



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details	Box 1	
Site No: 915171		
Site Name NFG - Gastown MGP Tonawanda		
Site Address: 126 East Niagara Street Zip Code: 14150		
City/Town: Tonawanda		
County: Erie		
Site Acreage: 1.5		
 Reporting Period: May 09, 2017 to August 30, 2018		
	YES	NO
1. Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Box 2	
	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.		
A Corrective Measures Work Plan must be submitted along with this form to address these issues.		
Signature of Owner, Remedial Party or Designated Representative	Date	

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
39.38-3-4	Mr. Guy Holler	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
39.38-3-4	Vapor Mitigation Groundwater Containment Cover System Subsurface Barriers

The following Engineering Controls have been installed:

A site cover to allow for commercial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required, it will be a minimum one foot soil meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover is placed over a demarcation layer, with the uppermost six inches of soil of sufficient quality to maintain a vegetation layer.

Two Non-aqueous phase liquid (NAPL) collection trenches at the Gastown Sportsmen's Club property lines.

Two NAPL collection wells west of the railroad tracks.

Five sub-slab depressurization systems (SSDS) at the identified areas west of the railroad tracks, and one at the Gastown Sportsmen's Club.

A NAPL collection trench along the Canal to prevent any contamination from reaching the creek in the future.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

- a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
- b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

- (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
- (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
- (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
- (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
- (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 915171

Box 6


SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I LES HARR at 6363 MAIN STREET, WILLIAMSVILLE, NY 14221
print name print business address

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

 ATTY-IN-FACT
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

9-17-18
Date

IC/EC CERTIFICATIONS

Box 7

Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Daniel Kopcow at GEI Consultants, Inc., P.C.
1301 Trumansburg Road, Suite N, Ithaca, NY 14850,
print name print business address

I am certifying as a Professional Engineer for the Remedial Party
(Owner or Remedial Party)

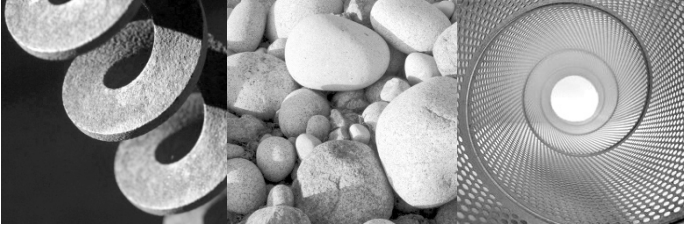


9/17/2018

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp
(Required for PE)

Date



Consulting
Engineers and
Scientists

2018 Periodic Review Report

Former Gastown Manufactured Gas Plant Site
Tonawanda, Erie County, New York

NYSDEC Site Number: 915171

Prepared For:

National Fuel Gas Distribution Corporation
6363 Main Street
Williamsville, NY 14221

Prepared By:

GEI Consultants, Inc., P.C.
1301 Trumansburg Road, Suite N
Ithaca, NY 14850

September 17, 2018
Project 091220



Daniel Kopcow, P.E., PMP
Project Manager

Joseph Simone, P.E.
Senior Engineer

Engineer's Certification

I, Daniel Kopcow, P.E., certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375, and that this Periodic Review Report was prepared in accordance with the Site Management Plan (SMP) for the Former Gastown Manufactured Gas Plant (MGP) site, and all applicable statutes and regulations, and in substantial conformance with the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).



Engineer's Seal
GEI Consultants, Inc., P.C.

9/17/2018
Date

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

Table of Contents

Engineer's Certification		i
<hr/>		
1.	Introduction	1
	1.1 General	1
	1.2 Site Location and Description	2
2.	2016-2018 SMP Field Activities and Results	4
	2.1 Sub-Slab Depressurization Systems Monitoring	4
	2.2 Sportsmen's Club Groundwater Sump System	4
3.	Environmental Controls / Institutional Controls and Site Inspection	5
	3.1 General	5
	3.2 Engineering Controls	5
	3.2.1 Cover System Monitoring	5
	3.3 Institutional Controls	5
	3.4 Media Monitoring	6
	3.4.1 NAPL Monitoring and Removal	6
	3.4.2 Groundwater Sampling	6
	3.4.3 Conclusions	6
4.	Conclusions	7
	4.1 2018-2019 SMP Implementation	7
5.	References	8
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Tables

