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July 26, 2012

Mr. William Welling, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233 – 7013

Re: Mr. C's Dry Cleaners Site, NYSDEC Site Number 9-15-157, Work Assignment D004442-13.1, 2012 Long-term Groundwater Monitoring Results

Dear Mr. Welling:

Ecology and Environment Engineering, P.C. (EEEPC) is pleased to provide the 2012 Long-term Groundwater Monitoring Report for the Mr. C's Dry Cleaners Site. At the request of NYSDEC, the complete results of long-term groundwater monitoring will be presented in the 2012 Periodic Review Report (PRR). A summary of the monitoring results and pertinent field information are contained herein. A copy of this report in pdf format is provided on the enclosed CD.

The groundwater beneath and around the Mr. C's site continues to contain elevated levels of several volatile organic compounds (VOCs), including chlorinated solvents, their breakdown by-products, and aromatic hydrocarbons. The primary contaminant of concern (COC) in the groundwater is tetrachloroethene (PCE). Groundwater monitoring around the Mr. C's site has been performed since 2003 to monitor the extent of the PCE and total VOC plume.

Fieldwork was performed by EEEPC personnel on February 6 to February 9, 2012, and on June 1, 2012. A total of 34 wells were sampled during the 2012 groundwater sampling efforts. Wells sampled included two new and eight replacement wells, which were installed between December 2011 and May 2012 to enhance the monitoring well network. The wells completed in May 2012 were sampled in June.

Well Purging and Sampling Procedures

All monitoring wells sampled were purged prior to sampling. The eight groundwater pumping wells (RW-1, PW-2, PW-3, PW-4, PW-5, PW-6, PW-7, and PW-8) did not require purging because they are consistently pumped as part of the groundwater treatment system.

The monitoring wells were purged using a submersible pump with new polyethylene tubing or disposable polyethylene bailers on new polypropylene line. Prior to purging, static water levels were measured to within ±0.01 foot in each well using a Solinst water level meter.

With the exception of the pumping wells, all of the wells were purged of approximately three to five times the volume (or greater) of water standing in the well. Purged water from the monitoring wells was containerized and transported to the treatment facility for processing. Temperature, pH, specific conductance, turbidity, and oxygen reduction potential (ORP) were measured and recorded, at a minimum, initially, after each well volume and just prior to sampling using a LaMotte 2020 Turbidity meter and a Myron 6P Ultrameter II (water parameter kit). Purging was performed until pH, specific conductance, and temperature had stabilized and

turbidity was 50 nephelometric turbidity units (NTUs) or less. Purge records will be provided in the 2012 PRR.

All of the wells, with the exception of the pumping wells, were sampled using disposable polyethylene bailers on new polypropylene line; the pumping wells were sampled using dedicated bailers. The samples were analyzed for VOCs by the United States Environmental Protection Agency (EPA) Method 8260 by Spectrum Analytical (formerly Mitkem Corporation). A summary of positive detected concentrations of VOCs is presented in Table 1. The complete analytical results will be provided in electronic form through EQuIS, and a copy of the laboratory report will be provided in the 2012 PRR.

Quality Control and Quality Assurance (QA/QC)

Field duplicate, matrix spike/matrix spike duplicate (MS/MSD), and rinsate blank samples were collected for QA/QC purposes. Independent data validation of the analytical results was performed by EEEPC. The data usability summary reports (DUSRs) are provided as Attachment A.

Three potential impacts on data usability were noted: (1) Methylene chloride was detected in the trip blank sample, (2) the matrix spike recovery and relative percent difference (RPD) criteria were not met for PCE in MS/MSD analysis, and (3) PCE dilutions were prepared outside of the holding time. Methylene chloride, which was detected only in the rinsate and trip blanks, was qualified as "U", non-detect. PCE results for samples collected during the same event as the affected MS/MSD samples were qualified as "J", estimated.

Groundwater Monitoring Results

Figures 1 and 2 (see the PDF version of this report on the attached CD) summarize historical VOC concentrations detected across the site. Figures 3 and 4 present, respectively, iso-contour maps showing the total VOC and PCE contaminant plumes; these figures were generated using Surfer Modeling Software. Figure 5 presents a groundwater contour map. The results of the groundwater monitoring indicate the following:

- Eight VOCs (PCE, trichloroethene [TCE], cis-1,2-dichloroethene [cis-DCE], trans-1,2-dichloroehtene [trans-DCE], vinyl chloride, methyl tert-butyl ether [MTBE], 2-butanone, and acetone) were detected in the groundwater samples at levels that exceed their NYSDEC Class GA groundwater standards and guidance values[1] used to screen the groundwater data.

- Acetone and 2-butanone were detected only in well MPI-15B. Acetone was detected at a concentration of 2,300 micrograms per liter (µg/L) and, for clarity, was not included in the interpolation of groundwater contaminant plume contours.

- PCE was detected above the groundwater standard for total VOCs (5 µg/L) in 20 wells across the site. The highest concentration of PCE (6,800 µg/L, estimated) was detected in a sample collected from monitoring well MPI-6I.

- TCE was detected above the groundwater standard for total VOCs (5 µg/L) in 12 wells across the site. The highest concentration of TCE (170 µg/L) was detected in a sample collected from pumping well PW-4.

[1] New York State Department of Environmental Conservation. 1998. Division of Water Technical and Operational Guidance Series (1.1.1): *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations,* Division of Water, Albany, New York.

- cis-DCE was detected above the groundwater standard for total VOCs (5 µg/L) in 10 wells across the site. The highest concentration of cis-DCE (190 µg/L) was detected in a sample collected from monitoring well EE-2.

- trans-DCE was detected above the groundwater standard for total VOCs (5 µg/L) in four wells, which were concentrated north of the Agway air sparge system and near or east of Whaley Avenue, in the gravel parking lot. The highest concentration of trans-DCE (11 µg/L, estimated) was detected in a sample collected from monitoring well MW-8.

- Vinyl chloride was detected in five wells above the reporting limit, which varies by sample depending on the dilution (see to Table 1). The reporting limit for every sample was higher than the groundwater standard for vinyl chloride (2 µg/L). The highest concentration of vinyl chloride (18 µg/L) was detected in a sample collected from monitoring well EE-2.

- MTBE was detected above its groundwater guidance value (10 µg/L) in three wells and is confined to the west of Main Street and near or south of the library. The highest concentration of MTBE (81 µg/L) was detected in a sample collected from monitoring well MPI-3S.

If you have any questions or comments regarding this report, please contact me at (716) 684-8060.

Sincerely,

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

Michael G. Steffan
Project Manager

cc: Dave Szymanski (NYSDEC Region 9),

Mr. C's Project Folder
CTF-002700.DC.13.02.01.02

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: Date: Screening Criteria [1]	EE-2-2812 02/08/12	EE-3-2712 02/07/12	EE-3-2712-Q 02/07/12	EE-4-2612 02/06/12	ESI-2R-2812 02/08/12	ESI-3-2812 02/08/12
VOCs by Method 8260 (µg/L)							
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**2.0 J**
1,1-Dichloroethane	5	**1.0 J**	5.0 U	5.0 U	5.0 U	5.0 U	**0.76 J**
1,1-Dichloroethene	5	**0.98 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.84 J**
Chloromethane	NA	**1.0 J**	5.0 U	5.0 U	5.0 U	**0.89 J**	**0.95 J**
cis-1,2-Dichloroethene	5	**190**	**0.70 J**	**0.66 J**	**3.3 J**	5.0 U	5.0 U
Cyclohexane	NA	5.0 U	5.0 U	5.0 U	**8.4**	5.0 U	5.0 U
Dibromochloromethane	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	NA	5.0 U	5.0 U	5.0 U	**3.3 J**	5.0 U	5.0 U
Methyl tert-butyl ether	10	**54**	**29**	**30**	5.0 U	5.0 U	5.0 U
Methylcyclohexane	NA	5.0 U	5.0 U	5.0 U	**17**	5.0 U	5.0 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	**3.3 J**	**4.0 J**	**0.68 J**	**1.1 J**	**200 J**
trans-1,2-Dichloroethene	5	**1.2 J**	5.0 U	5.0 U	**8.6**	5.0 U	5.0 U
Trichloroethene	5	**25**	5.0 U	5.0 U	**0.81 J**	5.0 U	**0.77 J**
Vinyl chloride	2	**18**	**13**	**13**	**4.6 J**	5.0 U	5.0 U

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: Date: Screening Criteria [1]	ESI-5-R-060112 06/01/12	ESI-6-2712 02/07/12	MPI-1S2912 02/09/12	MPI-2S2912 02/09/12	MPI-3S-2712 02/07/12	MPI-4I-2612 02/06/12
VOCs by Method 8260 (µg/L)							
1,1,1-Trichloroethane	5	5.0 U	10 U	5.0 U	**4.1 J**	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	**1.0 J**	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50(g)	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50(g)	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	10 U	5.0 U	5.0 U	5.0 U	**0.62 J**
Bromodichloromethane	50(g)	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50(g)	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60(g)	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	5.0 U	10 U	5.0 U	**1.8 J**	5.0 U	5.0 U
Chloromethane	NA	5.0 U	10 U	**0.74 J**	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	**17**	**1.3 J**	5.0 U	5.0 U	**74**
Cyclohexane	NA	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50(g)	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	NA	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10	5.0 U	10 U	5.0 U	5.0 U	**81**	5.0 U
Methylcyclohexane	NA	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	**200 J**	**44 J**	**1.9 J**	5.0 U	**14 J**
trans-1,2-Dichloroethene	5	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	**13**	**1.4 J**	5.0 U	5.0 U	**2.2 J**
Vinyl chloride	2	5.0 U	10 U	5.0 U	5.0 U	5.0 U	**13**

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: Date: Screening Criteria [1]	MPI-4S-2612 02/06/12	MPI-5S-2912 02/09/12	MPI-6S-2712 02/07/12	MPI-7IR-2712 02/07/12	MP1-8S-R-060112 06/01/12	MP1-9S-R-060112 06/01/12
VOCs by Method 8260 (µg/L)							
1,1,1-Trichloroethane	5	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
2-Butanone	50(g)	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Acetone	50(g)	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50(g)	**3.4 J**	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Bromoform	50(g)	**1.2 J**	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60(g)	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Chloroform	7	**2.7 J**	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Chloromethane	NA	5.0 U	5.0 U	250 U	**1.4 J**	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	**6.0**	250 U	5.0 U	**5.0**	5.0 U
Cyclohexane	NA	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50(g)	**3.5 J**	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	NA	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10	5.0 U	5.0 U	250 U	5.0 U	**0.58 J**	5.0 U
Methylcyclohexane	NA	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	**29 J**	**6800 J**	**1.8 J**	**180**	**0.75 J**
trans-1,2-Dichloroethene	5	5.0 U	**6.8**	250 U	5.0 U	**1.6 J**	5.0 U
Trichloroethene	5	5.0 U	**6.9**	**30 J**	5.0 U	**22**	5.0 U
Vinyl chloride	2	5.0 U	**6.1**	250 U	5.0 U	5.0 U	5.0 U

