

Mr. Todd Caffoe
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Subject:
Semiannual Groundwater Monitoring and Reporting
Crosman Site
East Bloomfield, New York

Date:
December 15, 2017

Dear Mr. Caffoe:

Contact:
William B. Popham

On behalf of Crosman Corporation and New Coleman Holdings, Inc. (collectively, Crosman), Arcadis of New York, Inc. (Arcadis) has prepared this letter report to update the New York State Department of Environmental Conservation (NYSDEC) on the results of the semiannual groundwater sampling event conducted in October 2017 at the Crosman site, located in East Bloomfield, New York (site).

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The groundwater monitoring program at the site has gone through several changes over time. Presently, as requested in the *Semiannual Groundwater Monitoring Report*, dated December 22, 2010, and approved by the NYSDEC, the groundwater program currently includes semiannual sampling of monitoring wells PW-1, MW-4, MW-5, MW-13, MW-14, and MW-15 (conducted in April and October) and annual sampling of monitoring wells MW-3A, MW-17, MW-18, MW-19, and MW-20 (conducted in April).

Our ref:
B0041501.0001

GROUNDWATER MONITORING

On October 17, 2017, Arcadis collected groundwater quality samples from monitoring wells MW-4, MW-5, MW-13, MW-14, and MW-15. A sample was scheduled to be collected from production well PW-1, but the pump was not operational at the time of sampling. Site-wide water-level measurements were also obtained and are presented in Table 1. Figure 1 represents the groundwater elevation contour map for the October 2017 groundwater sampling event.

ALS Environmental laboratory in Rochester, New York, analyzed the groundwater quality samples for volatile organic compounds by United States Environmental Protection Agency Method 8260. Table 2 presents the laboratory analytical results for this event, as well as for previous sampling events (past 10 years to present). Attachment 1 provides the laboratory report documenting the practical quantitation limits and dilution factors.

Analytical data from October 2017 reflects little change in levels of trichloroethene (TCE); overall changes observed at select wells are consistent with historical fluctuations. In addition, monitoring wells located at the perimeter of the contaminant plume continue to show that the plume is not migrating offsite. Below is a summary of the findings:

- A continued non-detectable concentration in monitoring wells MW-4, MW-14, and MW-15.
- An increase in concentration in monitoring well MW-5 – from 5.0 parts per billion (ppb) in April 2017 to 17 ppb in October 2017.
- A decrease in concentration in monitoring well MW-13 – from 250 ppb in April 2017 to 110 ppb in October 2017.

Figure 2 provides a map depicting TCE concentrations in groundwater over time (past 10 years to present). For clarity purposes, only data for the groundwater monitoring wells included in the present monitoring program are shown on this figure.

The TCE concentration in the effluent from the cooling pond also remains below the State Pollutant Discharge Elimination System permitted level of 10 ppb.

PUMP WELL OPERATIONS

The pump in production well PW-1 was not operational during the October 2017 sampling event. Site personnel reported that the pump stopped working on August 16, 2017, and they had been working on repairing the pump since that time. The pump was eventually determined to be beyond repair; therefore, a new pump was installed and placed back into service on December 12, 2017.

Groundwater elevation contours (Figure 1) for the groundwater monitoring event show that even when production well PW-1 is not operating for an extended duration, the long-term history of pumping at this well continues to influence groundwater dynamics at the site. This further supports the findings of the *Hydraulic Control Assessment Associated with Current Operation of PW-1* (BBL Environmental Services, Inc., October 2001). As evidenced by previous groundwater contours generated under normal operating conditions, normal operation of PW-1 maintains hydraulic control of the TCE plume contained in the groundwater system and continues to demonstrably abate the potential for direct human exposure.

These groundwater monitoring results continue to demonstrate that the state's water quality standard of 5 ppb for TCE is being achieved at the limits of the area of concern to the extent practicable. Therefore, the remedial goals of the NYSDEC's March 26, 1997 Record of Decision and the remedial action objectives set forth in the *Remedial Design/Remedial Action Work Plan* (Blasland, Bouck & Lee, Inc., May 1997) continue to be achieved.

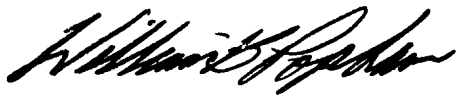
Mr. Todd Caffoe
December 15, 2017

The first semiannual groundwater sampling event for 2018 is tentatively scheduled for the third week of April 2018. As in the past, upon receipt and review of the analytical data, a report will be prepared and submitted to the NYSDEC.

If you should have any questions, feel free to contact me at 585.662.4022.

Sincerely,

Arcadis of New York, Inc.



William B. Popham
Senior Vice President

Copies:

Justin Deming, New York State Department of Health
Timothy S. Martin, Esq., New Coleman Holdings, Inc.
Benedict Moshier, New Coleman Holdings, Inc.
Thomas F. Walsh, Esq., Barclay Damon, LLP
Gina Thomas, Crosman Corporation
Aaron D. Richardson, Arcadis of New York, Inc.

Enclosures:

Tables

- 1 Groundwater Elevation Data
- 2 Groundwater Analytical Results

Figures

- 1 Groundwater Elevation Contour Map – October 17, 2017
- 2 Map of Trichloroethylene Concentrations in Groundwater

Attachments

- 1 Laboratory Data

TABLES



Table 1
Groundwater Elevation Data
Semiannual Groundwater Monitoring and Reporting
Crosman Site
East Bloomfield, New York

Location I.D.	T.O.R. Reference Elevation	January 25, 2007		April 26, 2007		July 26, 2007		October 24, 2007		January 23, 2008		April 21, 2008	
		Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	1052.09	7.03	1045.06	5.57	1046.52	6.74	1045.35	18.72	1033.37	9.78	1042.31	13.95	1038.14
MW-1A	1051.86	70.91	980.95	69.12	982.74	68.83	983.03	70.63	981.23	73.88	977.98	71.48	980.38
MW-2	1018.00	42.18	975.82	46.13	971.87	47.96	970.04	50.28	967.72	50.46	967.54	48.18	969.82
MW-3	1018.31	27.14	991.17	26.28	992.03	27.97	990.34	28.84	989.47	27.52	990.79	27	991.31
MW-3A	1017.81	47.76	970.05	45.93	971.88	47.25	970.56	49.4	968.41	49.94	967.87	48.21	969.6
MW-4	976.42	15.96	960.46	12.43	963.99	18.60	957.82	20.92	955.5	18.78	957.64	15.19	961.23
MW-5	978.93	13.99	964.94	10.91	968.02	15.41	963.52	17.68	961.25	16.89	962.04	13.7	965.23
MW-6	1015.95	45.6	970.35	43.56	972.39	45.42	970.53	47.9	968.05	48.17	967.78	45.88	970.07
MW-7	979.31	14.36	964.95	10.7	968.61	16.14	963.17	18.34	960.97	17.5	961.81	13.97	965.34
MW-8	1025.62	48.58	977.04	47.03	978.59	46.81	978.81	48.52	977.1	49.52	976.1	49.29	976.33
MW-9	1026.09	52.33	973.76	50.97	975.12	50.44	975.65	52.02	974.07	53.31	972.78	52.82	973.27
MW-10	1023.87	52.86	971.01	50.86	973.01	51.19	972.68	53.15	970.72	53.84	970.03	52.68	971.19
MW-11	1016.48	53.1	963.38	51.44	965.04	52.94	963.54	54.68	961.8	54.81	961.67	53.04	963.44
MW-12	981.84	21.74	960.1	18.35	963.49	24.23	957.61	26.6	955.24	24.29	957.55	21.15	960.69
MW-13	996.97	29.91	967.06	27.15	969.82	30.64	966.33	33.05	963.92	32.49	964.48	29.61	967.36
MW-14	1021.66	54.61	967.05	52.09	969.57	55.11	966.55	57.43	964.23	57.34	964.32	54.5	967.16
MW-15	971.90	11.41	960.49	7.42	964.48	14.30	957.60	16.29	955.61	14.83	957.07	9.71	962.19
MW-16	1026.88	54.25	972.63	52.67	974.21	52.84	974.04	54.94	971.94	55.88	971	60.35	966.53
MW-17	1024.17	52.48	971.69	48.95	975.22	48.00	976.17	49.2	974.97	50.34	973.83	50.11	974.06
MW-18	1002.64	33.5	969.14	31.18	971.46	33.90	968.74	36.01	966.63	35.29	967.35	33.38	969.26
MW-19	979.81	17.31	962.5	12.84	966.97	21.45	958.36	24.25	955.56	21.76	958.05	18.45	961.36
MW-20 (1)	1026.09	52.02	974.07	50.73	975.36	50.26	975.83	51.9	974.19	52.99	973.1	52.52	973.57
MW-21	--	53.02	--	47.31	---	50.74	--	52.45	--	52.5	--	53.6	--
PZ-1	1024.33	51.5	972.83	50.1	974.23	49.76	974.57	51.6	972.73	52.67	971.66	51.98	972.35
PZ-2	1024.89	54.07	970.82	52.4	972.49	53.24	971.65	55.24	969.65	55.89	969	54.25	970.64
PZ-3	979.23	--	--	15.36	963.87	21.26	957.97	23.19	956.04	21.28	957.95	18.17	961.06
PW-1	971.85	13.3	958.55	11.05	960.8	15.90	955.95	18.2	953.65	16.88	954.97	13.9	957.95

Notes on page 5.

