyzed for chlorinated solvents and no information is available to identify the extent of contamination. GM will conduct a limited investigation to determine the source and extent of the plume in the soils surrounding MW-2, MW-11, and MW-12. The investigation will include a review of historical operations in the area and collection and analysis of soil and groundwater samples. Historical records will be reviewed in an effort to determine what operations were previously conducted that may have been the source of the chlorinated solvents in that area. Upon completion of the records review, a sampling plan will be prepared to identify the extent of chlorinated solvent contamination. It is anticipated that soil and groundwater samples, including groundwater samples from Endoline Area wells MW-2, MW-11, and MW-12, will be analyzed for TCL VOCs by Method 8260B as well as any additional parameters required to evaluate potential remedial technologies.

Plant 1 has recently undergone extensive renovation with the installation of the 3.9L Engine Line. The area of the plant south of MW-2 was part of this renovation. Consequently, invasive remedial approaches would not be feasible due to the newly placed equipment in this area. In situ technologies will be strongly considered. Once the extent of the plume is identified, potential remedial technologies will be evaluated to reduce the contaminant concentrations in and around MW-2, MW-11, and MW-12 and to prevent further migration from beneath the building.

A progress report will be submitted to the NYSDEC once the extent of contamination has been identified and the potential remedial technologies have been evaluated.

**CONESTOGA-ROVERS  
& ASSOCIATES**

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Please contact Jim Hartnett at 315-463-2391 or CRA at 716-297-6150 if you should have any questions or comments.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES



Katherine B. Galanti  
Environmental Scientist



Kenneth C. Malinowski, Ph.D.  
Project Director

CB/js/3  
Encl.

c.c.: M. Antonetti, GM  
J. Hartnett, GM  
K. Galanti, CRA

TABLE 1

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**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-1</i>	<i>MW-1</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-3</i>
<i>Sample ID:</i>	GW-072004-MW1-DRS	GW-072804-MW1-DRS	GW-061104-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW3-DRS
<i>Sample Date:</i>	7/20/2004	7/28/2004	6/11/2004	7/20/2004	7/20/2004	7/20/2004	7/20/2004	7/20/2004
<i>Parameters</i>								
<i>Units</i>								
<b>Volatile Organic Compounds</b>								
1,1,1-Trichloroethane	µg/L	-	-	-	64000	ND (4000)	34000	-
1,1,2,2-Tetrachloroethane	µg/L	-	-	-	-	-	ND (500)	-
1,1,2-Trichloroethane	µg/L	-	-	-	-	-	ND (500)	-
1,1-Dichloroethane	µg/L	-	-	-	-	-	7090	-
1,1-Dichloroethene	µg/L	-	-	-	-	-	179	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	ND (500)	-
1,2,4-Trimethylbenzene	µg/L	ND (1.0)	0.52	ND (3300)	ND (2000)	ND (15.0)	-	2.6
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	-	-	-	-	-	ND (1000)	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	-	-	-	-	-	ND (500)	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	ND (500)	-
1,2-Dichloroethane	µg/L	-	-	-	-	-	ND (500)	-
1,2-Dichloropropane	µg/L	-	-	-	-	-	ND (500)	-
1,3,5-Trimethylbenzene	µg/L	ND (1.0)	0.51	ND (3300)	ND (2000)	ND (15.0)	-	5.4
1,3-Dichlorobenzene	µg/L	-	-	-	-	-	ND (500)	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	ND (500)	-
2-Butanone (Methyl Ethyl Ketone)	µg/L	-	-	-	-	-	ND (1000)	-
2-Hexanone	µg/L	-	-	-	-	-	ND (1000)	-
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5.0)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	-	-	-	-	-	ND (1000)	-
Acetone	µg/L	-	-	-	-	-	ND (1000)	-
Benzene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	276	241	7.9
Bromodichloromethane	µg/L	-	-	-	-	-	ND (500)	-
Bromoform	µg/L	-	-	-	-	-	ND (500)	-
Bromomethane (Methyl Bromide)	µg/L	-	-	-	-	-	ND (1000)	-
Carbon disulfide	µg/L	-	-	-	-	-	ND (500)	-
Carbon tetrachloride	µg/L	-	-	-	-	-	ND (500)	-
Chlorobenzene	µg/L	-	-	-	-	-	ND (500)	-
Chloroethane	µg/L	-	-	-	-	-	1270	-
Chloroform (Trichloromethane)	µg/L	-	-	-	-	-	ND (500)	-
Chloromethane (Methyl Chloride)	µg/L	-	-	-	-	-	ND (1000)	-
cis-1,2-Dichloroethene	µg/L	-	-	-	-	-	ND (500)	-
cis-1,3-Dichloropropene	µg/L	-	-	-	-	-	ND (500)	-
Cyclohexane	µg/L	-	-	-	-	-	ND (500)	-
Cymene (p-Isopropyltoluene)	µg/L	2.7	18	ND (3300)	ND (2000)	ND (15.0)	-	ND (5.0)
Dibromochloromethane	µg/L	-	-	-	-	-	ND (500)	-
Dichlorodifluoromethane (CFC-12)	µg/L	-	-	-	-	-	ND (1000)	-
Ethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	168	149	3.7
Isopropylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	ND (15.0)	ND (500)	ND (5.0)

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<b>Sample Location:</b>	<b>MW-1</b>	<b>MW-1</b>	<b>MW-2</b>	<b>MW-2</b>	<b>MW-2</b>	<b>MW-2</b>	<b>MW-2</b>	<b>MW-3</b>
<b>Sample ID:</b>	GW-072004-MW1-DRS	GW-072804-MW1-DRS	GW-061104-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW3-DRS
<b>Sample Date:</b>	7/20/2004	7/28/2004	6/11/2004	7/20/2004	7/20/2004	7/20/2004	7/20/2004	7/20/2004
					<i>Split</i>		<i>Split 2</i>	

**Parameters**                    **Units**

**Volatile Organic Compounds**

m&p-Xylene	µg/L	ND (2.0)	ND (2.0)	ND (6700)	ND (4000)	-	-	7.3
Methyl acetate	µg/L	-	-	-	-	-	ND (500)	-
Methyl cyclohexane	µg/L	-	-	-	-	-	ND (500)	-
Methyl Tert Butyl Ether	µg/L	0.47	0.58	ND (17000)	ND (10000)	21.5	ND (500)	99
Methylene chloride	µg/L	-	-	-	-	-	ND (500)	-
Naphthalene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5.0)
n-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5.0)
n-Propylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5.0)
o-Xylene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	-	-	14
p-Xylene	µg/L	-	-	-	-	-	-	-
Styrene	µg/L	-	-	-	-	-	ND (500)	-
tert-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5.0)
Tetrachloroethene	µg/L	-	-	-	-	-	77.7	-
Toluene	µg/L	ND (1.0)	ND (1.0)	660	440	502	487	ND (5.0)
trans-1,2-Dichloroethene	µg/L	-	-	-	-	-	ND (500)	-
trans-1,3-Dichloropropene	µg/L	-	-	-	-	-	ND (500)	-
Trichloroethene	µg/L	-	-	-	-	-	ND (500)	-
Trichlorofluoromethane (CFC-11)	µg/L	-	-	-	-	-	ND (500)	-
Trifluorotrichloroethane (Freon 113)	µg/L	-	-	-	-	-	ND (500)	-
Vinyl chloride	µg/L	-	-	-	-	-	ND (1000)	-
Xylene (total)	µg/L	ND (2.0)	ND (2.0)	ND (6700)	ND (4000)	942	801	21

Notes:

- Not analyzed.
- D Compounds found at secondary dilution factor.
- J Estimated.
- JB Analyte was found in associated blank. Estimated value.
- ND Not detected at or above x.