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: Date: Screening Criteria [1]	MPI-10B-2712 02/07/12	MP1-13B-R-060112 06/01/12	MP1-13B-R-060112/Q 06/01/12	MPI-14BR2912 02/09/12	MPI-15B-2712 02/07/12	MW7-2712 02/07/12
VOCs by Method 8260 (µg/L)							
1,1,1-Trichloroethane	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,1-Dichloroethane	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1,1-Dichloroethene	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
2-Butanone	50(g)	10 U	5.0 U	5.0 U	5.0 U	**180**	50 U
Acetone	50(g)	10 U	5.0 U	5.0 U	5.0 U	**2300**	50 U
Benzene	1	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Bromodichloromethane	50(g)	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Bromoform	50(g)	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Carbon disulfide	60(g)	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Chloroform	7	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Chloromethane	NA	10 U	5.0 U	5.0 U	**0.60 J**	**1.5 J**	50 U
cis-1,2-Dichloroethene	5	**1.1 J**	5.0 U	5.0 U	**1.3 J**	5.0 U	50 U
Cyclohexane	NA	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Dibromochloromethane	50(g)	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Isopropylbenzene	NA	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Methyl tert-butyl ether	10	**1.1 J**	5.0 U	5.0 U	5.0 U	**4.1 J**	50 U
Methylcyclohexane	NA	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Methylene chloride	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Tetrachloroethene	5	**250 J**	**3.6 J**	**3.6 J**	**10 J**	**1.1 J**	**670 J**
trans-1,2-Dichloroethene	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Trichloroethene	5	**3.6 J**	**0.80 J**	**0.81 J**	**1.0 J**	5.0 U	50 U
Vinyl chloride	2	10 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: Date: Screening Criteria [1]	MW8-2612 02/06/12	MW-11-2812 02/08/12	MW-11-2812Q 02/08/12	PW-2-2912 02/09/12	PW 3-2912 02/09/12	PW 4-2912 02/09/12
VOCs by Method 8260 (µg/L)							
1,1,1-Trichloroethane	5	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50(g)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50(g)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50(g)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50(g)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60(g)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	NA	20 U	**0.68 J**	**0.92 J**	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	**15 J**	**1.2 J**	**1.2 J**	5.0 U	5.0 U	**44**
Cyclohexane	NA	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50(g)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	NA	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10	20 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.95 J**
Methylcyclohexane	NA	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	**250 J**	**1500 J**	**1500 J**	**770 J**	**220 J**	**2200 J**
trans-1,2-Dichloroethene	5	**11 J**	**1.2 J**	**1.2 J**	5.0 U	5.0 U	**1.8 J**
Trichloroethene	5	**92**	**5.8**	**5.8**	**2.2 J**	**4.3 J**	**170**
Vinyl chloride	2	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: Date: Screening Criteria [1]	PW 5-2912 02/09/12	PW 6-2912 02/09/12	PW 7-2912 02/09/12	PW 8-2912 02/09/12	RB1-060112 06/01/12	RW-1-2912 02/09/12
VOCs by Method 8260 (µg/L)							
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**1.3 J**
1,1-Dichloroethane	5	5.0 U	**0.59 J**	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60(g)	5.0 U	5.0 U	5.0 U	5.0 U	**0.78 J**	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.61 J**
Chloromethane	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.91 J**
cis-1,2-Dichloroethene	5	**16**	**76**	**2.2 J**	**13**	5.0 U	**1.0 J**
Cyclohexane	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50(g)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10	5.0 U	**4.0 J**	5.0 U	**2.3 J**	5.0 U	5.0 U
Methylcyclohexane	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	**2.1 U**	5.0 U
Tetrachloroethene	5	**3100 J**	**1000**	**550**	**140**	**2.1 J**	**250 J**
trans-1,2-Dichloroethene	5	**5.9**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	**87**	**79**	**8.9**	**11**	5.0 U	**1.5 J**
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: Date: Screening Criteria [1]	RW-1-2912Q 02/09/12	TB01-2612 02/06/12	TB1-060112 06/01/12
VOCs by Method 8260 (µg/L)				
1,1,1-Trichloroethane	5	**1.3 J**	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U
2-Butanone	50(g)	5.0 U	5.0 U	5.0 U
Acetone	50(g)	5.0 U	5.0 U	5.0 U
Benzene	1	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50(g)	5.0 U	5.0 U	5.0 U
Bromoform	50(g)	5.0 U	5.0 U	5.0 U
Carbon disulfide	60(g)	5.0 U	5.0 U	5.0 U
Chloroform	7	**0.63 J**	5.0 U	5.0 U
Chloromethane	NA	**0.68 J**	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	**0.91 J**	5.0 U	5.0 U
Cyclohexane	NA	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50(g)	5.0 U	5.0 U	5.0 U
Isopropylbenzene	NA	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	10	5.0 U	5.0 U	5.0 U
Methylcyclohexane	NA	5.0 U	5.0 U	5.0 U
Methylene chloride	5	5.0 U	**1.2 J**	**1.3 J**
Tetrachloroethene	5	**270 J**	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U
Trichloroethene	5	**1.4 J**	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U

Table 1 Summary of Positve Analytical Results for Groundwater Samples
Mr. C's Cleaners

Analyte	Sample ID: / Date: / Screening Criteria [1]	EE-2-2812 02/08/12	EE-3-2712 02/07/12	EE-3-2712-Q 02/07/12	EE-4-2612 02/06/12	ESI-2R-2812 02/08/12

Notes:

1. Shaded cells exceed the screening value.
2. Bold values denote positive hits.
3. Screening values is Class GA standard or guidance value (NYSDEC 1998, 1999).

Key:

(g) = Guidance value (no applicable standard).

J = Estimated value.

U = Not detected (lab reporting limit shown).

UJ = Not detected/Estimated Value.

µg/L = Micrograms per liter

-- = Analyte not analyzed for.

VOCs = Volatile organic compounds.

F:\MrC\well Analysis May 2009\Results_revised 6-29-09.dwg

EE-2	6/04	8/07	5/09	5/10	2/12
Chloroform	0.346 ug/L	ND	ND	ND	ND
Methyl tert-butyl ether	1660 ug/L	670 ug/L	130 ug/L	83 ug/L(J)	54 ug/L
Methylene chloride	0.208 ug/L	ND	ND	ND	ND
Tetrachloroethene	0.387 ug/L	ND	ND	ND	ND
Trihalomethanes, Total	0.346 ug/L	ND	ND	NA	ND
Vinyl chloride	–	ND	38 ug/L	12 ug/L(J)	18 ug/L
cis-1,2-Dichloroethene	–	ND	ND	6.7 ug/L(J)	190 ug/L
1,1-Dichloroethane	NA	NA	NA	NA	1.0 ug/L(J)
1,1-Dichloroethene	NA	NA	NA	NA	.98 ug/L(J)
Chloromethane	NA	NA	NA	NA	1.0 ug/L(J)
trans-1,2-Dichloroethene	NA	NA	NA	NA	1.2 ug/L(J)
Trichloroethene	NA	NA	NA	NA	25 ug/L

PW-6	5/02	10/03	6/04	8/07	5/09	5/10	2/12
Methyl tert-Butyl Ether	8 ug/L	ND	45.5 ug/L	18 ug/L	37 ug/L	27 ug/L	4.0 ug/L(J)
Trichloroethene	3 J ug/L	ND	41.3 ug/L	100 ug/L	120 ug/L	82 ug/L	79 ug/L
Tetrachloroethene	37 ug/L	ND	463 ug/L	1100 ug/L	340 ug/L(J)	970 ug/L(J)	1000 ug/L
Ethylbenzene	5 J ug/L	ND	ND	ND	ND	ND	ND
Xylene	2 J ug/L	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	11.6 ug/L	50 ug/L	300 ug/L(J)	130 ug/L	76 ug/L
trans-1,2-Dichloroethene	ND	ND	0.400 ug/L	ND	3.9 ug/L(J)	ND	ND
1,1-Dichloroethane	ND	ND	0.150 ug/L	ND	ND	ND	0.59 ug/L(J)
1,1-Dichloroethene	ND	ND	0.861 ug/L	ND	ND	ND	ND

PW-7	5/02	10/03	6/04	8/07	5/09	5/10	2/12
Acetone	280 ug/L	ND	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether	85 J ug/L	ND	35.0 ug/L	5.2 ug/L(J)	ND	2.8 ug/L (J)	ND
2-Butanone	680 ug/L	ND	ND	ND	ND	ND	ND
Ethylbenzene	63 J ug/L	ND	ND	ND	ND	ND	ND
Xylene	290 ug/L	ND	ND	ND	ND	ND	ND
Styrene	160 ug/L	ND	NA	ND	ND	ND	ND
Trichloroethene	92 J ug/L	10 ug/L	41.5 ug/L	94 ug/L	29 ug/L	68 ug/L(J)	8.9 ug/L
Tetrachloroethene	4200 ug/L	800 ug/L	2760 ug/L	2400 ug/L	1400 ug/L(J)	950 ug/L(J)	550 ug/L
1,1-Dichloroethene	ND	ND	1.06 ug/L	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	7.92 ug/L	25 ug/L	5.7 ug/L	17 ug/L(J)	2.2 ug/L (J)
Toluene	ND	ND	0.186 ug/L	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	0.776 ug/L	ND	ND	ND	ND
Vinyl chloride	ND	ND	0.171 ug/L	ND	ND	ND	ND

MPI-15B	5/02	6/04	8/07	5/09	5/10	2/12
2-Butanone	NS	1.61 ug/L	ND	ND	ND	180 ug/L
Methyl tert-butyl ether	NS	6.39 ug/L	6.3 ug/L(J)	7.4 ug/L	3.3 ug/L(J)	4.1 ug/L(J)
Acetone	NA	NA	NA	NA	NA	2300 ug/L
Chloromethane	NA	NA	NA	NA	NA	1.5 ug/L(J)
Tetrachloroethene	NA	NA	NA	NA	NA	1.1 ug/L(J)

PW-8	5/02	9/03	6/04	8/07	5/09	5/10	2/12
1,1-Dichloroethene	ND	2 ug/L	0.302 ug/L	ND	ND	ND	ND
2-Butanone	ND	46 ug/L	ND	ND	ND	ND	ND
Trichloroethene	4 ug/L	66 ug/L	25.2 ug/L	15 ug/L	28 ug/L	12 ug/L	11 ug/L
trans-1,2-Dichloroethene	ND	2 ug/L	0.722 ug/L	ND	ND	ND	ND
Tetrachloroethene	43 ug/L	110 ug/L	243 ug/L	150 ug/L	200 ug/L(J)	100 ug/L	140 ug/L
cis-1,2-Dichloroethene	1 ug/L	5 ug/L	8.45 ug/L	13 ug/L	30 ug/L	15 ug/L	13 ug/L
Methyl tert-Butyl Ether	16 ug/L	79 ug/L	10.1 ug/L	3.5 ug/L(J)	4.2 ug/L(J)	5.1 ug/L	2.3 ug/L(J)
Acetone	26 ug/L	ND	ND	ND	ND	ND	ND
Xylene	10 ug/L	ND	ND	ND	ND	ND	ND
Ethylbenzene	3 ug/L	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	–	–	–	7.2 ug/L(J)	ND	ND	ND

MPI-6S	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Acetone	ND	20 ug/L	ND	ND	ND	ND	ND
Trichloroethene	ND	15 ug/L	125 ug/L	58 ug/L	94 ug/L	69 ug/L	30 ug/L(J)
Tetrachloroethene	ND	1200 ug/L	3480 ug/L	4900 ug/L	8100 ug/L(J)	6200 ug/L(J)	6800 ug/L
cis-1,2-Dichloroethene	ND	2 ug/L	3.26 ug/L	3.8 ug/L(J)	14 ug/L	27 ug/L	ND
Methyl tert-Butyl Ether	1000 ug/L	23 ug/L	2.59 ug/L	ND	1.8 ug/L(J)	3.6 ug/L(J)	ND
trans-1,2-Dichloroethene	ND	ND	0.48 ug/L	ND	ND	ND	ND
2-Butanone	NA	NA	1.28 ug/L	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	0.167 ug/L	ND	ND	ND	ND