Table 1
Groundwater Elevation Data
Semiannual Groundwater Monitoring and Reporting
Crosman Site
East Bloomfield, New York

Location I.D.	T.O.R. Reference Elevation	July 24, 2008		October 29, 2008		April 22, 2009		October 27, 2009		April 16, 2010	
		Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	1052.09	14.3	1037.79	13.09	1039	7.30	1044.79	16.03	1036.06	7.88	1044.21
MW-1A	1051.86	70.83	981.03	72.15	979.71	71.47	980.39	71.27	980.59	71.86	980.00
MW-2	1018.00	49.76	968.24	50.91	967.09	47.25	970.75	50.11	967.89	48.96	969.04
MW-3	1018.31	27.42	990.89	27.25	991.06	27.50	990.81	28.42	989.89	27.57	990.74
MW-3A	1017.81	50.1	967.71	49.73	968.08	47.18	970.63	50.35	967.46	48.84	968.97
MW-4	976.42	19.54	956.88	NR	---	14.98	961.44	19.79	956.63	15.92	960.50
MW-5	978.93	16.69	962.24	18.13	960.8	13.19	965.74	17.01	961.92	19.85	959.08
MW-6	1015.95	47.24	968.71	48.38	967.57	44.68	971.27	47.70	968.25	46.54	969.41
MW-7	979.31	17.35	961.96	18.32	960.99	13.54	965.77	17.71	961.60	15.26	964.05
MW-8	1025.62	48.69	976.93	NR	---	NR	---	48.88	976.74	49.44	976.18
MW-9	1026.09	52.4	973.69	53.29	972.8	51.92	974.17	52.51	973.58	53.11	972.98
MW-10	1023.87	53.07	970.8	54.94	968.93	51.75	972.12	53.58	970.29	53.25	970.62
MW-11	1016.48	54.15	962.33	54.82	961.66	52.31	964.17	57.31	959.17	56.36	960.12
MW-12	981.84	25.24	956.6	26.16	955.68	20.79	961.05	24.96	956.88	21.80	960.04
MW-13	996.97	32.22	964.75	33.35	963.62	28.96	968.01	32.57	964.40	30.58	966.39
MW-14	1021.66	56.59	965.07	57.8	963.86	53.72	967.94	57.12	964.54	55.28	966.38
MW-15	971.90	14.94	956.96	15.59	956.31	10.54	961.36	19.82	952.08	15.43	956.47
MW-16	1026.88	54.81	972.07	57.63	969.25	55.49	971.39	55.35	971.53	55.55	971.33
MW-17	1024.17	49.81	974.36	50.3	973.87	49.36	974.81	52.38	971.79	53.25	970.92
MW-18	1002.64	35.12	967.52	36.03	966.61	32.62	970.02	35.49	967.15	36.65	965.99
MW-19	979.81	22.28	957.53	23.42	956.39	16.80	963.01	22.95	956.86	19.44	960.37
MW-20 (1)	1026.09	52.14	973.95	53.06	973.03	51.63	974.46	52.25	973.84	52.84	973.25
MW-21	--	53.5	---	53.94	---	51.95	---	54.15	---	52.92	---
PZ-1	1024.33	51.72	972.61	53.72	970.61	51.09	973.24	51.88	972.45	52.23	972.10
PZ-2	1024.89	55.04	969.85	55.95	968.94	53.32	971.57	55.30	969.59	54.72	970.17
PZ-3	979.23	22.75	956.48	23.1	956.13	17.16	962.07	21.70	957.53	18.43	960.80
PW-1	971.85	17.99	953.86	19	952.85	13.55	958.30	16.81	955.04	16.10	957.35

Notes on page 5.

Table 1
Groundwater Elevation Data
Semiannual Groundwater Monitoring and Reporting
Crosman Site
East Bloomfield, New York

Location I.D.	T.O.R. Reference Elevation	October 22, 2010		April 21, 2011		October 20, 2011		April 16, 2012		October 10, 2012	
		Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	1052.09	13.65	1038.44	6.02	1046.07	15.31	1036.78	8.59	1043.50	18.25	1033.84
MW-1A	1051.86	72.08	979.78	72.12	979.74	71.15	980.71	71.60	980.26	72.08	979.78
MW-2	1018.00	51.12	966.88	48.64	969.36	50.57	967.43	51.18	966.82	51.70	966.30
MW-3	1018.31	27.53	990.78	26.40	991.91	27.01	991.3	28.72	989.59	27.98	990.33
MW-3A	1017.81	50.22	967.59	48.51	969.3	49.43	968.38	48.79	969.02	50.49	967.32
MW-4	976.42	21.44	954.98	14.34	962.08	21.80	954.62	18.24	958.18	22.80	953.62
MW-5	978.93	18.14	960.79	19.23	959.7	17.87	961.06	15.76	963.17	19.10	959.83
MW-6	1015.95	48.80	967.15	46.27	969.68	48.08	967.87	46.54	969.41	49.22	966.73
MW-7	979.31	18.70	960.61	13.60	965.71	18.59	960.72	16.52	962.79	19.76	959.55
MW-8	1025.62	50.39	975.23	49.84	975.78	NR	---	49.05	976.57	49.85	975.77
MW-9	1026.09	53.69	972.40	53.59	972.5	52.50	973.59	52.76	973.33	53.57	972.52
MW-10	1023.87	54.56	969.31	53.08	970.79	53.29	970.58	52.79	971.08	54.51	969.36
MW-11	1016.48	55.40	961.08	53.48	963	54.72	961.76	54.05	962.43	55.88	960.60
MW-12	981.84	27.27	954.57	20.12	961.72	27.54	954.3	23.87	957.97	29.14	952.70
MW-13	996.97	33.52	963.45	29.85	967.12	33.34	963.63	31.41	965.56	34.49	962.48
MW-14	1021.66	58.35	963.31	54.70	966.96	57.75	963.91	56.02	965.64	58.88	962.78
MW-15	971.90	19.36	952.54	10.13	961.77	19.39	952.51	14.09	957.81	16.71	955.19
MW-16	1026.88	56.52	970.36	55.42	971.46	55.22	971.66	55.81	971.07	56.31	970.57
MW-17	1024.17	50.61	973.56	53.83	970.34	49.59	974.58	53.09	971.08	50.59	973.58
MW-18	1002.64	39.20	963.44	37.42	965.22	36.15	966.49	37.95	964.69	36.92	965.72
MW-19	979.81	23.59	956.22	16.13	963.68	24.35	955.46	20.60	959.21	25.50	954.31
MW-20 (1)	1026.09	53.84	972.25	53.29	972.8	52.34	973.75	52.44	973.65	53.39	972.70
MW-21	--	53.93	---	53.52	---	48.85	---	-	---	53.59	---
PZ-1	1024.33	53.24	971.09	52.78	971.55	51.98	972.35	51.92	972.41	52.96	971.37
PZ-2	1024.89	56.53	968.36	54.87	970.02	55.62	969.27	54.68	970.21	56.66	968.23
PZ-3	979.23	24.24	954.99	16.54	962.69	24.40	954.83	21.03	958.20	26.07	953.16
PW-1	971.85	20.01	951.84	12.09	959.76	20.22	951.63	16.43	955.42	21.19	950.66

Notes on page 5.

