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January 16, 2015

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 D007617-11, 2014 Long-term Groundwater Monitoring Results

Dear Mr. Welling:

Ecology and Environment Engineering, P.C. (EEEPC) is pleased to provide the 2014 Long-term Groundwater Monitoring Results Report for the Mr. C's Dry Cleaners Site. The groundwater monitoring effort, analytical requirements, and quality assurance/quality control (QA/QC) review were performed in accordance with the approved Site Management Plan (SMP). At the request of the New York State Department of Environmental Conservation (NYSDEC), the complete results of the 2014 long-term groundwater monitoring event will be presented in the 2014 Periodic Review Report (PRR). This letter report presents a summary of the monitoring results and pertinent field information.

Groundwater monitoring around the Mr. C's site has been performed under EEEPC's Standby Contract since 2003. 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). The SMP for the site requires monitoring the extent of the PCE and total VOC plume that resulted from previous dry cleaning operations at the Mr. C's Dry Cleaners site.

Fieldwork was performed by EEEPC personnel from October 14 to 23, 2014. A total of 32 wells and four piezometers were sampled during the 2014 long-term groundwater monitoring event. Additional sample locations were added to this long-term groundwater monitoring event. Performance monitoring of the Mr. C's bioremediation pilot study was conducted between May 2013 and June 2014 at eight locations, including four monitoring wells (MPI-6S, MW-8, MPI-8S-R, and MPI-5S) and four piezometers (PZ-3B, PZ-5B, PZ-6A, and PZ-8C). Although the pilot study monitoring concluded in June 2014, anaerobic bioremediation is still occurring within the plume, so the piezometers were sampled to supplement the long-term monitoring results.

Well Purging and Sampling Procedures

All sampled monitoring wells and piezometers were purged prior to sampling in accordance with Appendix I of the SMP. The Mr. C's Monitoring Well Sampling Plan in Appendix I of the SMP, requires that all wells are pumped using one of two methods: low-flow purging and sampling or standard purging and sampling. The bioremediation performance monitoring wells and piezometers were sampled using the low-flow sampling method, while all other wells were sampled using standard purging and sampling method.

The monitoring wells were purged using a submersible pump with new or dedicated polyethylene tubing or disposable polyethylene bailers on new polypropylene line. New polypropylene line was used for the bioremediation performance monitoring wells and piezometers; dedicated line was used for the other monitoring wells. Prior to purging, static water levels were measured to within ±0.01 foot in each well using a Solinst water level meter.

All of the monitoring 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 on-site treatment facility for processing. Temperature, pH, specific conductance, turbidity, and oxygen reduction potential (ORP) were measured and recorded, at a minimum, prior to purging, after each well volume was purged, and just prior to sampling using a LaMotte 2020 turbidity meter, YSI pro plus quarto flow-through cell, and/or 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 2014 PRR.

The eight groundwater pumping wells (RW-1, PW-2, PW-3, PW-4, PW-5, PW-6, PW-7, and PW-8) were sampled using dedicated new bailers. The pumping wells PW-5 and PW-7 were not purged before sampling because they contained injected material from the bioremediation pilot study, which was conducted between May 2013 and June 2014. Pumping well PW-6 was off due to maintenance. Pumping wells RW-1, PW-2, PW-3, PW-4, and PW-8 were not purged prior to sampling, because they were continuously pumping groundwater before the 2015 long-term groundwater monitoring program was conducted.

The samples collected as part of the long-term monitoring program were analyzed for VOCs by Spectrum Analytical (formerly Mitkem Corporation) using U.S. Environmental Protection Agency (EPA) Method 8260. A summary of the positive detections 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 2014 PRR.

Quality Control and Quality Assurance

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. Several results were qualified and one QA/QC issues was noted:

- Methyl-tert-butyl ether (MTBE) was estimated and qualified as J in sample EE-3-1016, because the analyte exceeded recovery in the laboratory control sample.

- Methylene chloride was detected in RB01-1022. The analyte was not detected in the samples; therefore, there is no impact to the data usability.
- Sample PZ-5B-1021 was initially analyzed at a fourfold dilution. Elevated reporting limits are provided for the initial analysis. In sample PZ-5B-1021, vinyl chloride was not detected at the reporting limit of 2.0 µg/L. The reporting limit for vinyl chloride at the fourfold dilution is equal to its NYSDEC Class GA groundwater standard, which impacts data usability.

Groundwater Monitoring Results

Figures 1 and 2 summarize historical VOC concentrations detected across the site. Figures 3 and 4 summarize tetrachloroethene and total chlorinated VOCs in groundwater and were generated using Surfer modeling software. The iso-contours on Figure 3 represent only PCE and its daughter products within the plume. Other chlorinated VOCs in the plume were not included because their results were not consistent from year to year and they do not necessarily relate to the original PCE contamination from the site. PCE daughter products include: trichloroethene [TCE], cis-1,2-dichloroethene [cis-DCE], trans-1,2-dichloroehtene [trans-DCE], 1,1-dichloroethene and vinyl chloride. Figure 4 shows only the PCE contaminant plume, based on Surfer software modeling interpretation of the iso-contours. Figure 5 presents a groundwater contour map. Depth-to-water-level readings were not recorded at site pumping wells during the long-term groundwater monitoring; therefore, pumping well and piezometer groundwater levels taken from the October 2014 Operation, Maintenance, and Monitoring report were used instead.

Table 1 provides the sample analytical results for the groundwater from each monitoring well. Bold values shown in the table denote positive analytical results. Highlighted boxes in the table denote either values that exceed NYSDEC groundwater standards or exceed groundwater guidance values.

The groundwater monitoring results are summarized below.

- Six VOCs (PCE, TCE, cis-DCE, trans-DCE, vinyl chloride, and MTBE) were detected in the groundwater samples at levels that exceed their NYSDEC Class GA groundwater standards and the guidance values[1] used to screen the groundwater data.
- Nine VOCs (1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, carbon disulfide, chloroform, chloromethane, cyclohexane, isopropylbenzene (cumene), and methylcyclohexane) were detected in the groundwater samples; these compounds either have no applicable standard or guidance value, or were detected at levels below their NYSDEC Class GA groundwater standards and below the guidance values used to screen the groundwater data.
- PCE was detected above the groundwater standard (5 micrograms per liter [µg/L]) in 18 wells and four piezometers across the site. The highest concentration of PCE (2,700 µg/L, estimated) was detected in a sample collected from pumping well PW-5. Historically, the highest concentration of PCE has been detected in samples collected from monitoring wells

[1] New York State Department of 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.

MPI-6S and PW-6. PCE in MPI-6S has been reduced from 6,800 µg/L in 2012, before bioremediation, to 15 µg/L. Contamination at MPI-6S is now primarily cis-DCE at 1,300 µg/L. Contaminant concentrations in pumping well PW-6 were lower than the results collected from piezometer PZ-6A, which showed an increase in the total VOC concentrations from 1,600 µg/L to in 2013 to over 2,800 µg/L in 2014.

- TCE was detected above the groundwater standard (5 µg/L) in nine wells and three piezometers across the site. The highest concentration of TCE, 400 µg/L, was detected in a sample collected from piezometer PZ-6A.
- cis-DCE was detected above the groundwater standard (5 µg/L) in 14 wells and three piezometers across the site. The highest concentration of cis-DCE, 1,300 µg/L, was detected in a sample collected from monitoring well MPI-6S.
- trans-DCE was detected above the groundwater standard (5 µg/L) in three wells and one piezometer. The highest concentration of trans-DCE, 46 µg/L, was detected in a sample collected from monitoring well MW-8.
- Vinyl chloride was detected above its groundwater standard (2 µg/L) in seven wells. Vinyl chloride increased in concentration across the site since 2013. The highest concentration of vinyl chloride (380 µg/L) was detected in a sample collected from monitoring well MPI-6S.
- MTBE was detected in wells EE-2 (31 µg/L), EE-3 (23 µg/L), MPI-15B (6.2 µg/L), MPI-3S (45 µg/L), MPI-4I (240 µg/L), PW-4 (9.3 µg/L), PW-7 (1.5 µg/L), and PW-8 (14 µg/L). MTBE concentrations have not spread or changed much since 2013. It was also detected in piezometers PZ-6A (26 µg/L) and PZ-8C (33 µg/L). The guidance value for MTBE is 10 µg/L.

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

Michael G. Steffan
Project Manager

Attachments

cc: Mr. Dave Szymanski, NYSDEC Region 9 – w/Attachments

TABLE

Table 1 Summary of Positive Analytical Results for Groundwater Samples
Mr. C's Dry Cleaning, East Aurora, New York

Analyte	Screening Criteria [1]	Notes	Location ID: EE-2 / Sample Name: EE-2-1022 / Depth: 22 - 32 ft / Date: 10/22/14	Location ID: EE-3 / Sample Name: EE-3-1016 / Depth: 18 - 28 ft / Date: 10/16/14	Location ID: EE-4 / Sample Name: EE-4-1023 / Depth: 5 - 15 ft / Date: 10/23/14	Location ID: ESI-2-R / Sample Name: ESI-2-R-1017 / Depth: 9 - 19 ft / Date: 10/17/14	Location ID: ESI-3 / Sample Name: ESI-3-1014 / Depth: 7 - 17 ft / Date: 10/14/14	Location ID: ESI-5-R / Sample Name: ESI-5-R-1017 / Depth: 5 - 15 ft / Date: 10/17/14
Volatile Organics by Method SW846 8260C (µg/L)								
1,1,1-TRICHLOROETHANE	5		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	5		**0.96 J**	0.25 U	0.25 U	0.25 U	**1.1 J**	0.25 U
1,1-DICHLOROETHENE	5		**1.1 J**	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
CARBON DISULFIDE	NA		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
CHLOROFORM	7		0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
CHLOROMETHANE	5		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CIS-1,2-DICHLOROETHYLENE	5		**260**	**20**	0.48 U	0.48 U	0.48 U	0.48 U
ISOPROPYLBENZENE (CUMENE)	5		0.38 U	0.38 U	**2.2 J**	0.38 U	0.38 U	0.38 U
METHYLCYCLOHEXANE	NA		0.76 U	0.76 U	**8.3**	0.76 U	0.76 U	0.76 U
METHYL-TERT-BUTYL ETHER (MTBE)	10	G	**31**	**23 J**	0.24 U	0.24 U	0.24 U	0.24 U
TETRACHLOROETHYLENE(PCE)	5		**2.2 J**	**1.1 J**	**1.8 J**	0.65 U	**180**	0.65 U
TRANS-1,2-DICHLOROETHENE	5		**3.4 J**	0.65 U	**1.9 J**	0.65 U	0.65 U	0.65 U
TRICHLOROETHYLENE (TCE)	5		**74**	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
VINYL CHLORIDE	2		**8.2**	0.50 U	**1.2 J**	0.50 U	0.50 U	0.50 U

Key:

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µg/L = Micrograms per liter

"-Q" denotes field duplicate sample

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2. Bold values denote positive hits.