LEGEND

⊕	SANITARY SEWER MANHOLE
⊕	MONITORING WELL
⊕	PUMPING WELL
•	PIEZOMETER
□	EXISTING STRUCTURES AND FEATURES
—x—x—	FENCE
PAINE STREET	MAJOR AREA STREETS
⊕ (circled)	WELLS CIRCLED = NOT FOUND (EITHER ABANDONED, DECOMMISSIONED, OR MISSING)

WELL ABBREVIATIONS

EEI	(ECOLOGY & ENVIRONMENT)	PW	PUMPING WELL (TYREE)
ESI	EMPIRE SOILS WELL (ENVIRONMENTAL SCIENCE)	PZ	PIEZOMETER (TYREE)
MPI	OBSERVATION WELL (MALCOLM-PIRNIE)	RW	RECOVERY WELL (BY OTHERS)
MW	MONITORING WELL (MATRIX)	SP	SPARGE POINT
NA	DATA NOT AVAILABLE	VP	VAPOR COLLECTION POINT
OW	OBSERVATION WELL	MPI-7IR	REPLACEMENT WELL

ANALYTICAL ABBREVIATIONS

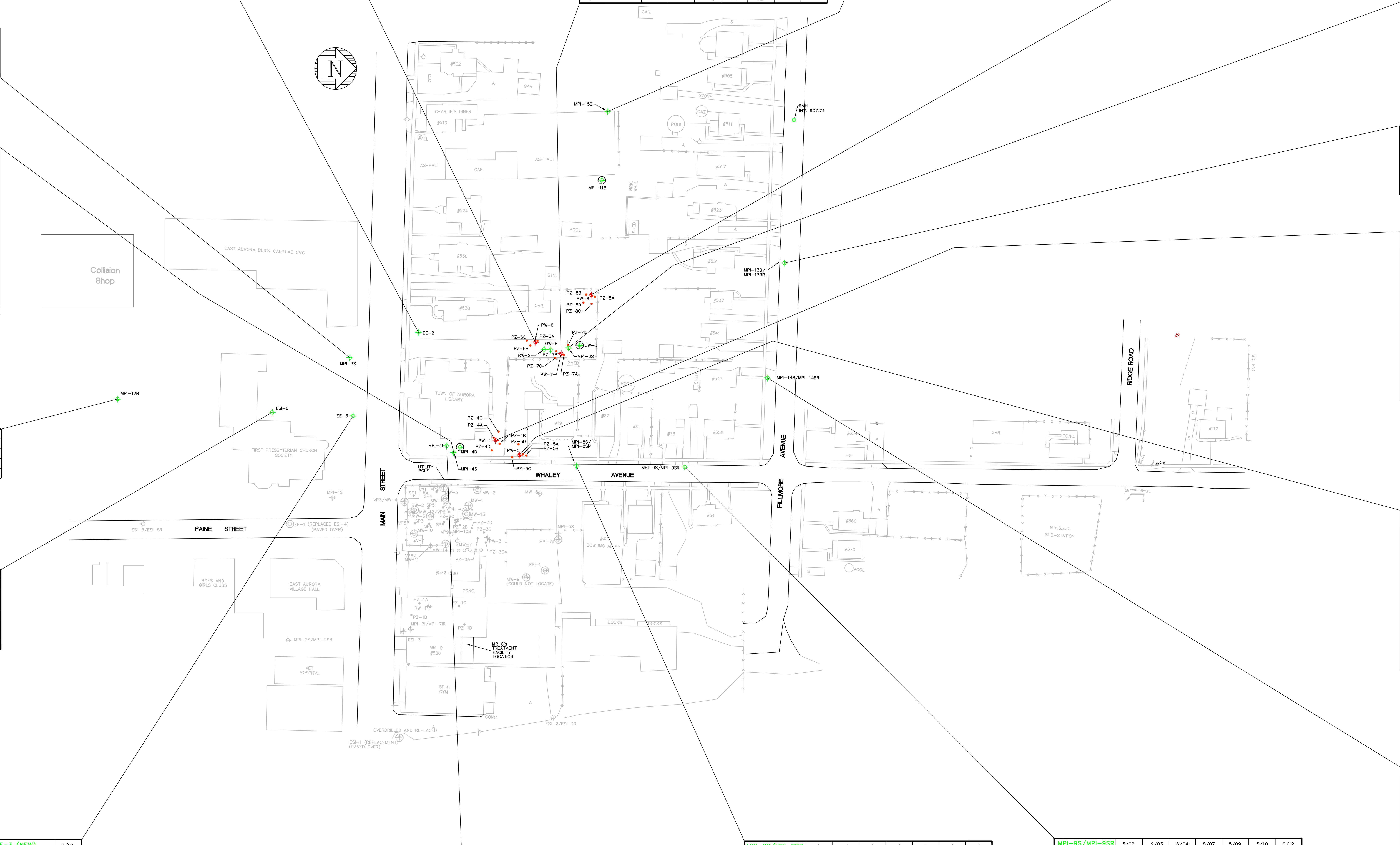
ug/L	MICROGRAMS PER LITER
ND	NOT DETECTED
NS	NOT SAMPLED
NA	NOT ANALYZED
–	NOT ANALYZED OR NOT DETECTED
(J)	ESTIMATED VALUE
(U)	ANALYZED FOR BUT NOT DETECTED AT THE DETECTION LIMIT INDICATED

NOTES:

1. ONLY DETECTED COMPOUNDS ARE PRESENTED.
2. HORIZONTAL CONTROL IS BASED UPON THE NEW YORK STATE PLANE COORDINATE SYSTEM, WEST ZONE, 1983 ADJUSTMENT (NAD 83).
3. ELEVATIONS ARE BASED UPON NORTH GEODETIC VERTICAL DATUM, 1929 (NGVD 1929).
4. BENCHMARK IS LOCATED NEAR THE NORTHEAST CORNER OF MAIN STREET AND PAINE STREET, BEING A BRASS DISC SET IN THE TOP OF CONCRETE BASE – ELEVATION 916.64'
5. ALL ANALYTICAL WORK PERFORMED IN JUNE 2004 WAS ANALYZED USING METHOD 524.1 FOR VOLATILE ORGANIC COMPOUNDS.
6. AUGUST 2007 ANALYTICAL WORK PERFORMED USING CLP METHOD OLM04.2.

MPI-3S	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Benzene	ND	1 ug/L	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether	1700 ug/L	560 ug/L	390 ug/L	240 ug/L	190 ug/L (J)	110 ug/L(J)	81 ug/L
Tetrachloroethene	ND	ND	0.495 ug/L	ND	ND	2.6 ug/L(J)	ND
1,2-Dichloroethane	ND	1.4 ug/L	0.538 ug/L	ND	ND	ND	ND

MPI-4S	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Tetrachloroethene	2 ug/L	2 ug/L	1.63 ug/L	5.0 ug/L	NS	2.3 ug/L(J)	ND
cis-1,2-Dichloroethene	14 ug/L	16 ug/L	97.8 ug/L	140 ug/L	NS	61 ug/L	ND
Methyl tert-Butyl Ether	8 ug/L	11 ug/L	4.26 ug/L	ND	NS	ND	ND
Vinyl Chloride	4 ug/L	ND	5.53 ug/L	20 ug/L	NS	6.0 ug/L	ND
Acetone	9 ug/L	ND		ND	NS	ND	ND
1,1-Dichloroethene	1 ug/L	ND		ND	NS	ND	ND
Benzene	5 ug/L	ND	1.22ND ug/L	ND	NS	ND	ND
2-Butanone	3 ug/L	ND	ND	ND	NS	ND	ND
Chloroform	ND	ND	0.722 ug/L	ND	NS	ND	2.7 ug/L(J)
Isopropylbenzene	ND	ND	0.108ND ug/L	ND	NS	ND	ND
trans-1,2-Dichloroethene	ND	ND	1.05 ug/L	ND	NS	ND	ND
Trichloroethene	ND	ND	4.27 ug/L	2.4 ug/L	NS	1.1 ug/L(J)	ND
Trihalomethanes, Total	NA	NA	0.722 ug/L	ND	NS	NA	ND
Bromodichloromethane	NA	NA	NA	NA	NS	NA	3.4 ug/L(J)
Bromoform	NA	NA	NA	NA	NS	NA	1.2 ug/L(J)
Dibromochloromethane	NA	NA	NA	NA	NS	NA	3.5 ug/L(J)



MPI-12B	5/02	9/03	6/04	8/07	5/09	5/10	2/12
cis-1,2-Dichloroethene	NS	NS	3.46 ug/L	9.4 ug/L(J)	16 ug/L	17 ug/L	NS
Methyl tert-butyl ether	NS	NS	341 ug/L	170 ug/L	90 ug/L	110 ug/L	NS
Tetrachloroethene	NS	NS	0.422 ug/L	ND	2.8 ug/L(J)	ND	NS
Trichloroethene	NS	NS	0.294 ug/L	ND	ND	ND	NS

ESI-6	5/02	9/03	6/04	8/07	5/09	5/10	2/12
1,1-Dichloroethane	ND	0.67 ug/L	0.616 ug/L	ND	ND	ND	1.0 ug/L(J)
Trichloroethene	44 ug/L	16 ug/L	19.2 ug/L	14 ug/L	17 ug/L	10 ug/L(J)	13 ug/L
Tetrachloroethene	1180 ug/L	230 ug/L	514 ug/L	240 ug/L	320 ug/L(J)	140 ug/L(J)	200 ug/L(J)
cis-1,2-Dichloroethene	130 ug/L	26 ug/L	23.6 ug/L	20 ug/L	37 ug/L	5.9 ug/L(J)	17 ug/L
Methyl tert-Butyl Ether	48 ug/L	53 ug/L	29.2 ug/L	7.5 ug/L(J)	7.4 ug/L	3.5 ug/L(J)	ND
trans-1,2-Dichloroethene	ND	ND	0.290 ug/L	ND	ND	ND	ND
Vinyl chloride	ND	ND	0.605 ug/L	ND	ND	ND	ND

MPI-13B/MPI-13BR	5/02	9/03	6/04	8/07	5/09	5/10	6/12
Trichloroethene	ND	0.57 ug/L	ND	ND	NS	NS	0.8 ug/L(J)
Benzene	ND	1.4 ug/L	ND	ND	NS	NS	ND
Tetrachloroethene	ND	3.2 ug/L	0.403 ug/L	5.0 ug/L(J)	NS	NS	3.6 ug/L(J)
2-Butanone	NA	NA	0.979 ug/L	ND	NS	NS	ND
Acetone	NA	NA	4.01 ug/L	ND	NS	NS	ND
Carbon disulfide	NA	NA	0.440 ug/L	ND	NS	NS	ND

PW-4	5/02	10/03	6/04	8/07	5/09	5/10	2/12
Trichloroethene	ND	35 ug/L	57.9 ug/L	74 ug/L(J)	100 ug/L	120 ug/L	170 ug/L
Tetrachloroethene	50 ug/L	200 ug/L	2850 ug/L	1600 ug/L	2400 ug/L(J)	2300 ug/L(J)	2200 ug/L(J)
cis-1,2-Dichloroethene	ND	490 ug/L	8.68 ug/L	19 ug/L	34 ug/L	36 ug/L	44 ug/L
Acetone	100 ug/L	ND	ND	ND	ND	ND	ND
2-Butanone	1400 ug/L	ND	ND	ND	ND	ND	ND
Ethylbenzene	210 ug/L	ND	ND	ND	ND	ND	ND
Xylene	1200 ug/L	ND	ND	ND	ND	ND	ND
Styrene	360 ug/L	ND	NA	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	22.0 ug/L	23 ug/L	64 ug/L	33 ug/L	0.95 ug/L(J)
Toluene	ND	ND	0.193 ug/L	ND	ND	ND	ND
Vinyl chloride	ND	ND	0.981 ug/L	3.3 ug/L(J)	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.680 ug/L	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.485 ug/L	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	0.211 ug/L	ND	ND	ND	ND
Benzene	ND	ND	0.121 ug/L	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	1.2 ug/L	ND	3.9 ug/L(J)	ND	1.8 ug/L(J)