1. 2016 - 2018 NAPL Gauging and Removal Summary
2. SMP Contacts

Figures

1. Site Location Map
2. Site Layout Map
3. Engineering Controls – NAPL Collection Trench and Well Plan
4. Engineering Controls Location – SSDS Locations
5. Cumulative NAPL Volume Removed

Appendices

- A. 2017 and 2018 SMP Inspection Forms
- B. 2018 SSDS Inspection Forms

1. Introduction

This Periodic Review Report (PRR) for monitoring and inspection is required as an element of the post-remedial program for the Site Management Plan (SMP) at the Former Gastown Manufactured Gas Plant (MGP) Site under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by the New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Order on Consent Index # A9-0599-05-08, Site #915171, which was executed on July 16, 2008 and the Amended Record of Decision, dated April 4, 2013. The remedial elements included the following:

- Demolition of Buildings E, F, G, and H;
- Shallow soil excavation to 4 feet below grade in the west yard, east yard, a portion of the Niagara Frontier Transportation Authority (NFTA) property, and under the demolished buildings to create a clean utility zone that was subsequently backfilled with clean fill;
- Site cover maintained for commercial use of the Site;
- Removal of the relief holder and underlying material to the top of clay;
- In-situ solidification/stabilization (ISS) to the top of clay in the west yard, east yard, and under the demolished buildings; ISS to the top of clay on the NFTA property to within 10 feet laterally of the AT&T fiber optic cable; and ISS around the relief holder;
- Installation of non-aqueous phase liquid (NAPL) collection trenches at the Gastown Sportsmen's Club property lines and two NAPL collection wells west of the railroad tracks;
- Installation of soil vapor intrusion mitigation measures including a vapor barrier or sub-slab depressurization systems (SSDS) at areas west of the railroad tracks, Gastown Sportsmen's Club, and buildings at 126 East Niagara Street;
- Sediment remediation and NAPL collection trench installation along the Canal;
- Imposition of an Institutional Control in the form of an environmental easement at the Site; and
- Site Management Plan preparation.

1.1 General

National Fuel Gas Distribution Corporation (NFGDC) entered into the above-referenced Order on Consent with the NYSDEC to remediate the former Gastown MGP site located along East

Niagara Street in Tonawanda, Erie County, New York. The Order on Consent required the Remedial Party (NFGDC) to investigate and remediate impacted media at the Site.

The remediation of the Site was completed in April 2016, and the NYSDEC has approved the Final Engineering Report (FER) [GEI, 2016a]. Also approved by the NYSDEC was the SMP prepared by GEI in September 2016 [GEI, 2016b], and amended in July 2017.

The SMP identifies the required post-remedial tasks, including: NAPL gauging (and removal if identified), monitoring the Sportsmen's Club groundwater sump system, monitoring subsurface depressurization systems, and an annual inspection of post-remedial engineering controls. In addition, the NYSDEC operates a groundwater treatment system with an existing State Pollutant Discharge Elimination System (SPDES) permit.

1.2 Site Location and Description

The location of the Site is shown on Figure 1. The current Site plan is shown on Figure 2. The engineering controls of the Site are shown on Figures 3 and 4.

The Site is located in Tonawanda, Erie County, New York and is identified as Section 39 Block 38-3 and Lot 4 on the City of Tonawanda Tax Map (see Appendix A of the SMP). The Site is an approximately 1.5-acre area and is bounded by Tonawanda Creek, an active segment of the New York State Barge Canal System to the north. The adjacent property to the east is owned by NFTA, which leases a portion of its property to the Gastown Sportsman's Club for use as a parking lot. An active CSX rail line and rail line spur form the western and southern borders of the Site, respectively. Much of the property to the east of the Sportsman's Club property and to the west of the CSX rail line is residential (see Figure 2 – Site Layout Map). A narrow strip of land with a paved recreational path exists between East Niagara Street and Tonawanda Creek. The boundaries of the Site are more fully described in Appendix A of the SMP – Metes and Bounds. The owner of the Site at the time of issuance of this SMP is/are:

Holler Properties, Inc.
c/o Guy Holler at Niagara Construction
126 East Niagara Street
Tonawanda, New York 14150

Adjacent properties with engineering controls are located at:

- 84-86 East Niagara Street
- 96 East Niagara Street
- 16 East Avenue
- Sportsmen's Club at 154-156 East Niagara Street
- Niagara Frontier Transportation Authority (NFTA) at East Niagara Street

- Open Bible Baptist School (School) at 72 East Niagara Street

A list of contacts for this Site is provided in Table 2.