TABLE 1

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<b>Sample Location:</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-5</b>	<b>MW-5</b>	<b>MW-6</b>	<b>MW-7</b>	<b>MW-8</b>
<b>Sample ID:</b>	GW-072804-MW3-DRS	GW-061104-MW4-DRS	GW-061104-MW5-DRS	GW-061104-MW14-DRS	GW-061104-MW6-DRS	GW-061104-MW7-DRS	GW-061104-MW8-DRS
<b>Sample Date:</b>	7/28/2004	6/11/2004	6/11/2004	6/11/2004	6/11/2004	6/11/2004	6/11/2004
<i>Duplicate</i>							
<b>Parameters</b>	<b>Units</b>						
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	µg/L	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/L	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/L	-	-	-	-	-	-
1,1-Dichloroethane	µg/L	-	-	-	-	-	-
1,1-Dichloroethene	µg/L	-	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/L	5.4	ND (1.0)	0.22	0.17	ND (1.0)	ND (1.0)
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-	-
1,2-Dichloroethane	µg/L	-	-	-	-	-	-
1,2-Dichloropropane	µg/L	-	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/L	5.7	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	µg/L	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	µg/L	-	-	-	-	-	-
2-Hexanone	µg/L	-	-	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	-	-	-	-	-	-
Acetone	µg/L	-	-	-	-	-	-
Benzene	µg/L	4.0	ND (1.0)	0.29	0.38	ND (1.0)	ND (1.0)
Bromodichloromethane	µg/L	-	-	-	-	-	-
Bromoform	µg/L	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	µg/L	-	-	-	-	-	-
Carbon disulfide	µg/L	-	-	-	-	-	-
Carbon tetrachloride	µg/L	-	-	-	-	-	-
Chlorobenzene	µg/L	-	-	-	-	-	-
Chloroethane	µg/L	-	-	-	-	-	-
Chloroform (Trichloromethane)	µg/L	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	µg/L	-	-	-	-	-	-
cis-1,2-Dichloroethene	µg/L	-	-	-	-	-	-
cis-1,3-Dichloropropene	µg/L	-	-	-	-	-	-
Cyclohexane	µg/L	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	µg/L	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dibromochloromethane	µg/L	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	µg/L	-	-	-	-	-	-
Ethylbenzene	µg/L	4.2	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Isopropylbenzene	µg/L	2.7	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)

TABLE 1

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-3</i>	<i>MW-4</i>	<i>MW-5</i>	<i>MW-5</i>	<i>MW-6</i>	<i>MW-7</i>	<i>MW-8</i>
<i>Sample ID:</i>	GW-072804-MW3-DRS	GW-061104-MW4-DRS	GW-061104-MW5-DRS	GW-061104-MW14-DRS	GW-061104-MW6-DRS	GW-061104-MW7-DRS	GW-061104-MW8-DRS
<i>Sample Date:</i>	7/28/2004	6/11/2004	6/11/2004	6/11/2004	6/11/2004	6/11/2004	6/11/2004
<i>Duplicate</i>							
<i>Parameters</i>	<i>Units</i>						
<b>Volatile Organic Compounds</b>							
m&p-Xylene	µg/L	6.6	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Methyl acetate	µg/L	-	-	-	-	-	-
Methyl cyclohexane	µg/L	-	-	-	-	-	-
Methyl Tert Butyl Ether	µg/L	130	5.6	1.7	1.4	0.37	ND (5.0)
Methylene chloride	µg/L	-	-	-	-	-	-
Naphthalene	µg/L	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
n-Butylbenzene	µg/L	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
n-Propylbenzene	µg/L	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
o-Xylene	µg/L	5.6	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
p-Xylene	µg/L	-	-	-	-	-	-
Styrene	µg/L	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	µg/L	-	-	-	-	-	-
Toluene	µg/L	ND (5.0)	ND (1.0)	0.29	0.27	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	µg/L	-	-	-	-	-	-
trans-1,3-Dichloropropene	µg/L	-	-	-	-	-	-
Trichloroethene	µg/L	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	µg/L	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	µg/L	-	-	-	-	-	-
Vinyl chloride	µg/L	-	-	-	-	-	-
Xylene (total)	µg/L	12	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)

Notes:

- Not analyzed.

D Compounds found at secondary dilution factor.

J Estimated.

JB Analyte was found in associated blank. Estimated value.

ND Not detected at or above x.

**TABLE 1**  
**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<b>Sample Location:</b>	<b>MW-9</b>	<b>MW-9</b>	<b>MW-10</b>	<b>MW-10</b>	<b>MW-11</b>	<b>MW-11</b>
<b>Sample ID:</b>	GW-072004-MW9-DRS	GW-072804-MW9-DRS	GW-072004-MW10-DRS	GW-072804-MW10-DRS	GW-072004-MW11-DRS	GW-072804-MW11-DRS
<b>Sample Date:</b>	7/20/2004	7/28/2004	7/20/2004	7/28/2004	7/20/2004	7/28/2004
<b>Parameters</b>						
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	µg/L	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/L	-	-	-	-	-
1,1,2-Trichloroethane	µg/L	-	-	-	-	-
1,1-Dichloroethane	µg/L	-	-	-	-	-
1,1-Dichloroethene	µg/L	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/L	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/L	ND (1.0)	0.49	ND (1.0)	ND (1.0)	ND (120)
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	-	-	-	-	-
1,2-Dichloroethane	µg/L	-	-	-	-	-
1,2-Dichloropropane	µg/L	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)
1,3-Dichlorobenzene	µg/L	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	µg/L	-	-	-	-	-
2-Hexanone	µg/L	-	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	-	-	-	-	-
Acetone	µg/L	-	-	-	-	-
Benzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)
Bromodichloromethane	µg/L	-	-	-	-	-
Bromoform	µg/L	-	-	-	-	-
Bromomethane (Methyl Bromide)	µg/L	-	-	-	-	-
Carbon disulfide	µg/L	-	-	-	-	-
Carbon tetrachloride	µg/L	-	-	-	-	-
Chlorobenzene	µg/L	-	-	-	-	-
Chloroethane	µg/L	-	-	-	-	-
Chloroform (Trichloromethane)	µg/L	-	-	-	-	-
Chloromethane (Methyl Chloride)	µg/L	-	-	-	-	-
cis-1,2-Dichloroethene	µg/L	-	-	-	-	-
cis-1,3-Dichloropropene	µg/L	-	-	-	-	-
Cyclohexane	µg/L	-	-	-	-	-
Cymene (p-Isopropyltoluene)	µg/L	ND (1.0)	0.73	ND (1.0)	ND (1.0)	ND (120)
Dibromochloromethane	µg/L	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	µg/L	-	-	-	-	-
Ethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	0.24	ND (120)
Isopropylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)	ND (170)

