

**REPORT ON
NAPL AND GROUNDWATER GAUGING REPORT FOR PERFORMANCE
MONITORING OF ISS IRM
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK**



by Haley & Aldrich of New York
Rochester, New York

for Rochester Gas & Electric Corporation
Rochester, New York

File No. 129111-002
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23 January 2017
File No. 129111-002

New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway
Albany, New York 12233

Attention: Mr. Salvatore F. Priore, P.E.

Subject: NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM
RG&E East Station Former MGP Site
Rochester, New York

Dear Mr. Priore:

On behalf of our client, Rochester Gas & Electric Corporation (RG&E), this NAPL and Groundwater Gauging Report of the In-Situ Stabilization (ISS) Interim Remedial Measure (IRM) has been prepared to summarize the findings of the field monitoring event performed on 27 October 2016, at RG&E's East Station Former MGP Site, located off Suntru Street in Rochester, New York. This sampling event was performed in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved "The proposed East Station 2013-2018 ISS IRM Monitoring Plan for groundwater level and NAPL gauging and recovery" (Performance Monitoring Plan) by Ish, Inc. dated February 2013. Table I lists the monitoring and recovery wells that were gauged. Figure 1 shows the locations of the wells.

Please refer to the following reports prepared and submitted to NYSDEC for the previously completed monitoring activities at the East Station Site:

- "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York", dated November 2009.
- "NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, May 4 and 5, 2010 Monitoring Event", dated June 2010.
- "NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, November 17, 18 and 19, 2009 Monitoring Event", dated February 2010.
- "NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, October 12 and 13, 2010 Monitoring Event", dated January 2011.

- “NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, May 16, 17 and 18, 2011 Monitoring Event”, dated July 2011.
- “NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, November 3 and 4, 2011 Monitoring Event”, dated January 2012.
- “NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, May 14 and 15, 2012 Monitoring Event”, dated July 2012.
- “NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, October 17 and 18, 2012 Monitoring Event”, dated January 2013.
- “NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, for the monitoring period from January 2009 through December, 2012”, dated February 2013.
- “NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, October 14, 2014 Monitoring Event”, dated December 2014.
- “NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, October 23, 2015 Monitoring Event”, dated November 2015.

Please refer to the document titled “Summary of the Installation and Monitoring of Groundwater Wells for Water Quality and NAPL at the East Station Site following the Completion of the ISS IRM” dated 4 September 2008, for information regarding the 13 monitoring/recovery wells, the monitoring frequency, and reporting schedule.

Field Activities

Field activities performed on 27 October 2016, consisted of recording static water levels and gauging for LNAPL and DNAPL in 31 monitoring/recovery wells. The methods used for groundwater level measurements, NAPL gauging and groundwater sample collection for this performance monitoring event were consistent with those used for previous monitoring events and in past site investigation work. Field activities performed are identified in Table I.

Groundwater Flow Characteristics

The groundwater elevation data is presented in Table II. Since the locations that were gauged during the October 2016 monitoring event consist of a relatively linear network of wells, a groundwater elevation contour figure was not generated for this data set. Based on results of previous groundwater contours

(see the NAPL and Groundwater Monitoring Report, dated November 2009, Figures 5 through 8), groundwater flow is generally from the eastern Site area, westerly towards the ISS columns. In the northern area of the Site, groundwater flow is generally to the northwest. In the southern area of the Site, groundwater flow is generally to the southwest.

NAPL Gauging Results

During the October 2016 gauging event, approximately 0.5 feet of LNAPL was measured in recovery well RW-5. In addition, approximately 0.62 feet of measurable DNAPL was recorded in monitoring well DW-3R.

Summary of Observations from October 2016 Event

The information collected during the October 2016 monitoring event leads to the following observations:

- Approximately 0.5 feet of LNAPL was measured in recovery well RW-5.
- Approximately 0.62 feet of DNAPL was measured in recovery well DW-3R.
- Groundwater elevations in the monitored wells in the shallow bedrock have been nearly constant since monitoring began in 2009.

We appreciate the opportunity to provide IRM monitoring services on this project. Please do not hesitate to call if you have any questions or comments.

Sincerely yours,

HALEY & ALDRICH OF NEW YORK



Douglas C. Allen, P.G.

Senior Project Manager

Enclosures:

Table I – Summary of Well Gauging and Sampling Events

Table II – Groundwater Elevations and NAPL Measurements

Figure 1 – Water Quality, NAPL Monitoring, and NAPL Recovery Wells (Ish, Inc.)