PW-5	5/02	10/03	6/04	8/07	5/09	5/10	2/12
Acetone	200 ug/L	ND	ND	ND	ND	ND	ND
2-Butanone	3300 ug/L	ND	ND	ND	ND	ND	ND
Tetrachloroethene	170 ug/L	2000 ug/L	3220 ug/L	2000 ug/L	4000 ug/L(J)	4300 ug/L(J)	3100 ug/L(J)
Ethylbenzene	310 ug/L	ND	0.209 ug/L	ND	ND	ND	ND
Styrene	510 ug/L	ND	NA	ND	ND	ND	ND
Trichloroethene	ND	99 ug/L	78.6 ug/L	95 ug/L	140 ug/L	190 ug/L	87 ug/L
cis-1,2-Dichloroethene	ND	8 ug/L	8.17 ug/L	21 ug/L	21 ug/L	16 ug/L	16 ug/L
Xylene	1100 ug/L	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.801 ug/L	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.346 ug/L	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	0.194 ug/L	ND	ND	ND	ND
Benzene	ND	ND	0.114 ug/L	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	10.1 ug/L	3.7 ug/L(J)	2.6 ug/L(J)	4.8 ug/L(J)	ND
trans-1,2-Dichloroethene	ND	ND	2.61 ug/L	6.5 ug/L(J)	12 ug/L	6.4 ug/L	5.9 ug/L
Vinyl chloride	ND	ND	0.415 ug/L	ND	ND	ND	ND

MPI-14B/MW-14BR	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Vinyl chloride	ND	ND	1.06 ug/L	ND	NS	NS	ND
cis-1,2-Dichloroethene	ND	ND	2.93 ug/L	2.8 ug/L(J)	NS	NS	1.3 ug/L(J)
Methyl tert-butyl ether	ND	ND	2.99 ug/L	ND	NS	NS	ND
Tetrachloroethene	1 ug/L	ND	0.175 ug/L	ND	NS	NS	10 ug/L(J)
Trichloroethene	ND	ND	0.191 ug/L	ND	NS	NS	1.0 ug/L(J)
trans-1,2-Dichloroethene	ND	ND	1.60 ug/L	ND	NS	NS	ND
Acetone	ND	ND	4.06 ug/L	9.6 ug/L(J)	NS	NS	ND
1,2-Dichloroethane	ND	ND	0.340 ug/L	ND	NS	NS	ND
Chloromethane	NA	NA	NA	NA	NS	NS	0.6 ug/L(J)

EE-3 (NEW)	2/12
cis-1,2-Dichloroethene	0.7 ug/L(J)
Methyl tert-butyl ether	29 ug/L
Tetrachloroethene	3.3 ug/L(J)
Vinyl chloride	13 ug/L

MPI-4I	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Trichloroethene	120 ug/L	280 ug/L	137 ug/L	580 ug/L	180 ug/L	120 ug/L(J)	2.2 ug/L(J)
Tetrachloroethene	160 ug/L	690 ug/L	556 ug/L	1300 ug/L	640 ug/L(J)	400 ug/L(J)	14 ug/L(J)
cis-1,2-Dichloroethene	16 ug/L	48 ug/L	49.4 ug/L	160 ug/L	780 ug/L(J)	880 ug/L(J)	74 ug/L
Methyl tert-Butyl Ether	140 ug/L	40 ug/L	26.3 ug/L	23 ug/L	13 ug/L	14 ug/L(J)	ND
trans-1,2-Dichloroethene	ND	ND	1.53 ug/L	21 ug/L	4.4 ug/L(J)	2.0 ug/L(J)	ND
Vinyl chloride	ND	ND	0.196 ug/L	ND	ND	ND	13 ug/L
1,1-Dichloroethene	–	–	–	ND	ND	1.0 ug/L(J)	ND
Benzene	NA	NA	NA	NA	NA	NA	.62 ug/L(J)

MPI-8S/MPI-8SR	5/02	9/03	6/04	8/07	5/09	5/10	6/12
	NS	NS	NS	NS	NS	NS	–
cis-1,2-Dichloroethene	NA	NA	NA	NA	NS	NS	5.0 ug/L
Methyl tert-butyl ether	NA	NA	NA	NA	NS	NS	0.58 ug/L(J)
Tetrachloroethene	NA	NA	NA	NA	NS	NS	180 ug/L
trans-1,2-Dichloroethene	NA	NA	NA	NA	NS	NS	1.6 ug/L(J)
Trichloroethene	NA	NA	NA	NA	NS	NS	22 ug/L

MPI-9S/MPI-9SR	5/02	9/03	6/04	8/07	5/09	5/10	6/12
	NS	NS	NS	NS	NS	NS	–
Tetrachloroethene	NA	NA	NA	NA	NS	NS	.75 ug/L(J)

SEE FIGURE 2 FOR SUMMARY OF MONITORING WELL INFORMATION EAST OF WHALEY AVE AND PAINE STREET.

SCALE IN FEET
0 60 120 180

DWG NO.	DATE	DESCRIPTION
DEC 31 ISO.dwg	7/18/94	ISOPOTENTIAL MAP AND CROSS SECTIONS 4/13/94 GROUNDWATER LEVELS MALCOLM PIRNIE INC.
0266G003.dwg	10/17/00	REMEDIAL DESIGN PIPING AND WELL LAYOUT PLAN MALCOLM PIRNIE INC.

REFERENCE DRAWINGS

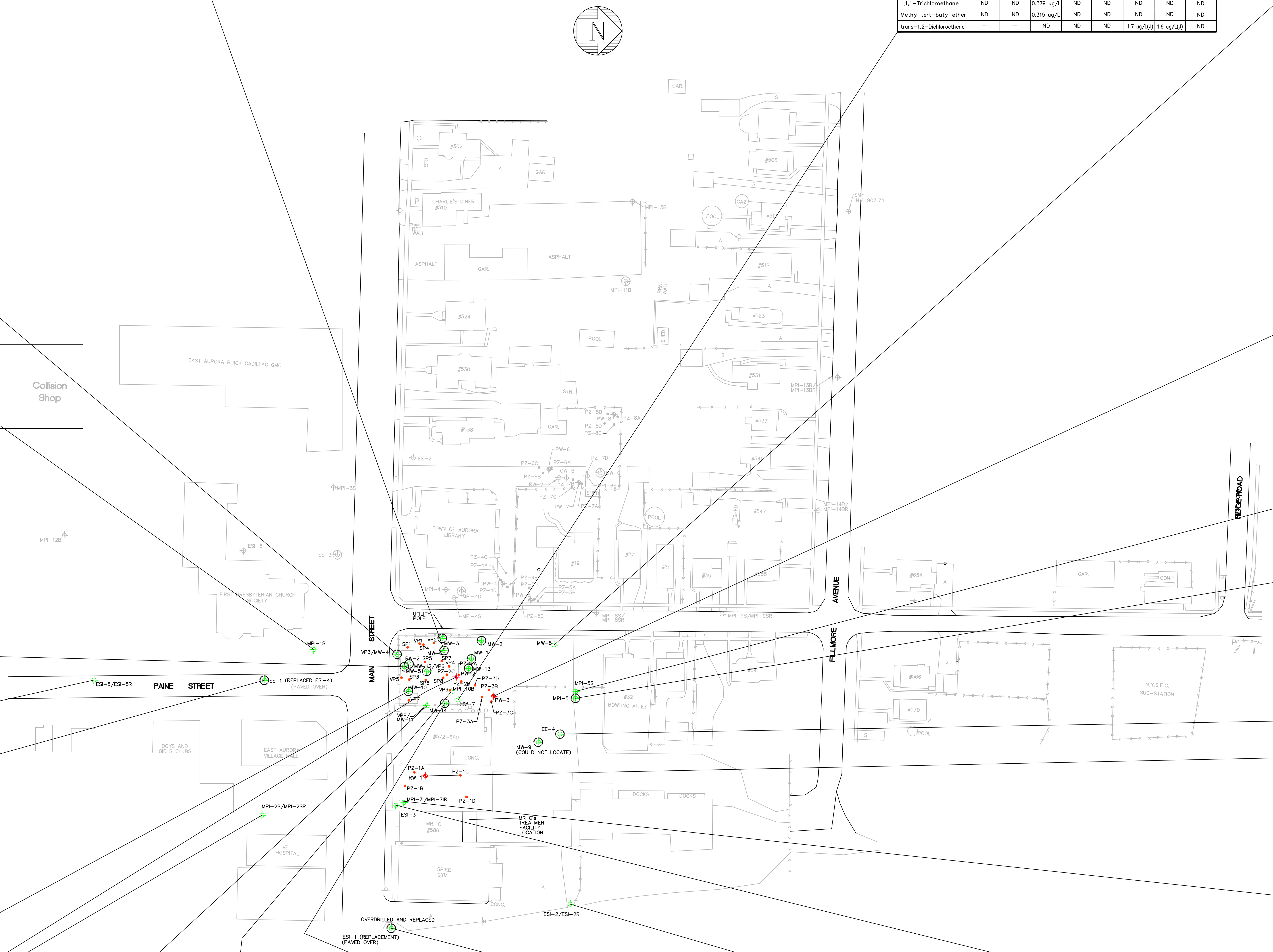
NO.	DATE	DWN	APP'D	DESCRIPTION
D	7/20/12	KMK	MGS	UPDATED PER FEB/JUNE 2012 SAMPLE EVENT
C	6/8/10	KMK	MGS	UPDATED PER MAY 2010 SAMPLE EVENT
B	6/30/09	KMK	MGS	UPDATED PER MAY 2009 SAMPLE EVENT
A	12/6/07	KMK	MGS	UPDATED PER AUGUST 2007 SAMPLE EVENT

REVISIONS

FIGURE 1
SUMMARY OF GROUNDWATER ANALYTICAL DATA
MR.C'S DRY CLEANERS SITE LOCATION MAP (WEST)
EAST AURORA, NEW YORK

ecology and environment engineering p.c.