TABLE 1

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-9</i>	<i>MW-9</i>	<i>MW-10</i>	<i>MW-10</i>	<i>MW-11</i>	<i>MW-11</i>
<i>Sample ID:</i>	GW-072004-MW9-DRS	GW-072804-MW9-DRS	GW-072004-MW10-DRS	GW-072804-MW10-DRS	GW-072004-MW11-DRS	GW-072804-MW11-DRS
<i>Sample Date:</i>	7/20/2004	7/28/2004	7/20/2004	7/28/2004	7/20/2004	7/28/2004
<b>Parameters</b>						
	<b>Units</b>					
<b>Volatile Organic Compounds</b>						
m&p-Xylene	µg/L	ND (2.0)	ND (2.0)	ND (2.0)	ND (250)	ND (330)
Methyl acetate	µg/L	-	-	-	-	-
Methyl cyclohexane	µg/L	-	-	-	-	-
Methyl Tert Butyl Ether	µg/L	ND (5.0)	ND (5.0)	ND (5.0)	ND (620)	ND (830)
Methylene chloride	µg/L	-	-	-	-	-
Naphthalene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)	ND (170)
n-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)	ND (170)
n-Propylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)	ND (170)
o-Xylene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)	ND (170)
p-Xylene	µg/L	-	-	-	-	-
Styrene	µg/L	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (120)	ND (170)
Tetrachloroethene	µg/L	-	-	-	-	-
Toluene	µg/L	ND (1.0)	ND (1.0)	0.19	0.25	42
trans-1,2-Dichloroethene	µg/L	-	-	-	-	-
trans-1,3-Dichloropropene	µg/L	-	-	-	-	-
Trichloroethene	µg/L	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	µg/L	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	µg/L	-	-	-	-	-
Vinyl chloride	µg/L	-	-	-	-	-
Xylene (total)	µg/L	ND (2.0)	ND (2.0)	ND (2.0)	ND (250)	ND (330)

## Notes:

- Not analyzed.
- D Compounds found at secondary dilution factor.
- J Estimated.
- JB Analyte was found in associated blank. Estimated value.
- ND Not detected at or above x.

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<b>Sample Location:</b>	<b>MW-12</b>	<b>MW-12</b>	<b>MW-13</b>
<b>Sample ID:</b>	GW-072004-MW12-DRS	GW-072804-MW12-DRS	GW-061104-MW13-DRS
<b>Sample Date:</b>	7/20/2004	7/28/2004	6/11/2004

<b>Parameters</b>	<b>Units</b>	<b>MW-12</b>	<b>MW-12</b>	<b>MW-13</b>
<b>Volatile Organic Compounds</b>				
1,1,1-Trichloroethane	µg/L	-	-	-
1,1,2,2-Tetrachloroethane	µg/L	-	-	-
1,1,2-Trichloroethane	µg/L	-	-	-
1,1-Dichloroethane	µg/L	-	-	-
1,1-Dichloroethene	µg/L	-	-	-
1,2,4-Trichlorobenzene	µg/L	-	-	-
1,2,4-Trimethylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (1.0)
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	-	-	-
1,2-Dichlorobenzene	µg/L	-	-	-
1,2-Dichloroethane	µg/L	-	-	-
1,2-Dichloropropane	µg/L	-	-	-
1,3,5-Trimethylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	µg/L	-	-	-
1,4-Dichlorobenzene	µg/L	-	-	-
2-Butanone (Methyl Ethyl Ketone)	µg/L	-	-	-
2-Hexanone	µg/L	-	-	-
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (2.0)	ND (1.0)	ND (1.0)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	-	-	-
Acetone	µg/L	-	-	-
Benzene	µg/L	0.51	0.62	ND (1.0)
Bromodichloromethane	µg/L	-	-	-
Bromoform	µg/L	-	-	-
Bromomethane (Methyl Bromide)	µg/L	-	-	-
Carbon disulfide	µg/L	-	-	-
Carbon tetrachloride	µg/L	-	-	-
Chlorobenzene	µg/L	-	-	-
Chloroethane	µg/L	-	-	-
Chloroform (Trichloromethane)	µg/L	-	-	-
Chloromethane (Methyl Chloride)	µg/L	-	-	-
cis-1,2-Dichloroethene	µg/L	-	-	-
cis-1,3-Dichloropropene	µg/L	-	-	-
Cyclohexane	µg/L	-	-	-
Cymene (p-Isopropyltoluene)	µg/L	ND (2.0)	ND (1.0)	ND (1.0)
Dibromochloromethane	µg/L	-	-	-
Dichlorodifluoromethane (CFC-12)	µg/L	-	-	-
Ethylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (1.0)
Isopropylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (1.0)

TABLE 1

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 1 JUNE/JULY 2004**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-12</i>	<i>MW-12</i>	<i>MW-13</i>
<i>Sample ID:</i>	GW-072004-MW12-DRS	GW-072804-MW12-DRS	GW-061104-MW13-DRS
<i>Sample Date:</i>	7/20/2004	7/28/2004	6/11/2004
<i>Parameters</i>			
<i>Units</i>			
<i>Volatile Organic Compounds</i>			
m&p-Xylene	µg/L	ND (4.0)	ND (2.0)
Methyl acetate	µg/L	-	-
Methyl cyclohexane	µg/L	-	-
Methyl Tert Butyl Ether	µg/L	ND (10)	0.24
Methylene chloride	µg/L	-	-
Naphthalene	µg/L	ND (2.0)	ND (1.0)
n-Butylbenzene	µg/L	ND (2.0)	ND (1.0)
n-Propylbenzene	µg/L	ND (2.0)	ND (1.0)
o-Xylene	µg/L	ND (2.0)	ND (1.0)
p-Xylene	µg/L	-	-
Styrene	µg/L	-	-
tert-Butylbenzene	µg/L	ND (2.0)	ND (1.0)
Tetrachloroethene	µg/L	-	-
Toluene	µg/L	ND (2.0)	ND (1.0)
trans-1,2-Dichloroethene	µg/L	-	-
trans-1,3-Dichloropropene	µg/L	-	-
Trichloroethene	µg/L	-	-
Trichlorofluoromethane (CFC-11)	µg/L	-	-
Trifluorotrichloroethane (Freon 113)	µg/L	-	-
Vinyl chloride	µg/L	-	-
Xylene (total)	µg/L	ND (4.0)	ND (2.0)

## Notes:

- Not analyzed.
- D Compounds found at secondary dilution factor.
- J Estimated.
- JB Analyte was found in associated blank. Estimated value.
- ND Not detected at or above x.