3. Shaded cell exceeds groundwater standard.

Source: Ecology and Envirnonment Engineering, P.C. 2014

Table 1 Summary of Positive Analytical Results for Groundwater Samples
Mr. C's Dry Cleaning, East Aurora, New York

Analyte	Screening Criteria [1]	Notes	Location ID:	ESI-6	MPI-1S	MPI-2S-R	MPI-3S	MPI-4I	MPI-4S
			Sample Name:	ESI-6-1015	MPI-1S-1016	MPI-2S-R-1017	MPI-3S-1016	MPI-4I-1022	MPI-4S-1022
			Depth:	7 - 17 ft	9 - 19 ft	8 - 18 ft	8 - 18 ft	32 - 42 ft	11 - 21 ft
			Date:	10/16/14	10/16/14	10/17/14	10/16/14	10/22/14	10/22/14
Volatile Organics by Method SW846 8260C (µg/L)									
1,1,1-TRICHLOROETHANE	5			0.50 U	0.50 U	**3.4 J**	0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	5			**1.3 J**	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	5			0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
CARBON DISULFIDE	NA			0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
CHLOROFORM	7			0.33 U	0.33 U	**1.3 J**	0.33 U	0.33 U	0.33 U
CHLOROMETHANE	5			0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CIS-1,2-DICHLOROETHYLENE	5			**59**	**2.8 J**	0.48 U	0.48 U	**650**	**55**
ISOPROPYLBENZENE (CUMENE)	5			0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
METHYLCYCLOHEXANE	NA			0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
METHYL-TERT-BUTYL ETHER (MTBE)	10	G		0.24 U	0.24 U	0.24 U	**45**	**240**	0.24 U
TETRACHLOROETHYLENE(PCE)	5			**410**	**56**	**2.9 J**	**1.9 J**	**150**	**4.3 J**
TRANS-1,2-DICHLOROETHENE	5			0.65 U	0.65 U	0.65 U	0.65 U	**2.1 J**	0.65 U
TRICHLOROETHYLENE (TCE)	5			**22**	**2.4 J**	0.36 U	0.36 U	**41**	**1.2 J**
VINYL CHLORIDE	2			0.50 U	0.50 U	0.50 U	0.50 U	**130**	**8.6**

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Source: Ecology and Envirnonment Engineering, P.C. 2014

Table 1 Summary of Positive Analytical Results for Groundwater Samples
Mr. C's Dry Cleaning, East Aurora, New York

Analyte	Screening Criteria [1]	Notes	Location ID:	MPI-5S	MPI-6S	MPI-7I-R	MPI-8S-R	MPI-9S-R	MPI-10B
			Sample Name:	MPI-5S-1020	MPI-6S-1021	MPI-7I-R-1014	MPI-8S-R-1020	MPI-9S-R-1015	MPI-10B-1014
			Depth:	8 - 18 ft	12 - 22 ft	29 - 39 ft	8 - 18 ft	8 - 18 ft	17 - 32 ft
			Date:	10/20/14	10/21/14	10/14/14	10/20/14	10/15/14	10/14/14
Volatile Organics by Method SW846 8260C (µg/L)									
1,1,1-TRICHLOROETHANE	5			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	5			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	5			0.39 U	**3.2 J**	0.39 U	0.39 U	0.39 U	0.39 U
CARBON DISULFIDE	NA			0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
CHLOROFORM	7			0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
CHLOROMETHANE	5			0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CIS-1,2-DICHLOROETHYLENE	5			**7.8**	**1300**	0.48 U	**37**	0.48 U	0.48 U
ISOPROPYLBENZENE (CUMENE)	5			0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
METHYLCYCLOHEXANE	NA			0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
METHYL-TERT-BUTYL ETHER (MTBE)	10	G		0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TETRACHLOROETHYLENE(PCE)	5			**24**	**15**	**2.0 J**	**130**	**1.7 J**	**220**
TRANS-1,2-DICHLOROETHENE	5			**5.2**	**16**	0.65 U	**1.8 J**	0.65 U	0.65 U
TRICHLOROETHYLENE (TCE)	5			**5.3**	**1.5 J**	0.36 U	**18**	0.36 U	**3.8 J**
VINYL CHLORIDE	2			0.50 U	**380**	0.50 U	**0.55 J**	0.50 U	0.50 U

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Source: Ecology and Envirnonment Engineering, P.C. 2014

Table 1 Summary of Positive Analytical Results for Groundwater Samples
Mr. C's Dry Cleaning, East Aurora, New York

Analyte	Screening Criteria [1]	Notes	Location ID:	MPI-13B-R	MPI-14B-R	MPI-15B	MW-7	MW-8	MW-8
			Sample Name:	1015	1015	MPI-15B-1017	MW-7-1015	MW-8-1020	MW-8-1020-Q
			Depth:	17 - 32 ft	15 - 30 ft	10 - 20 ft	5 - 15 ft	5 - 15 ft	5 - 15 ft
			Date:	10/15/14	10/15/14	10/17/14	10/15/14	10/20/14	10/20/14
Volatile Organics by Method SW846 8260C (µg/L)									
1,1,1-TRICHLOROETHANE	5			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	5			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	5			0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
CARBON DISULFIDE	NA			0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
CHLOROFORM	7			0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
CHLOROMETHANE	5			0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CIS-1,2-DICHLOROETHYLENE	5			0.48 U	0.48 U	0.48 U	0.48 U	**15**	**13**
ISOPROPYLBENZENE (CUMENE)	5			0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
METHYLCYCLOHEXANE	NA			0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
METHYL-TERT-BUTYL ETHER (MTBE)	10	G		0.24 U	0.24 U	**6.2**	0.24 U	0.24 U	0.24 U
TETRACHLOROETHYLENE(PCE)	5			**3.7 J**	**6.2**	0.65 U	**1100**	**1.3 J**	**0.90 J**
TRANS-1,2-DICHLOROETHENE	5			0.65 U	0.65 U	0.65 U	0.65 U	**46**	**46**
TRICHLOROETHYLENE (TCE)	5			**0.81 J**	0.36 U	0.36 U	**3.8 J**	**1.7 J**	**1.5 J**
VINYL CHLORIDE	2			0.50 U	0.50 U	0.50 U	0.50 U	**7.2**	**6.4**

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Source: Ecology and Envirnonment Engineering, P.C. 2014

Table 1 Summary of Positive Analytical Results for Groundwater Samples
Mr. C's Dry Cleaning, East Aurora, New York

Analyte	Screening Criteria [1]	Notes	Location ID:	MW-11	MW-11	PW-2	PW-3	PW-4	PW-5
			Sample Name:	MW-11-1014	MW-11-1014-Q	PW-2-1023	PW-3-1023	PW-4-1022	PW-5-1021
			Depth:	10 - 20 ft	10 - 20 ft	18 - 28 ft	18 - 28 ft	18 - 28 ft	18 - 28 ft
			Date:	10/14/14	10/14/14	10/23/14	10/23/14	10/22/14	10/21/14
Volatile Organics by Method SW846 8260C (µg/L)									
1,1,1-TRICHLOROETHANE	5			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	5			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	5			0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	**0.62 J**
CARBON DISULFIDE	NA			0.34 U	0.34 U	0.34 U	0.34 U	**1.4 J**	0.34 U
CHLOROFORM	7			0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
CHLOROMETHANE	5			0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CIS-1,2-DICHLOROETHYLENE	5			0.48 U	0.48 U	0.48 U	0.48 U	**190 J**	**170**
ISOPROPYLBENZENE (CUMENE)	5			0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
METHYLCYCLOHEXANE	NA			0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
METHYL-TERT-BUTYL ETHER (MTBE)	10	G		0.24 U	0.24 U	0.24 U	0.24 U	**9.3**	0.24 U
TETRACHLOROETHYLENE(PCE)	5			**1500**	**1600**	**620**	**220**	**2600**	**2700**
TRANS-1,2-DICHLOROETHENE	5			0.65 U	0.65 U	0.65 U	0.65 U	**2.1 J**	**4.2 J**
TRICHLOROETHYLENE (TCE)	5			**5.2**	**4.6 J**	**3.4 J**	**4.4 J**	**170**	**69**
VINYL CHLORIDE	2			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

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Table 1 Summary of Positive Analytical Results for Groundwater Samples
Mr. C's Dry Cleaning, East Aurora, New York