2. 2016-2018 SMP Field Activities and Results

As specified in the SMP, the annual field activities required for the Site include:

- The assessment of the presence or absence of dense phase non-aqueous phase liquid (DNAPL) at identified site well locations and NAPL trench locations.
- The monitoring of the sub-slab depressurization systems (SSDS).
- The monitoring of the Sportsmen's Club sump system.

2.1 Sub-Slab Depressurization Systems Monitoring

As part of the remedy, as a precaution, subsurface depressurization systems were installed in October 2008 at residences and a school west of the Site and at the Sportsman's Club locations. These systems are monitored annually during the heating season. The system at 80 East Niagara Street was removed July 14, 2017, per the homeowner's request. The remaining depressurization systems were monitored and the forms are included in Appendix B. All systems are functioning normally.

2.2 Sportsmen's Club Groundwater Sump System

At the Sportsman's Club, a foundation perimeter groundwater drain system discharges to two collection sumps. The system was installed in 1998 during the construction of the structure to manage high groundwater events. Subsequently, NAPL was found in the sumps and their discharge was connected to a treatment and collection facility with off-site disposal of collected NAPL. The treatment and collection facility is currently managed by the NYSDEC. The sumps are monitored on an as-needed basis and annually during the sub-slab depressurization system monitoring noted above. The plumbing from the Sportsmen's Club sump was connected to the NAPL collection trench B, as described above.

3. Environmental Controls / Institutional Controls and Site Inspection

3.1 General

Because contaminants of concern (COC) in soil and groundwater remain in the subsurface of the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment.

3.2 Engineering Controls

The ECs included the soil cover system and asphalt cap. They are identified in the SMP. The results of the inspection performed of the ECs by GEI are discussed below. The 2017 and 2018 SMP Annual Inspection Forms are included in Appendix A.

3.2.1 Cover System Monitoring

The first annual site inspection was conducted on January 27, 2017 and the second annual site inspection was performed on April 17, 2018 to observe the condition of the cover systems at the site. The locations of the ECs are shown on Figure 3.

As indicated in the form, the cover system remains in place, and continues to be effective at preventing direct exposure to COC present in the subsurface.

3.3 Institutional Controls

The site has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Site, as defined in the SMP, are:

- The property may only be used for commercial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP.
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.

- The potential for vapor intrusion must be evaluated for any buildings developed in the area of the Site, and potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on the property are prohibited.

Based on the inspection of the Site performed by GEI, and on correspondence with NFGDC, the Site Owner, and the NYSDEC, the ICs, as identified in the SMP, adhere to the requirements of the Environmental Easement, remain in place, and are effective for the Site.

3.4 Media Monitoring

3.4.1 NAPL Monitoring and Removal

As part of the remedy, NAPL recovery wells and collection trenches have been installed. The wells are installed west of the Site and the trenches are located north of the Site along Tonawanda Creek, and adjacent to the Sportsman's Club east of the Site. The intent of the wells and trenches is to collect any residual recoverable NAPL that may be present, as well as residual recoverable NAPL that may migrate to these areas due to natural or man-made effects, precluding potential impacts to the surrounding areas. Since 2016, when NAPL monitoring began, approximately 0.83 gallons of NAPL have been recovered from all locations. Table 1 and Figure 5 summarize the NAPL monitoring performed since 2016. As shown on Table 1 and Figure 5, NAPL was last removed in August 2018.

3.4.2 Groundwater Sampling

Influent and effluent water for the groundwater treatment system is currently sampled and analyzed monthly by the NYSDEC, per the approved SMP. Influent benzene concentrations in groundwater have fluctuated from 110 ppb to 6200 ppb above the SPDES discharge limit of 5 ppb. The corresponding benzene effluent concentrations are below the 5 ppb SPDES limit. NYSDEC already maintains these data.

3.4.3 Conclusions

To date, there have been approximately 0.83 gallons of NAPL recovered from the NAPL monitoring locations. According to the SMP, after a period of five years, if there is no significant volume of NAPL recovered (less than 1 gallon cumulatively from all three trenches), then the NAPL monitoring program will be discontinued. After two and a half years of monitoring to date, the NAPL volume appears to be within that limit.