c: Christopher Keipper, RG&E

REFERENCES

1. Ish Inc. "NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, for the October 23, 2015 Monitoring Event," dated November 2015.
2. Ish Inc. "NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, for the October 14, 2014 Monitoring Event," dated December 2014.
3. Ish Inc. "NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, for the October 22-23, 2013 Monitoring Event," dated December 2013.
4. Ish Inc. "NAPL and Groundwater Gauging Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, for the monitoring period from January 2009 through December, 2012", February 2013.
5. Ish Inc. "The proposed East Station 2013-2018 ISS IRM Monitoring Plan for groundwater level and NAPL gauging and recovery", February 2013.
6. Ish Inc. "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, October 17 and 18, 2012 Monitoring Event", July 2012.
7. Ish Inc. "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, May 14 and 15, 2012 Monitoring Event", July 2012.
8. Ish Inc. "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, November 3 and 4, 2011 Monitoring Event", January 2012.
9. Ish Inc. "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, May 16, 17 and 18, 2011 Monitoring Event", July 2011.
10. Ish Inc. "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, October 12 and 13, 2010 Monitoring Event", January 2011.
11. Ish Inc. "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site, Rochester, New York, May 4 and 5, 2010 Monitoring Event", June 2010.
12. Ish Inc. "ISS IRM NAPL Monitoring and Recovery and Water Quality Monitoring Plan for the East Station former MGP Site", Revised April 2010.
13. Ish Inc. "NAPL and Groundwater Monitoring Report for Performance Monitoring of ISS IRM for East Station Former MGP Site", Rochester, New York, November 2009.
14. Ish Inc. "Phase IV Interim Remedial Measure Completion Report for East Station ISS/IRM, submitted to NYSDEC March 2009", Approved September 2009.

15. Ish Inc., "Installation and Monitoring of Groundwater Wells for Water Quality and NAPL at the East Station Site following the Completion of the ISS-IRM", September 4, 2008
16. Ish Inc. "Draft IRM Work Plan for *In-situ* Stabilization/Solidification to Control NAPL Seeps at the RG&E East Station Former Manufactured Gas Plant Site", October 2003

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TABLE I
SUMMARY OF WELL GAUGING AND SAMPLING EVENTS
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

Well ID	October 13-15, 2008			February 9 and 10, 2009			May 18 and 19, 2009		August 17 and 18, 2009		November 17, 2009		May 4 and 5, 2010		
	NAPL Monitoring	Analytical Sampling	Depth to Groundwater	NAPL Monitoring	Analytical Sampling	Depth to Groundwater	NAPL Monitoring	Depth to Groundwater	NAPL Monitoring	Depth to Groundwater	NAPL Monitoring	Depth to Groundwater	NAPL Monitoring	Analytical Sampling	Depth to Groundwater
Shallow Bedrock Monitoring Wells:															
DW-1R	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
DW-3R	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
MW-3DR	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
MW-5R	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
MW-8DR	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ISS Barrier Monitoring Wells:															
MW-2R	x	x	x	x	NS	x	x	x	x	x	x	x	x	NS	x
MW-4R	x	x	x	x	NS	x	x	x	x	x	x	x	x	NS	x
PZ-01R	x	x	x	x	NS	x	x	x	x	x	x	x	x	NS	x
Recovery Wells in the NAPL Collection Trench															
RW-1	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-2	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-3	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-4	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-5	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-6	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-7	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-8	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-9	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-10	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-11	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-12	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-13	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-14	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-15	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-16	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-17	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-18	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-19	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-20	x	NS	x	x	NS	x	x	x	x	x	x	x	x	NS	x
Recovery Wells to the East of ISS IRM Area															
RW-21	x	x	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-22	x	x	x	x	NS	x	x	x	x	x	x	x	x	NS	x
RW-23	x	x	x	x	NS	x	x	x	x	x	x	x	NG	NS	NG
Shallow Monitoring Wells to the East of ISS IRM Area															
TPMW-1	x	x	x	x	x	x	x	x	x	x	x	x	NG	NS	NG
TPMW-2	x	x	x	x	x	x	x	x	x	x	x	x	NG	NS	NG

Notes:
x NAPL gauging and/or water quality analysis sampling performed
NS Not Sampled for water quality analysis
NG No NAPL gauging performed. These wells not included in the revised performance monitoring plan

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SUMMARY OF WELL GAUGING AND SAMPLING EVENTS
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

Well ID	October 12 and 13, 2010			May 16-18, 2011			November 3 and 4, 2011			May 14 and 15, 2012			October 17 and 18, 2012		
	NAPL Monitoring	Analytical Sampling	Depth to Groundwater	NAPL Monitoring	Analytical Sampling	Depth to Groundwater	NAPL Monitoring	Analytical Sampling	Depth to Groundwater	NAPL Monitoring	Analytical Sampling	Depth to Groundwater	NAPL Monitoring	Analytical Sampling	Depth to Groundwater
Shallow Bedrock Monitoring Wells:															
DW-1R	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
DW-3R	x	x	x	x	x	x	x	NS	x	x	NS	x	x	x	x
MW-3DR	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
MW-5R	x	x	x	x	NS	x	x	NS	x	x	NS	x	x	x	x
MW-8DR	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ISS Barrier Monitoring Wells:															
MW-2R	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
MW-4R	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
PZ-01R	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
Recovery Wells in the NAPL Collection Trench															
RW-1	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-2	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-3	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-4	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-5	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-6	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-7	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-8	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-9	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-10	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-11	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-12	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-13	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-14	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-15	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-16	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-17	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-18	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-19	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-20	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
Recovery Wells to the East of ISS IRM Area															
RW-21	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-22	x	NS	x	x	NS	x	x	NS	x	x	NS	x	x	NS	x
RW-23	NG	NS	NG	NG	NS	NG	NG	NS	NG	NG	NS	NG	NG	NS	NG
Shallow Monitoring Wells to the East of ISS IRM Area															
TPMW-1	NG	NS	NG	NG	NS	NG	NG	NS	NG	NG	NS	NG	NG	NS	NG
TPMW-2	NG	NS	NG	NG	NS	NG	NG	NS	NG	NG	NS	NG	NG	NS	NG