Table 1
Groundwater Elevation Data
Semiannual Groundwater Monitoring and Reporting
Crosman Site
East Bloomfield, New York

Location I.D.	T.O.R. Reference Elevation	April 8, 2013		October 16, 2013		April 9, 2014		October 29, 2014		April 22, 2015	
		Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	1052.09	8.97	1043.12	15.55	1036.54	6.67	1045.42	13.33	1038.76	6.30	1045.79
MW-1A	1051.86	24.39	1027.47	24.37	1027.49	24.35	1027.51	24.55	1027.31	24.75	1027.11
MW-2	1018.00	51.15	966.85	50.80	967.20	50.45	967.55	50.14	967.86	48.75	969.25
MW-3	1018.31	27.81	990.50	27.95	990.36	25.57	992.74	27.77	990.54	26.63	991.68
MW-3A	1017.81	50.98	966.83	50.13	967.68	50.49	967.32	49.53	968.28	48.71	969.10
MW-4	976.42	18.37	958.05	18.60	957.82	14.79	961.63	20.45	955.97	15.70	960.72
MW-5	978.93	20.05	958.88	15.35	963.58	14.74	964.19	17.19	961.74	14.29	964.64
MW-6	1015.95	48.80	967.15	48.34	967.61	48.20	967.75	47.69	968.26	46.09	969.86
MW-7	979.31	17.57	961.74	17.75	961.56	14.72	964.59	17.71	961.60	14.59	964.72
MW-8	1025.62	24.31	1001.31	50.15	975.47	51.23	974.39	49.26	976.36	49.05	976.57
MW-9	1026.09	34.89	991.20	53.67	972.42	54.82	971.27	52.75	973.34	52.59	973.50
MW-10	1023.87	55.09	968.78	54.23	969.64	54.74	969.13	53.33	970.54	52.60	971.27
MW-11	1016.48	55.05	961.43	55.22	961.26	54.55	961.93	54.63	961.85	53.31	963.17
MW-12	981.84	24.01	957.83	24.73	957.11	20.69	961.15	26.11	955.73	21.52	960.32
MW-13	996.97	38.94	958.03	32.68	964.29	31.33	965.64	32.63	964.34	21.33	975.64
MW-14	1021.66	57.72	963.94	57.34	964.32	56.54	965.12	57.14	964.52	55.11	966.55
MW-15	971.90	18.12	953.78	13.96	957.94	12.30	959.60	15.32	956.58	10.59	961.31
MW-16	1026.88	57.12	969.76	56.11	970.77	56.81	970.07	55.14	971.74	54.56	972.32
MW-17	1024.17	52.09	972.08	50.84	973.33	51.92	972.25	50.00	974.17	50.21	973.96
MW-18	1002.64	38.35	964.29	35.59	967.05	13.77	988.87	35.34	967.30	NR	---
MW-19	979.81	21.80	958.01	22.33	957.48	15.45	964.36	22.59	957.22	16.73	963.08
MW-20 (1)	1026.09	54.81	971.28	53.49	972.60	54.44	971.65	52.55	973.54	52.24	973.85
MW-21	--	54.95	---	53.59	---	--	---	60.87	---	50.71	---
PZ-1	1024.33	54.23	970.10	53.03	971.30	53.93	970.40	51.95	972.38	NR	---
PZ-2	1024.89	56.87	968.02	56.18	968.71	56.45	968.44	55.34	969.55	54.45	970.44
PZ-3	979.23	20.94	958.29	21.82	957.41	17.51	961.72	23.19	956.04	18.05	961.18
PW-1	971.85	16.81	955.04	17.55	954.30	12.57	959.28	18.35	953.50	12.68	959.17

Notes on page 5.

Table 1
Groundwater Elevation Data
Semiannual Groundwater Monitoring and Reporting
Crosman Site
East Bloomfield, New York

Location I.D.	T.O.R. Reference Elevation	October 21, 2015		April 18, 2016		October 26, 2016		April 19, 2017		October 17, 2017	
		Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	1052.09	12.89	1039.20	8.41	1043.68	19.50	1032.59	6.97	1045.12	12.71	1039.38
MW-1A	1051.86	71.11	980.75	NR	---	NR	---	NR	---	NR	---
MW-2	1018.00	49.75	968.25	49.25	968.75	52.78	965.22	50.25	967.75	48.31	969.69
MW-3	1018.31	27.74	990.57	28.29	990.02	26.39	991.92	26.71	991.60	27.09	991.22
MW-3A	1017.81	49.40	968.41	49.12	968.69	52.07	965.74	50.37	967.44	47.82	969.99
MW-4	976.42	21.55	954.87	17.94	958.48	23.47	952.95	14.80	961.62	14.96	961.46
MW-5	978.93	16.80	962.13	15.70	963.23	20.03	958.90	14.42	964.51	16.00	962.93
MW-6	1015.95	47.16	968.79	46.59	969.36	50.28	965.67	47.56	968.39	45.89	970.06
MW-7	979.31	18.18	961.13	14.15	965.16	20.51	958.80	14.35	964.96	15.05	964.26
MW-8	1025.62	48.61	977.01	49.18	976.44	51.02	974.60	51.24	974.38	48.28	977.34
MW-9	1026.09	51.95	974.14	52.75	973.34	55.78	970.31	54.93	971.16	51.86	974.23
MW-10	1023.87	52.75	971.12	52.93	970.94	55.60	968.27	NR	---	52.08	971.79
MW-11	1016.48	54.43	962.05	54.09	962.39	56.73	959.75	54.48	962.00	53.11	963.37
MW-12	981.84	27.70	954.14	23.82	958.02	29.69	952.15	20.88	960.96	19.72	962.12
MW-13	996.97	28.11	968.86	31.35	965.62	35.45	961.52	31.05	965.92	30.20	966.77
MW-14	1021.66	57.08	964.58	56.00	965.66	59.86	961.80	56.03	965.63	54.95	966.71
MW-15	971.90	15.60	956.30	13.54	958.36	17.60	954.30	13.23	958.67	13.12	958.78
MW-16	1026.88	54.45	972.43	54.80	972.08	57.42	969.46	56.84	970.04	53.93	972.95
MW-17	1024.17	49.55	974.62	50.27	973.90	51.44	972.73	52.25	971.92	49.65	974.52
MW-18	1002.64	34.58	968.06	34.62	968.02	38.28	964.36	34.64	968.00	34.27	968.37
MW-19	979.81	23.29	956.52	20.16	959.65	26.32	953.49	14.88	964.93	19.51	960.30
MW-20 (1)	1026.09	51.71	974.38	52.48	973.61	54.28	971.81	54.85	971.24	51.61	974.48
MW-21	--	50.91	---	54.15	---	54.35	---	54.45	---	51.80	---
PZ-1	1024.33	51.33	973.00	51.93	972.40	53.92	970.41	53.93	970.40	50.91	973.42
PZ-2	1024.89	54.93	969.96	54.84	970.05	55.50	969.39	55.38	969.51	53.90	970.99
PZ-3	979.23	24.60	954.63	20.70	958.53	26.83	952.40	17.51	961.72	17.14	962.09
PW-1	971.85	19.72	952.13	15.63	956.22	22.60	949.25	13.08	958.77	12.38	959.47

Notes:

All data are expressed in feet.

Wells MW-17, MW-18, MW-19, IRM-1, PZ-1, and PZ-2 were installed during October and November 1994.

Monitoring well MW-1A was installed on September 18 and 19, 1996.

PW reference elevation is taken from baseplate of well pump as provided in Labella's *Preliminary Site Assessment Report (August 1993)*.

MW-21 was installed July 31, 2000 through August 3, 2000.

PZ-3 was installed on May 14, 2001.

Groundwater elevations for May and June 2001 were taken during the hydraulic control test for well PW-1.

Depth to water measurements for October 2004 were taken between October 27 to 29, 2004.

(1) Monitoring well MW-20 was formerly IRM-1.