4. Conclusions

Conclusions for this 2018 PRR are:

- **Media Monitoring:** Media monitoring tasks identified in the SMP were performed in 2016 and 2018, including: NAPL gauging and removal and groundwater sampling.
- **Engineering Controls:** The inspection of the site was performed in 2017 and 2018, as specified in the SMP.
 - The inspection confirmed the effectiveness of the ECs required by the remedial program.
 - The ECs employed at the Gastown MGP site are unchanged from the date the control was put in place, or last approved by the NYSDEC.
- **Institutional Controls:** Conclusions for the ICs, based on the inspection of the Site performed by GEI, and on correspondence with NFGDC, the Site Owner, and the NYSDEC include:
 - The ICs employed at the Gastown MGP Site are unchanged from the date the control was put in place, or last approved by the NYSDEC.
 - Nothing has occurred that would impair the ability of the control to protect the public health and environment.
 - Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control.
 - Access to the Site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control.
 - Use of the Site is compliant with the Environmental Easement.

The Site remedy continues to be protective of public health and the environment as described in the SMP (GEI, 2016b) and FER.

4.1 2018-2019 SMP Implementation

The field activities and annual inspection for the implementation of the SMP that are the responsibility of NFGDC as the Remedial Party will be implemented in 2018 and 2019 in consultation with the NYSDEC Division of Environmental Remediation. A schedule for the field activities was previously provided to, and discussed with, the NYSDEC. GEI will evaluate the groundwater data in September 2018 with the NYSDEC. If the influent benzene is above the 5 ppb SPDES discharge limit at that time, NFGDC and GEI will take responsibility for the benzene in the groundwater and evaluate what the next necessary steps are for monitoring and treatment.

5. References

GEI Consultants, Inc., P.C. (GEI), 2015. Remedial Design, Former Gastown Manufactured Gas Plant Site, Erie County, New York, NYSDEC Site Number 915171, May 2015.

GEI, 2016a. Final Engineering Report, Former Gastown Manufactured Gas Plant Site, Erie County, New York, NYSDEC Site Number 915171, September 2016.

GEI, 2016b. Site Management Plan, Former Gastown Manufactured Gas Plant Site, Erie County, New York, NYSDEC Site Number 915171, September 2016, amended July 2017.

New York State Department of Environmental Conservation (NYSDEC), 2007. Record of Decision, Former Gastown MGP Site, Tonawanda, Erie County, New York, Site Number 915171, March 2007.

NYSDEC, 2013. Record of Decision Amendment, Gastown MGP Tonawanda Site, City of Tonawanda, Erie County, Site No. 915171, April 2013.