TABLE 2

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 2 OCTOBER 2004**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-1</i>	<i>MW-2</i>	<i>MW-3</i>	<i>MW-4</i>	<i>MW-5</i>	<i>MW-5</i>	<i>MW-6</i>
<i>Sample ID:</i>	WG 102104 JMF 001	WG 102104 JMF 002	WG 102104 JMF 003	WG 102104 JMF 004	WG 102104 JMF 005	WG 102104 JMF 014	WG 102104 JMF 006
<i>Sample Date:</i>	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004 <i>(Duplicate)</i>	10/21/2004

<i>Parameters</i>	<i>Units</i>						
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	µg/L	ND (1.0)	140000	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2,2-Tetrachloroethane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethane	µg/L	ND (1.0)	11000	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	µg/L	ND (1.0)	6200	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trimethylbenzene	µg/L	ND (1.0)	ND (5000)	19	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	ND (2.0)	ND (10000)	ND (10)	ND (2.0)	ND (2.0)	ND (2.0)
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3,5-Trimethylbenzene	µg/L	ND (1.0)	ND (5000)	11	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Butanone (Methyl Ethyl Ketone)	µg/L	ND (10)	ND (50000)	ND (50)	ND (10)	ND (10)	ND (10)
2-Hexanone	µg/L	ND (10)	ND (50000)	ND (50)	ND (10)	ND (10)	ND (10)
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	ND (10)	ND (5000)	ND (50)	2.0 J	ND (10)	ND (10)
Acetone	µg/L	4.2 JB	6300 JB	9.8 JB	ND (10)	ND (10)	ND (10)
Benzene	µg/L	0.37 J	ND (5000)	ND (5.0)	1.2	ND (1.0)	ND (1.0)
Bromodichloromethane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane (Methyl Bromide)	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Carbon disulfide	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Carbon tetrachloride	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform (Trichloromethane)	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane (Methyl Chloride)	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cymene (p-Isopropyltoluene)	µg/L	1.3	ND (5000)	6.0	ND (1.0)	ND (1.0)	ND (1.0)
Dibromochloromethane	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane (CFC-12)	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	8.1	7.3
Ethylbenzene	µg/L	ND (1.0)	ND (5000)	4.4 J	ND (1.0)	ND (1.0)	ND (1.0)
Isopropylbenzene	µg/L	ND (1.0)	ND (5000)	6.1	ND (1.0)	ND (1.0)	ND (1.0)

TABLE 2

**ANALYTICAL RESULTS SUMMARY  
ENDLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING  
ROUND 2 OCTOBER 2004  
GM TONAWANDA**

<b>Sample Location:</b>	MW-1	MW-2	MW-3	MW-4	MW-5	MW-5	MW-6
<b>Sample ID:</b>	WG 102104 JMF 001	WG 102104 JMF 002	WG 102104 JMF 003	WG 102104 JMF 004	WG 102104 JMF 005	WG 102104 JMF 014	WG 102104 JMF 006
<b>Sample Date:</b>	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004 (Duplicate)	10/21/2004

<i>Parameters</i>	<i>Units</i>						
<i>pounds</i>							
	µg/L	ND (2.0)	2700 J	18	0.53 J	ND (2.0)	0.55 J
	µg/L	ND (10)	ND (5000)	ND (50)	ND (10)	ND (10)	ND (10)
	µg/L	ND (1.0)	ND (5000)	6.1	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	0.79 J	ND (25000)	190	20	10	11
	µg/L	ND (1.0)	3000 JB	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	9.8	1.7	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	5.1	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	5.5	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	-	-	-	-	-	-
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	1.1	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (1.0)	ND (5000)	ND (5.0)	ND (1.0)	ND (1.0)	ND (1.0)
	µg/L	ND (2.0)	2700 J	23	0.53 J	ND (2.0)	0.55 J

## Notes:

- Not analyzed.

#### D Compounds found at secondary dilution factor.

J      Estimated.

JB Analyte was found in associated blank. Estimated value.

ND Not detected at or above x.

TABLE 2

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 2 OCTOBER 2004**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-7</i>	<i>MW-8</i>	<i>MW-9</i>	<i>MW-10</i>	<i>MW-11</i>	<i>MW-12</i>	<i>MW-13</i>
<i>Sample ID:</i>	WG 102104 JMF 007	WG 102104 JMF 008	WG 102104 JMF 009	WG 102104 JMF 010	WG 102104 JMF 011	WG 102104 JMF 012	WG 102104 JMF 013
<i>Sample Date:</i>	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004
<i>Parameters</i>							
<i>Volatile Organic Compounds</i>							
1,1,1-Trichloroethane	µg/L	ND (1.0)	ND (1.0)	1.5	ND (1.0)	1400	0.51 J
1,1,2,2-Tetrachloroethane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,1,2-Trichloroethane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,1-Dichloroethane	µg/L	ND (1.0)	ND (1.0)	3.3	0.42 J	2400	67
1,1-Dichloroethene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1500	ND (2.0)
1,2,4-Trichlorobenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,2,4-Trimethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	ND (2.0)	ND (2.0)	ND (2.0)	ND (200)	ND (4.0)	ND (2.0)
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,2-Dichlorobenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,2-Dichloroethane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	22 J	ND (2.0)
1,2-Dichloropropane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,3,5-Trimethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,3-Dichlorobenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
1,4-Dichlorobenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
2-Butanone (Methyl Ethyl Ketone)	µg/L	ND (10)	1.1 J	0.84 J	ND (10)	ND (1000)	ND (20)
2-Hexanone	µg/L	ND (10)	ND (10)	ND (10)	ND (10)	ND (1000)	ND (20)
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	ND (10)	ND (10)	ND (10)	ND (10)	ND (1000)	ND (20)
Acetone	µg/L	2.0 JB	4.6 JB	8.1 JB	1.7 JB	140 JB	6.6 JB
Benzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	0.44 J
Bromodichloromethane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Bromoform	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Bromomethane (Methyl Bromide)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Carbon disulfide	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	0.63 J
Carbon tetrachloride	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Chlorobenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Chloroethane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Chloroform (Trichloromethane)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Chloromethane (Methyl Chloride)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
cis-1,2-Dichloroethene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	86 J	ND (2.0)
cis-1,3-Dichloropropene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Cyclohexane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Cymene (p-Isopropyltoluene)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Dibromochloromethane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Dichlorodifluoromethane (CFC-12)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	4.9
Ethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)
Isopropylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)

TABLE 2

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**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - SEMI-ANNUAL GROUNDWATER MONITORING**  
**ROUND 2 OCTOBER 2004**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-7</i>	<i>MW-8</i>	<i>MW-9</i>	<i>MW-10</i>	<i>MW-11</i>	<i>MW-12</i>	<i>MW-13</i>
<i>Sample ID:</i>	WG 102104 JMF 007	WG 102104 JMF 008	WG 102104 JMF 009	WG 102104 JMF 010	WG 102104 JMF 011	WG 102104 JMF 012	WG 102104 JMF 013
<i>Sample Date:</i>	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004	10/21/2004