Notes:
x NAPL gauging and/or water quality analysis sampling performed
NS Not Sampled for water quality analysis
NG No NAPL gauging performed. These wells not included in the revised performance monitoring plan

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SUMMARY OF WELL GAUGING AND SAMPLING EVENTS
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

Well ID	October 22 and 23, 2013		October 14, 2014		October 23, 2015		October 27, 2016	
	NAPL Monitoring	Depth to Groundwater	NAPL Monitoring	Depth to Groundwater	NAPL Monitoring	Depth to Groundwater	NAPL Monitoring	Depth to Groundwater
Shallow Bedrock Monitoring Wells:								
DW-1R	x	x	x	x	x	x	x	x
DW-3R	x	x	x	x	x	x	x	x
MW-3DR	x	x	x	x	x	x	x	x
MW-5R	x	x	x	x	x	x	x	x
MW-8DR	x	x	x	x	x	x	x	x
ISS Barrier Monitoring Wells:								
MW-2R	x	x	x	x	x	x	x	x
MW-4R	x	x	x	x	x	x	x	x
PZ-01R	x	x	x	x	x	x	x	x
Recovery Wells in the NAPL Collection Trench								
RW-1	x	x	x	x	x	x	x	x
RW-2	x	x	x	x	x	x	x	x
RW-3	x	x	x	x	x	x	x	x
RW-4	x	x	x	x	x	x	x	x
RW-5	x	x	x	x	x	x	x	x
RW-6	x	x	x	x	x	x	x	x
RW-7	x	x	x	x	x	x	x	x
RW-8	x	x	x	x	x	x	x	x
RW-9	x	x	x	x	x	x	x	x
RW-10	x	x	x	x	x	x	x	x
RW-11	x	x	x	x	x	x	x	x
RW-12	x	x	x	x	x	x	x	x
RW-13	x	x	x	x	x	x	x	x
RW-14	x	x	x	x	x	x	x	x
RW-15	x	x	x	x	x	x	x	x
RW-16	x	x	x	x	x	x	x	x
RW-17	x	x	x	x	x	x	x	x
RW-18	x	x	x	x	x	x	x	x
RW-19	x	x	x	x	x	x	x	x
RW-20	x	x	x	x	x	x	x	x
Recovery Wells to the East of ISS IRM Area								
RW-21	x	x	x	x	x	x	x	x
RW-22	x	x	x	x	x	x	x	x
RW-23	x	x	x	x	x	x	x	x
Shallow Monitoring Wells to the East of ISS IRM Area								
TPMW-1	NG	NG	NG	NG	NG	NG	NG	NG
TPMW-2	NG	NG	NG	NG	NG	NG	NG	NG

Notes:
x NAPL gauging and/or water quality analysis sampling performed
NS Not Sampled for water quality analysis
NG No NAPL gauging performed. These wells not included in the revised performance monitoring plan