--- = not measured

NR = not recorded

T.O.R. = top of polyvinyl chloride riser

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-3A					
Date Sampled	23-Jan-08	24-Jul-08	22-Apr-09	16-Apr-10	21-Apr-11	16-Apr-12
Volatiles						
Acetone	-	-	-	-	-	-
Benzene	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-
Trichloroethene	65	53	91	230 D	240	210
Toluene	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-

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Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-3A (cont.)				
Date Sampled	8-Apr-13	9-Apr-14	22-Apr-15	18-Apr-16	19-Apr-17
Volatiles					
Acetone	-	-	-	-	-
Benzene	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-
Bromoform	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-
Chlorobenzene	-	-	-	-	-
Chloroform	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-
Methylene Chloride	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-
Trichloroethene	190	280	250	350	260
Toluene	-	-	-	-	-
Xylenes (total)	-	-	-	-	-

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Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-4										
Date Sampled	23-Jan-08	21-Apr-08	24-Jul-08	29-Oct-08	22-Apr-09	27-Oct-09	22-Oct-10	21-Apr-11	20-Oct-11	16-Apr-12	10-Oct-12
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1 - Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1 - Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2 - Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5.6	-	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

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Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-4 (cont.)									
Date Sampled	8-Apr-13	16-Oct-13	9-Apr-14	29-Oct-14	22-Apr-15	21-Oct-15	18-Apr-16	26-Oct-16	19-Apr-17	17-Oct-17
Volatiles										
Acetone	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-
1,1 - Dichloroethane	-	-	-	-	-	-	-	-	-	-
1,1 - Dichloroethene	-	-	-	-	-	-	-	-	-	-
1,1,2,2 - Tetrachloroethane	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-
Trichloroethene	4.06	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-

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Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
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Well I.D.	MW-5										
Date Sampled	23-Jan-08	21-Apr-08	24-Jul-08	29-Oct-08	22-Apr-09	27-Oct-09	16-Apr-10	22-Oct-10	21-Apr-11	20-Oct-11	16-Apr-12
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	23	21	26	29	24	31	28	29	29	27	23
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

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Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-5 (cont.)										
	10-Oct-12	8-Apr-13	16-Oct-13	9-Apr-14	29-Oct-14	22-Apr-15	21-Oct-15	18-Apr-16	26-Oct-16	19-Apr-17	17-Oct-17
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	6.28	9.6	-	8.8	17	15	14	9.4	8.8	9.6
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	33	16.4	19	7.9	8.7	5.7	6.4	-	6.1	5.0	17
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

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Program Monitoring Wells
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Well I.D.	MW-13										
Date Sampled	23-Jan-08	21-Apr-08	24-Jul-08	29-Oct-08	22-Apr-09	27-Oct-09	16-Apr-10	22-Oct-10	21-Apr-11	20-Oct-11	16-Apr-12
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	50	-	-	-	-	33	11	29	-	28
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	580	1300 D	1800	1000 D	1600	850 D	640	630 D	590	610	460
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

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Table 2
Program Monitoring Wells
Groundwater Analytical Results
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Well I.D.	MW-13 (cont.)										
	10-Oct-12	8-Apr-13	16-Oct-13	9-Apr-14	29-Oct-14	22-Apr-15	21-Oct-15	18-Apr-16	26-Oct-16	19-Apr-17	17-Oct-17
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	28	19.2	-	-	-	-	29	-	13	16	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	640	381	480	310	190	180	400 D	130	96	250 D	110
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

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Program Monitoring Wells
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Well I.D.	MW-14										
Date Sampled	23-Jan-08	21-Apr-08	24-Jul-08	29-Oct-08	22-Apr-09	27-Oct-09	16-Apr-10	22-Oct-10	21-Apr-11	20-Oct-11	16-Apr-12
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	15	-	-	10	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

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Program Monitoring Wells
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Well I.D.	MW-14 (cont.)										
	10-Oct-12	8-Apr-13	16-Oct-13	9-Apr-14	29-Oct-14	22-Apr-15	21-Oct-15	18-Apr-16	26-Oct-16	19-Apr-17	17-Oct-17
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-15									
Date Sampled	23-Jan-08	24-Jul-08	22-Apr-09	27-Oct-09	16-Apr-10	22-Oct-10	21-Apr-11	20-Oct-11	16-Apr-12	10-Oct-12
Volatiles										
Acetone	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-15 (cont.)									
Date Sampled	8-Apr-13	16-Oct-13	9-Apr-14	29-Oct-14	22-Apr-15	21-Oct-15	18-Apr-16	26-Oct-16	19-Apr-17	17-Oct-17
Volatiles										
Acetone	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-17					
	21-Apr-08	29-Oct-08	22-Apr-09	16-Apr-10	21-Apr-11	16-Apr-12
Volatiles						
Acetone	-	-	-	-	-	-
Benzene	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	25	-	25
Dibromochloromethane	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-
Trichloroethene	670	710	500	480	510	370
Toluene	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-17 (cont.)				
Date Sampled	8-Apr-13	9-Apr-14	22-Apr-15	18-Apr-16	19-Apr-17
Volatiles					
Acetone	-	-	-	-	-
Benzene	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-
Bromoform	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-
Chlorobenzene	-	-	-	-	-
Chloroform	-	-	-	-	-
cis-1,2-Dichloroethene	6.48	-	-	-	-
trans-1,2-Dichloroethene	13.4	-	-	-	-
Dibromochloromethane	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-
Methylene Chloride	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-
Trichloroethene	324	440	400	340	500 D
Toluene	-	-	-	-	-
Xylenes (total)	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-18						
Date Sampled	23-Jan-08	24-Jul-08	22-Apr-09	27-Oct-09	16-Apr-10	22-Oct-10	21-Apr-11
Volatiles							
Acetone	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-18 (cont.)						
Date Sampled	20-Oct-11	16-Apr-12	8-Apr-13	9-Apr-14	22-Apr-15	18-Apr-16	19-Apr-17
Volatiles							
Acetone	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-19						
Date Sampled	21-Apr-08	29-Oct-08	22-Apr-09	27-Oct-09	16-Apr-10	22-Oct-10	21-Apr-11
Volatiles							
Acetone	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-19 (cont.)						
Date Sampled	20-Oct-11	16-Apr-12	8-Apr-13	9-Apr-14	22-Apr-15	18-Apr-16	19-Apr-17
Volatiles							
Acetone	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-
2-Butanone		-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-
1,2-Dichloroethene (total)		-	-	-	-	-	-
2-Hexanone		-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-
4-Methyl-2-pentanone		-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	PW-1										
Date Sampled	23-Jan-08	21-Apr-08	24-Jul-08	29-Oct-08	22-Apr-09	27-Oct-09	11-Apr-10	22-Oct-10	21-Apr-11	20-Oct-11	16-Apr-12
Volatiles											
Acetone	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	280 D	160	290	220	92	260	150	200 D	92	160	130
Toluene	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	PW-1 (cont.)									
Date Sampled	10-Oct-12	8-Apr-13	16-Oct-13	9-Apr-14	29-Oct-14	27-Apr-15	21-Oct-15	18-Apr-16	26-Oct-16	19-Apr-17
Volatiles										
Acetone	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-
Trichloroethene	150	105	140	120	110	69	98	79	92	41
Toluene	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-20 (formerly IRM-1)					
Date Sampled	21-Apr-08	29-Oct-08	22-Apr-09	16-Apr-10	21-Apr-11	16-Apr-12
Volatiles						
Acetone	-	-	-	-	-	-
Benzene	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-
Methylene Chloride	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-
Trichloroethene	180	180	160	130	150	130
Toluene	-	-	-	-	-	-
Xylenes (total)	-	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Crosman Site
East Bloomfield, New York

Well I.D.	MW-20 (formerly IRM-1 cont.)				
Date Sampled	8-Apr-13	9-Apr-14	22-Apr-15	18-Apr-16	19-Apr-17
Volatiles					
Acetone	-	-	-	-	-
Benzene	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-
Bromoform	-	-	-	-	-
Carbon Disulfide	-	-	-	-	-
Carbon Tetrachloride	-	-	-	-	-
Chlorobenzene	-	-	-	-	-
Chloroform	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-
Methylene Chloride	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-
Trichloroethene	138	170	110	120	160
Toluene	-	-	-	-	-
Xylenes (total)	-	-	-	-	-

Notes on page 23.