Analyte	Screening Criteria [1]	Notes	Location ID: PW-6 / Sample Name: PW-6-1021 / Depth: 18 - 28 ft / Date: 10/21/14	Location ID: PW-7 / Sample Name: PW-7-1021 / Depth: 18 - 28 ft / Date: 10/21/14	Location ID: PW-8 / Sample Name: PW-8-1021 / Depth: 18 - 28 ft / Date: 10/21/14	Location ID: PZ-3B / Sample Name: PZ-3B-1020 / Depth: 18 - 28 ft / Date: 10/20/14	Location ID: PZ-5B / Sample Name: PZ-5B-1021 / Depth: 18 - 28 ft / Date: 10/21/14	Location ID: PZ-6A / Sample Name: PZ-6A-1021 / Depth: 18 - 28 ft / Date: 10/21/14
Volatile Organics by Method SW846 8260C (µg/L)								
1,1,1-TRICHLOROETHANE	5		0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	0.50 U
1,1-DICHLOROETHANE	5		0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	0.25 U
1,1-DICHLOROETHENE	5		0.39 U	0.39 U	**1.6 J**	0.39 U	1.6 U	**2.1 J**
CARBON DISULFIDE	NA		0.34 U	0.34 U	0.34 U	0.34 U	1.4 U	0.34 U
CHLOROFORM	7		0.33 U	0.33 U	0.33 U	0.33 U	1.3 U	0.33 U
CHLOROMETHANE	5		0.26 U	0.26 U	0.26 U	0.26 U	1.0 U	0.26 U
CIS-1,2-DICHLOROETHYLENE	5		**7.9**	**99**	**980**	**1.9 J**	**6.0 J**	**880**
ISOPROPYLBENZENE (CUMENE)	5		0.38 U	0.38 U	0.38 U	0.38 U	1.5 U	0.38 U
METHYLCYCLOHEXANE	NA		0.76 U	0.76 U	0.76 U	0.76 U	3.0 U	0.76 U
METHYL-TERT-BUTYL ETHER (MTBE)	10	G	0.24 U	**1.5 J**	**14**	0.24 U	0.96 U	**26**
TETRACHLOROETHYLENE(PCE)	5		**23**	**4.0 J**	**260**	**150**	**2100**	**1400**
TRANS-1,2-DICHLOROETHENE	5		0.65 U	0.65 U	**2.8 J**	**0.78 J**	**8.0 J**	**5.8**
TRICHLOROETHYLENE (TCE)	5		**0.97 J**	**1.1 J**	**23**	**7.9**	**66**	**370**
VINYL CHLORIDE	2		0.50 U	**13**	**190**	0.50 U	2.0 U	**1.1 J**

Key:

Qualifiers

J = Estimated value

U = Not detected (method detection limit shown)

Notes

G = Guidance value (no standard available)

NA = Not regulated/no available criteria

Other

µg/L = Micrograms per liter

"-Q" denotes field duplicate sample

1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

2. Bold values denote positive hits.

3. Shaded cell exceeds groundwater standard.

Source: Ecology and Envirnonment Engineering, P.C. 2014

Table 1 Summary of Positive Analytical Results for Groundwater Samples
Mr. C's Dry Cleaning, East Aurora, New York

Analyte	Screening Criteria [1]	Notes	Location ID: PZ-6A Sample Name: PZ-6A-1021-Q Depth: 18 - 28 ft Date: 10/21/14	Location ID: PZ-8C Sample Name: PZ-8C-1021 Depth: 18 - 28 ft Date: 10/21/14	Location ID: RW-1 Sample Name: RW-1-1023 Depth: 18 - 28 ft Date: 10/23/14
Volatile Organics by Method SW846 8260C (µg/L)					
1,1,1-TRICHLOROETHANE	5		0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	5		0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	5		**2.2 J**	0.39 U	0.39 U
CARBON DISULFIDE	NA		0.34 U	0.34 U	0.34 U
CHLOROFORM	7		0.33 U	0.33 U	0.33 U
CHLOROMETHANE	5		0.26 U	0.26 U	0.26 U
CIS-1,2-DICHLOROETHYLENE	5		**930**	**30**	0.48 U
ISOPROPYLBENZENE (CUMENE)	5		0.38 U	0.38 U	0.38 U
METHYLCYCLOHEXANE	NA		0.76 U	0.76 U	0.76 U
METHYL-TERT-BUTYL ETHER (MTBE)	10	G	**26**	**33**	0.24 U
TETRACHLOROETHYLENE(PCE)	5		**1500**	**22**	**180**
TRANS-1,2-DICHLOROETHENE	5		**5.4**	0.65 U	0.65 U
TRICHLOROETHYLENE (TCE)	5		**400**	**2.0 J**	**1.1 J**
VINYL CHLORIDE	2		**1.0 J**	**63**	0.50 U

Key:

Qualifiers

J = Estimated value

U = Not detected (method detection limit shown)

Notes

G = Guidance value (no standard available)

NA = Not regulated/no available criteria

Other

µg/L = Micrograms per liter

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FIGURES

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EE-2	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Chloroform	0.346 ug/L	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	1660 ug/L	670 ug/L	130 ug/L	83 ug/L(J)	54 ug/L	52 ug/L	31 ug/L
Methylene chloride	0.208 ug/L	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.387 ug/L	ND	ND	ND	ND	ND	2.2 ug/L(J)
Trihalomethanes, Total	0.346 ug/L	ND	ND	NA	ND	ND	ND
Vinyl chloride	–	ND	38 ug/L	12 ug/L(J)	18 ug/L	9.9 ug/L(J)	8.2 ug/L
cis-1,2-Dichloroethene	–	ND	ND	6.7 ug/L(J)	190 ug/L	210 ug/L	260 ug/L
1,1-Dichloroethane	NA	NA	NA	NA	1.0 ug/L(J)	ND	0.96 ug/L(J)
1,1-Dichloroethene	NA	NA	NA	NA	.98 ug/L(J)	ND	1.1 ug/L(J)
Chloromethane	NA	NA	NA	NA	1.0 ug/L(J)	ND	ND
trans-1,2-Dichloroethene	NA	NA	NA	NA	1.2 ug/L(J)	ND	3.4 ug/L(J)
Trichloroethene	NA	NA	NA	NA	25 ug/L	71 ug/L	74 ug/L

PW-6	5/02	10/03	6/04	8/07	5/09	5/10	2/12	10/14
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)	ND
Trichloroethene	3 J ug/L	ND	41.3 ug/L	100 ug/L	120 ug/L	82 ug/L	79 ug/L	0.97 ug/L(J)
Tetrachloroethene	37 ug/L	ND	463 ug/L	1100 ug/L	340 ug/L(J)	970 ug/L(J)	1000 ug/L	23 ug/L
Ethylbenzene	5 J ug/L	ND	ND	ND	ND	ND	ND	ND
Xylene	2 J ug/L	ND	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	7.9 ug/L
trans-1,2-Dichloroethene	ND	ND	0.400 ug/L	ND	3.9 ug/L(J)	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.150 ug/L	ND	ND	ND	0.59 ug/L(J)	ND
1,1-Dichloroethene	ND	ND	0.861 ug/L	ND	ND	ND	ND	ND

PZ-6A	10/14
Methyl tert-butyl ether	26 ug/L
trans-1,2-Dichloroethene	5.8 ug/L
1,1-Dichloroethene	2.2 ug/L(J)
Vinyl chloride	1.1 ug/L(J)
cis-1,2-Dichloroethene	930 ug/L
Trichloroethene	400 ug/L
Tetrachloroethene	1500 ug/L

PW-7	5/02	10/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Acetone	280 ug/L	ND	ND	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	ND	1.5 ug/L(J)
2-Butanone	680 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	63 J ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	290 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	160 ug/L	ND	NA	ND	ND	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	8.5 ug/L(J)	1.1 ug/L(J)
Tetrachloroethene	4200 ug/L	800 ug/L	2760 ug/L	2400 ug/L	1400 ug/L(J)	950 ug/L(J)	550 ug/L	300 ug/L	4.0 ug/L(J)
1,1-Dichloroethene	ND	ND	1.06 ug/L	ND	ND	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)	4.9 ug/L(J)	99 ug/L
Toluene	ND	ND	0.186 ug/L	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	0.776 ug/L	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	0.171 ug/L	ND	ND	ND	ND	ND	13 ug/L

MPI-15B	5/02	6/04	8/07	5/09	5/10	2/12	10/13	10/14
2-Butanone	NS	1.61 ug/L	ND	ND	ND	180 ug/L	ND	ND
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)	7.4 ug/L	6.2 ug/L
Acetone	NA	NA	NA	NA	NA	2300 ug/L	ND	ND
Chloromethane	NA	NA	NA	NA	NA	1.5 ug/L(J)	ND	ND
Tetrachloroethene	NA	NA	NA	NA	NA	1.1 ug/L(J)	ND	ND

PW-8	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
1,1-Dichloroethene	ND	2 ug/L	0.302 ug/L	ND	ND	ND	ND	ND	1.6 ug/L(J)
2-Butanone	ND	46 ug/L	ND	ND	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	20 ug/L(J)	23 ug/L
trans-1,2-Dichloroethene	ND	2 ug/L	0.722 ug/L	ND	ND	ND	ND	ND	2.8 ug/L(J)
Tetrachloroethene	43 ug/L	110 ug/L	243 ug/L	150 ug/L	200 ug/L(J)	100 ug/L	140 ug/L	360 ug/L	260 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	91 ug/L	980 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)	4.4 ug/L(J)	14 ug/L
Acetone	26 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	10 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	3 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	190 ug/L
Carbon Disulfide	–	–	–	7.2 ug/L(J)	ND	ND	ND	ND	ND

PZ-8C	10/14
Vinyl chloride	63 ug/L
Methyl tert-butyl ether	33 ug/L
cis-1,2-Dichloroethene	30 ug/L
Trichloroethene	2.0 ug/L(J)
Tetrachloroethene	22 ug/L

MPI-3S	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Benzene	ND	1 ug/L	ND	ND	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	54 ug/L	45 ug/L
Tetrachloroethene	ND	ND	0.495 ug/L	ND	ND	2.6 ug/L(J)	ND	ND	1.9 ug/L(J)
1,2-Dichloroethane	ND	1.4 ug/L	0.538 ug/L	ND	ND	ND	ND	2.2 ug/L(J)	ND