TABLE II
GROUNDWATER ELEVATIONS AND NAPL MEASUREMENTS
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

Well ID	TOC ⁽¹⁾ Elevation ⁽²⁾	October 13, 2008				February 9 and 10, 2009				May 18, 2009				August 17 and 18, 2009			
		Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾
Shallow Bedrock Monitoring Wells																	
DW-1R	401.04	14.61	NP	NP	386.43	9.43	NP	NP	391.61	10.26	TRACE	NP	390.78	10.31	NP	NP	390.73
DW-3R	407.42	18.90	NP	NP	388.52	16.26	NP	NP	391.16	15.97	NP	NP	391.45	15.56	NP	NP	391.86
MW-3DR	401.02	14.54	NP	NP	386.48	9.40	NP	NP	391.62	10.26	NP	NP	390.76	10.31	NP	NP	390.71
MW-5R	410.50	18.93	TRACE	NP	391.57	17.56	NP	NP	392.94	17.43	NP	NP	393.07	16.74	TRACE	NP	393.76
MW-8DR	411.63	20.64	NP	NP	390.99	17.74	NP	NP	393.89	18.16	NP	NP	393.47	17.17	NP	NP	394.46
ISS Barrier Monitoring Wells																	
MW-2R	401.62	15.28	NP	NP	386.34	1.10	NP	NP	400.52	10.89	NP	NP	390.73	10.94	NP	NP	390.68
MW-4R	403.25	14.83	NP	NP	388.42	11.42	NP	NP	391.83	11.58	TRACE	NP	391.67	11.07	NP	NP	392.18
PZ-01R	411.80	21.71	NP	NP	390.09	20.12	NP	NP	391.68	19.84	TRACE	NP	391.96	19.48	NP	NP	392.32
Recovery Wells																	
RW-1	412.71	18.38	NP	NP	394.33	16.81	NP	NP	395.90	18.15	NP	NP	394.56	17.47	NP	NP	395.24
RW-2	412.51	18.13	NP	NP	394.38	16.54	NP	NP	395.97	17.83	NP	NP	394.68	17.20	NP	NP	395.31
RW-3	412.35	17.94	NP	NP	394.41	16.35	NP	NP	396.00	17.70	NP	NP	394.65	17.00	NP	NP	395.35
RW-4	411.97	17.54	NP	NP	394.43	15.91	NP	NP	396.06	17.30	NP	NP	394.67	16.61	NP	NP	395.36
RW-5	411.86	17.22	NP	NP	394.64	17.80	0.03	NP	394.09	NM(4)	NM	NM	NM	16.47	0.04	NP	395.43
RW-6	410.17	16.03	NP	NP	394.14	14.06	NP	NP	396.11	15.51	NP	NP	394.66	15.29	NP	NP	394.88
RW-7	410.25	16.03	NP	NP	394.22	14.00	NP	NP	396.25	15.54	TRACE	NP	394.71	15.32	NP	NP	394.93
RW-8	407.69	13.61	NP	NP	394.08	11.55	NP	NP	396.14	12.97	NP	NP	394.72	12.76	NP	NP	394.93
RW-9	406.90	13.00	NP	NP	393.90	10.71	NP	NP	396.19	12.22	TRACE	NP	394.68	11.95	NP	NP	394.95
RW-10	405.53	12.17	NP	NP	393.36	9.34	NP	NP	396.19	10.93	NP	NP	394.60	10.66	NP	NP	394.87
RW-11	404.19	11.42	NP	NP	392.77	8.02	NP	NP	396.17	9.63	NP	NP	394.56	9.39	NP	NP	394.80
RW-12	403.60	11.23	TRACE	NP	392.37	7.65	NP	NP	395.95	9.08	NP	NP	394.52	8.80	NP	NP	394.80
RW-13	404.64	12.49	TRACE	NP	392.15	9.21	NP	NP	395.43	10.56	NP	NP	394.08	10.35	NP	NP	394.29
RW-14	401.72	9.51	NP	NP	392.21	6.70	NP	NP	395.02	7.67	NP	NP	394.05	7.45	NP	NP	394.27
RW-15	401.86	9.66	NP	NP	392.20	6.97	TRACE	NP	394.89	7.86	NP	NP	394.00	7.66	NP	NP	394.20
RW-16	402.08	9.82	NP	NP	392.26	7.17	NP	NP	394.91	8.06	NP	NP	394.02	7.85	NP	NP	394.23
RW-17	402.02	9.75	NP	NP	392.27	7.16	NP	NP	394.86	8.00	NP	NP	394.02	7.80	NP	NP	394.22
RW-18	402.49	10.25	NP	NP	392.24	7.61	NP	NP	394.88	8.47	NP	NP	394.02	8.27	NP	NP	394.22
RW-19	402.43	10.18	NP	NP	392.25	7.52	TRACE	NP	394.91	8.43	NP	NP	394.00	8.23	NP	NP	394.20
RW-20	406.02	13.74	NP	NP	392.28	11.12	NP	NP	394.90	12.00	NP	NP	394.02	11.80	NP	NP	394.22
RW-21	403.25	11.03	NP	NP	392.22	7.11	NP	NP	396.14	8.93	TRACE	NP	394.32	8.71	NP	NP	394.54
RW-22	403.64	11.56	NP	NP	392.08	7.54	NP	NP	396.10	9.34	TRACE	NP	394.30	9.14	NP	NP	394.50
RW-23	413.72	16.13	NP	NP	397.59	14.00	NP	NP	399.72	14.86	NP	NP	398.86	14.52	NP	NP	399.20
Shallow Monitoring Wells																	
TPMW-1	419.06	19.54	NP	NP	399.52	17.65	NP	NP	401.41	18.17	NP	NP	400.89	17.60	NP	NP	401.46
TPMW-2	414.79	17.46	NP	NP	397.33	11.47	TRACE	NP	403.32	15.72	NP	NP	399.07	15.62	NP	NP	399.17

Notes:
(1) TOC - top of casing
(2) Well elevation datum is NAVD 1988. Groundwater elevation calculated as elevation of the groundwater in the well plus the thickness of LNAPL (when present) based on assumption of an LNAPL density of approximately 1.
(3) NP - Not Present
(4) NM - Not Measured
(5) During the May 4, 2010 gauging, trace DNAPL was measured in DW-3R. After purging well, 0.33 feet of DNAPL was measured on May 5, 2010