Table 2
Program Monitoring Wells
Groundwater Analytical Results
Qualifiers and Notes
Crosman Site
East Bloomfield, New York

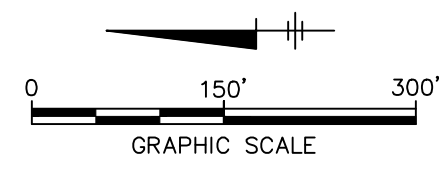
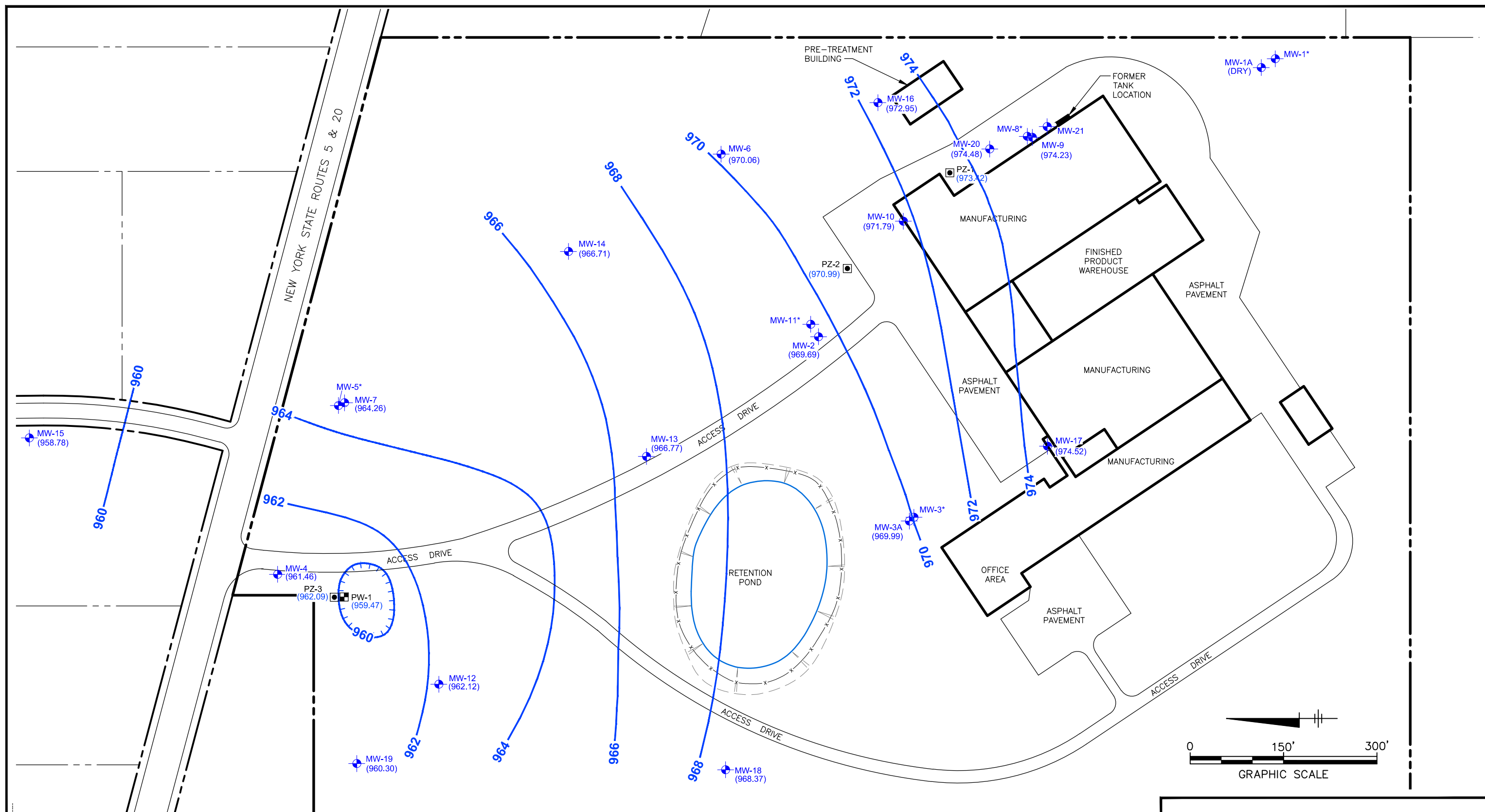
- J : The compound was positively identified; however, the associated numerical value is an estimated concentration.
- N : Spiked sample recovery was not within control limits.
- S : The reported value was determined by the method of standard additions (MSA).
- D : Denotes a secondary dilution.
- E : Exceeds calibration range.
- NA : Denotes not analyzed.
- : Denotes a nondetectable concentration.

Water quality results are expressed in micrograms per liter ($\mu\text{g/L}$), equivalent to parts per billion.

FIGURES



CITY: SYRACUSE NY, DIV: GROUP: ENV/CAD, DB: E. KRAHMER, LD: (DR), PIC: PM: W. POPHAM, AP: MTM: A. RICHARDSON, LVR: (O)NOM: "OFF-REF",
 C:\ENV\CAD\mmap\pplis\mmap\return\to\SYRACUSE\NY\B0041501\000100016\GW\REPORT\DWG41501W02.dwg, LAYOUT: 1, SAVER: 11/3/2017 2:25 PM, ACADVER: 2015 (LMS TECH), PAGES: 20, PLOT: 11/3/2017 2:25 PM, BY: OBERLANDER, ROSEANNE
 XREFS: IMAGES: PROJECTNAME:



LEGEND:	
	GROUNDWATER MONITORING WELL
	PRODUCTION WELL
	PIEZOMETER
	APPROXIMATE PROPERTY BOUNDARY
	GROUNDWATER ELEVATION (FEET AMSL)
	GROUNDWATER ELEVATION CONTOUR (FEET AMSL) (DASHED WHERE INFERRED)

- NOTES:**
- BASE MAP REFERENCES:
 - CROSMAN CORPORATION, "REMEDIATION INVESTIGATION/ INTERIM REMEDIATION MEASURES," PREPARED BY LABELLA, DATED JUNE, 1993.
 - NEW YORK STATE ORTHOIMAGERY, DATED 2013.
 - PROJECT BENCHMARK AT TOP OF CASING ON MW-7, ASSUMED LABELLA DATUM ELEV.= 979.71' ABOVE MEAN SEA LEVEL.
 - LOCATION OF WELLS ARE APPROXIMATE.
 - * MONITORING WELLS MW-1, MW-3, MW-5, MW-8, AND MW-11 WERE NOT USED IN CONTOURING.
 - AMSL = ABOVE MEAN SEA LEVEL.

CROSMAN CORPORATION SITE
EAST BLOOMFIELD, NEW YORK

**GROUNDWATER ELEVATION
CONTOUR MAP
OCTOBER 17, 2017**

ARCADIS Design & Consultancy
for natural and built assets

FIGURE
1

ATTACHMENT 1

Laboratory Data





October 24, 2017

Service Request No:R1709842

Mr. Aaron Richardson
ARCADIS of New York, Inc.
295 Woodcliff Drive
Third Floor, Suite 301
Fairport, NY 14450

Laboratory Results for: Crosman

Dear Mr. Richardson,

Enclosed are the results of the sample(s) submitted to our laboratory October 17, 2017
For your reference, these analyses have been assigned our service request number **R1709842**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | **FAX** +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com



Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Received: 10/17/17

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt

Six water samples were received for analysis at ALS Environmental on 10/17/2017. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at $\leq 6^{\circ}\text{C}$ upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Volatile Organic Analyses:

Method 8260, 10/19/17: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260, 10/19/17: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Approved by  Date 10/24/2017



SAMPLE DETECTION SUMMARY

CLIENT ID: MW-5		Lab ID: R1709842-001					
Analyte	Results	Flag	MDL	PQL	Units	Method	
cis-1,2-Dichloroethene	9.6		0.30	5.0	ug/L	8260C	
Trichloroethene	17		0.22	5.0	ug/L	8260C	

CLIENT ID: MW-13		Lab ID: R1709842-005					
Analyte	Results	Flag	MDL	PQL	Units	Method	
Trichloroethene	110		0.22	5.0	ug/L	8260C	



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095

Service Request:R1709842

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1709842-001	MW-5	10/17/2017	1300
R1709842-002	MW-15	10/17/2017	1230
R1709842-003	MW-4	10/17/2017	1130
R1709842-004	MW-14	10/17/2017	1100
R1709842-005	MW-13	10/17/2017	1030
R1709842-006	Trip Blank	10/17/2017	



Cooler Receipt and Preservation Check Form

R1709842

5

ARCADIS of New York, Inc.
Crossman

Project/Client Arcadis Folder Number R17-9842



Cooler received on 10-17-17 by: HE

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>N</u>
2	Custody papers properly completed (ink, signed)?	Y <u>N</u>
3	Did all bottles arrive in good condition (unbroken)?	Y <u>N</u>
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	Y <u>N</u>

5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y <u>N</u> <u>NA</u>
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date 10-17-17 Time: 13:53 ID: IR# IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>15.6</u>							
Correction Factor (°C)	<u>-0.6</u>							
Corrected Temp (°C)	<u>16.2</u>							
Temp from: Type of bottle	<u>cent tube</u>							
Within 0-6°C?	Y <u>N</u>	Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by HE on 10-17-17 at 13:55
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown: Date: 10/17/17 Time: 1708 by: SW

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
- 13. Air Samples: Cassettes / Tubes Intact _____ Canisters Pressurized _____ Tedlar® Bags Inflated NA