<i>Parameters</i>	<i>Units</i>							
<b>Volatile Organic Compounds</b>								
m&p-Xylene	µg/L	ND (2.0)	ND (2.0)	ND (2.0)	ND (200)	ND (4.0)	ND (2.0)	ND (2.0)
Methyl acetate	µg/L	ND (10)	ND (10)	ND (10)	ND (1000)	ND (20)	ND (10)	ND (10)
Methyl cyclohexane	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
Methyl Tert Butyl Ether	µg/L	ND (5.0)	ND (5.0)	ND (5.0)	ND (500)	ND (10)	ND (5.0)	ND (5.0)
Methylene chloride	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	1.4 JB	ND (1.0)	ND (1.0)
Naphthalene	µg/L	ND (1.0)	1.8	ND (1.0)	ND (1.0)	ND (2.0)	ND (1.0)	ND (1.0)
n-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
n-Propylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
o-Xylene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
p-Xylene	µg/L	-	-	-	-	-	-	-
Styrene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	0.61 J	ND (100)	ND (2.0)	ND (1.0)
tert-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
Toluene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	33 J	ND (2.0)	ND (1.0)
trans-1,2-Dichloroethene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
Trichloroethene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane (CFC-11)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
Trifluorotrichloroethane (Freon 113)	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)	ND (1.0)
Vinyl chloride	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (100)	ND (2.0)	ND (1.0)
Xylene (total)	µg/L	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (200)	ND (4.0)	ND (2.0)

## Notes:

- Not analyzed.
- D Compounds found at secondary dilution factor.
- J Estimated.
- JB Analyte was found in associated blank. Estimated value.
- ND Not detected at or above x.

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - JANUARY 1999 TO PRESENT**  
**GM TONAWANDA**

<b>Sample Location:</b>	<b>New York State</b>	<b>MW-1</b>	<b>MW-1</b>	<b>MW-1</b>	<b>MW-1</b>	<b>MW-1</b>	<b>MW-1</b>	<b>MW-1</b>	<b>MW-2</b>
<b>Sample ID:</b>	Groundwater Standards	MWGP-1	MWGP-1	GW-1783518-092302-CB-MW1	GW-072004-MW1-DRS	GW-072804-MW1-DRS	WG 102104 JMF 001		MWGP-2
<b>Sample Date:</b>	6 NYCRR Part 703.5	9/28/1999	9/30/1999	9/23/2002	7/20/2004	7/28/2004	10/21/2004		9/28/1999

**Parameters**      **Units**

**STARS Volatile Organic Compounds**

1,2,4-Trimethylbenzene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	0.52	ND (1.0)	190 D
1,3,5-Trimethylbenzene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	0.51	ND (1.0)	47
2-Phenylbutane (sec-Butylbenzene)	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	2.8
Benzene	µg/L	1	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	0.37 J	280 D
Cymene (p-Isopropyltoluene)	µg/L	5	ND (2.00)	-	ND (10)	2.7	18	1.3	4.2
Ethylbenzene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	530 D
Isopropylbenzene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	25
Methyl Tert Butyl Ether	µg/L	10 **	-	-	ND (10)	0.47	0.58	0.79 J	-
Naphthalene	µg/L	10	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	18
n-Butylbenzene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	33
n-Propylbenzene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (2.00)
o-Xylene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	1770 D
p-Xylene	µg/L	5	ND (2.00)	-	-	-	-	-	-
tert-Butylbenzene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	1.1	ND (2.00)
Toluene	µg/L	5	ND (2.00)	-	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	1640 D
Xylene (total)	µg/L		ND (2.00)	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-

**STARS Semi-Volatile Organic Compounds**

Acenaphthene	µg/L	20	-	ND (10)	ND (10)	-	-	-	ND (10)
Anthracene	µg/L	50*	-	ND (10)	ND (10)	-	-	-	ND (10)
Benzo(a)anthracene	µg/L	0.002*	-	ND (10)	ND (10)	-	-	-	ND (10)
Benzo(a)pyrene	µg/L	ND	-	ND (10)	ND (10)	-	-	-	ND (10)
Benzo(b)fluoranthene	µg/L	0.002*	-	ND (10)	ND (10)	-	-	-	ND (10)
Benzo(g,h,i)perylene	µg/L	5***	-	ND (10)	ND (10)	-	-	-	ND (10)
Benzo(k)fluoranthene	µg/L	0.002*	-	ND (10)	ND (10)	-	-	-	ND (10)
Chrysene	µg/L	0.002*	-	ND (10)	ND (10)	-	-	-	ND (10)
Dibenz(a,h)anthracene	µg/L	50**	-	ND (10)	ND (10)	-	-	-	ND (10)
Fluoranthene	µg/L	50*	-	ND (10)	ND (10)	-	-	-	ND (10)
Fluorene	µg/L	50 *	-	ND (10)	ND (10)	-	-	-	ND (10)
Indeno(1,2,3-cd)pyrene	µg/L	0.002*	-	ND (10)	ND (10)	-	-	-	ND (10)
Phenanthrene	µg/L	50*	-	ND (10)	ND (10)	-	-	-	ND (10)
Pyrene	µg/L	50*	-	ND (10)	ND (10)	-	-	-	ND (10)

**ANALYTICAL RESULTS SUMMARY  
ENDOLINE AREA - JANUARY 1999 TO PRESENT  
GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-2</i>	<i>MW-3</i>
<i>Sample ID:</i>	GW-1783518-092302-CB-MW2	GW-061104-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	GW-072004-MW2-DRS	WG 102104 JMF 002	MWGP-3
<i>Sample Date:</i>	9/23/2002	6/11/2004	7/20/2004	7/20/2004	7/20/2004	7/20/2004	10/21/2004	9/28/1999
<i>Parameters</i>	<i>Units</i>							
<b>STARS Volatile Organic Compounds</b>								
1,2,4-Trimethylbenzene	µg/L	41.7	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	4430 D
1,3,5-Trimethylbenzene	µg/L	17.2	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	1670 D
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (10)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	56
Benzene	µg/L	39.4	ND (3300)	ND (2000)	276	241	ND (5000)	9280 D
Cymene (p-Isopropyltoluene)	µg/L	ND (10)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	12
Ethylbenzene	µg/L	85.6	ND (3300)	ND (2000)	168	149	ND (5000)	2580 D
Isopropylbenzene	µg/L	ND (10)	ND (3300)	ND (2000)	ND (15.0)	ND (500)	ND (5000)	110 D
Methyl Tert Butyl Ether	µg/L	ND (10)	ND (17000)	ND (10000)	21.5	ND (500)	ND (25000)	-
Naphthalene	µg/L	15.3	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	2430 D
n-Butylbenzene	µg/L	ND (10)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	1780 D
n-Propylbenzene	µg/L	ND (10)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	270 D
o-Xylene	µg/L	286	ND (3300)	ND (2000)	-	-	ND (5000)	170 D
p-Xylene	µg/L	-	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (10)	ND (3300)	ND (2000)	ND (15.0)	-	ND (5000)	ND (2.00)
Toluene	µg/L	336	660	440	502	487	ND (5000)	160 D
Xylene (total)	µg/L	-	ND (6700)	ND (4000)	942	801	2700 J	-
<b>STARS Semi-Volatile Organic Compounds</b>								
Acenaphthene	µg/L	ND (11)	-	-	-	-	-	19
Anthracene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Benzo(a)anthracene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Benzo(a)pyrene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Benzo(b)fluoranthene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Benzo(g,h,i)perylene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Benzo(k)fluoranthene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Chrysene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Dibenz(a,h)anthracene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Fluoranthene	µg/L	ND (11)	-	-	-	-	-	41
Fluorene	µg/L	ND (11)	-	-	-	-	-	17
Indeno(1,2,3-cd)pyrene	µg/L	ND (11)	-	-	-	-	-	ND (10)
Phenanthrene	µg/L	ND (11)	-	-	-	-	-	27
Pyrene	µg/L	ND (11)	-	-	-	-	-	29