TABLE II
GROUNDWATER ELEVATIONS AND NAPL MEASUREMENTS
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

Well ID	TOC ⁽¹⁾ Elevation ⁽²⁾	November 17, 2009				May 4 and 5, 2010				October 12 and 13, 2010				May 16, 2011			
		Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾
Shallow Bedrock Monitoring Wells																	
DW-1R	401.04	10.39	TRACE	NP	390.65	10.21	NP	NP	390.83	10.33	NP	NP	390.71	10.12	NP	NP	390.92
DW-3R	407.42	15.55	NP	NP	391.87	15.65	NP	0.33 (5)	391.77	15.50	NP	0.05	391.92	14.09	NP	0.02	393.33
MW-3DR	401.02	11.33	NP	NP	389.69	10.20	NP	NP	390.82	9.86	NP	NP	391.16	10.15	NP	NP	390.87
MW-5R	410.50	17.32	NP	NP	393.18	17.04	NP	0.21	393.46	17.08	NP	0.10	393.42	15.63	NP	0.08	394.87
MW-8DR	411.63	18.11	NP	NP	393.52	18.00	NP	NP	393.63	18.65	NP	NP	392.98	17.48	NP	NP	394.15
ISS Barrier Monitoring Wells																	
MW-2R	401.62	10.87	NP	NP	390.75	10.75	NP	NP	390.87	10.45	NP	NP	391.17	10.88	NP	NP	390.74
MW-4R	403.25	11.59	NP	NP	391.66	11.31	NP	NP	391.94	11.16	NP	NP	392.09	10.49	NP	NP	392.76
PZ-01R	411.80	19.51	TRACE	NP	392.29	19.40	NP	NP	392.40	18.85	NP	NP	392.95	18.30	NP	NP	393.50
Recovery Wells																	
RW-1	412.71	17.49	NP	NP	395.22	17.55	NP	NP	395.16	16.91	NP	NP	395.80	15.05	NP	NP	397.66
RW-2	412.51	17.52	NP	NP	394.99	17.26	NP	NP	395.25	16.65	NP	NP	395.86	14.25	NP	NP	398.26
RW-3	412.35	17.54	NP	NP	394.81	17.05	NP	NP	395.30	16.45	NP	NP	395.90	14.41	NP	NP	397.94
RW-4	411.97	16.96	NP	NP	395.01	16.66	NP	NP	395.31	16.03	NP	NP	395.94	14.05	NP	NP	397.92
RW-5	411.86	16.64	0.08	NP	395.30	16.62	0.07	1.35	395.31	16.10	0.15	NP	395.91	13.81	0.08	NP	398.13
RW-6	410.17	15.45	NP	NP	394.72	14.68	NP	NP	395.49	14.31	NP	NP	395.86	12.08	NP	NP	398.09
RW-7	410.25	15.53	NP	NP	394.72	14.72	NP	TRACE	395.53	14.30	NP	NP	395.95	12.11	NP	NP	398.14
RW-8	407.69	12.97	NP	NP	394.72	12.11	NP	NP	395.58	11.74	NP	NP	395.95	9.54	NP	NP	398.15
RW-9	406.90	12.26	NP	NP	394.64	11.35	NP	NP	395.55	10.90	NP	NP	396.00	8.76	NP	NP	398.14
RW-10	405.53	10.95	NP	NP	394.58	9.95	NP	NP	395.58	9.55	NP	NP	395.98	7.34	NP	NP	398.19
RW-11	404.19	9.69	NP	NP	394.50	8.66	TRACE	NP	395.53	8.26	NP	NP	395.93	6.05	NP	TRACE	398.14
RW-12	403.60	9.06	NP	NP	394.54	8.07	NP	NP	395.53	7.65	NP	NP	395.95	5.40	NP	TRACE	398.20
RW-13	404.64	10.43	NP	NP	394.21	9.57	NP	TRACE	395.07	9.11	NP	NP	395.53	6.98	NP	NP	397.66
RW-14	401.72	7.90	NP	NP	393.82	6.68	NP	NP	395.04	6.20	NP	NP	395.52	4.16	NP	NP	397.56
RW-15	401.86	8.16	NP	NP	393.70	6.82	NP	TRACE	395.04	6.35	NP	NP	395.51	4.31	NP	NP	397.55
RW-16	402.08	7.96	NP	NP	394.12	7.01	NP	NP	395.07	6.58	NP	NP	395.50	4.54	NP	NP	397.54
RW-17	402.02	7.84	NP	NP	394.18	6.97	NP	NP	395.05	6.51	NP	NP	395.51	4.49	NP	NP	397.53
RW-18	402.49	9.03	NP	NP	393.46	7.50	NP	NP	394.99	7.03	NP	NP	395.46	4.95	NP	NP	397.54
RW-19	402.43	8.30	NP	NP	394.13	7.45	NP	NP	394.98	7.00	NP	NP	395.43	5.93	NP	TRACE	396.50
RW-20	406.02	11.85	NP	NP	394.17	10.95	NP	NP	395.07	10.51	NP	NP	395.51	8.46	NP	TRACE	397.56
RW-21	403.25	8.93	TRACE	NP	394.32	7.83	NP	NP	395.42	7.42	NP	NP	395.83	5.06	NP	NP	398.19
RW-22	403.64	9.35	TRACE	NP	394.29	8.30	NP	NP	395.34	7.88	NP	NP	395.76	5.56	NP	NP	398.08
RW-23	413.72	9.84	NP	NP	403.88	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Shallow Monitoring Wells																	
TPMW-1	419.06	18.74	NP	NP	400.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
TPMW-2	414.79	16.09	NP	NP	398.70	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:
(1) TOC - top of casing
(2) Well elevation datum is NAVD 1988. Groundwater elevation calculated as elevation of the groundwater in the well plus the thickness of LNAPL (when present) based on assumption of an LNAPL density of approximately 1.
(3) NP - Not Present
(4) NM - Not Measured
(5) During the May 4, 2010 gauging, trace DNAPL was measured in DW-3R. After purging well, 0.33 feet of DNAPL was measured on May 5, 2010