F:\MrC\well Analysis May 2009\Results_revised 6-29-09.dwg



MW-4	5/02	9/03	6/04	9/05	8/07
Vinyl Chloride	ND	47 ug/L	41.0 ug/L	590 ug/L	ND
Trichloroethene	23 ug/L	54 ug/L	27.9 ug/L	7.0 ug/L	ND
Benzene	24 ug/L	46 ug/L	4.80 ug/L	21.0 ug/L	5.4 ug/L(J)
trans-1,2-Dichloroethene	1 ug/L	7 ug/L	2.87 ug/L	3.4 ug/L	ND
Tetrachloroethene	130 ug/L	95 ug/L	278 ug/L	5.3 ug/L	ND
cis-1,2-Dichloroethene	200 ug/L	250 ug/L	515 ug/L	570 ug/L	2.5 ug/L(J)
Acetone	3 ug/L	ND	ND	ND	ND
Ethylbenzene	2 ug/L	ND	4.42 ug/L	7.7 ug/L	ND
Xylene-Total	170 ug/L	ND	0.704 ug/L	ND	1.3 ug/L
1,3,5 - Trimethylbenzene	120 ug/L	ND	NA	ND	ND
tert - Butylbenzene	2 ug/L	ND	0.447 ug/L	ND	ND
1,2,4 - Trimethylbenzene	10 ug/L	ND	0.243 ug/L	ND	ND
Isopropylbenzene	ND	ND	1.76 ug/L	3.4 ug/L	4.2 ug/L(J)
n-Propylbenzene	ND	ND	2.94 ug/L	ND	ND
m,p-Xylene	NA	ND	0.282 ug/L	0.55 ug/L	ND
o-Xylene	NA	ND	0.422 ug/L	0.8 ug/L	ND
sec-Butylbenzene	ND	ND	1.15 ug/L	ND	ND
Toluene	3 ug/L	ND	0.373 ug/L	2.3 ug/L	ND
1,1-Dichloroethene	ND	ND	0.320 ug/L	1.2 ug/L	ND
Cyclohexane	ND	ND	ND	75.0 ug/L	110 ug/L
Methylcyclohexane	ND	ND	ND	22.0 ug/L	22.0 ug/L
Methyl tert-butyl ether	ND	ND	ND	ND	ND

MW-6	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12
Trichloroethene	ND	2 ug/L	NS	NS	NS	NS	NS	NS
Tetrachloroethene	68 ug/L	74 ug/L	NS	NS	NS	NS	NS	NS
cis-1,2-Dichloroethane	ND	2 ug/L	NS	NS	NS	NS	NS	NS

MW-7	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12
Trichloroethene	ND	8 ug/L	4.34 ug/L	3.2 ug/L	ND	1.4 ug/L(J)	1.5 ug/L(J)	ND
Tetrachloroethene	240 ug/L	3300 ug/L	1170 ug/L	2000 ug/L	830 ug/L	700 ug/L(J)	770 ug/L(J)	670 ug/L(J)
cis-1,2-Dichloroethene	ND	ND	3.73 ug/L	0.76 ug/L	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.379 ug/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	0.315 ug/L	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	–	–	ND	ND	ND	1.7 ug/L(J)	1.9 ug/L(J)	ND

MW-8	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12
Trichloroethene	720 ug/L	16 ug/L	10.4 ug/L	100.0 ug/L	590 ug/L	16 ug/L	14 ug/L	92 ug/L
trans-1,2-Dichloroethene	50 ug/L	1 ug/L	0.481 ug/L	3.8 ug/L	24 ug/L	12 ug/L	6.4 ug/L	11 ug/L(J)
Tetrachloroethene	3900 ug/L	310 ug/L	299 ug/L	570.0 ug/L	960 ug/L	210 ug/L(J)	200 ug/L(J)	250 ug/L(J)
cis-1,2-Dichloroethene	40 ug/L	5 ug/L	2.36 ug/L	15.0 ug/L	390 ug/L	9.4 ug/L	6.5 ug/L	15 ug/L(J)
2-Butanone	ND	ND	1.88 ug/L	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.157 ug/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	0.135 ug/L	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	35 ug/L	ND	2.0 ug/L(J)	ND
Methylcyclohexane	–	–	–	–	2.5 ug/L	ND	ND	ND

PW-3	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12
Trichloroethene	ND	6 ug/L	7.32 ug/L	8.9 ug/L	7.2 ug/L(J)	6 ug/L	4.6 ug/L(J)	4.3 ug/L(J)
Tetrachloroethene	820 ug/L	850 ug/L	595 ug/L	560 ug/L	290 ug/L	300 ug/L(J)	260 ug/L	220 ug/L(J)
cis-1,2-Dichloroethene	ND	6 ug/L	6.43 ug/L	4.0 ug/L	2.8 ug/L(J)	4.3 ug/L(J)	3.5 ug/L(J)	ND
Methyl tert-Butyl Ether	ND	4 ug/L	0.401 ug/L	ND	ND	ND	ND	ND
Acetone	51 ug/L	ND	ND	ND	ND	ND	ND	ND
2-Butanone	350 ug/L	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	20 ug/L	ND	ND	ND	ND	ND	ND	ND
Xylene	120 ug/L	ND	ND	ND	ND	ND	ND	ND
Styrene	11 ug/L	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.407 ug/L	ND	ND	ND	ND	ND
Benzene	ND	ND	0.148 ug/L	ND	ND	ND	ND	ND
Chloroform	ND	ND	0.133 ug/L	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	2.94 ug/L	3.4 ug/L	5.0 ug/L(J)	6.2 ug/L	3.2 ug/L(J)	ND
Trihalomethanes, Total	NA	NA	0.133 ug/L	ND	ND	NS	NA	ND
Vinyl chloride	ND	ND	ND	1.7 ug/L	ND	ND	ND	ND

MPI-1S	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Trichloroethene	ND	1.5 ug/L	9.87 ug/L	6.5 ug/L(J)	1.2 ug/L(J)	ND	1.4 ug/L(J)
Tetrachloroethene	10 ug/L	41 ug/L	123 ug/L	97 ug/L	54 ug/L	40 ug/L	44 ug/L(J)
cis-1,2-Dichloroethene	ND	0.86 ug/L	3.90 ug/L	ND	1.1 ug/L(J)	1.3 ug/L(J)	1.3 ug/L(J)
Vinyl chloride	ND	ND	0.346 ug/L	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.337 ug/L	ND	ND	ND	ND
Chloromethane	NA	NA	NA	NA	NA	NA	.74 ug/L(J)

MPI-5S	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Vinyl Chloride	NA	5 ug/L	1.98 ug/L	15 ug/L	2.7 ug/L(J)	2.9 ug/L(J)	6.1 ug/L
Trichloroethene	NA	6 ug/L	3.66 ug/L	2.7 ug/L(J)	3.6 ug/L(J)	3.7 ug/L(J)	6.9 ug/L
trans-1,2-Dichloroethene	NA	2 ug/L	3.87 ug/L	6.0 ug/L(J)	10 ug/L	6.2 ug/L	6.8 ug/L
Tetrachloroethene	NA	36 ug/L	38.3 ug/L	4.9 ug/L(J)	15 ug/L(J)	16 ug/L	29 ug/L(J)
cis-1,2-Dichloroethene	NA	5 ug/L	3.81 ug/L	8.4 ug/L(J)	7.7 ug/L	4.2 ug/L(J)	6.0 ug/L
Methyl tert-butyl ether	NA	ND	0.114 ug/L	ND	ND	ND	ND
2-Butanone	NA	ND	0.994 ug/L	ND	ND	ND	ND
Benzene	NA	ND	0.304 ug/L	ND	ND	ND	ND

MPI-5I	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Methyl tert-Butyl Ether	NA	4 ug/L	NS	NS	NS	NS	NS

MW-5	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Xylene	5700 ug/L	ND	NS	NS	NS	NS	NS
Vinyl Chloride	ND	7 ug/L	NS	NS	NS	NS	NS
Trichloroethene	21 ug/L	ND	NS	NS	NS	NS	NS
Benzene	220 ug/L	15 ug/L	NS	NS	NS	NS	NS
trans-1,2-Dichloroethene	ND	ND	NS	NS	NS	NS	NS
Tetrachloroethene	83 ug/L	2 ug/L	NS	NS	NS	NS	NS
cis-1,2-Dichloroethene	48 ug/L	16 ug/L	NS	NS	NS	NS	NS
Methyl tert-Butyl Ether	ND	3 ug/L	NS	NS	NS	NS	NS
Toluene	160 ug/L	3 ug/L	NS	NS	NS	NS	NS
Ethylbenzene	25 ug/L	ND	NS	NS	NS	NS	NS
1,3,5 - Trimethylbenzene	470 ug/L	ND	NS	NS	NS	NS	NS
1,2,4 - Trimethylbenzene	920 ug/L	ND	NS	NS	NS	NS	NS

EE-4	2/12
cis-1,2-Dichloroethene	3.3 ug/L(J)
trans-1,2-Dichloroethene	8.6 ug/L
Tetrachloroethene	.68 ug/L(J)
Vinyl chloride	4.6 ug/L(J)
Cyclohexane	8.4 ug/L
Isopropylbenzene	3.3 ug/L(J)
Methylcyclohexane	17 ug/L
Trichloroethene	.81 ug/L(J)

ESI-5/ESI-5R	5/02	9/03	6/04	8/07	5/09	5/10	6/12
Tetrachloroethene	ND	0.52 ug/L	0.196 ug/L	4.6 ug/L(J)	ND	ND	ND

ESI-4/EE-1	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Chloroform	ND	0.54 ug/L	0.521 ug/L	ND	ND	ND	NS
1,1,1-Trichloroethane	0.7 ug/L	2.4 ug/L	14.7 ug/L	9.6 ug/L(J)	12 ug/L	7.5 ug/L	NS
Trichloroethene	0.5 ug/L	3.6 ug/L	ND	ND	ND	ND	NS
Tetrachloroethene	14 ug/L	63 ug/L	5.91 ug/L	3.1 ug/L(J)	4.5 ug/L(J)	3.8 ug/L(J)	NS
cis-1,2-Dichloroethene	ND	1.2 ug/L	ND	ND	ND	ND	NS
Methyl tert-butyl ether	ND	ND	8.51 ug/L	4.2 ug/L(J)	1.6 ug/L(J)	ND	NS
Trihalomethanes, Total	NA	NA	0.521 ug/L	ND	ND	NA	NS
1,1-Dichloroethane	ND	ND	1.16 ug/L	ND	ND	ND	NS
1,1-Dichloroethene	ND	ND	0.284 ug/L	ND	ND	ND	NS
2-Butanone	NA	NA	0.965 ug/L	ND	ND	ND	NS
Benzene	ND	ND	0.325 ug/L	ND	ND	ND	NS
Acetone	NA	ND	1.85 ug/L	ND	ND	ND	NS

RW-1	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Chloroform	ND	ND	0.839 ug/L	ND	1 ug/L(J)	ND	.61 ug/L(J)
cis-1,2-Dichloroethene	ND	ND	2.31 ug/L	ND	2.4 ug/L(J)	ND	1.0 ug/L(J)
1,1-Dichloroethane	ND	ND	0.275 ug/L	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.531 ug/L	ND	1.3 ug/L(J)	ND	1.3 ug/L(J)
Trihalomethanes, Total	NA	NA	0.839 ug/L	ND	1 ug/L(J)	NA	ND
Trichloroethene	ND	1 ug/L	2.09 ug/L	ND	1.5 ug/L(J)	ND	1.5 ug/L(J)
Tetrachloroethene	4 ug/L	74 ug/L	410 ug/L	140 ug/L	190 ug/L(J)	54 ug/L	250 ug/L(J)
Methyl tert-Butyl Ether	ND	3 ug/L	1.03 ug/L	ND	ND	ND	ND
Chloromethane	NA	NA	NA	NA	NA	NA	.91 ug/L(J)

MW-10	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Acetone	ND	14 ug/L	NS	NS	NS	NS	NS
cis-1,2-Dichloroethene	ND	3 ug/L	NS	NS	NS	NS	NS
Tetrachloroethene	12 ug/L	ND	NS	NS	NS	NS	NS

MPI-7I/MPI-7IR	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Trichloroethene	NA	2 ug/L	1.54 ug/L	ND	6.5 ug/L	ND	ND
Tetrachloroethene	NA	4 ug/L	5.13 ug/L	2.9 ug/L(J)	490 ug/L(J)	ND	1.8 ug/L(J)
cis-1,2-Dichloroethene	NA	8 ug/L	8.53 ug/L	12 ug/L	18 ug/L	10 ug/L	ND
2-Butanone	NA	ND	1.17 ug/L	ND	ND	ND	ND
Methyl tert-butyl ether	NA	ND	0.178 ug/L	ND	ND	ND	ND
Vinyl chloride	NA	ND	0.223 ug/L	ND	ND	ND	ND
Chloroform	–	–	–	ND	11 ug/L(J)	ND	ND
1,1,1-Trichloroethane	–	–	–	ND	1.1 ug/L(J)	ND	ND
Bromodichloromethane	–	–	–	ND	1.9 ug/L(J)	ND	ND
Chloromethane	NA	NA	NA	NA	NA	NA	1.4 ug/L(J)