MPI-6S	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Acetone	ND	20 ug/L	ND	ND	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)	3.2 ug/L(J)	1.5 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	40 ug/L	15 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	27 ug/L	1300 ug/L
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	ND	ND
trans-1,2-Dichloroethene	ND	ND	0.48 ug/L	ND	ND	ND	ND	ND	16 ug/L
2-Butanone	NA	NA	1.28 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	0.167 ug/L	ND	ND	ND	ND	ND	3.2 ug/L(J)
Vinyl Chloride	–	–	–	–	–	–	–	1.5 ug/L(J)	380 ug/L

MPI-13B/MPI-13BR	5/02	9/03	6/04	8/07	6/12	10/13	10/14
Trichloroethene	ND	0.57 ug/L	ND	ND	0.8 ug/L(J)	ND	0.81 ug/L(J)
Benzene	ND	1.4 ug/L	ND	ND	ND	ND	ND
Tetrachloroethene	ND	3.2 ug/L	0.403 ug/L	5.0 ug/L(J)	3.6 ug/L(J)	4.5 ug/L(J)	3.7 ug/L(J)
2-Butanone	NA	NA	0.979 ug/L	ND	ND	ND	ND
Acetone	NA	NA	4.01 ug/L	ND	ND	ND	ND
Carbon disulfide	NA	NA	0.440 ug/L	ND	ND	ND	ND

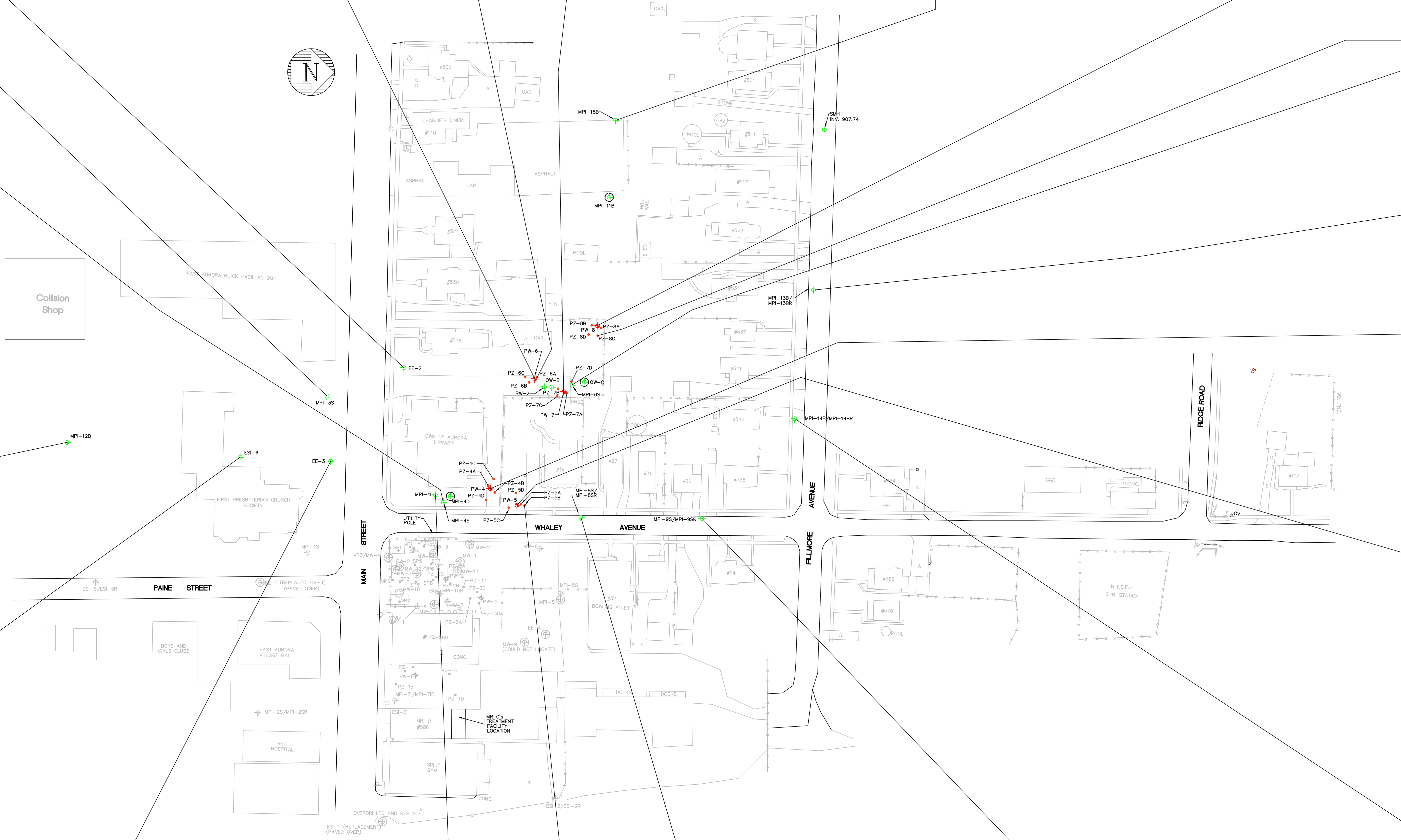
MPI-4S	5/02	9/03	6/04	8/07	5/10	2/12	10/13	10/14
Tetrachloroethene	2 ug/L	2 ug/L	1.63 ug/L	5.0 ug/L	2.3 ug/L(J)	ND	3.3 ug/L(J)	4.3 ug/L(J)
cis-1,2-Dichloroethene	14 ug/L	16 ug/L	97.8 ug/L	140 ug/L	61 ug/L	ND	65 ug/L	55 ug/L
Methyl tert-Butyl Ether	8 ug/L	11 ug/L	4.26 ug/L	ND	ND	ND	ND	ND
Vinyl Chloride	4 ug/L	ND	5.53 ug/L	20 ug/L	6.0 ug/L	ND	11 ug/L	8.6 ug/L
Acetone	9 ug/L	ND		ND	ND	ND	ND	ND
1,1-Dichloroethene	1 ug/L	ND		ND	ND	ND	ND	ND
Benzene	5 ug/L	ND	1.22ND ug/L	ND	ND	ND	ND	ND
2-Butanone	3 ug/L	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	0.722 ug/L	ND	ND	2.7 ug/L(J)	ND	ND
Isopropylbenzene	ND	ND	0.108ND ug/L	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	1.05 ug/L	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	4.27 ug/L	2.4 ug/L	1.1 ug/L(J)	ND	ND	1.2 ug/L(J)
Trihalomethanes, Total	NA	NA	0.722 ug/L	ND	NA	ND	ND	ND
Bromodichloromethane	NA	NA	NA	NA	NA	3.4 ug/L(J)	ND	ND
Bromoform	NA	NA	NA	NA	NA	1.2 ug/L(J)	ND	ND
Dibromochloromethane	NA	NA	NA	NA	NA	3.5 ug/L(J)	ND	ND

PW-4	5/02	10/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Trichloroethene	ND	35 ug/L	57.9 ug/L	74 ug/L(J)	100 ug/L	120 ug/L	170 ug/L	110 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)	1800 ug/L	2600 ug/L
cis-1,2-Dichloroethene	ND	490 ug/L	8.68 ug/L	19 ug/L	34 ug/L	36 ug/L	44 ug/L	28 ug/L(J)	190 ug/L(J)
Acetone	100 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	1400 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	210 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	1200 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	360 ug/L	ND	NA	ND	ND	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)	ND	9.3 ug/L
Toluene	ND	ND	0.193 ug/L	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	0.981 ug/L	3.3 ug/L(J)	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.680 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.485 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	0.211 ug/L	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	0.121 ug/L	ND	ND	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)	ND	2.1 ug/L(J)
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	1.4 ug/L(J)

PW-5	5/02	10/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Acetone	200 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	3300 ug/L	ND	ND	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)	700 ug/L	2700 ug/L
Ethylbenzene	310 ug/L	ND	0.209 ug/L	ND	ND	ND	ND	ND	ND
Styrene	510 ug/L	ND	NA	ND	ND	ND	ND	13 ug/L	ND
Trichloroethene	ND	99 ug/L	78.6 ug/L	95 ug/L	140 ug/L	190 ug/L	87 ug/L	ND	69 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	ND	170 ug/L
Xylene	1100 ug/L	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.801 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.346 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	0.194 ug/L	ND	ND	ND	ND	ND	0.62 ug/L(J)
Benzene	ND	ND	0.114 ug/L	ND	ND	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	ND	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	ND	4.2 ug/L(J)
Vinyl chloride	ND	ND	0.415 ug/L	ND	ND	ND	ND	ND	ND

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

ESI-6	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
1,1-Dichloroethane	ND	0.67 ug/L	0.616 ug/L	ND	ND	ND	1.0 ug/L(J)	ND	1.3 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	38 ug/L	22 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)	480 ug/L	410 ug/L
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	160 ug/L	59 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	ND	ND
trans-1,2-Dichloroethene	ND	ND	0.290 ug/L	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	0.605 ug/L	ND	ND	ND	ND	ND	ND



EE-3 (NEW)	2/12	10/13	10/14
cis-1,2-Dichloroethene	0.7 ug/L(J)	11 ug/L	20 ug/L
Methyl tert-butyl ether	29 ug/L	18 ug/L	23 ug/L(J)
Tetrachloroethene	3.3 ug/L(J)	1.4 ug/L(J)	1.1 ug/L(J)
Vinyl chloride	13 ug/L	2.1 ug/L(J)	ND

MPI-4I	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/14
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)	41 ug/L
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)	150 ug/L
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	650 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	240 ug/L
trans-1,2-Dichloroethene	ND	ND	1.53 ug/L	21 ug/L	4.4 ug/L(J)	2.0 ug/L(J)	ND	2.1 ug/L(J)
Vinyl chloride	ND	ND	0.196 ug/L	ND	ND	ND	13 ug/L	130 ug/L
1,1-Dichloroethene	–	–	–	ND	ND	1.0 ug/L(J)	ND	ND
Benzene	NA	NA	NA	NA	NA	NA	.62 ug/L(J)	ND