TABLE II
GROUNDWATER ELEVATIONS AND NAPL MEASUREMENTS
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

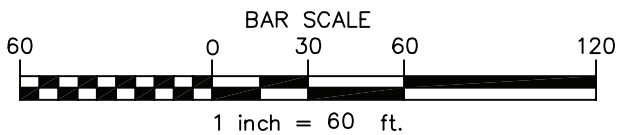
Well ID	TOC ⁽¹⁾ Elevation ⁽²⁾	November 3, 2011				May 14, 2012				October 17, 2012				October 22 and 23, 2013			
		Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾
Shallow Bedrock Monitoring Wells																	
DW-1R	401.04	11.58	NP	NP	389.46	10.25	NP	NP	390.79	10.95	NP	NP	390.09	9.69	NP	NP	391.35
DW-3R	407.42	15.35	NP	0.40	392.07	15.28	NP	0.30	392.14	15.51	NP	0.17	391.91	14.37	NP	0.3	393.05
MW-3DR	401.02	11.56	NP	NP	389.46	10.22	NP	NP	390.80	10.92	NP	NP	390.10	9.62	NP	NP	391.40
MW-5R	410.50	16.15	NP	0.10	394.35	16.31	NP	0.35	394.19	16.73	NP	TRACE	393.77	16.51	NP	0.3	393.99
MW-8DR	411.63	18.15	NP	NP	393.48	17.98	NP	NP	393.65	18.71	NP	NP	392.92	17.95	NP	NP	393.68
ISS Barrier Monitoring Wells																	
MW-2R	401.62	12.15	NP	NP	389.47	10.81	NP	NP	390.81	12.55	NP	NP	389.07	10.24	NP	NP	391.38
MW-4R	403.25	11.38	NP	NP	391.87	11.11	NP	NP	392.14	11.91	NP	NP	391.34	10.86	NP	NP	392.39
PZ-01R	411.80	20.09	NP	NP	391.71	19.19	NP	NP	392.61	19.35	NP	NP	392.45	18.95	NP	NP	392.85
Recovery Wells																	
RW-1	412.71	15.65	NP	NP	397.06	16.15	NP	NP	396.56	17.10	NP	NP	395.61	17.15	NP	NP	395.56
RW-2	412.51	15.41	NP	NP	397.10	15.90	NP	NP	396.61	16.88	NP	NP	395.63	16.86	NP	NP	395.65
RW-3	412.35	15.19	NP	NP	397.16	15.70	NP	NP	396.65	16.65	NP	NP	395.70	16.69	NP	NP	395.66
RW-4	411.97	14.75	NP	NP	397.22	15.20	NP	NP	396.77	16.27	NP	NP	395.70	16.31	NP	NP	395.66
RW-5	411.86	14.70	0.80	NP	397.96	15.25	0.15	NP	396.76	16.21	0.17	NP	395.82	16.5	0.3	NP	395.36
RW-6	410.17	12.95	NP	NP	397.22	13.45	NP	NP	396.72	14.50	NP	NP	395.67	14.49	NP	0.2	395.68
RW-7	410.25	14.99	NP	NP	395.26	13.48	NP	NP	396.77	14.54	NP	NP	395.71	14.53	NP	NP	395.72
RW-8	407.69	10.29	NP	NP	397.40	10.75	NP	NP	396.94	11.90	NP	NP	395.79	11.95	NP	NP	395.74
RW-9	406.90	9.57	NP	NP	397.33	10.05	NP	NP	396.85	11.07	NP	NP	395.83	11.15	NP	TRACE	395.75
RW-10	405.53	8.87	NP	NP	396.66	8.65	NP	NP	396.88	9.71	NP	TRACE	395.82	9.85	NP	TRACE	395.68
RW-11	404.19	6.66	NP	NP	397.53	7.30	TRACE	NP	396.89	8.38	NP	TRACE	395.81	8.48	NP	TRACE	395.71
RW-12	403.60	6.15	NP	NP	397.45	6.75	NP	NP	396.85	7.81	NP	NP	395.79	7.85	NP	NP	395.75
RW-13	404.64	7.75	NP	NP	396.89	8.50	NP	NP	396.14	9.13	NP	TRACE	395.51	9.09	NP	NP	395.55
RW-14	401.72	4.95	NP	NP	396.77	5.30	NP	NP	396.42	6.25	NP	NP	395.47	6.25	NP	NP	395.47
RW-15	401.86	5.11	NP	NP	396.75	5.45	NP	NP	396.41	9.47	NP	TRACE	392.39	6.43	NP	NP	395.43
RW-16	402.08	5.32	NP	NP	396.76	5.70	NP	NP	396.38	9.65	NP	NP	392.43	6.54	NP	NP	395.54
RW-17	402.02	5.28	NP	NP	396.74	5.65	NP	NP	396.37	6.61	NP	NP	395.41	6.51	NP	NP	395.51
RW-18	402.49	5.79	NP	NP	396.70	6.15	NP	NP	396.34	7.05	NP	NP	395.44	7	NP	NP	395.49
RW-19	402.43	5.73	NP	NP	396.70	6.05	NP	NP	396.38	7.03	NP	NP	395.40	6.93	NP	NP	395.5
RW-20	406.02	9.27	NP	NP	396.75	9.65	NP	NP	396.37	10.58	NP	NP	395.44	10.5	NP	NP	395.52
RW-21	403.25	5.85	NP	NP	397.40	6.40	NP	NP	396.85	7.51	NP	NP	395.74	7.52	NP	NP	395.73
RW-22	403.64	6.34	NP	NP	397.30	6.80	TRACE	NP	396.84	7.98	NP	TRACE	395.66	7.96	NP	NP	395.68
RW-23	413.72	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Shallow Monitoring Wells																	
TPMW-1	419.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
TPMW-2	414.79	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:
(1) TOC - top of casing
(2) Well elevation datum is NAVD 1988. Groundwater elevation calculated as elevation of the groundwater in the well plus the thickness of LNAPL (when present) based on assumption of an LNAPL density of approximately 1.
(3) NP - Not Present
(4) NM - Not Measured
(5) During the May 4, 2010 gauging, trace DNAPL was measured in DW-3R. After purging well, 0.33 feet of DNAPL was measured on May 5, 2010