Tables

TABLE 1
NAPL Gauging Summary Table
Gastown Former MGP- Tonawanda, NY

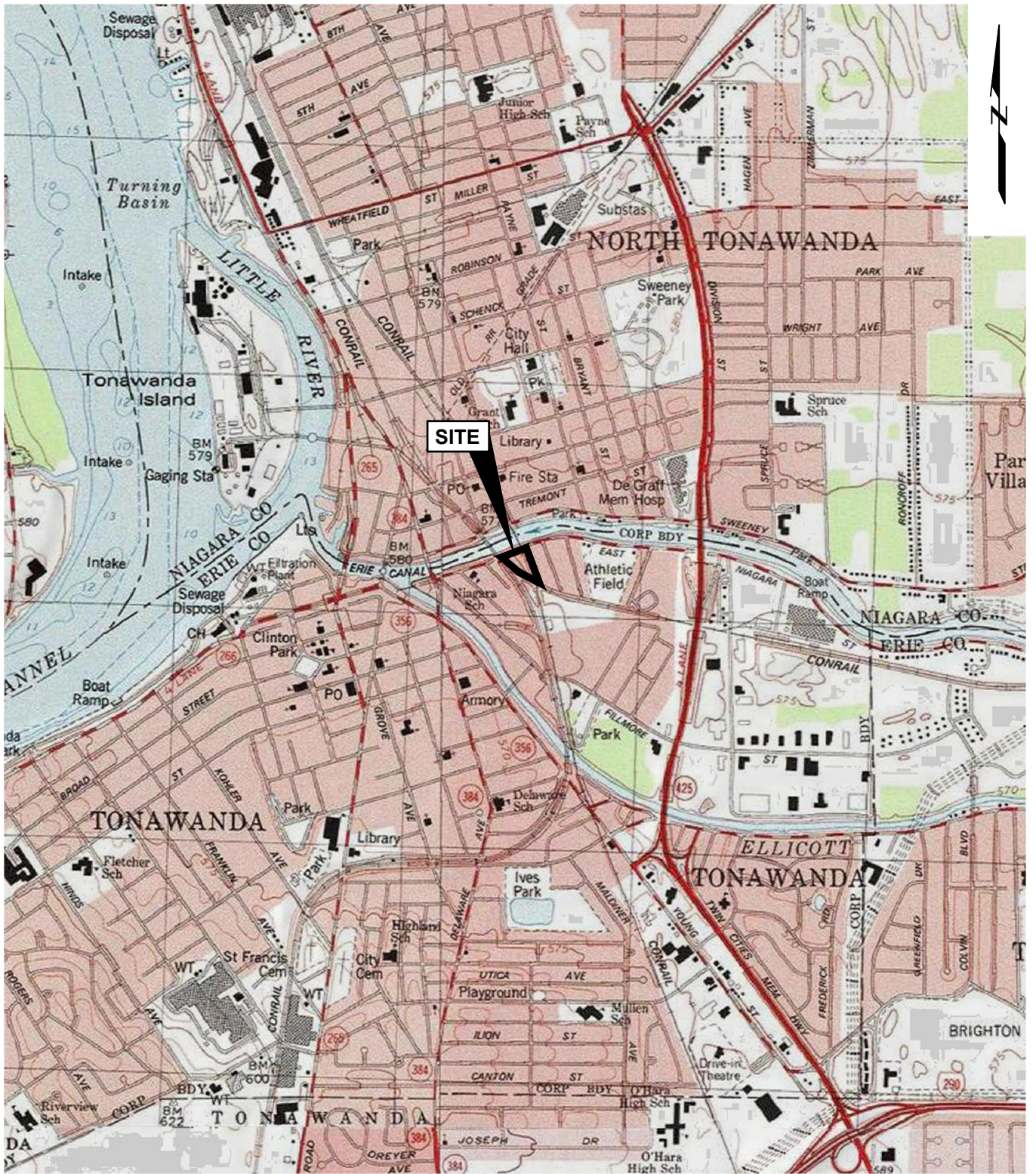
	Gauging Date GEI Personnel	3/22/2016 M. Cummings		4/22/2016 J. Belonsoff		5/23/2016 M. Cummings		6/23/2016 J. Belonsoff		7/21/2016 M. Cummings		8/23/2016 M.Cummings / J. Belonsoff	
	Location	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes
NAPL Collection Trenches	TS-A	0	no odors	0	no odors	0	no odors	0	no odors	0	no odors	0	mild CT odor
	TS-B North	0	slight CT odor	0	slight CT odor	0	slight CT odor	0	slight CT odor	0	slight CT odor	0	light CT odor
	TS-B South	0	slight CT odor	0	slight CT odor	0	slight CT odor	0	slight CT odor	0	slight CT odor	<1"	trace NAPL
	TS-C	0	slight CT odor	0	slight CT odor	0.1	moderate CT odor, DNAPL at bottom	0	moderate CT odor	0.3	moderate CT odor, DNAPL at bottom	0.6	strong CT odor, ~8oz NAPL at bottom
NAPL Recovery Wells	RW-01	0	no odors	0	no odors	0	no odors	0	no odors	0	no odors	0	no odors
	RW-02	0	no odors	0	no odors	0	no odors	0	no odors	0	no odors	0	v. faint odor
	RW-03	0	moderate CT odor	0	moderate CT odor	0	moderate CT odor	0	moderate CT odor	0	moderate CT odor	0	moderate CT odor