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - JANUARY 1999 TO PRESENT**  
**GM TONAWANDA**

<b>Sample Location:</b>	<b>MW-3</b>	<b>MW-3</b>	<b>MW-3</b>	<b>MW-3</b>	<b>MW-3</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-4</b>
<b>Sample ID:</b>	GW-1783518-092302-CB-MW3	GW-1783518-092702-CB-MW3	GW-072004-MW3-DRS	GW-072804-MW3-DRS	WG 102104 JMF 003	WG 102104 JMF 003	MWGP-4	GW-1783518-092302-CB-MW4
<b>Sample Date:</b>	9/23/2002	9/27/2002	7/20/2004	7/28/2004	10/21/2004	9/28/1999		9/23/2002

**Parameters**      **Units**

**STARS Volatile Organic Compounds**

1,2,4-Trimethylbenzene	µg/L	30.9	-	2.6	5.4	19	ND (2.00)	ND (10)
1,3,5-Trimethylbenzene	µg/L	17.9	-	5.4	5.7	11	ND (2.00)	ND (10)
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (10)	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (2.00)	ND (10)
Benzene	µg/L	245	-	7.9	4.0	ND (5.0)	2.4	ND (10)
Cymene (p-Isopropyltoluene)	µg/L	ND (10)	-	ND (5.0)	ND (5.0)	6.0	ND (2.00)	ND (10)
Ethylbenzene	µg/L	151	-	3.7	4.2	4.4	3.7	ND (10)
Isopropylbenzene	µg/L	ND (10)	-	ND (5.0)	2.7	6.1	ND (2.00)	ND (10)
Methyl Tert Butyl Ether	µg/L	11.1	-	99	130	190	-	ND (10)
Naphthalene	µg/L	27.4	-	ND (5.0)	ND (5.0)	9.8	15	ND (10)
n-Butylbenzene	µg/L	ND (10)	-	ND (5.0)	ND (5.0)	ND (5.0)	2.1	ND (10)
n-Propylbenzene	µg/L	ND (10)	-	ND (5.0)	ND (5.0)	5.1	ND (2.00)	ND (10)
o-Xylene	µg/L	47.8	-	14	5.6	5.5	3.7	ND (10)
p-Xylene	µg/L	-	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (10)	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (2.00)	ND (10)
Toluene	µg/L	ND (10)	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (2.00)	ND (10)
Xylene (total)	µg/L	-	-	21	12	23	-	-

**STARS Semi-Volatile Organic Compounds**

Acenaphthene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Anthracene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Benzo(a)anthracene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Benzo(a)pyrene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Benzo(b)fluoranthene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Benzo(g,h,i)perylene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Benzo(k)fluoranthene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Chrysene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Dibenz(a,h)anthracene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Fluoranthene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Fluorene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Indeno(1,2,3-cd)pyrene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Phenanthrene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)
Pyrene	µg/L	-	ND (10)	-	-	-	ND (10)	ND (10)

TABLE 3

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - JANUARY 1999 TO PRESENT**  
**GM TONAWANDA**

<b>Sample Location:</b>	<b>MW-4</b>	<b>MW-4</b>	<b>MW-5</b>	<b>MW-5</b>	<b>MW-5</b>	<b>MW-5</b>	<b>MW-5</b>	<b>MW-5</b>	<b>MW-5</b>
<b>Sample ID:</b>	GW-061104-MW4-DRS	WG 102104 JMF 004	MWGP-5	GW-1783518-092302-CB-MW5	GW-061104-MW5-DRS	GW-061104-MW14-DRS	GW-061104-MW14-DRS	WG 102104 JMF 005	WG 102104 JMF 014
<b>Sample Date:</b>	6/11/2004	10/21/2004	9/28/1999	9/23/2002	6/11/2004	6/11/2004	Duplicate	10/21/2004	10/21/2004
<b>Parameters</b>	<b>Units</b>								
<b>STARS Volatile Organic Compounds</b>									
1,2,4-Trimethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	0.22	0.17	ND (1.0)	ND (1.0)
1,3,5-Trimethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Benzene	µg/L	ND (1.0)	1.2	ND (2.00)	ND (10)	0.29	0.38	ND (1.0)	ND (1.0)
Cymene (p-Isopropyltoluene)	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Isopropylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Methyl Tert Butyl Ether	µg/L	5.6	20	-	ND (10)	1.7	1.4	10	11
Naphthalene	µg/L	ND (1.0)	1.7	2.3	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
n-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
n-Propylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
o-Xylene	µg/L	ND (1.0)	ND (1.0)	2.4	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
p-Xylene	µg/L	-	-	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	µg/L	ND (1.0)	ND (1.0)	ND (2.00)	ND (10)	0.29	0.27	ND (1.0)	ND (1.0)
Xylene (total)	µg/L	ND (2.0)	0.53 J	-	-	ND (2.0)	ND (2.0)	ND (2.0)	0.55 J
<b>STARS Semi-Volatile Organic Compounds</b>									
Acenaphthene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Anthracene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Benzo(a)anthracene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Benzo(a)pyrene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Benzo(b)fluoranthene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Benzo(g,h,i)perylene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Benzo(k)fluoranthene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Chrysene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Dibenz(a,h)anthracene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Fluoranthene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Fluorene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Phenanthrene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-
Pyrene	µg/L	-	-	ND (10)	ND (10)	-	-	-	-