PZ-5B	10/14
trans-1,2-Dichloroethene	8.0 ug/L(J)
cis-1,2-Dichloroethene	6.0 ug/L(J)
Trichloroethene	66 ug/L
Tetrachloroethene	2100 ug/L

MPI-8S/MPI-8SR	5/02	9/03	6/04	8/07	6/12	10/13	10/14
cis-1,2-Dichloroethene	NA	NA	NA	NA	5.0 ug/L	10 ug/L	37 ug/L
Methyl tert-butyl ether	NA	NA	NA	NA	0.58 ug/L(J)	ND	ND
Tetrachloroethene	NA	NA	NA	NA	180 ug/L	120 ug/L	130 ug/L
trans-1,2-Dichloroethene	NA	NA	NA	NA	1.6 ug/L(J)	1.3 ug/L(J)	1.8 ug/L(J)
Trichloroethene	NA	NA	NA	NA	22 ug/L	17 ug/L	18 ug/L
Vinyl chloride	NA	NA	NA	NA	ND	ND	0.55 ug/L(J)

MPI-9S/MPI-9SR	5/02	9/03	6/04	8/07	6/12	10/13	10/14
Tetrachloroethene	NA	NA	NA	NA	.75 ug/L(J)	ND	1.7 ug/L(J)

MPI-14B/MW-14BR	5/02	9/03	6/04	8/07	2/12	10/13	10/14
Vinyl chloride	ND	ND	1.06 ug/L	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	2.93 ug/L	2.8 ug/L(J)	1.3 ug/L(J)	ND	ND
Methyl tert-butyl ether	ND	ND	2.99 ug/L	ND	ND	ND	ND
Tetrachloroethene	1 ug/L	ND	0.175 ug/L	ND	10 ug/L(J)	2.5 ug/L(J)	6.2 ug/L
Trichloroethene	ND	ND	0.191 ug/L	ND	1.0 ug/L(J)	ND	ND
trans-1,2-Dichloroethene	ND	ND	1.60 ug/L	ND	ND	ND	ND
Acetone	ND	ND	4.06 ug/L	9.6 ug/L(J)	ND	ND	ND
1,2-Dichloroethane	ND	ND	0.340 ug/L	ND	ND	ND	ND
Chloromethane	NA	NA	NA	NA	0.6 ug/L(J)	ND	ND

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 2 FOR SUMMARY OF MONITORING WELL INFORMATION EAST 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
F	12/29/14	KMK	MGS	UPDATED PER OCT 2014 SAMPLE EVENT
E	12/5/13	KMK	MGS	UPDATED PER OCT 2013 SAMPLE EVENT
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 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 November 2014\Results_revised 12-4-13_East.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
Trichloroethene	ND	2 ug/L
Tetrachloroethene	68 ug/L	74 ug/L
cis-1,2-Dichloroethane	ND	2 ug/L

MW-7	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12	10/13	10/14
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	ND	3.8 ug/L(J)
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)	910 ug/L	1100 ug/L
cis-1,2-Dichloroethene	ND	ND	3.73 ug/L	0.76 ug/L	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.379 ug/L	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	0.315 ug/L	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	–	–	ND	ND	ND	1.7 ug/L(J)	1.9 ug/L(J)	ND	ND	ND

PZ-3B	10/14
trans-1,2-Dichloroethene	0.78 ug/L(J)
cis-1,2-Dichloroethene	1.9 ug/L(J)
Trichloroethene	7.9 ug/L
Tetrachloroethene	150 ug/L

MW-8	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12	10/13	10/14
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	12 ug/L	1.7 ug/L(J)
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)	28 ug/L	46 ug/L
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)	3.4 ug/L(J)	1.3 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)	81 ug/L	15 ug/L
2-Butanone	ND	ND	1.88 ug/L	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.157 ug/L	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	0.135 ug/L	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	35 ug/L	ND	2.0 ug/L(J)	ND	15 ug/L	7.2 ug/L
Methylcyclohexane	–	–	–	–	2.5 ug/L	ND	ND	ND	ND	ND
Acetone	–	–	–	–	–	–	–	–	22 ug/L	ND

PW-3	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12	10/13	10/14
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)	3.6 ug/L(J)	4.4 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)	170 ug/L	220 ug/L
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	ND	ND
Methyl tert-Butyl Ether	ND	4 ug/L	0.401 ug/L	ND	ND	ND	ND	ND	ND	ND
Acetone	51 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	350 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	20 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	120 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	11 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.407 ug/L	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	0.148 ug/L	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	0.133 ug/L	ND	ND	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	ND	ND
Trihalomethanes, Total	NA	NA	0.133 ug/L	ND	ND	NS	NA	ND	ND	ND
Vinyl chloride	ND	ND	ND	1.7 ug/L	ND	ND	ND	ND	ND	ND

MPI-1S	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
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)	3.2 ug/L(J)	2.4 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)	49 ug/L	56 ug/L
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)	2.4 ug/L(J)	2.8 ug/L (J)
Vinyl chloride	ND	ND	0.346 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.337 ug/L	ND	ND	ND	ND	ND	ND
Chloromethane	NA	NA	NA	NA	NA	NA	.74 ug/L(J)	ND	ND

MPI-5S	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
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	ND	ND
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	7.1 ug/L	5.3 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	4.2 ug/L(J)	5.2 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)	24 ug/L	24 ug/L
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	8.5 ug/L	7.8 ug/L
Methyl tert-butyl ether	NA	ND	0.114 ug/L	ND	ND	ND	ND	ND	ND
2-Butanone	NA	ND	0.994 ug/L	ND	ND	ND	ND	ND	ND
Benzene	NA	ND	0.304 ug/L	ND	ND	ND	ND	ND	ND

MPI-5I	5/02	9/03
Methyl tert-Butyl Ether	NA	4 ug/L

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

EE-4	2/12	10/13	10/14
cis-1,2-Dichloroethene	3.3 ug/L(J)	ND	ND
trans-1,2-Dichloroethene	8.6 ug/L	1.2 ug/L(J)	1.9 ug/L(J)
Tetrachloroethene	.68 ug/L(J)	ND	1.8 ug/L(J)
Vinyl chloride	4.6 ug/L(J)	ND	1.2 ug/L(J)
Cyclohexane	8.4 ug/L	5.3 ug/L	ND
Isopropylbenzene	3.3 ug/L(J)	2.9 ug/L(J)	2.2 ug/L(J)
Methylcyclohexane	17 ug/L	11 ug/L	8.3 ug/L
Trichloroethene	.81 ug/L(J)	ND	ND

ESI-5/ESI-5R	5/02	9/03	6/04	8/07	5/09	5/10	6/12	10/13	10/14
Tetrachloroethene	ND	0.52 ug/L	0.196 ug/L	4.6 ug/L(J)	ND	ND	ND	ND	ND

ESI-4/EE-1	5/02	9/03	6/04	8/07	5/09	5/10
Chloroform	ND	0.54 ug/L	0.521 ug/L	ND	ND	ND
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
Trichloroethene	0.5 ug/L	3.6 ug/L	ND	ND	ND	ND
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)
cis-1,2-Dichloroethene	ND	1.2 ug/L	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	8.51 ug/L	4.2 ug/L(J)	1.6 ug/L(J)	ND
Trihalomethanes, Total	NA	NA	0.521 ug/L	ND	ND	NA
1,1-Dichloroethane	ND	ND	1.16 ug/L	ND	ND	ND
1,1-Dichloroethene	ND	ND	0.284 ug/L	ND	ND	ND
2-Butanone	NA	NA	0.965 ug/L	ND	ND	ND
Benzene	ND	ND	0.325 ug/L	ND	ND	ND
Acetone	NA	ND	1.85 ug/L	ND	ND	ND

RW-1	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Chloroform	ND	ND	0.839 ug/L	ND	1 ug/L(J)	ND	.61 ug/L(J)	ND	ND
cis-1,2-Dichloroethene	ND	ND	2.31 ug/L	ND	2.4 ug/L(J)	ND	1.0 ug/L(J)	ND	ND
1,1-Dichloroethane	ND	ND	0.275 ug/L	ND	ND	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)	1.1 ug/L(J)	ND
Trihalomethanes, Total	NA	NA	0.839 ug/L	ND	1 ug/L(J)	NA	ND	ND	ND
Trichloroethene	ND	1 ug/L	2.09 ug/L	ND	1.5 ug/L(J)	ND	1.5 ug/L(J)	1.1 ug/L(J)	1.1 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)	94 ug/L	180 ug/L
Methyl tert-Butyl Ether	ND	3 ug/L	1.03 ug/L	ND	ND	ND	ND	ND	ND
Chloromethane	NA	NA	NA	NA	NA	NA	.91 ug/L(J)	ND	ND

MPI-7I/MPI-7IR	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Trichloroethene	NA	2 ug/L	1.54 ug/L	ND	6.5 ug/L	ND	ND	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)	2.4 ug/L(J)	2.0 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	ND	ND
2-Butanone	NA	ND	1.17 ug/L	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	NA	ND	0.178 ug/L	ND	ND	ND	ND	ND	ND
Vinyl chloride	NA	ND	0.223 ug/L	ND	ND	ND	ND	ND	ND
Chloroform	–	–	–	ND	11 ug/L(J)	ND	ND	ND	ND
1,1,1-Trichloroethane	–	–	–	ND	1.1 ug/L(J)	ND	ND	ND	ND
Bromodichloromethane	–	–	–	ND	1.9 ug/L(J)	ND	ND	ND	ND
Chloromethane	NA	NA	NA	NA	NA	NA	1.4 ug/L(J)	ND	ND