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
Residual Chlorine (-)		For CN Phenol and 522			If +, contact PM to add Na ₂ S ₂ O ₃ (CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃	-	-						
		ZnAcetate	-	-						
		HCl	**	**	<u>4115022</u>	<u>10/18</u>				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 6-258201
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: SW
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\times 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Accredited	Nebraska Accredited	294100 A/B
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095

Service Request: R1709842

Sample Name: MW-5
Lab Code: R1709842-001
Sample Matrix: Water

Date Collected: 10/17/17
Date Received: 10/17/17

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-15
Lab Code: R1709842-002
Sample Matrix: Water

Date Collected: 10/17/17
Date Received: 10/17/17

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-4
Lab Code: R1709842-003
Sample Matrix: Water

Date Collected: 10/17/17
Date Received: 10/17/17

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-14
Lab Code: R1709842-004
Sample Matrix: Water

Date Collected: 10/17/17
Date Received: 10/17/17

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-13
Lab Code: R1709842-005
Sample Matrix: Water

Date Collected: 10/17/17
Date Received: 10/17/17

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095

Service Request: R1709842

Sample Name: Trip Blank
Lab Code: R1709842-006
Sample Matrix: Water

Date Collected: 10/17/17
Date Received: 10/17/17

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory
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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 13:00
Date Received: 10/17/17 13:50

Sample Name: MW-5
Lab Code: R1709842-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	10	1	10/19/17 13:49	
Benzene	ND U	5.0	1	10/19/17 13:49	
Bromodichloromethane	ND U	5.0	1	10/19/17 13:49	
Bromoform	ND U	5.0	1	10/19/17 13:49	
Bromomethane	ND U	5.0	1	10/19/17 13:49	
2-Butanone (MEK)	ND U	10	1	10/19/17 13:49	
Carbon Disulfide	ND U	10	1	10/19/17 13:49	
Carbon Tetrachloride	ND U	5.0	1	10/19/17 13:49	
Chlorobenzene	ND U	5.0	1	10/19/17 13:49	
Chloroethane	ND U	5.0	1	10/19/17 13:49	
Chloroform	ND U	5.0	1	10/19/17 13:49	
Chloromethane	ND U	5.0	1	10/19/17 13:49	
Dibromochloromethane	ND U	5.0	1	10/19/17 13:49	
1,1-Dichloroethane	ND U	5.0	1	10/19/17 13:49	
1,2-Dichloroethane	ND U	5.0	1	10/19/17 13:49	
1,1-Dichloroethene	ND U	5.0	1	10/19/17 13:49	
cis-1,2-Dichloroethene	9.6	5.0	1	10/19/17 13:49	
trans-1,2-Dichloroethene	ND U	5.0	1	10/19/17 13:49	
1,2-Dichloropropane	ND U	5.0	1	10/19/17 13:49	
cis-1,3-Dichloropropene	ND U	5.0	1	10/19/17 13:49	
trans-1,3-Dichloropropene	ND U	5.0	1	10/19/17 13:49	
Ethylbenzene	ND U	5.0	1	10/19/17 13:49	
2-Hexanone	ND U	10	1	10/19/17 13:49	
Methylene Chloride	ND U	5.0	1	10/19/17 13:49	
4-Methyl-2-pentanone (MIBK)	ND U	10	1	10/19/17 13:49	
Styrene	ND U	5.0	1	10/19/17 13:49	
1,1,2,2-Tetrachloroethane	ND U	5.0	1	10/19/17 13:49	
Tetrachloroethene	ND U	5.0	1	10/19/17 13:49	
Toluene	ND U	5.0	1	10/19/17 13:49	
1,1,1-Trichloroethane	ND U	5.0	1	10/19/17 13:49	
1,1,2-Trichloroethane	ND U	5.0	1	10/19/17 13:49	
Trichloroethene	17	5.0	1	10/19/17 13:49	
Vinyl Chloride	ND U	5.0	1	10/19/17 13:49	
o-Xylene	ND U	5.0	1	10/19/17 13:49	
m,p-Xylenes	ND U	5.0	1	10/19/17 13:49	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 13:00
Date Received: 10/17/17 13:50

Sample Name: MW-5
Lab Code: R1709842-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/19/17 13:49	
Toluene-d8	97	87 - 121	10/19/17 13:49	
Dibromofluoromethane	103	89 - 119	10/19/17 13:49	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 12:30
Date Received: 10/17/17 13:50

Sample Name: MW-15
Lab Code: R1709842-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	10	1	10/19/17 14:10	
Benzene	ND U	5.0	1	10/19/17 14:10	
Bromodichloromethane	ND U	5.0	1	10/19/17 14:10	
Bromoform	ND U	5.0	1	10/19/17 14:10	
Bromomethane	ND U	5.0	1	10/19/17 14:10	
2-Butanone (MEK)	ND U	10	1	10/19/17 14:10	
Carbon Disulfide	ND U	10	1	10/19/17 14:10	
Carbon Tetrachloride	ND U	5.0	1	10/19/17 14:10	
Chlorobenzene	ND U	5.0	1	10/19/17 14:10	
Chloroethane	ND U	5.0	1	10/19/17 14:10	
Chloroform	ND U	5.0	1	10/19/17 14:10	
Chloromethane	ND U	5.0	1	10/19/17 14:10	
Dibromochloromethane	ND U	5.0	1	10/19/17 14:10	
1,1-Dichloroethane	ND U	5.0	1	10/19/17 14:10	
1,2-Dichloroethane	ND U	5.0	1	10/19/17 14:10	
1,1-Dichloroethene	ND U	5.0	1	10/19/17 14:10	
cis-1,2-Dichloroethene	ND U	5.0	1	10/19/17 14:10	
trans-1,2-Dichloroethene	ND U	5.0	1	10/19/17 14:10	
1,2-Dichloropropane	ND U	5.0	1	10/19/17 14:10	
cis-1,3-Dichloropropene	ND U	5.0	1	10/19/17 14:10	
trans-1,3-Dichloropropene	ND U	5.0	1	10/19/17 14:10	
Ethylbenzene	ND U	5.0	1	10/19/17 14:10	
2-Hexanone	ND U	10	1	10/19/17 14:10	
Methylene Chloride	ND U	5.0	1	10/19/17 14:10	
4-Methyl-2-pentanone (MIBK)	ND U	10	1	10/19/17 14:10	
Styrene	ND U	5.0	1	10/19/17 14:10	
1,1,2,2-Tetrachloroethane	ND U	5.0	1	10/19/17 14:10	
Tetrachloroethene	ND U	5.0	1	10/19/17 14:10	
Toluene	ND U	5.0	1	10/19/17 14:10	
1,1,1-Trichloroethane	ND U	5.0	1	10/19/17 14:10	
1,1,2-Trichloroethane	ND U	5.0	1	10/19/17 14:10	
Trichloroethene	ND U	5.0	1	10/19/17 14:10	
Vinyl Chloride	ND U	5.0	1	10/19/17 14:10	
o-Xylene	ND U	5.0	1	10/19/17 14:10	
m,p-Xylenes	ND U	5.0	1	10/19/17 14:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 12:30
Date Received: 10/17/17 13:50

Sample Name: MW-15
Lab Code: R1709842-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/19/17 14:10	
Toluene-d8	98	87 - 121	10/19/17 14:10	
Dibromofluoromethane	105	89 - 119	10/19/17 14:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 11:30
Date Received: 10/17/17 13:50