PW-2	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12
Trichloroethene	ND	11 ug/L	5.57 ug/L	4.4 ug/L	9.3 ug/L(J)	7.5 ug/L	6.5 ug/L	2.2 ug/L(J)
Tetrachloroethene	430 ug/L	1400 ug/L	1090 ug/L	2000 ug/L	1300 ug/L	1200 ug/L(J)	910 ug/L(J)	770 ug/L(J)
cis-1,2-Dichloroethene	ND	5 ug/L	3.82 ug/L	2.0 ug/L	ND	2.8 ug/L(J)	1.3 ug/L(J)	ND
Methyl tert-Butyl Ether	ND	3 ug/L	0.617 ug/L	ND	ND	ND	ND	ND
Acetone	14 ug/L	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	24 ug/L	ND	ND	ND	ND	ND	ND	ND
Xylene	65 ug/L	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	0.290 ug/L	ND	ND	4.1 ug/L(J)	ND	ND
1,1,1-Trichloroethane	ND	ND	0.344 ug/L	ND	ND	ND	ND	ND

ESI-2/ESI-2R	5/92	4/94	2/12
Tetrachloroethene	1 ug/L	NS	1.1 ug/L(J)
Chloromethane	NA	NA	.89 ug/L(J)

ESI-3	5/02	9/03	6/04	8/07	5/10	2/12
1,1,1Trichloroethane	ND	1 ug/L	0.882 ug/L	2.0 ug/L(J)	ND	2.0 ug/L(J)
Trichloroethene	ND	2 ug/L	7.03 ug/L	ND	ND	.77 ug/L(J)
Tetrachloroethene	220 ug/L	440 ug/L	655 ug/L	250 ug/L	250 ug/L	200 ug/L(J)
cis-1,2-Dichloroethene	ND	4 ug/L	12.4 ug/L	2.8 ug/L	ND	ND
Methyl tert-Butyl Ether	9 ug/L	1 ug/L	1.02 ug/L	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.469 ug/L	ND	ND	.76 ug/L(J)
Chloroform	ND	ND	1.14 ug/L	2.4 ug/L	ND	.84 ug/L(J)
Trihalomethanes, Total	NA	NA	1.14 ug/L	ND	NA	ND
Chloromethane	NA	NA	NA	NA	NA	.95 ug/L(J)

MW-11	5/10	2/12
cis-1,2-Dichloroethene	3.4 ug/L(J)	1.2 ug/L(J)
Trichloroethene	6 ug/L	5.8 ug/L
Tetrachloroethene	1600 ug/L(J)	1500 ug/L(J)
Chloromethane	NA	0.68 ug/L(J)
trans-1,2-Dichloroethene	NA	1.2 ug/L(J)

MPI-10B	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Trichloroethene	ND	1 ug/L	5.03 ug/L	ND	5.1 ug/L	4.3 ug/L(J)	3.6 ug/L(J)
Benzene	ND	3 ug/L	ND	ND	ND	ND	ND
Tetrachloroethene	82 ug/L	320 ug/L	1070 ug/L	790 ug/L	450 ug/L(J)	250 ug/L(J)	250 ug/L(J)
cis-1,2-Dichloroethene	ND	2 ug/L	5.09 ug/L	ND	3.3 ug/L(J)	1.3 ug/L(J)	1.1 ug/L(J)
Methyl tert-Butyl Ether	ND	2 ug/L	1.89 ug/L	ND	ND	ND	1.1 ug/L(J)
Trihalomethanes, Total	NA	NA	0.149 ug/L	ND	ND	NA	ND
trans-1,2-Dichloroethene	ND	ND	0.588 ug/L	ND	ND	ND	ND
Chloroform	ND	ND	0.149 ug/L	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.24 ug/L	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.926 ug/L	ND	ND	ND	ND

MW-14	5/02	9/03	6/04	8/07	5/09	5/10	2/12
Tetrachloroethene	NS	NS	180 ug/L	NS	NS	NS	NS

ESI-1/ESI-1 (REPLACEMENT)	5/92	1/93	4/94	6/04	8/07	5/09	5/10	2/12
1,2 Dichloroethene	2 ug/L	ND	ND	NA	ND	NS	NS	NS
Trichloroethene	2 ug/L	ND	3 ug/L	1.28 ug/L	ND	NS	NS	NS
Tetrachloroethene	2 ug/L	0.9 ug/L	ND	1.47 ug/L	9.3 ug/L(J)	NS	NS	NS
Carbon disulfide	NA	NA	ND	0.557 ug/L	ND	NS	NS	NS
Chloroform	NA	NA	ND	0.485 ug/L	ND	NS	NS	NS
cis-1,2-Dichloroethene	NA	NA	NA	0.103 ug/L	ND	NS	NS	NS

MPI-2S/MPI-2SR	4/94	1/95	6/04	2/12
1,1,1 Trichloroethane	14 ug/L	12 u/L	NS	4.1 ug/L(J)
Benzene	ND	2 ug/L	NS	ND
Chloroform	NA	NA	NA	1.8 ug/L(J)
Tetrachloroethene	NA	NA	NA	1.9 ug/L(J)

LEGEND

- SANITARY SEWER MANHOLE
- MONITORING WELL
- PUMPING WELL
- PIEZOMETER
- EXISTING STRUCTURES AND FEATURES
- FENCE
- PAINE STREET — MAJOR AREA STREETS
- WELLS CIRCLED = NOT FOUND (EITHER ABANDONED, DECOMMISSIONED, OR MISSING)

WELL ABBREVIATIONS

EEI	(ECOLOGY & ENVIRONMENT)	PW	PUMPING WELL (TYREE)
ESI	EMPIRE SOILS WELL (ENVIRONMENTAL SCIENCE)	PZ	PIEZOMETER (TYREE)
MPI	OBSERVATION WELL (MALCOLM-PIRNIE)	RW	RECOVERY WELL (BY OTHERS)
MW	MONITORING WELL (MATRIX)	SP	SPARGE POINT
NA	DATA NOT AVAILABLE	VP	VAPOR COLLECTION POINT
OW	OBSERVATION WELL	MPI-7IR	REPLACEMENT WELL

ANALYTICAL ABBREVIATIONS

ug/L	MICROGRAMS PER LITER
ND	NOT DETECTED
NS	NOT SAMPLED
NA	NOT ANALYZED
–	NOT ANALYZED OR NOT DETECTED
(J)	ESTIMATED VALUE
(U)	ANALYZED FOR BUT NOT DETECTED AT THE DETECTION LIMIT INDICATED

NOTES:

1. ONLY DETECTED COMPOUNDS ARE PRESENTED.
2. HORIZONTAL CONTROL IS BASED UPON THE NEW YORK STATE PLANE COORDINATE SYSTEM, WEST ZONE, 1983 ADJUSTMENT (NAD 83).
3. ELEVATIONS ARE BASED UPON NORTH GEODETIC VERTICAL DATUM, 1929 (NGVD 1929).
4. BENCHMARK IS LOCATED NEAR THE NORTHEAST CORNER OF MAIN STREET AND PAINE STREET, BEING A BRASS DISC SET IN THE TOP OF CONCRETE BASE – ELEVATION 916.64'
5. ALL ANALYTICAL WORK PERFORMED IN JUNE 2004 WAS ANALYZED USING METHOD 524.1 FOR VOLATILE ORGANIC COMPOUNDS.
6. AUGUST 2007 ANALYTICAL WORK PERFORMED USING CLP METHOD OLM04.2.

SEE FIGURE 1 FOR SUMMARY OF MONITORING WELL INFORMATION WEST OF WHALEY AVE AND PAINE STREET.

SCALE IN FEET: 0 – 60 – 120 – 180

REFERENCE DRAWINGS

DWG NO.	DATE	DESCRIPTION
DEC 31 ISO.dwg	7/18/94	ISOPOTENTIAL MAP AND CROSS SECTIONS 4/13/94 GROUNDWATER LEVELS MALCOLM PIRNIE INC.
0266G003.dwg	10/17/00	REMEDIAL DESIGN PIPING AND WELL LAYOUT PLAN MALCOLM PIRNIE INC.

REVISIONS

NO.	DATE	DWN	APP'D	DESCRIPTION
D	7/20/12	KMK	MGS	UPDATED PER FEB/JUNE 2012 SAMPLE EVENT
C	6/8/10	KMK	MGS	UPDATED PER MAY 2010 SAMPLE EVENT
B	6/30/09	KMK	MGS	UPDATED PER MAY 2009 SAMPLE EVENT
A	12/6/07	KMK	MGS	UPDATED PER AUGUST 2007 SAMPLE EVENT

FIGURE 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA
MR.C'S DRY CLEANERS SITE LOCATION MAP (EAST)
EAST AURORA, NEW YORK

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EN-002700-0013-03TTO
MrC_cVOC_in_GW.srf - February/June 2012

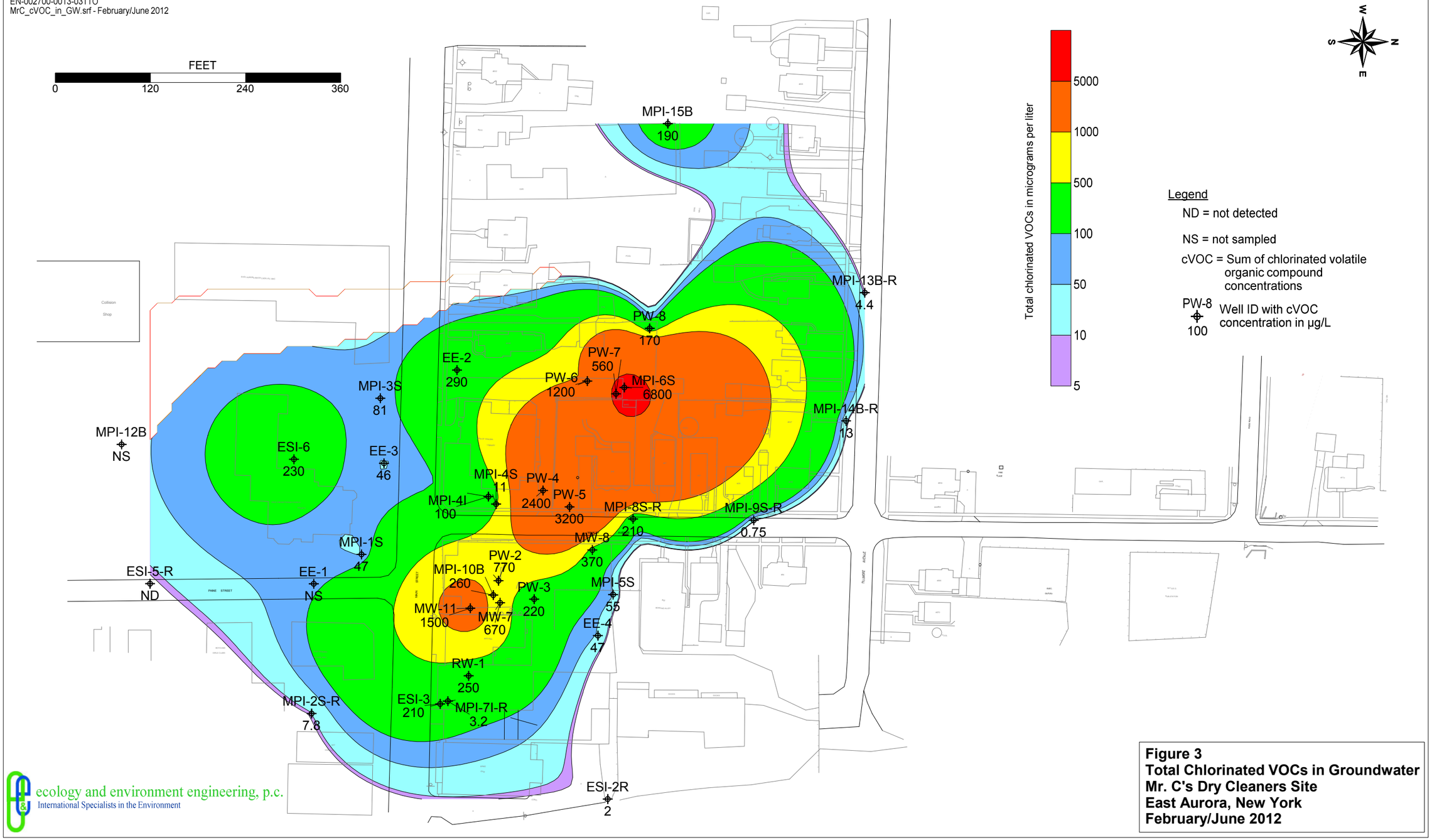

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Figure 3
Total Chlorinated VOCs in Groundwater
Mr. C's Dry Cleaners Site
East Aurora, New York
February/June 2012