TABLE 3

**ANALYTICAL RESULTS SUMMARY**  
**ENDOLINE AREA - JANUARY 1999 TO PRESENT**  
**GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-6</i>	<i>MW-6</i>	<i>MW-6</i>	<i>MW-6</i>	<i>MW-7</i>	<i>MW-7</i>	<i>MW-7</i>
<i>Sample ID:</i>	<i>MWGP-6</i>	<i>GW-1783518-092302-CB-MW6</i>	<i>GW-061104-MW6-DRS</i>	<i>WG 102104 JMF 006</i>	<i>GW-1783518-092302-CB-MW7</i>	<i>GW-061104-MW7-DRS</i>	<i>WG 102104 JMF 007</i>
<i>Sample Date:</i>	<i>9/28/1999</i>	<i>9/23/2002</i>	<i>6/11/2004</i>	<i>10/21/2004</i>	<i>9/23/2002</i>	<i>6/11/2004</i>	<i>10/21/2004</i>
<i>Parameters</i>							
<i>Units</i>							
<i>STARS Volatile Organic Compounds</i>							
1,2,4-Trimethylbenzene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
1,3,5-Trimethylbenzene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
Benzene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
Cymene (p-Isopropyltoluene)	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
Ethylbenzene	µg/L	2.9	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
Isopropylbenzene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
Methyl Tert Butyl Ether	µg/L	-	ND (10)	0.37	2.0	ND (10)	ND (5.0)
Naphthalene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
n-Butylbenzene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
n-Propylbenzene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
o-Xylene	µg/L	8.6	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
p-Xylene	µg/L	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (2.00)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
Toluene	µg/L	4.3	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)
Xylene (total)	µg/L	-	-	ND (2.0)	-	ND (2.0)	ND (2.0)
<i>STARS Semi-Volatile Organic Compounds</i>							
Acenaphthene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Anthracene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Benzo(a)anthracene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Benzo(a)pyrene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Benzo(b)fluoranthene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Benzo(g,h,i)perylene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Benzo(k)fluoranthene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Chrysene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Dibenz(a,h)anthracene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Fluoranthene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Fluorene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Indeno(1,2,3-cd)pyrene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Phenanthrene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-
Pyrene	µg/L	ND (10)	ND (10)	-	-	ND (10)	-

**ANALYTICAL RESULTS SUMMARY  
ENDOLINE AREA - JANUARY 1999 TO PRESENT  
GM TONAWANDA**

Sample Location:	MW-8	MW-8	MW-8	MW-8	MW-9	MW-9
Sample ID:	GW-1783518-092302-CB-MW8	GW-1783518-092702-CB-MW8	GW-061104-MW8-DRS	WG 102104 JMF 008	GW-1783518-092302-CB-MW9	GW-1783518-092702-CB-MW9
Sample Date:	9/23/2002	9/27/2002	6/11/2004	10/21/2004	9/23/2002	9/27/2002

Parameters	Units	MW-8	MW-8	MW-8	MW-8	MW-9	MW-9
<b>STARS Volatile Organic Compounds</b>							
1,2,4-Trimethylbenzene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
1,3,5-Trimethylbenzene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
Benzene	µg/L	ND (10)	-	0.23	ND (1.0)	ND (10)	-
Cymene (p-Isopropyltoluene)	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
Ethylbenzene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
Isopropylbenzene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
Methyl Tert Butyl Ether	µg/L	ND (10)	-	ND (5.0)	ND (5.0)	ND (10)	-
Naphthalene	µg/L	ND (10)	-	ND (1.0)	1.8	ND (10)	-
n-Butylbenzene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
n-Propylbenzene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
o-Xylene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
p-Xylene	µg/L	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (10)	-	ND (1.0)	ND (1.0)	ND (10)	-
Toluene	µg/L	ND (10)	-	0.38	ND (1.0)	ND (10)	-
Xylene (total)	µg/L	-	-	ND (2.0)	ND (2.0)	-	-
<b>STARS Semi-Volatile Organic Compounds</b>							
Acenaphthene	µg/L	-	ND (11)	-	-	-	ND (10)
Anthracene	µg/L	-	ND (11)	-	-	-	ND (10)
Benzo(a)anthracene	µg/L	-	ND (11)	-	-	-	ND (10)
Benzo(a)pyrene	µg/L	-	ND (11)	-	-	-	ND (10)
Benzo(b)fluoranthene	µg/L	-	ND (11)	-	-	-	ND (10)
Benzo(g,h,i)perylene	µg/L	-	ND (11)	-	-	-	ND (10)
Benzo(k)fluoranthene	µg/L	-	ND (11)	-	-	-	ND (10)
Chrysene	µg/L	-	ND (11)	-	-	-	ND (10)
Dibenz(a,h)anthracene	µg/L	-	ND (11)	-	-	-	ND (10)
Fluoranthene	µg/L	-	ND (11)	-	-	-	ND (10)
Fluorene	µg/L	-	ND (11)	-	-	-	ND (10)
Indeno(1,2,3-cd)pyrene	µg/L	-	ND (11)	-	-	-	ND (10)
Phenanthrene	µg/L	-	ND (11)	-	-	-	ND (10)
Pyrene	µg/L	-	ND (11)	-	-	-	ND (10)

**ANALYTICAL RESULTS SUMMARY  
ENDOLINE AREA - JANUARY 1999 TO PRESENT  
GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-9</i>	<i>MW-9</i>	<i>MW-9</i>	<i>MW-10</i>	<i>MW-10</i>	<i>MW-10</i>	<i>MW-11</i>
<i>Sample ID:</i>	GW-072004-MW9-DRS	GW-072804-MW9-DRS	WG 102104 JMF 009	GW-072004-MW10-DRS	GW-072804-MW10-DRS	WG 102104 JMF 010	GW-1783518-092302-CB-MW11
<i>Sample Date:</i>	7/20/2004	7/28/2004	10/21/2004	7/20/2004	7/28/2004	10/21/2004	9/23/2002

<i>Parameters</i>	<i>Units</i>
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**STARS Volatile Organic Compounds**

1,2,4-Trimethylbenzene	µg/L	ND (1.0)	0.49	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
1,3,5-Trimethylbenzene	µg/L	ND (1.0)	ND (10)				
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (1.0)	ND (10)				
Benzene	µg/L	ND (1.0)	ND (10)				
Cymene (p-Isopropyltoluene)	µg/L	ND (1.0)	0.73	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
Ethylbenzene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.24	ND (1.0)
Isopropylbenzene	µg/L	ND (1.0)	ND (10)				
Methyl Tert Butyl Ether	µg/L	ND (5.0)	ND (10)				
Naphthalene	µg/L	ND (1.0)	ND (10)				
n-Butylbenzene	µg/L	ND (1.0)	ND (10)				
n-Propylbenzene	µg/L	ND (1.0)	ND (10)				
o-Xylene	µg/L	ND (1.0)	ND (10)				
p-Xylene	µg/L	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (1.0)	ND (10)				
Toluene	µg/L	ND (1.0)	ND (1.0)	ND (1.0)	0.19	0.25	ND (1.0)
Xylene (total)	µg/L	ND (2.0)					

**STARS Semi-Volatile Organic Compounds**

Acenaphthene	µg/L	-	-	-	-	-	-
Anthracene	µg/L	-	-	-	-	-	-
Benzo(a)anthracene	µg/L	-	-	-	-	-	-
Benzo(a)pyrene	µg/L	-	-	-	-	-	-
Benzo(b)fluoranthene	µg/L	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/L	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/L	-	-	-	-	-	-
Chrysene	µg/L	-	-	-	-	-	-
Dibenz(a,h)anthracene	µg/L	-	-	-	-	-	-
Fluoranthene	µg/L	-	-	-	-	-	-
Fluorene	µg/L	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/L	-	-	-	-	-	-
Phenanthrene	µg/L	-	-	-	-	-	-
Pyrene	µg/L	-	-	-	-	-	-