MW-10	5/02	9/03
Acetone	ND	14 ug/L
cis-1,2-Dichloroethene	ND	3 ug/L
Tetrachloroethene	12 ug/L	ND

PW-2	5/02	9/03	6/04	9/05	8/07	5/09	5/10	2/12	10/13	10/14
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)	ND	3.4 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)	770 ug/L	620 ug/L
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	ND	ND
Methyl tert-Butyl Ether	ND	3 ug/L	0.617 ug/L	ND	ND	ND	ND	ND	ND	ND
Acetone	14 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	24 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	65 ug/L	ND	ND	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	ND	ND
1,1,1-Trichloroethane	ND	ND	0.344 ug/L	ND	ND	ND	ND	ND	ND	ND

MPI-2S/MPI-2SR	4/94	1/95	6/04	2/12	10/13	10/14
1,1,1 Trichloroethane	14 ug/L	12 u/L	NS	4.1 ug/L(J)	2.9 ug/L(J)	3.4 ug/L(J)
Benzene	ND	2 ug/L	NS	ND	ND	ND
Chloroform	NA	NA	NA	1.8 ug/L(J)	1.4 ug/L(J)	1.3 ug/L(J)
Tetrachloroethene	NA	NA	NA	1.9 ug/L(J)	2.4 ug/L(J)	2.9 ug/L(J)

MW-11	5/10	2/12	10/13	10/14
cis-1,2-Dichloroethene	3.4 ug/L(J)	1.2 ug/L(J)	ND	ND
Trichloroethene	6 ug/L	5.8 ug/L	ND	5.2 ug/L
Tetrachloroethene	1600 ug/L(J)	1500 ug/L(J)	2400 ug/L	1500 ug/L
Chloromethane	NA	0.68 ug/L(J)	ND	ND
trans-1,2-Dichloroethene	NA	1.2 ug/L(J)	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND

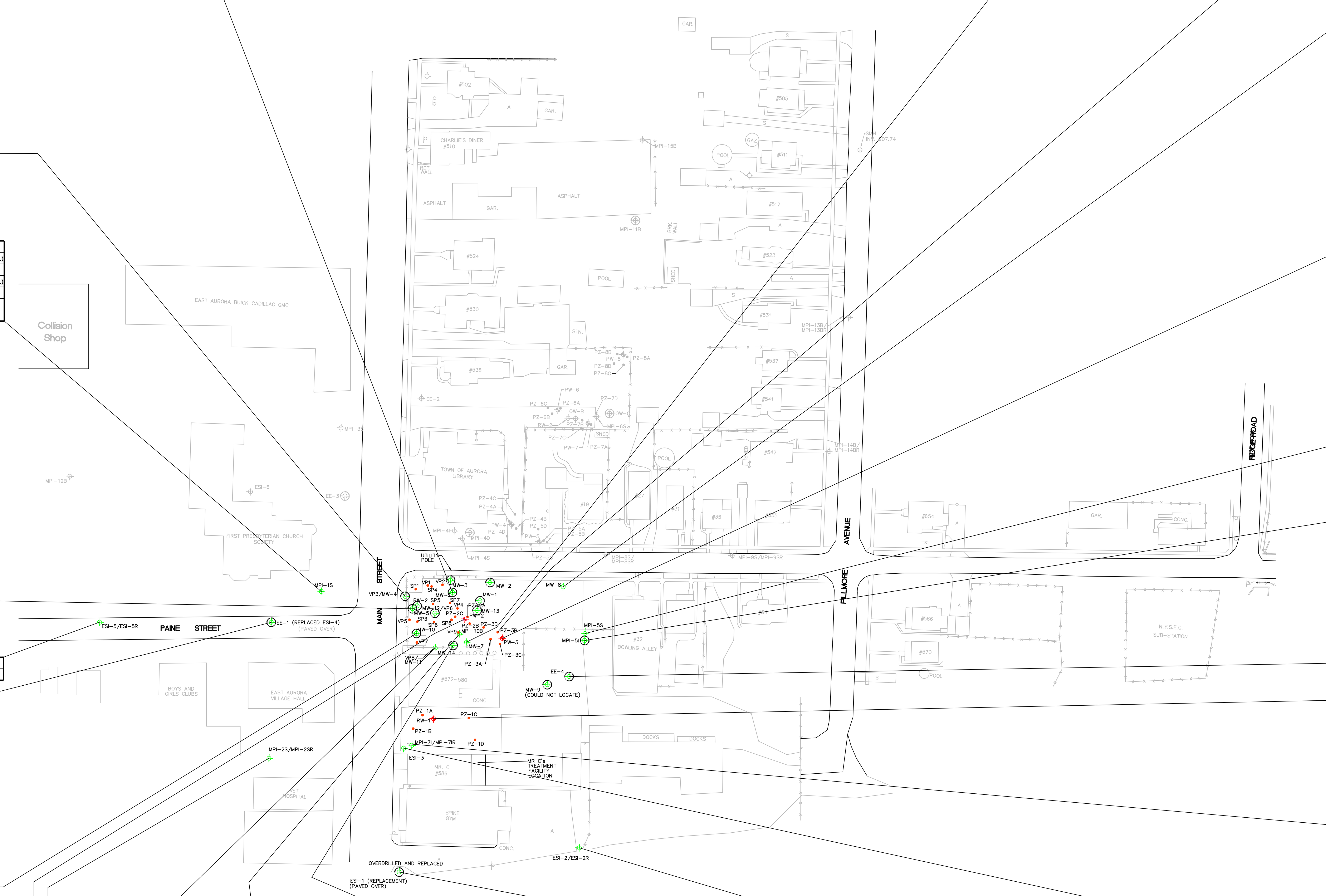
MPI-10B	5/02	9/03	6/04	8/07	5/09	5/10	2/12	10/13	10/14
Trichloroethene	ND	1 ug/L	5.03 ug/L	ND	5.1 ug/L	4.3 ug/L(J)	3.6 ug/L(J)	4.4 ug/L(J)	3.8 ug/L(J)
Benzene	ND	3 ug/L	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	82 ug/L	320 ug/L	1070 ug/L	790 ug/L	450 ug/L(J)	250 ug/L(J)	250 ug/L(J)	210 ug/L	220 ug/L
cis-1,2-Dichloroethene	ND	2 ug/L	5.09 ug/L	ND	3.3 ug/L(J)	1.3 ug/L(J)	1.1 ug/L(J)	ND	ND
Methyl tert-Butyl Ether	ND	2 ug/L	1.89 ug/L	ND	ND	ND	1.1 ug/L(J)	ND	ND
Trihalomethanes, Total	NA	NA	0.149 ug/L	ND	ND	NA	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	0.588 ug/L	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	0.149 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.24 ug/L	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	0.926 ug/L	ND	ND	ND	ND	ND	ND

MW-14	5/02	9/03	6/04
Tetrachloroethene	NS	NS	180 ug/L

ESI-2/ESI-2R	5/92	4/94	2/12	10/13	10/14
Tetrachloroethene	1 ug/L	NS	1.1 ug/L(J)	1.8 ug/L(J)	ND
Chloromethane	NA	NA	.89 ug/L(J)	ND	ND

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

ESI-3	5/02	9/03	6/04	8/07	5/10	2/12	10/13	10/14
1,1,1Trichloroethane	ND	1 ug/L	0.882 ug/L	2.0 ug/L(J)	ND	2.0 ug/L(J)	ND	ND
Trichloroethene	ND	2 ug/L	7.03 ug/L	ND	ND	.77 ug/L(J)	ND	ND
Tetrachloroethene	220 ug/L	440 ug/L	655 ug/L	250 ug/L	250 ug/L	200 ug/L(J)	260 ug/L	180 ug/L
cis-1,2-Dichloroethene	ND	4 ug/L	12.4 ug/L	2.8 ug/L	ND	ND	ND	ND
Methyl tert-Butyl Ether	9 ug/L	1 ug/L	1.02 ug/L	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	0.469 ug/L	ND	ND	.76 ug/L(J)	ND	1.1 ug/L(J)
Chloroform	ND	ND	1.14 ug/L	2.4 ug/L	ND	.84 ug/L(J)	ND	ND
Trihalomethanes, Total	NA	NA	1.14 ug/L	ND	NA	ND	ND	ND
Chloromethane	NA	NA	NA	NA	NA	.95 ug/L(J)	ND	ND



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

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
F	12/29/14	KMK	MGS	UPDATED PER OCT 2013 SAMPLE EVENT
E	12/5/13	KMK	MGS	UPDATED PER OCT 2013 SAMPLE EVENT
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 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA
MR.C'S DRY CLEANERS SITE LOCATION MAP (EAST)
EAST AURORA, NEW YORK

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170003074.0011.04
MrC_PCE_in_GW_Oct2014.srf - 12/22/2014

FEET
0 120 240 360

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

Legend
< = not detected (reporting limit shown)
J = estimated value
NS = not sampled
PCE = Tetrachloroethene
(a.k.a. perchloroethylene)
PW-8 260 Well ID with PCE concentration in µg/L

MPI-15B <0.65
MPI-13B-R 3.7 J
PW-8 260
EE-2 2.2 J
PW-6 1500
MPI-6S 15
PW-7 4.0 J
MPI-14B-R 6.2
MPI-3S 1.9 J
MPI-12B NS
ESI-6 410
EE-3 1.1 J
MPI-4I 150
PW-4 2600
PW-5 2700
MPI-8S-R 130
MPI-9S-R 1.7 J
MPI-4S 4.3 J
MW-8 1.3 J
MPI-1S 56
ESI-5-R <0.65
EE-1 NS
MPI-10B 220
PW-2 620
PW-3 220
MW-11 1600
MPI-5S 24
MW-7 1100
EE-4 1.8 J
RW-1 180
ESI-3 180
MPI-7I-R 2.0 J
MPI-2S-R 2.9 J
ESI-2-R <0.65