	Gauging Date GEI Personnel	12/12/2016 M.Cummings		2/20/2017 M.Cummings		8/7/2017 M.Cummings		2/6/2018 J. Peake		8/30/2018 M.Cummings	
	Location	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes	NAPL Thickness (ft.)	Notes
NAPL Collection Trenches	TS-A	0	mild CT odor	0	mild CT odor	<1"	mild odor, trace NAPL	0	mild odor, silty bottom	0	mild odor, silty bottom
	TS-B North	0	light CT odor	0	light CT odor	0	light CT odor	0	light odor, silty bottom	0	light odor, silty bottom
	TS-B South	<1"	trace NAPL	2"	trace NAPL	2"	trace NAPL on rope	2"	Light odor, ~2" NAPL on string, silty bottom. Water level influenced by overflow of Sportsmens Club outside sump.	7"	Light odor, 7" of NAPL in clear bailer, total depth not measured due to NAPL presence.
	TS-C	0.6	strong CT odor, ~8oz NAPL at bottom	0.6	strong CT odor, ~8oz NAPL at bottom	0.6	strong CT odor	1'	Mild odor, ~1' NAPL on string, silty bottom. NAPL thickness, total depth not measured due to NAPL presence.	8"	Moderate odor, 8" of NAPL in clear bailer, silty bottom. NAPL thickness, total depth not measured due to NAPL presence.
NAPL Recovery Wells	RW-01	0	no odors	0	no odors	0	silty bottom	0	No odor, silty bottom.	0	No odor, silty bottom.
	RW-02	0	light odor	0	light odor	0	light odor, hard bottom	0	light odor, hard bottom.	0	light odor, hard bottom.
	RW-03	0	moderate CT odor	0	moderate CT odor	1"	moderate odor, silty bottom	1'	moderate odor, ~1' NAPL on string, silty bottom.	16"	moderate odor, 16" NAPL in clear bailer, silty bottom, total depth not measured due to NAPL presence.

Table 2 – SMP Contacts

Name	Phone/Email Address
Guy Holler - Site Owner	(716) 693-4798 niagaraconst@aol.com
National Fuel Gas Distribution Corporation (Tanya Alexander) - Remedial Party	(716) 857-7410 alexandert@natfuel.com
Daniel R. Kopcow, P.E.	(607) 216-8976 dkopcow@geiconsultants.com
Doug MacNeal - NYSDEC DER Project Manager	(518) 402-9662 douglas.macneal@dec.ny.gov
Glenn May - NYSDEC Regional HW Engineer and NYSDEC Site Control	(716) 851-7220 Glenn.May@dec.ny.gov
adjacent property owners	
SSDS – Fisher	16 East Avenue
SSDS and Recovery well – Hockenberry	86 East Niagara St
SSDS – Bardo	96 East Niagara St
SSDS – Open Bible Baptist Church	72 East Niagara St
SSDS – Gastown Sportsmen’s Club	154 East Niagara St
NFTA – Niagara Frontier Transportation Authority	East Niagara St
Amy Reichhart Nixon Peabody - Remedial Party Attorney	(585) 263-1322 areichhart@nixonpeabody.com

Figures



SOURCE:

U.S.G.S. TOPOGRAPHIC MAP CREATED WITH TOPO! © 2004
 NATIONAL GEOGRAPHIC (www.nationalgeographic.com/topo)

0 2000' 4000'



SCALE: 1" = 2000'