TABLE 3

**ANALYTICAL RESULTS SUMMARY  
ENDOLINE AREA - JANUARY 1999 TO PRESENT  
GM TONAWANDA**

<i>Sample Location:</i>	<i>MW-11</i>	<i>MW-11</i>	<i>MW-11</i>	<i>MW-11</i>	<i>MW-12</i>	<i>MW-12</i>
<i>Sample ID:</i>	GW-1783518-092702-CB-MW11	GW-072004-MW11-DRS	GW-072804-MW11-DRS	WG 102104 JMF 011	GW-1783518-092302-CB-MW12	GW-1783518-092702-CB-MW12
<i>Sample Date:</i>	9/27/2002	7/20/2004	7/28/2004	10/21/2004	9/23/2002	9/27/2002

**Parameters                  Units**

**STARS Volatile Organic Compounds**

1,2,4-Trimethylbenzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
1,3,5-Trimethylbenzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
2-Phenylbutane (sec-Butylbenzene)	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
Benzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
Cymene (p-Isopropyltoluene)	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
Ethylbenzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
Isopropylbenzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
Methyl Tert Butyl Ether	µg/L	-	ND (620)	ND (830)	ND (500)	ND (10)	-
Naphthalene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
n-Butylbenzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
n-Propylbenzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
o-Xylene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
p-Xylene	µg/L	-	-	-	-	-	-
tert-Butylbenzene	µg/L	-	ND (120)	ND (170)	ND (100)	ND (10)	-
Toluene	µg/L	-	42	47	33J	ND (10)	-
Xylene (total)	µg/L	-	ND (250)	ND (330)	ND (200)	-	-

**STARS Semi-Volatile Organic Compounds**

Acenaphthene	µg/L	ND (10)	-	-	-	-	ND (11)
Anthracene	µg/L	ND (10)	-	-	-	-	ND (11)
Benzo(a)anthracene	µg/L	ND (10)	-	-	-	-	ND (11)
Benzo(a)pyrene	µg/L	ND (10)	-	-	-	-	ND (11)
Benzo(b)fluoranthene	µg/L	ND (10)	-	-	-	-	ND (11)
Benzo(g,h,i)perylene	µg/L	ND (10)	-	-	-	-	ND (11)
Benzo(k)fluoranthene	µg/L	ND (10)	-	-	-	-	ND (11)
Chrysene	µg/L	ND (10)	-	-	-	-	ND (11)
Dibenz(a,h)anthracene	µg/L	ND (10)	-	-	-	-	ND (11)
Fluoranthene	µg/L	ND (10)	-	-	-	-	ND (11)
Fluorene	µg/L	ND (10)	-	-	-	-	ND (11)
Indeno(1,2,3-cd)pyrene	µg/L	ND (10)	-	-	-	-	ND (11)
Phenanthrene	µg/L	ND (10)	-	-	-	-	ND (11)
Pyrene	µg/L	ND (10)	-	-	-	-	ND (11)

TABLE 3

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**ANALYTICAL RESULTS SUMMARY  
ENDOLINE AREA - JANUARY 1999 TO PRESENT  
GM TONAWANDA**

<b>Sample Location:</b>	<b>MW-12</b>	<b>MW-12</b>	<b>MW-12</b>	<b>MW-13</b>	<b>MW-13</b>	<b>MW-13</b>	<b>MW-13</b>
<b>Sample ID:</b>	GW-072004-MW12-DRS	GW-072804-MW12-DRS	WG 102104 JMF 012	GW-1783518-092302-CB-MW13	GW-1783518-092702-CB-MW13	GW-061104-MW13-DRS	WG 102104 JMF 013
<b>Sample Date:</b>	7/20/2004	7/28/2004	10/21/2004	9/23/2002	9/27/2002	6/11/2004	10/21/2004
<b>Parameters</b>							
<b>Units</b>							
<b>STARS Volatile Organic Compounds</b>							
1,2,4-Trimethylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
1,3,5-Trimethylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
2-Phenylbutane (sec-Butylbenzene)	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
Benzene	µg/L	0.51	0.62	0.44 J	ND (10)	-	ND (1.0)
Cymene (p-Isopropyltoluene)	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
Ethylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
Isopropylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
Methyl Tert Butyl Ether	µg/L	ND (10)	0.24	ND (10)	ND (10)	-	ND (5.0)
Naphthalene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
n-Butylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
n-Propylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
o-Xylene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
p-Xylene	µg/L	-	-	-	-	-	-
tert-Butylbenzene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
Toluene	µg/L	ND (2.0)	ND (1.0)	ND (2.0)	ND (10)	-	ND (1.0)
Xylene (total)	µg/L	ND (4.0)	ND (2.0)	ND (4.0)	-	-	ND (2.0)
<b>STARS Semi-Volatile Organic Compounds</b>							
Acenaphthene	µg/L	-	-	-	-	ND (10)	-
Anthracene	µg/L	-	-	-	-	ND (10)	-
Benzo(a)anthracene	µg/L	-	-	-	-	ND (10)	-
Benzo(a)pyrene	µg/L	-	-	-	-	ND (10)	-
Benzo(b)fluoranthene	µg/L	-	-	-	-	ND (10)	-
Benzo(g,h,i)perylene	µg/L	-	-	-	-	ND (10)	-
Benzo(k)fluoranthene	µg/L	-	-	-	-	ND (10)	-
Chrysene	µg/L	-	-	-	-	ND (10)	-
Dibenz(a,h)anthracene	µg/L	-	-	-	-	ND (10)	-
Fluoranthene	µg/L	-	-	-	-	ND (10)	-
Fluorene	µg/L	-	-	-	-	ND (10)	-
Indeno(1,2,3-cd)pyrene	µg/L	-	-	-	-	ND (10)	-
Phenanthrene	µg/L	-	-	-	-	ND (10)	-
Pyrene	µg/L	-	-	-	-	ND (10)	-

ANALYTICAL RESULTS SUMMARY  
ENDOLINE AREA - JANUARY 1999 TO PRESENT  
GM TONAWANDA

Notes:

- \* Guidance Value is from NYSDEC Division of Water Technical and Operational Guidance Series Memo 1.1.1 June 1998
- \*\* Standard is from NYSDEC Division of Water Technical and Operational Guidance Series Memo 1.1.1 Update April 2000
- \*\*\* Standard is from NYSDEC Division of Environmental Remediation Technical and Administrative Guidance Memorandum #4046/STARS #1 Consolidation Memo December 20, 2000
- J Estimated value
- JB Analyte was found in associated blank. Estimated value.
- D Compounds found at secondary dilution factor.
- Not analyzed.
- NYSDEC New York State Department of Environmental Conservation.
- STARS Spill Technology and Remediation Systems.