EAST AURORA BUICK CADILLAC GMC
Collision Shop
PAINE STREET
MAIN STREET
WHALEY AVENUE
FILLMORE AVENUE
RIDGE ROAD
TOWN OF AURORA LIBRARY
BOYS AND GIRLS CLUBS
VET HOSPITAL
SPIKE GYM
BOWLING ALLEY
ELEC. OUTLET
N.Y.S.E.G. SUB-STATION
DOCKS
POOL
FIRE PLACE

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Figure 3
Tetrachloroethene in Groundwater
Mr. C's Dry Cleaners Site
East Aurora, New York
October 2014

1703074.0011.04
MrC_cVOC_in_GW_Oct2014.srf - 12/22/2014

FEET
0 120 240 360

Total chlorinated VOCs in micrograms per liter
5000
1000
500
100
50
10
5

Legend
ND = not detected
NS = not sampled
cVOC = Sum of PCE + daughter product concentrations
PW-8 100 Well ID with cVOC concentration in µg/L

MPI-15B ND
MPI-13B-R 4.5
PW-8 1460
EE-2 350
PW-6 2840
MPI-6S 1720
PW-7 120
MPI-14B-R 6.2
MPI-3S 1.9
MPI-12B NS
ESI-6 490
EE-3 21
MPI-4I 970
PW-4 2960
PW-5 2950
MPI-4S 69
MPI-8S-R 190
MPI-9S-R 1.7
MW-8 71
MPI-1S 61
ESI-5-R ND
EE-1 NS
MPI-10B 220
PW-2 620
PW-3 230
MW-11 1600
MPI-5S 42
MW-7 1100
EE-4 4.9
RW-1 180
ESI-3 180
MPI-7I-R 2.0
MPI-2S-R 2.9
ESI-2-R ND

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Figure 4
Total Chlorinated VOCs in Groundwater
Mr. C's Dry Cleaners Site
East Aurora, New York
October 2014

1703074.0011.04
MrC_GW_Elevation_2014.srf - 01/07/2015

HORIZONTAL SCALE IN FEET

0 120 240 360

W S N m

Legend

MW-8
904.12
Well ID with Measured Groundwater Elevation in Feet Above Mean Sea Level

903
Estimated Groundwater Elevation Isopleth (Feet Above Mean Sea Level) Contour Interval = 1.0 Foot

Groundwater Flow Direction and Relative Magnitude of Gradient

MPI-15B 901.53
MPI-13B-R 902.89
PW-8 901.75
PZ-8C 903.7
PZ-6A 903.45
EE-2 902.02
MPI-6S 902.79
PW-6 903.45
PW-7
PZ-7B 903.84
MPI-14B-R 903
MPI-3S 903.66
MPI-12B
ESI-6 903.62
EE-3 904.04
MPI-4S 903.27
PW-4 904.1
PZ-4B 904.15
PZ-5B 904.11
MPI-4I 903.26
PW-5 896.97
MPI-8S-R 903.63
MPI-9S-R 903.38
MW-8 904.12
PZ-2B 904.41
PW-2 901.58
MPI-1S 903.27
ESI-5-R 905.09
EE-1
PZ-8B 904.27
MPI-10B 904.16
MPI-5S 904.22
MW-3 899.3
MW-11 903.84
MW-7 904.15
EE-4 903.98
PZ-1B 904.54
PW-1 899.01
ESI-3 904.26
MPI-2S-R 903.88
Mr. C's
MPI-7I-R 906.27
ESI-2-R 903.79

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Figure 5
Groundwater Elevation Isopleths
For the Outwash Aquifer, October 2014
Mr. C's Dry Cleaners Site
East Aurora, New York

ATTACHMENT A
DATA USABILITY SUMMARY REPORTS

Data Usability Summary Report	Project: Mr. C's Dry Cleaning Annual Groundwater Sampling
Date Completed: November 14, 2014	Completed by: Lynne Kalmbach and Marcia Meredith Galloway

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (EPA-540-R-08-01, June 2008)
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (OSWER 9240.1-51, EPA 540-R-10-011, January 2010).
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are 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	Laboratory
10C3074.0011.04	N1963 N2002	Spectrum Analytical

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
N1963	WQ	TB-1014-01	N1963-01	10/14/2014			
N1963	WG	ESI-3-1014	N1963-02	10/14/2014			
N1963	WG	MPI-7-1014	N1963-03	10/14/2014			MPI-7I-R-1014
N1963	WG	MW-11-1014	N1963-04	10/14/2014			
N1963	WG	MW-11-1014Q	N1963-05	10/14/2014			MW-11-1014-Q
N1963	WG	MPI-10B-1014	N1963-06	10/14/2014			
N1963	WG	MPI-13BR-1015	N1963-07	10/15/2014		MS/MSD	MPI-13B-R-1015
N1963	WG	MPI-14BR-1015	N1963-08	10/15/2014			MPI-14B-R-1015
N1963	WG	MPI-9SR-1015	N1963-09	10/15/2014			MPI-9S-R-1015
N1963	WG	MW-7-1015	N1963-10	10/15/2014			
N1963	WG	ESI-6-1015	N1963-11	10/15/2014			
N1963	WG	EE-3-1016	N1963-12	10/16/2014			
N1963	WG	MPI-3S-1016	N1963-13	10/16/2014			
N1963	WG	MPI-1S-1016	N1963-14	10/16/2014			
N1963	WG	MPI-2SR-1017	N1963-15	10/17/2014			MPI-2S-R-1017
N1963	WG	ESI-5R-1017	N1963-16	10/17/2014			ESI-5-R-1017
N1963	WG	ESI-2R-1017	N1963-17	10/17/2014			ESI-2-R-1017
N1963	WG	MPI-15B-1017	N1963-18	10/17/2014			
N2002	WQ	TB-1020-02	N2002-01	10/20/2014			
N2002	WG	MW-8-1020	N2002-02	10/20/2014			

Data Usability Summary Report	Project: Mr. C's Dry Cleaning Annual Groundwater Sampling
Date Completed: November 14, 2014	Completed by: Lynne Kalmbach and Marcia Meredith Galloway

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
N2002	WG	MW-8-1020Q	N2002-03	10/20/2014			MW-8-1020-Q
N2002	WG	MPI-5S-1020	N2002-04	10/20/2014			
N2002	WG	PZ3B-1020	N2002-05	10/20/2014		MS/MSD	PZ-3B-1020
N2002	WG	MPI-8SR-1020	N2002-06	10/20/2014			MPI-8S-R-1020
N2002	WG	PZ5B-1021	N2002-07	10/21/2014			PZ-5B-1021
N2002	WG	PW5-1021	N2002-08	10/21/2014			PW-5-1021
N2002	WG	PZ6A-1021	N2002-09	10/21/2014			PZ-6A-1021
N2002	WG	PZ6A-1021Q	N2002-10	10/21/2014			PZ6A-1021-Q
N2002	WG	PW6-1021	N2002-11	10/21/2014			PW-6-1021
N2002	WG	PZ8C-1021	N2002-12	10/21/2014			PZ-8C-1021
N2002	WG	PW8-1021	N2002-13	10/21/2014			PW-8-1021
N2002	WG	MPI6S-1021	N2002-14	10/21/2014			MPI-6S-1021
N2002	WG	PW7-1021	N2002-15	10/21/2014			PW-7-1021
N2002	WG	MPI4I-1022	N2002-16	10/22/2014			MPI-4I-1022
N2002	WG	MPI4S-1022	N2002-17	10/22/2014			MPI-4S-1022
N2002	WG	EE2-1022	N2002-18	10/22/2014			EE-2-1022
N2002	WG	PW4-1022	N2002-19	10/22/2014			PW-4-1022
N2002	WH	RB01-1022	N2002-20	10/22/2014			EE-4-1023
N2002	WG	EE4-1023	N2002-21	10/23/2014			PW-2-1023
N2002	WG	PW2-1023	N2002-22	10/23/2014			PW-3-1023
N2002	WG	PW3-1023	N2002-23	10/23/2014			RW-1-1023
N2002	WG	RW1-1023	N2002-24	10/23/2014			EE-4-1023

Work Orders	Matrix	Test Method	Method Name	Number of Samples	Sample Type
N1963	WG	8260C	Volatile Organics	17	N/FD
N1963	WG	8260C	Volatile Organics	1	TB
N2002	WG	8260C	Volatile Organics	22	N/FD
N2002	WG	8260C	Volatile Organics	1	TB
N2002	WG	8260C	Volatile Organics	1	RB

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes. Several name corrections were made as noted in the ID Corrections column of Table 1 due to incorrect well names used on COC and to maintain consistent nomenclature across sampling events.
Did coolers arrive at lab between 2 and 6^{o}C and in good condition as indicated on COC and Cooler Receipt Form?	Yes.

Data Usability Summary Report	Project: Mr. C's Dry Cleaning Annual Groundwater Sampling
Date Completed: November 14, 2014	Completed by: Lynne Kalmbach and Marcia Meredith Galloway

General Sample Information	
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. 3 field duplicate per 37 samples 2 MS/MSD per 37 samples 1 trip blank/cooler 1 rinsate blank
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 provide 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)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to Tables List

Volatile Organics by GC/MS	
Description	**Notes and Qualifiers**
Any compounds present in method, trip, or, field blanks (see Table 2)?	Yes. Methylene chloride was detected in the rinsate blank.
For samples, if results are < 5 times the blank or < 10 times the blank for common laboratory contaminants, then "U" flag data. Qualification also applies to TICs.	Methylene chloride was not detected in any of the samples; therefore, no qualifications were required.
Are surrogates for method blanks and LCS within limits?	Yes.
Are surrogates for samples and MS/MSD within limits? (See Table 3). If not, were all samples reanalyzed for VOCs?	Yes.
Is Laboratory QC frequency at least one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Is 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. Bromomethane exhibited poor precision between the MS/MSD of PZ-3B-1020; however, both of the spiking recoveries were acceptable. The analyte was not detected in the parent sample; therefore, no qualification of the data was made.