Sample Name: MW-4
Lab Code: R1709842-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	10	1	10/19/17 14:32	
Benzene	ND U	5.0	1	10/19/17 14:32	
Bromodichloromethane	ND U	5.0	1	10/19/17 14:32	
Bromoform	ND U	5.0	1	10/19/17 14:32	
Bromomethane	ND U	5.0	1	10/19/17 14:32	
2-Butanone (MEK)	ND U	10	1	10/19/17 14:32	
Carbon Disulfide	ND U	10	1	10/19/17 14:32	
Carbon Tetrachloride	ND U	5.0	1	10/19/17 14:32	
Chlorobenzene	ND U	5.0	1	10/19/17 14:32	
Chloroethane	ND U	5.0	1	10/19/17 14:32	
Chloroform	ND U	5.0	1	10/19/17 14:32	
Chloromethane	ND U	5.0	1	10/19/17 14:32	
Dibromochloromethane	ND U	5.0	1	10/19/17 14:32	
1,1-Dichloroethane	ND U	5.0	1	10/19/17 14:32	
1,2-Dichloroethane	ND U	5.0	1	10/19/17 14:32	
1,1-Dichloroethene	ND U	5.0	1	10/19/17 14:32	
cis-1,2-Dichloroethene	ND U	5.0	1	10/19/17 14:32	
trans-1,2-Dichloroethene	ND U	5.0	1	10/19/17 14:32	
1,2-Dichloropropane	ND U	5.0	1	10/19/17 14:32	
cis-1,3-Dichloropropene	ND U	5.0	1	10/19/17 14:32	
trans-1,3-Dichloropropene	ND U	5.0	1	10/19/17 14:32	
Ethylbenzene	ND U	5.0	1	10/19/17 14:32	
2-Hexanone	ND U	10	1	10/19/17 14:32	
Methylene Chloride	ND U	5.0	1	10/19/17 14:32	
4-Methyl-2-pentanone (MIBK)	ND U	10	1	10/19/17 14:32	
Styrene	ND U	5.0	1	10/19/17 14:32	
1,1,2,2-Tetrachloroethane	ND U	5.0	1	10/19/17 14:32	
Tetrachloroethene	ND U	5.0	1	10/19/17 14:32	
Toluene	ND U	5.0	1	10/19/17 14:32	
1,1,1-Trichloroethane	ND U	5.0	1	10/19/17 14:32	
1,1,2-Trichloroethane	ND U	5.0	1	10/19/17 14:32	
Trichloroethene	ND U	5.0	1	10/19/17 14:32	
Vinyl Chloride	ND U	5.0	1	10/19/17 14:32	
o-Xylene	ND U	5.0	1	10/19/17 14:32	
m,p-Xylenes	ND U	5.0	1	10/19/17 14:32	

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 11:30
Date Received: 10/17/17 13:50

Sample Name: MW-4
Lab Code: R1709842-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	10/19/17 14:32	
Toluene-d8	101	87 - 121	10/19/17 14:32	
Dibromofluoromethane	104	89 - 119	10/19/17 14:32	

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 11:00
Date Received: 10/17/17 13:50

Sample Name: MW-14
Lab Code: R1709842-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	10	1	10/19/17 14:54	
Benzene	ND U	5.0	1	10/19/17 14:54	
Bromodichloromethane	ND U	5.0	1	10/19/17 14:54	
Bromoform	ND U	5.0	1	10/19/17 14:54	
Bromomethane	ND U	5.0	1	10/19/17 14:54	
2-Butanone (MEK)	ND U	10	1	10/19/17 14:54	
Carbon Disulfide	ND U	10	1	10/19/17 14:54	
Carbon Tetrachloride	ND U	5.0	1	10/19/17 14:54	
Chlorobenzene	ND U	5.0	1	10/19/17 14:54	
Chloroethane	ND U	5.0	1	10/19/17 14:54	
Chloroform	ND U	5.0	1	10/19/17 14:54	
Chloromethane	ND U	5.0	1	10/19/17 14:54	
Dibromochloromethane	ND U	5.0	1	10/19/17 14:54	
1,1-Dichloroethane	ND U	5.0	1	10/19/17 14:54	
1,2-Dichloroethane	ND U	5.0	1	10/19/17 14:54	
1,1-Dichloroethene	ND U	5.0	1	10/19/17 14:54	
cis-1,2-Dichloroethene	ND U	5.0	1	10/19/17 14:54	
trans-1,2-Dichloroethene	ND U	5.0	1	10/19/17 14:54	
1,2-Dichloropropane	ND U	5.0	1	10/19/17 14:54	
cis-1,3-Dichloropropene	ND U	5.0	1	10/19/17 14:54	
trans-1,3-Dichloropropene	ND U	5.0	1	10/19/17 14:54	
Ethylbenzene	ND U	5.0	1	10/19/17 14:54	
2-Hexanone	ND U	10	1	10/19/17 14:54	
Methylene Chloride	ND U	5.0	1	10/19/17 14:54	
4-Methyl-2-pentanone (MIBK)	ND U	10	1	10/19/17 14:54	
Styrene	ND U	5.0	1	10/19/17 14:54	
1,1,2,2-Tetrachloroethane	ND U	5.0	1	10/19/17 14:54	
Tetrachloroethene	ND U	5.0	1	10/19/17 14:54	
Toluene	ND U	5.0	1	10/19/17 14:54	
1,1,1-Trichloroethane	ND U	5.0	1	10/19/17 14:54	
1,1,2-Trichloroethane	ND U	5.0	1	10/19/17 14:54	
Trichloroethene	ND U	5.0	1	10/19/17 14:54	
Vinyl Chloride	ND U	5.0	1	10/19/17 14:54	
o-Xylene	ND U	5.0	1	10/19/17 14:54	
m,p-Xylenes	ND U	5.0	1	10/19/17 14:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 11:00
Date Received: 10/17/17 13:50

Sample Name: MW-14
Lab Code: R1709842-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	10/19/17 14:54	
Toluene-d8	97	87 - 121	10/19/17 14:54	
Dibromofluoromethane	102	89 - 119	10/19/17 14:54	

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 10:30
Date Received: 10/17/17 13:50

Sample Name: MW-13
Lab Code: R1709842-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	10	1	10/19/17 19:39	
Benzene	ND U	5.0	1	10/19/17 19:39	
Bromodichloromethane	ND U	5.0	1	10/19/17 19:39	
Bromoform	ND U	5.0	1	10/19/17 19:39	
Bromomethane	ND U	5.0	1	10/19/17 19:39	
2-Butanone (MEK)	ND U	10	1	10/19/17 19:39	
Carbon Disulfide	ND U	10	1	10/19/17 19:39	
Carbon Tetrachloride	ND U	5.0	1	10/19/17 19:39	
Chlorobenzene	ND U	5.0	1	10/19/17 19:39	
Chloroethane	ND U	5.0	1	10/19/17 19:39	
Chloroform	ND U	5.0	1	10/19/17 19:39	
Chloromethane	ND U	5.0	1	10/19/17 19:39	
Dibromochloromethane	ND U	5.0	1	10/19/17 19:39	
1,1-Dichloroethane	ND U	5.0	1	10/19/17 19:39	
1,2-Dichloroethane	ND U	5.0	1	10/19/17 19:39	
1,1-Dichloroethene	ND U	5.0	1	10/19/17 19:39	
cis-1,2-Dichloroethene	ND U	5.0	1	10/19/17 19:39	
trans-1,2-Dichloroethene	ND U	5.0	1	10/19/17 19:39	
1,2-Dichloropropane	ND U	5.0	1	10/19/17 19:39	
cis-1,3-Dichloropropene	ND U	5.0	1	10/19/17 19:39	
trans-1,3-Dichloropropene	ND U	5.0	1	10/19/17 19:39	
Ethylbenzene	ND U	5.0	1	10/19/17 19:39	
2-Hexanone	ND U	10	1	10/19/17 19:39	
Methylene Chloride	ND U	5.0	1	10/19/17 19:39	
4-Methyl-2-pentanone (MIBK)	ND U	10	1	10/19/17 19:39	
Styrene	ND U	5.0	1	10/19/17 19:39	
1,1,2,2-Tetrachloroethane	ND U	5.0	1	10/19/17 19:39	
Tetrachloroethene	ND U	5.0	1	10/19/17 19:39	
Toluene	ND U	5.0	1	10/19/17 19:39	
1,1,1-Trichloroethane	ND U	5.0	1	10/19/17 19:39	
1,1,2-Trichloroethane	ND U	5.0	1	10/19/17 19:39	
Trichloroethene	110	5.0	1	10/19/17 19:39	
Vinyl Chloride	ND U	5.0	1	10/19/17 19:39	
o-Xylene	ND U	5.0	1	10/19/17 19:39	
m,p-Xylenes	ND U	5.0	1	10/19/17 19:39	

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17 10:30
Date Received: 10/17/17 13:50

Sample Name: MW-13
Lab Code: R1709842-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/19/17 19:39	
Toluene-d8	98	87 - 121	10/19/17 19:39	
Dibromofluoromethane	103	89 - 119	10/19/17 19:39	

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17
Date Received: 10/17/17 13:50