EN-002700-0013-03TTO
MrC_PCE_in_GW_2012.srf - February/June 2012

FEET
0 120 240 360

Tetrachloroethene in micrograms per liter
5000
1000
500
100
50
10
5

Legend
ND = not detected
NS = not sampled
PCE = Tetrachloroethene (a.k.a. perchloroethylene)
PW-8 100 Well ID with PCE concentration in µg/L

MPI-15B 1.1
MPI-13B-R 3.6
PW-8 140
EE-2 ND
PW-6 1000
MPI-6S 6800
PW-7 550
MPI-14B-R 10
MPI-3S ND
MPI-12B NS
ESI-6 200
EE-3 3.3
PW-4
PW-5 2200
MPI-4I 14
MPI-8S-R 3100
MPI-9S-R 0.75
MPI-4S ND
MW-8 180
MPI-1S 44
MPI-10B 250
PW-2 770
ESI-5-R ND
EE-1 NS
MPI-5S 29
PW-3 220
MW-11 1500
EE-4 0.7
MW-7 670
RW-1 250
MPI-2S-R 1.9
ESI-3 200
MPI-7I-R 1.8
ESI-2R 1.1

EAST AURORA BUICK CADILLAC GMC
Collision Shop
PAINE STREET
MAIN STREET
GENESEE STREET
WALDEN AVENUE
FILLMORE AVENUE
RIDGE ROAD
TOWN OF AURORA LIBRARY
FIRST PRESBYTERIAN CHURCH SOCIETY
BOYS AND GIRLS CLUBS
EAST AURORA ROMAN CATHOLIC CHURCH
VET HOSPITAL
SPIKE GYM
BOWLING ALLEY
DOCKS
ELEC. OUTLET
N.Y.S.E.G. SUB-STATION
POOL
SHED
GAR.
CONC.
FIRE PLACE

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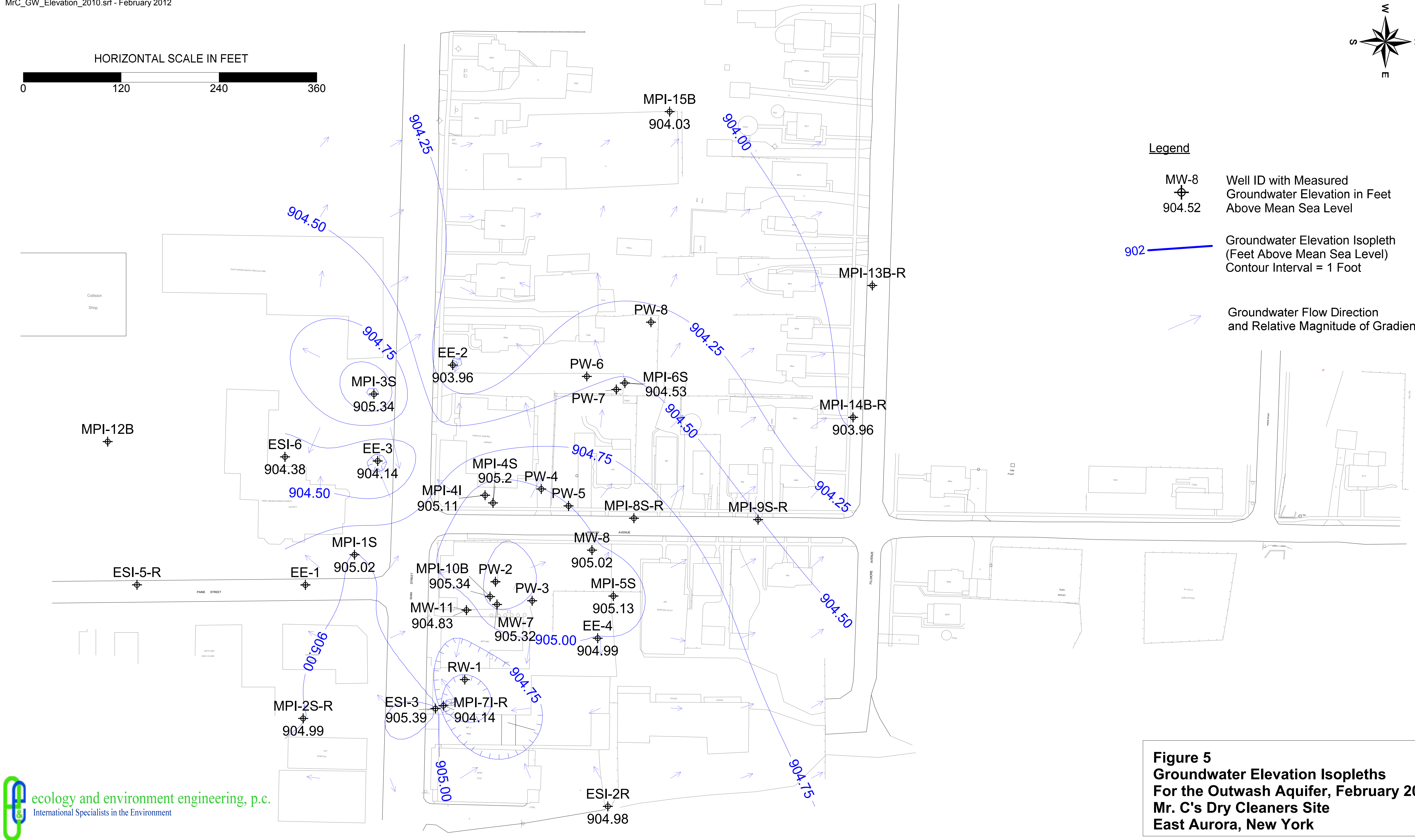
Figure 4
Tetrachloroethene in Groundwater
Mr. C's Dry Cleaners Site
East Aurora, New York
February/June 2012

002700.DC13.02.01.02
MrC_GW_Elevation_2010.srf - February 2012



Legend

MW-8 904.52 — Well ID with Measured Groundwater Elevation in Feet Above Mean Sea Level

902 — Groundwater Elevation Isopleth (Feet Above Mean Sea Level) Contour Interval = 1 Foot

Groundwater Flow Direction and Relative Magnitude of Gradient

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Figure 5
Groundwater Elevation Isopleths
For the Outwash Aquifer, February 2012
Mr. C's Dry Cleaners Site
East Aurora, New York

ATTACHMENT A

DATA USABILITY SUMMARY REPORTS

Data Usability Summary Report	Project: Mr. C's Cleaners
Date Completed: June 29, 2012	Completed by: J. Christopher

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness per NYSDEC Division of Environmental Remediation Guidance for the Development of DUSRs (March 2010). Specific criteria for QC limits were obtained from the project QAPP. Compliance with the project QA program is indicated on the in the checklist and tables. Any major or minor concerns affected data usability are summarized listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

ProjectID	Lab Work Order
Mr. C's Cleaners	L0271

Table 1 Sample Summary Tables from Electronic Data Deliverable

Work Order	Matrix	Sample ID	Lab ID	ID Corrections
L0271	GW	EE-2-2812	L0271-01	
L0271	GW	MPI-1S2912	L0271-02	
L0271	GW	MPI-2S2912	L0271-03	
L0271	GW	MPI-14BR2912	L0271-04	
L0271	GW	MPI-5S-2912	L0271-05	
L0271	GW	RW-1-2912	L0271-06	
L0271	GW	RW-1-2912Q	L0271-07	
L0271	GW	PW-2-2912	L0271-08	
L0271	GW	MPI-4S-2612	L0271-09	
L0271	GW	TB01-2612	L0271-10	
L0271	GW	MPI-4I-2612	L0271-11	
L0271	GW	EE-4-2612	L0271-12	
L0271	GW	MW8-2612	L0271-13	
L0271	GW	MPI-6S-2712	L0271-14	
L0271	GW	MW7-2712	L0271-15	
L0271	GW	MPI-10B-2712	L0271-16	
L0271	GW	EE-3-2712-Q	L0271-17	
L0271	GW	MPI-15B-2712	L0271-18	
L0271	GW	ESI-6-2712	L0271-19	
L0271	GW	MPI-7IR-2712	L0271-20	

Data Usability Summary Report	Project: Mr. C's Cleaners
Date Completed: June 29, 2012	Completed by: J. Christopher

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Cooler Receipt Form?	Yes
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	Yes – Project QC goals have been met.
All ASP Forms complete?	Yes
Case narrative present and complete?	Yes
Any holding time violations (See table below)?	No

The following tables are presented at the end of this DUSR and provided summaries of results outside QC criteria.

- Method Blanks Results (Table 2)
- Surrogates Outside Limits (Table 3)
- MS/MSD Outside Limits (Table 4)
- LCS Outside Limits (Table 5)
- Re-analysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to Tables List

Volatile Organics by GCMS	
Description	**Notes and Qualifiers**
Any compounds present in method, trip and field blanks (see Table 2)?	Yes. One organic compound was detected in the trip blank for this SDG.
For samples, if results are <5 times the blank or < 10 times blank for common laboratory contaminants then "U" flag data. Qualification also applies to TICs.	No results qualified because of trip blank contamination.
Surrogate for method blanks and LCS within limits?	Yes
Surrogate for samples and MS/MSD within limits? (See Table 3). All samples should be re-analyzed for VOCs? Samples should re-analyzed if >1 BN and/or > AP for BNAs is out. Matrix effects should be established.	Yes
Laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes
MS/MSD within QC criteria (see Table 4)? If out and LCS is compliant, then J flag positive data in original sample due to matrix?	No. MS recoveries for 1,2-dichloropropane, benzene, chloroethane, tetrachloroethene, and trichlorofluoromethane and MSD recoveries for chloroethane were above criteria. MSD recovery for tetrachloroethene was below criteria.

Data Usability Summary Report	Project: Mr. C's Cleaners
Date Completed: June 29, 2012	Completed by: J. Christopher

Volatile Organics by GCMS	
Description	**Notes and Qualifiers**
LCS within QC criteria (see Table 5)? If out, and the recovery high with no positive values, then no data qualification is required.	No. LCS and LCSD recoveries for acetone were above criteria.
Were any samples re-analyzed or diluted (see Table 6)? For any sample re-analysis and dilutions is only one reportable result by flagged?	Yes.
For TICs are there any system related compounds that should not be reported?	No.
Do field duplicate results show good precision for all compounds except TICs (see Table 7)?	Yes. Samples EE-3-2712-Q and EE-3-2712 (in SDG L0272) are a field duplicate sample pair – see Table 7.

Summary of Potential Impacts on Data Usability
Major Concerns
None
Minor Concerns
Sample results qualified because of trip blank contamination and LCS/LCSD and MS/MSD recoveries.