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Volatile Organics by GC/MS	
Description	**Notes and Qualifiers**
Is LCS within QC criteria (see Table 5)? If out, and the recovery is high with no positive values, then no data qualification is required.	No. 1,2-Dibromoethane and methyl-tert-butyl ether (MTBE) were recovered high in LCS-79655. Both analytes are poor performing compounds in a multi-parameter spike. 1,2-Dibromoethane was not detected in the samples; therefore, no qualifications were made. MTBE was detected in sample EE-3-1016 and was qualified J as estimated. 4-Methyl-2-pentanone was recovered high in LCSD-79746. The analyte is a poor performing compound in a multi-parameter spike. The analyte was not detected in the samples; therefore, no qualifications were made.
Do internal standards areas and retention time meet criteria? If not was sample re-analyzed to establish matrix (see Table 6)?	Yes.
Is initial calibration for target compounds <20% RSD or curve fit?	No. 1,2-Dibromo-3-chloropropane exceeded 20% RSD in the initial calibration of instrument V1 on 10/22/14; however, the analyte is a poor performing compound. Region 2 EPA SOP HW-33 allows up to 40% RSD for poor performing compounds. The analyte was not detected in the samples, and no qualification of the data was made. 2-Butanone exceeded 20% RSD in the initial calibration of instrument V10 on 10/22/14; however, the analyte is a poor performing compound. Region 2 EPA SOP HW-33 allows up to 40% RSD for poor performing compounds. The analyte was not detected in the samples and no qualification of the data was made.
Is continuing calibration for target compounds < 20.5% D.	No. The following analytes were outside 20% D in the CCV's listed below: V1N1871: acetone (-34.7%), 2-hexanone (-24.6%). V1N1933: methylene chloride (-29.0%), 1,1-dichloroethane (-23.3%). V1N1963: 1,2-dichloroethane (-23.9%), 2-hexanone (-25.6%), 1,2-dibromo-3-chloropropane (-32.6%), methyl acetate (-21.9%). V8D7788: dichlorodifluoromethane (-29.8%), chloromethane (-22.3%). V8D7811: dichlorodifluoromethane (-31.9%), chloromethane (-27.4%), Bromomethane (-33.2%). V8D7845: dichlorodifluoromethane (26.3%), acetone (23.6%), 2-butanone (26.2%), 4-methyl-2-pentanone (26.2%). Methylene chloride was detected in RB01-1022, which was associated with CCV V1N1933. The sample was already J qualified. The other analytes were not detected in the

Data Usability Summary Report	Project: Mr. C's Dry Cleaning Annual Groundwater Sampling
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Volatile Organics by GC/MS	
Description	**Notes and Qualifiers**
	associated CCVs; therefore, no qualification of the data was made.
Were any samples reanalyzed or diluted (see Table 6)? For any sample reanalysis or dilutions, is only one reportable result flagged?	Yes. Only one result is reported. Several samples were analyzed at dilutions due to target analytes exceeding the calibration curve. Only the exceeding analytes were reported from the dilution.
For TICs are there any system related compounds that should not be reported?	N/A
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Summary of Potential Impacts on Data Usability
• MTBE was qualified J as estimated in sample EE-3-1016 due to the analyte exceeding recovery in the LCS. • Methylene chloride was detected in RB01-1022. The analyte was not detected in the samples; therefore, there is no impact to the data usability. • Sample PZ-5B-1021 was initially run at a 4X dilution. Elevated reporting limits are provided for the initial run. Due to elevated reporting limits, the result for vinyl chloride of 2.0 U is equal to the ground water screening level criteria, which impacts data usability.

Data Usability Summary Report	Project: Mr. C's Dry Cleaning Annual Groundwater Sampling
Date Completed: November 14, 2014	Completed by: Lynne Kalmbach and Marcia Meredith Galloway

Table 2 - List of Positive Results for Blank Samples

Method	Sample ID	Sample Type	Analyte	Result	Qualifier	Units	MDL	PQL
SW8260	RB01-1022	RB	Methylene chloride	2.9	J	ug/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 of MS/MSD Recoveries and RPDs outside Control Limits

Method	Parent Sample	Analyte	Dil Fac	Unit	RPD	RPD Limit	Qualifier	Sample Type
SW8260	PZ-3B-1020	Bromomethane	1	ug/L	46	40	None	MS/MSD

Table 5 - List of LCS Recoveries outside Control Limits

Method	Sample ID	Analyte	Rec.	Low Limit	High Limit	Sample Qualifier
SW8260	LCS-79655_N1963	1,2-Dibromoethane	123	80	120	None: High/ND
SW8260	LCS-79655_N1963	Methyl tert-butyl ether	127	65	125	J Flag
SW8260	LCS-79746_N2002	4-Methyl-2-pentanone	146	60	135	None: High/ND

Table 6 –Samples that were Reanalyzed

Sample ID	Lab ID	Method	Sample Type	Action
ESI-3-1014	N1963-02DL	8260C	GW	2X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.
MW-11-1014	N1963-04DL	8260C	GW	20X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.

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Sample ID	Lab ID	Method	Sample Type	Action
MW-11-1014-Q	N1963-05DL	8260C	GW	20X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.
MPI-10B-1014	N1963-06DL	8260C	GW	2X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.
MW-7I-R-1015	N1963-10DL	8260C	GW	15X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.
ESI-6-1015	N1963-11DL	8260C	GW	5X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.
PZ-5B-1021	N2002-07DL	8260C	GW	20X - Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution. Initial analysis prepared at 4X dilution; therefore, elevated detection limits are provided.
PW-5-1021	N2002-08DL	8260C	GW	40X – Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.
PZ-6A-1021	N2002-09DL	8260C	GW	10X– Sample dilute due to tetrachloroethene, trichloroethene and cis-1,2-dichloroethene exceeding the calibration curve. Only target analytes reported from dilution.
PZ-6A-1021-Q	N2002-10DL	8260C	GW	10X– Sample dilute due to tetrachloroethene, trichloroethene and cis-1,2-dichloroethene exceeding the calibration curve. Only target analytes reported from dilution.
PW-8-1021	N2002-13DL	8260C	GW	10X– Sample dilute due to tetrachloroethene, vinyl chloride and cis-1,2-dichloroethene exceeding the calibration curve. Only target analytes reported from dilution.
MPI-6S-1021	N2002-14DL	8260C	GW	10X– Sample dilute due to vinyl chloride and cis-1,2-dichloroethene exceeding the calibration curve. Only target analytes reported from dilution.
MPI-4I-1022	N2002-16DL	8260C	GW	10X– Sample dilute due cis-1,2-dichloroethene and methyl-tert-butyl ether exceeding the calibration curve. Only target analytes reported from dilution.
EE-2-1022	N2002-18DL	8260C	GW	4X– Sample dilute due to cis-1,2-dichloroethene exceeding the calibration curve. Only target analytes reported from dilution.
PW-4-1022	N2002-19DL	8260C	GW	40X– Sample dilute due to tetrachloroethene and cis-1,2-dichloroethene exceeding the calibration curve. Only target analytes reported from dilution.

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Sample ID	Lab ID	Method	Sample Type	Action
PW-2-1023	N2002-22DL	8260C	GW	8X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.
PW-3-1023	N2002-23DL	8260C	GW	2X– Sample dilute due to tetrachloroethene exceeding the calibration curve. Only target analyte reported from dilution.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	MW-11-1014	MW-11-1014-Q	RPD	RPD Rating	Sample Qual
SW8260	Tetrachloroethene	ug/L	GW	100	1500	1600	6.5%	Good	None
SW8260	Trichloroethene	ug/L	GW	5.0	5.2	4.6	12.2%	Good	None

Method	Analyte	Unit	Matrix	PQL	MW-8-1020	MW-8-1020-Q	RPD	RPD Rating	Samp Qual
SW8260C	cis-1,2-Dichloroethene	ug/L	GW	5.0	15	13	14.3%	Good	None
SW8260C	Tetrachloroethene	ug/L	GW	5.0	1.3	0.90	36.4%	Good	None
SW8260C	trans-1,2-Dichloroethene	ug/L	GW	5.0	46	46	0.0%	Good	None
SW8260C	Trichloroethene	ug/L	GW	5.0	1.7	1.5	12.5%	Good	None
SW8260C	Vinyl chloride	ug/L	GW	5.0	7.2	6.4	11.8%	Good	None

Method	Analyte	Unit	Matrix	PQL	PZ-6A-1021	PZ-6A-1021-Q	RPD	RPD Rating	Samp Qual
SW8260C	1,1-Dichloroethene	ug/L	GW	5.0	2.1	2.2	4.7%	Good	None
SW8260C	cis-1,2-Dichloroethene	ug/L	GW	5.0	880	930	5.5%	Good	None
SW8260C	Methyl tert-butyl ether	ug/L	GW	5.0	26	26	0.0%	Good	None
SW8260C	Tetrachloroethene	ug/L	GW	5.0	1400	1500	6.9%	Good	None
SW8260C	trans-1,2-Dichloroethene	ug/L	GW	5.0	5.8	5.4	7.1%	Good	None
SW8260C	Trichloroethene	ug/L	GW	5.0	370	400	7.8%	Good	None
SW8260C	Vinyl chloride	ug/L	GW	5.0	1.1	1.0	9.5%	Good	None

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Acronym List and Table Key:

CCV	=	continuing calibration verification
COC	=	chain of custody
DUSR	=	data usability summary report
GC/MS	=	gas chromatography / mass spectrometry
LCS	=	laboratory control sample
MBLK	=	method blank
MS	=	matrix spike
MSD	=	matrix spike duplicate
NYSDEC	=	New York State Department of Environmental Conservation
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RPD	=	relative percent difference
SDG	=	sample delivery group
TIC	=	tentatively identified compound
VOC	=	volatile organic compound