TABLE II
GROUNDWATER ELEVATIONS AND NAPL MEASUREMENTS
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

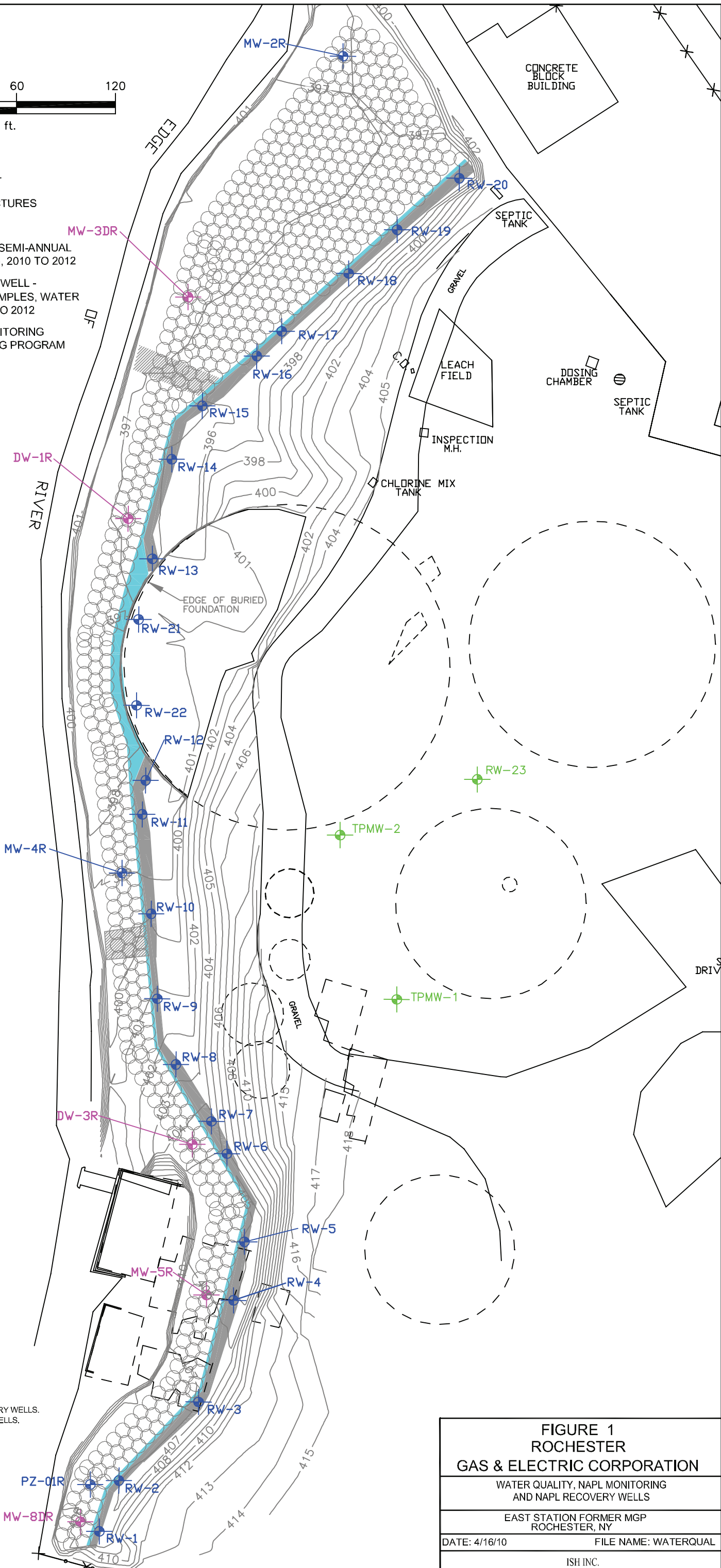
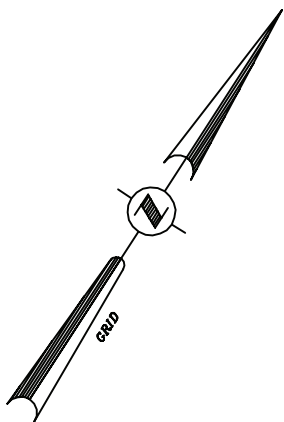
Well ID	TOC ⁽¹⁾ Elevation ⁽²⁾	October 14, 2014				October 23, 2015				October 27, 2016			
		Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾	Depth to Groundwater (feet from TOC)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Groundwater Elevation ⁽²⁾
Shallow Bedrock Monitoring Wells													
DW-1R	401.04	9.58	NP	NP	391.46	9.64	NP	NP	391.40	9.36	NP	NP	391.68
DW-3R	407.42	14.31	NP	0.05	393.11	14.30	NP	0.05	393.12	14.58	NP	0.62	392.84
MW-3DR	401.02	9.58	NP	NP	391.44	9.61	NP	NP	391.41	9.51	NP	NP	391.51
MW-5R	410.50	16.41	NP	0.03	394.09	16.36	0.01	0.55	394.14	16.10	NP	NP	394.40
MW-8DR	411.63	18.18	NP	NP	393.45	18.09	NP	NP	393.54	16.59	NP	NP	395.04
ISS Barrier Monitoring Wells													
MW-2R	401.62	10.11	NP	NP	391.51	10.27	NP	NP	391.35	10.12	NP	NP	391.50
MW-4R	403.25	10.75	NP	NP	392.50	11.14	NP	NP	392.11	10.98	NP	NP	392.27
PZ-01R	411.80	18.83	NP	NP	392.97	18.83	NP	NP	392.97	19.19	NP	NP	392.61
Recovery Wells													
RW-1	412.71	17.38	NP	NP	395.33	16.30	NP	NP	396.41	16.59	NP	NP	396.12
RW-2	412.51	17.14	NP	NP	395.37	16.05	NP	NP	396.46	16.34	NP	NP	396.17
RW-3	412.35	16.95	NP	NP	395.40	15.86	NP	NP	396.49	16.13	NP	NP	396.22
RW-4	411.97	16.57	NP	NP	395.40	15.46	NP	NP	396.51	16.76	NP	NP	395.21
RW-5	411.86	16.43	0.01	NP	395.43	15.39	0.01	NP	396.47	15.45	0.5	NP	396.41
RW-6	410.17	14.64	NP	NP	395.53	13.66	NP	NP	396.51	14.00	NP	NP	396.17
RW-7	410.25	14.69	NP	NP	395.56	13.68	NP	NP	396.57	14.03	NP	NP	396.22
RW-8	407.69	12.12	NP	NP	395.57	11.06	NP	NP	396.63	11.41	NP	NP	396.28
RW-9	406.90	11.30	NP	NP	395.60	10.30	NP	NP	396.60	10.62	NP	NP	396.28
RW-10	405.53	9.33	NP	NP	396.20	8.91	NP	NP	396.62	9.25	NP	NP	396.28
RW-11	404.19	8.60	NP	NP	395.59	7.59	NP	NP	396.60	7.93	NP	NP	396.26
RW-12	403.60	8.02	NP	NP	395.58	6.98	NP	NP	396.62	5.43	NP	NP	398.17
RW-13	404.64	9.22	NP	NP	395.42	8.20	NP	NP	396.44	8.65	NP	NP	395.99
RW-14	401.72	6.32	NP	NP	395.40	5.28	NP	NP	396.44	5.75	NP	NP	395.97
RW-15	401.86	6.48	NP	NP	395.38	5.48	NP	NP	396.38	5.94	NP	NP	395.92
RW-16	402.08	6.66	NP	NP	395.42	5.67	NP	NP	396.41	6.13	NP	NP	395.95
RW-17	402.02	6.61	NP	NP	395.41	5.62	NP	NP	396.40	6.06	NP	NP	395.96
RW-18	402.49	7.10	NP	NP	395.39	6.09	NP	NP	396.40	6.55	NP	NP	395.94
RW-19	402.43	7.05	NP	NP	395.38	6.05	NP	NP	396.38	6.53	NP	NP	395.90
RW-20	406.02	10.61	NP	NP	395.41	9.64	NP	NP	396.38	10.09	NP	NP	395.93
RW-21	403.25	7.64	NP	NP	395.61	6.50	NP	NP	396.75	6.65	NP	NP	396.60
RW-22	403.64	8.08	NP	NP	395.56	6.95	NP	NP	396.69	7.44	NP	NP	396.20
RW-23	413.72	15.19	NP	NP	398.53	14.53	NP	NP	399.19	15.44	NP	NP	398.28
Shallow Monitoring Wells													
TPMW-1	419.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
TPMW-2	414.79	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:
(1) TOC - top of casing
(2) Well elevation datum is NAVD 1988. Groundwater elevation calculated as elevation of the groundwater in the well plus the thickness of LNAPL (when present) based on assumption of an LNAPL density of approximately 1.
(3) NP - Not Present
(4) NM - Not Measured
(5) During the May 4, 2010 gauging, trace DNAPL was measured in DW-3R. After purging well, 0.33 feet of DNAPL was measured on May 5, 2010