Table 2 - List of Positive Results for Blank Samples

Method	Sample ID	Samp Type	Analyte	Result	Qual	Anal Type	Units	MDL	PQL
SW8260	TB01-2612	BLK	Methylene chloride	1.2	J	W	µg/L	0.41	5.0

Table 2A - List of Samples Qualified for Method Blank Contamination
None

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 - List of Samples with Surrogates outside Control Limits
None

Table 4 - List MS/MSD Recoveries and RPDs outside Control Limits

Sample ID	Analyte	Method	Rec.	Low Limit	High Limit	No. of Affected Samples	Samp Qual
L0271-08AMS	Tetrachloroethene	SW8260	539	45	150	17	J
L0271-08AMSD	Tetrachloroethene	SW8260	59	45	150	17	J

Table 5 - List LCS Recoveries outside Control Limits

Method	Sample ID	Analyte	Orig Result	Rec	Dilution Factor	Low Limit	High Limit	Sample Qual
SW8260	LCS-64698	Acetone	ND	144	1	40	140	J
SW8260	LCS-64727	Acetone	ND	156	1	40	140	J
SW8260	LCSD-64727	Acetone	ND	159	1	40	140	J

Table 6 –Samples that were Reanalyzed
None.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	EE-3-2712	EE-3-2712-Q	RPD	Rating	Sample Qualifier
SW8260	cis-1,2-Dichloroethene	0.70 J	0.66 J	5.88	Good	None
SW8260	Methyl tert-butyl ether	29	30	3.39	Good	None
SW8260	Tetrachloroethene	3.3 J	4.0 J	19.2	Good	None
SW8260	Vinyl chloride	13	13	0	Good	None

Key:
A = Analyte
NC = Not Calculated
ND = Not Detected
PQL = Practical Quantitation Limit
RPD = Relative Percent Difference
T = Tentatively Identified Compound

Data Usability Summary Report	Project: Mr. C's Cleaners
Date Completed: June 29, 2012	Completed by: J. Christopher

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness per NYSDEC Division of Environmental Remediation Guidance for the Development of DUSRs (March 2010). Specific criteria for QC limits were obtained from the project QAPP. Compliance with the project QA program is indicated on the in the checklist and tables. Any major or minor concerns affected data usability are summarized listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

ProjectID	Lab Work Order
Mr. C's Cleaners	L0272

Table 1 Sample Summary Tables from Electronic Data Deliverable

Work Order	Matrix	Sample ID	Lab ID	ID Corrections
L0272	GW	MPI-3S-2712	L0272-01	
L0272	GW	ESI-3-2812	L0272-05	
L0272	GW	ESI-2R-2812	L0272-06	
L0272	GW	EE-3-2712	L0272-07	
L0272	GW	MW-11-2812	L0272-08	
L0272	GW	MW-11-2812Q	L0272-09	
L0272	GW	PW 3-2912	L0272-10	
L0272	GW	PW 4-2912	L0272-11	
L0272	GW	PW 5-2912	L0272-12	
L0272	GW	PW 6-2912	L0272-13	
L0272	GW	PW 7-2912	L0272-14	
L0272	GW	PW 8-2912	L0272-15	

Data Usability Summary Report	Project: Mr. C's Cleaners
Date Completed: June 29, 2012	Completed by: J. Christopher

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Cooler Receipt Form?	Yes
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	Yes – Project QC goals have been met.
All ASP Forms complete?	Yes
Case narrative present and complete?	Yes
Any holding time violations (See table below)?	No. Five samples were diluted for analysis due to high concentrations of tetrachloroethene; the dilutions were performed 1-2 days beyond holding time for sample preparation. Only the detected tetrachloroethene results were reported for those dilutions; therefore they are qualified with J.

The following tables are presented at the end of this DUSR and provided summaries of results outside QC criteria.

- Method Blanks Results (Table 2)
- Surrogates Outside Limits (Table 3)
- MS/MSD Outside Limits (Table 4)
- LCS Outside Limits (Table 5)
- Re-analysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to Tables List

Volatile Organics by GCMS	
Description	**Notes and Qualifiers**
Any compounds present in method, trip and field blanks (see Table 2)?	No.
For samples, if results are <5 times the blank or < 10 times blank for common laboratory contaminants then "U" flag data. Qualification also applies to TICs.	No results qualified because of trip blank contamination.
Surrogate for method blanks and LCS within limits?	Yes
Surrogate for samples and MS/MSD within limits? (See Table 3). All samples should be re-analyzed for VOCs? Samples should re-analyzed if >1 BN and/or > AP for BNAs is out. Matrix effects should be established.	Yes
Laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes

Data Usability Summary Report	Project: Mr. C's Cleaners
Date Completed: June 29, 2012	Completed by: J. Christopher

Volatile Organics by GCMS	
Description	**Notes and Qualifiers**
MS/MSD within QC criteria (see Table 4)? If out and LCS is compliant, then J flag positive data in original sample due to matrix?	No. Spike recovery for methyl acetate was just below criteria for the MS, however, recovery for the MSD and the RPD were within criteria; therefore no results were qualified.
LCS within QC criteria (see Table 5)? If out, and the recovery high with no positive values, then no data qualification is required.	No. LCS and LCSD recoveries for acetone were above criteria. (Acetone was not detected in any samples.)
Were any samples re-analyzed or diluted (see Table 6)? For any sample re-analysis and dilutions is only one reportable result by flagged?	Yes.
For TICs are there any system related compounds that should not be reported?	No.
Do field duplicate results show good precision for all compounds except TICs (see Table 7)?	Yes. Samples EE-3-2712-Q (in SDG L0271) and EE-3-2712 and samples MW-11-2812 andMW-11-2812Q are field duplicate sample pairs – see Table 7.

Summary of Potential Impacts on Data Usability
Major Concerns
None
Minor Concerns
Sample results qualified due to dilutions performed outside holding time and potentially qualified because LCS/LSCD and/or MS/MSD recoveries outside criteria.

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 - List of Samples with Surrogates outside Control Limits
None

Table 4 - List MS/MSD Recoveries and RPDs outside Control Limits
None.

Table 5 - List LCS Recoveries outside Control Limits

Method	Sample ID	Analyte	Orig Result	Rec	Dilution Factor	Low Limit	High Limit	Sample Qual
SW8260	LCS-64727	Acetone	ND	156	1	40	140	J
SW8260	LCSD-64727	Acetone	ND	159	1	40	140	J

Table 6 –Samples that were Reanalyzed
None.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	EE-3-2712	EE-3-2712-Q	RPD	Rating	Sample Qualifier
SW8260	cis-1,2-Dichloroethene	0.70 J	0.66 J	5.88	Good	None
SW8260	Methyl tert-butyl ether	29	30	3.39	Good	None
SW8260	Tetrachloroethene	3.3 J	4.0 J	19.2	Good	None
SW8260	Vinyl chloride	13	13	0	Good	None
Method	**Analyte**	**MW-11-2812**	**MW-11-2812Q**	**RPD**	**Rating**	**Sample Qualifier**
SW8260	Chloromethane	0.68 J	0.92 J	30.0	Good	None
SW8260	cis-1,2-Dichloroethene	1.2 J	1.2 J	0	Good	None
SW8260	Tetrachloroethene	1500	1500	0	Good	None
SW8260	trans-1,2-Dichloroethene	1.2 J	1.2 J	0	Good	None
SW8260	Trichloroethene	5.8	5.8	0	Good	None

Key:
A = Analyte
NC = Not Calculated
ND = Not Detected
PQL = Practical Quantitation Limit
RPD = Relative Percent Difference
T = Tentatively Identified Compound

Data Usability Summary Report	Project: Mr. C's Cleaners
Date Completed: June 27, 2012	Completed by: J. Christopher

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness per NYSDEC Division of Environmental Remediation Guidance for the Development of DUSRs (March 2010). Specific criteria for QC limits were obtained from the project QAPP. Compliance with the project QA program is indicated on the in the checklist and tables. Any major or minor concerns affected data usability are summarized listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

ProjectID	Lab Work Order
Mr. C's Cleaners	L1227

Table 1 Sample Summary Tables from Electronic Data Deliverable

Work Order	Matrix	Sample ID	Lab ID	ID Corrections
L1227	GW	TB1-060112	L1227-01	
L1227	GW	ES1-5-R-060112	L1227-02	
L1227	GW	MP1-8S-R-060112	L1227-03	
L1227	GW	RB1-060112	L1227-04	
L1227	GW	MP1-9S-R-060112	L1227-05	
L1227	GW	MP1-13B-R-060112	L1227-06	
L1227	GW	MP1-13B-R-060112/Q	L1227-07	

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes
Did coolers arrive at lab between 2 and 6^{o}C and in good condition as indicated on COC and Cooler Receipt Form?	Yes
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	Yes – Project QC goals have been met.
All ASP Forms complete?	Yes
Case narrative present and complete?	Yes
Any holding time violations (See table below)?	No

The following tables are presented at the end of this DUSR and provided summaries of results outside QC criteria.

- Method Blanks Results (Table 2)
- Surrogates Outside Limits (Table 3)
- MS/MSD Outside Limits (Table 4)

- LCS Outside Limits (Table 5)
- Re-analysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to Tables List

Volatile Organics by GCMS	
Description	**Notes and Qualifiers**
Any compounds present in method, trip and field blanks (see Table 2)?	Yes. One organic compound was detected in the trip blank for this SDG.
For samples, if results are <5 times the blank or < 10 times blank for common laboratory contaminants then "U" flag data. Qualification also applies to TICs.	Results qualified as shown in Table 2B.
Surrogate for method blanks and LCS within limits?	Yes
Surrogate for samples and MS/MSD within limits? (See Table 3). All samples should be re-analyzed for VOCs? Samples should re-analyzed if >1 BN and/or > AP for BNAs is out. Matrix effects should be established.	Yes
Laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes
MS/MSD within QC criteria (see Table 4)? If out and LCS is compliant, then J flag positive data in original sample due to matrix?	Yes
LCS within QC criteria (see Table 5)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes
Were any samples re-analyzed or diluted (see Table 6)? For any sample re-analysis and dilutions is only one reportable result by flagged?	No.
For TICs are there any system related compounds that should not be reported?	No.
Do field duplicate results show good precision for all compounds except TICs (see Table 7)?	Yes. Samples MP1-13B-R-060112 and MP1-13B-R-060112/Q are a field duplicate sample pair – see Table 7.

Summary of Potential Impacts on Data Usability
Major Concerns
None
Minor Concerns
Result qualified due to trip blank contamination.

Table 2 - List of Positive Results for Blank Samples

Method	Sample ID	Samp Type	Analyte	Result	Qual	Anal Type	Units	MDL	PQL
SW8260	TB1-060112	BLK	Methylene chloride	1.3	J	W	µg/L	0.41	5.0

Table 2A - List of Samples Qualified for Method Blank Contamination

None

Table 2B - List of Samples Qualified for Field Blank Contamination

Method	Trip Blank	Matrix	Analyte	Blank Result	Sample Result	Lab Qual	PQL	Affected Samples	Sample Flag
SW8260	TB1-060112	GW	Methylene chloride	1.3	2.1	J	5.0	RB1-060112	U Qualified

Table 3 - List of Samples with Surrogates outside Control Limits

None

Table 4 - List MS/MSD Recoveries and RPDs outside Control Limits

None.

Table 5 - List LCS Recoveries outside Control Limits

None.

Table 6 –Samples that were Reanalyzed

None.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	MP1-13B-R-060112	MP1-13B-R-060112/Q	RPD	Rating	Sample Qualifier
SW8260	Tetrachloroethene	3.6 J	3.6 J	0	Good	None
SW8260	Trichloroethene	0.80 J	0.81 J	1.24	Good	None

Key:
A = Analyte
NC = Not Calculated
ND = Not Detected
PQL = Practical Quantitation Limit
RPD = Relative Percent Difference
T = Tentatively Identified Compound