Sample Name: Trip Blank
Lab Code: R1709842-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	10	1	10/19/17 13:27	
Benzene	ND U	5.0	1	10/19/17 13:27	
Bromodichloromethane	ND U	5.0	1	10/19/17 13:27	
Bromoform	ND U	5.0	1	10/19/17 13:27	
Bromomethane	ND U	5.0	1	10/19/17 13:27	
2-Butanone (MEK)	ND U	10	1	10/19/17 13:27	
Carbon Disulfide	ND U	10	1	10/19/17 13:27	
Carbon Tetrachloride	ND U	5.0	1	10/19/17 13:27	
Chlorobenzene	ND U	5.0	1	10/19/17 13:27	
Chloroethane	ND U	5.0	1	10/19/17 13:27	
Chloroform	ND U	5.0	1	10/19/17 13:27	
Chloromethane	ND U	5.0	1	10/19/17 13:27	
Dibromochloromethane	ND U	5.0	1	10/19/17 13:27	
1,1-Dichloroethane	ND U	5.0	1	10/19/17 13:27	
1,2-Dichloroethane	ND U	5.0	1	10/19/17 13:27	
1,1-Dichloroethene	ND U	5.0	1	10/19/17 13:27	
cis-1,2-Dichloroethene	ND U	5.0	1	10/19/17 13:27	
trans-1,2-Dichloroethene	ND U	5.0	1	10/19/17 13:27	
1,2-Dichloropropane	ND U	5.0	1	10/19/17 13:27	
cis-1,3-Dichloropropene	ND U	5.0	1	10/19/17 13:27	
trans-1,3-Dichloropropene	ND U	5.0	1	10/19/17 13:27	
Ethylbenzene	ND U	5.0	1	10/19/17 13:27	
2-Hexanone	ND U	10	1	10/19/17 13:27	
Methylene Chloride	ND U	5.0	1	10/19/17 13:27	
4-Methyl-2-pentanone (MIBK)	ND U	10	1	10/19/17 13:27	
Styrene	ND U	5.0	1	10/19/17 13:27	
1,1,2,2-Tetrachloroethane	ND U	5.0	1	10/19/17 13:27	
Tetrachloroethene	ND U	5.0	1	10/19/17 13:27	
Toluene	ND U	5.0	1	10/19/17 13:27	
1,1,1-Trichloroethane	ND U	5.0	1	10/19/17 13:27	
1,1,2-Trichloroethane	ND U	5.0	1	10/19/17 13:27	
Trichloroethene	ND U	5.0	1	10/19/17 13:27	
Vinyl Chloride	ND U	5.0	1	10/19/17 13:27	
o-Xylene	ND U	5.0	1	10/19/17 13:27	
m,p-Xylenes	ND U	5.0	1	10/19/17 13:27	

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: 10/17/17
Date Received: 10/17/17 13:50

Sample Name: Trip Blank
Lab Code: R1709842-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	10/19/17 13:27	
Toluene-d8	100	87 - 121	10/19/17 13:27	
Dibromofluoromethane	99	89 - 119	10/19/17 13:27	



QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85 - 122	89 - 119	87 - 121
MW-5	R1709842-001	93	103	97
MW-15	R1709842-002	93	105	98
MW-4	R1709842-003	94	104	101
MW-14	R1709842-004	94	102	97
MW-13	R1709842-005	93	103	98
Trip Blank	R1709842-006	96	99	100
Lab Control Sample	RQ1710796-03	96	103	98
Method Blank	RQ1710796-04	95	105	102

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1710796-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	10	1	10/19/17 11:52	
Benzene	ND U	5.0	1	10/19/17 11:52	
Bromodichloromethane	ND U	5.0	1	10/19/17 11:52	
Bromoform	ND U	5.0	1	10/19/17 11:52	
Bromomethane	ND U	5.0	1	10/19/17 11:52	
2-Butanone (MEK)	ND U	10	1	10/19/17 11:52	
Carbon Disulfide	ND U	10	1	10/19/17 11:52	
Carbon Tetrachloride	ND U	5.0	1	10/19/17 11:52	
Chlorobenzene	ND U	5.0	1	10/19/17 11:52	
Chloroethane	ND U	5.0	1	10/19/17 11:52	
Chloroform	ND U	5.0	1	10/19/17 11:52	
Chloromethane	ND U	5.0	1	10/19/17 11:52	
Dibromochloromethane	ND U	5.0	1	10/19/17 11:52	
1,1-Dichloroethane	ND U	5.0	1	10/19/17 11:52	
1,2-Dichloroethane	ND U	5.0	1	10/19/17 11:52	
1,1-Dichloroethene	ND U	5.0	1	10/19/17 11:52	
cis-1,2-Dichloroethene	ND U	5.0	1	10/19/17 11:52	
trans-1,2-Dichloroethene	ND U	5.0	1	10/19/17 11:52	
1,2-Dichloropropane	ND U	5.0	1	10/19/17 11:52	
cis-1,3-Dichloropropene	ND U	5.0	1	10/19/17 11:52	
trans-1,3-Dichloropropene	ND U	5.0	1	10/19/17 11:52	
Ethylbenzene	ND U	5.0	1	10/19/17 11:52	
2-Hexanone	ND U	10	1	10/19/17 11:52	
Methylene Chloride	ND U	5.0	1	10/19/17 11:52	
4-Methyl-2-pentanone (MIBK)	ND U	10	1	10/19/17 11:52	
Styrene	ND U	5.0	1	10/19/17 11:52	
1,1,2,2-Tetrachloroethane	ND U	5.0	1	10/19/17 11:52	
Tetrachloroethene	ND U	5.0	1	10/19/17 11:52	
Toluene	ND U	5.0	1	10/19/17 11:52	
1,1,1-Trichloroethane	ND U	5.0	1	10/19/17 11:52	
1,1,2-Trichloroethane	ND U	5.0	1	10/19/17 11:52	
Trichloroethene	ND U	5.0	1	10/19/17 11:52	
Vinyl Chloride	ND U	5.0	1	10/19/17 11:52	
o-Xylene	ND U	5.0	1	10/19/17 11:52	
m,p-Xylenes	ND U	5.0	1	10/19/17 11:52	

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Analytical Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1710796-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	10/19/17 11:52	
Toluene-d8	102	87 - 121	10/19/17 11:52	
Dibromofluoromethane	105	89 - 119	10/19/17 11:52	

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QA/QC Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Analyzed: 10/19/17

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1710796-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	16.5	20.0	82	40-161
Benzene	8260C	16.8	20.0	84	76-118
Bromodichloromethane	8260C	18.5	20.0	92	78-126
Bromoform	8260C	18.7	20.0	94	71-136
Bromomethane	8260C	18.6	20.0	93	42-166
2-Butanone (MEK)	8260C	16.8	20.0	84	61-137
Carbon Disulfide	8260C	16.6	20.0	83	65-127
Carbon Tetrachloride	8260C	16.7	20.0	84	68-125
Chlorobenzene	8260C	18.6	20.0	93	80-121
Chloroethane	8260C	17.4	20.0	87	70-127
Chloroform	8260C	17.4	20.0	87	76-120
Chloromethane	8260C	21.3	20.0	107	69-145
Dibromochloromethane	8260C	18.9	20.0	94	77-128
1,1-Dichloroethane	8260C	18.2	20.0	91	78-117
1,2-Dichloroethane	8260C	17.2	20.0	86	71-127
1,1-Dichloroethene	8260C	17.1	20.0	85	74-135
cis-1,2-Dichloroethene	8260C	17.7	20.0	89	80-121
trans-1,2-Dichloroethene	8260C	18.0	20.0	90	80-120
1,2-Dichloropropane	8260C	19.1	20.0	95	80-119
cis-1,3-Dichloropropene	8260C	17.5	20.0	87	74-126
trans-1,3-Dichloropropene	8260C	17.3	20.0	87	67-135
Ethylbenzene	8260C	18.8	20.0	94	76-120
2-Hexanone	8260C	16.0	20.0	80	63-124
Methylene Chloride	8260C	18.4	20.0	92	73-122
4-Methyl-2-pentanone (MIBK)	8260C	15.4	20.0	77	66-124
Styrene	8260C	19.1	20.0	96	80-124
1,1,2,2-Tetrachloroethane	8260C	17.6	20.0	88	78-122
Tetrachloroethene	8260C	19.4	20.0	97	78-124
Toluene	8260C	17.7	20.0	88	77-120
1,1,1-Trichloroethane	8260C	17.9	20.0	90	74-120
1,1,2-Trichloroethane	8260C	18.6	20.0	93	82-118
Trichloroethene	8260C	18.3	20.0	91	78-123
Vinyl Chloride	8260C	22.6	20.0	113	69-133

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QA/QC Report

Client: ARCADIS of New York, Inc.
Project: Crosman/b0041501.0001.00095
Sample Matrix: Water

Service Request: R1709842
Date Analyzed: 10/19/17

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1710796-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
o-Xylene	8260C	18.6	20.0	93	80-120
m,p-Xylenes	8260C	36.9	40.0	92	78-123