LEGEND

- NAPL COLLECTION TRENCH
- CEMENT BENTONITE SLURRY WALL
- APPROXIMATE LOCATION OF FOUNDATIONS OF FORMER STRUCTURES
- ISS COLUMN
- RECOVERY WELLS/PIEZOMETER - SEMI-ANNUAL WATER LEVEL AND NAPL GAUGING, 2010 TO 2012
- SHALLOW BEDROCK MONITORING WELL - SEMI-ANNUAL WATER QUALITY SAMPLES, WATER LEVEL AND NAPL GAUGING, 2010 TO 2012
- RECOVERY WELLS/SHALLOW MONITORING WELLS - NOT PART OF MONITORING PROGRAM



NOTES:

1. RW-1 THROUGH RW-20 ARE 8-INCH DIAMETER RECOVERY WELLS.
2. RW-21 AND RW-23 ARE 6-INCH DIAMETER RECOVERY WELLS.
3. THE TPMW AND SHALLOW BEDROCK MONITORING WELLS ARE 2-INCH DIAMETER WELLS.

FIGURE 1
ROCHESTER
GAS & ELECTRIC CORPORATION

WATER QUALITY, NAPL MONITORING
AND NAPL RECOVERY WELLS

EAST STATION FORMER MGP
ROCHESTER, NY

DATE: 4/16/10

FILE NAME: WATERQUAL

ISH INC.