Periodic Review Report
 Former Gastown MGP Site
 Tonawanda, New York



SITE LOCATION MAP

National Fuel Gas Distribution Corporation
 Williamsville, New York

Project 091220

April 2018

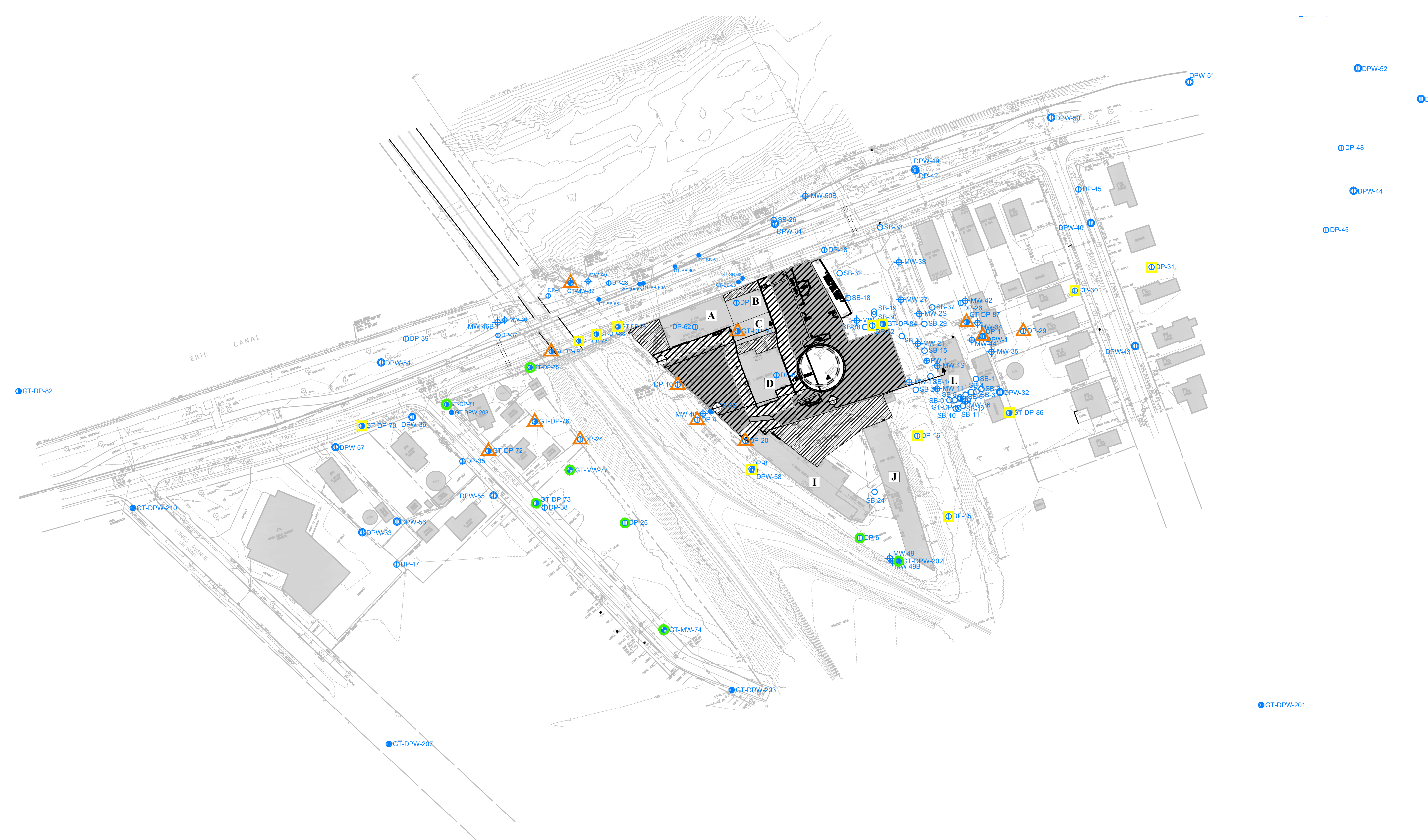
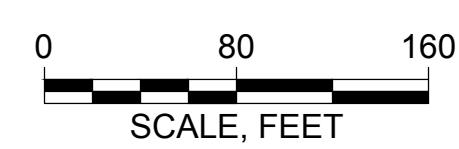
Fig. 1

LEGEND:

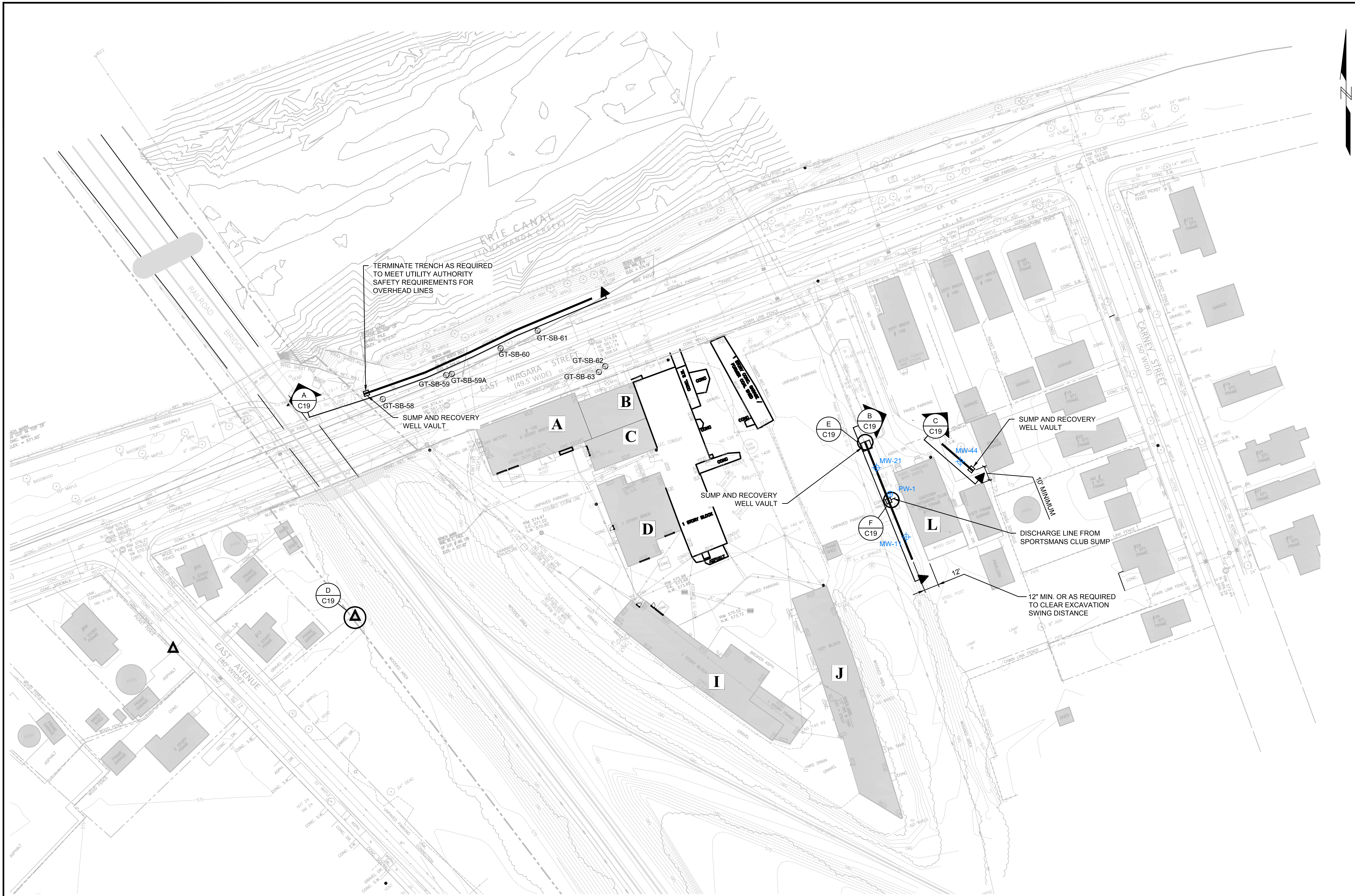
- SURFACE ELEVATION CONTOUR (2 FT INTERVAL) (NAVD 88)
- PROPERTY BOUNDARY
- STREET BOUNDARY
- RELIEF HOLDER EXCAVATION EXTENT
- EXISTING STRUCTURE
- BUILDING REMOVED
- STRUCTURE DESIGNATION (SEE TABLE ON FIG. 2)
- ISS EXTENT
- STRUCTURE CLEARANCE AT ISS PLACEMENT
- TOPSOIL EXCAVATION AND CLEAN SOIL UTILITY ZONE (4FT BELOW GRADE)
- ISS #
- GEI MW #
- GEI DP
- GEI HA #
- GEI DP-W #
- MW #
- DPW #
- SB #
- DP #
- COMPLIANT WITH UNRESTRICTED SCOs
- EXCEEDANCE OF UNRESTRICTED SCOs
- EXCEEDANCE OF COMMERCIAL SCOs

STRUCTURE DESIGNATIONS

DESIGNATION	OWNER OR OCCUPANT
A - 1ST FLOOR	ACME GRINDING SERVICE, INC.
A - 2ND FLOOR	NIAGARA CONSTRUCTION CO, INC.
B	WILLIAM C. ROTT & SON, INC.
C	ACME GRINDING SERVICE, INC.
D	DL MOORE, INC.
E	WGB INDUSTRIES, INC
F	WGB INDUSTRIES, INC.
G	WGB INDUSTRIES, INC.
H	VOGT CONSTRUCTION
I	GREAT LAKES GEAR CO.
J	VACANT/THE CUTTING EDGE
K	SPORTSMAN'S CLUB
L	SPORTSMAN'S CLUB
M	NYSDEC
N	NYSDEC



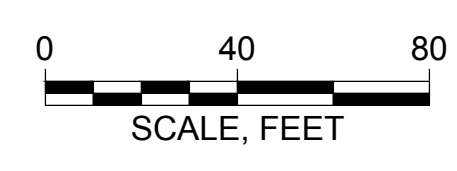
Periodic Review Report Former Gastown MGP Site Tonawanda, New York		SITE LAYOUT MAP
National Fuel Gas Distribution Corporation Williamsville, New York	Project 091220	April 2018



LEGEND:

- SURFACE ELEVATION CONTOUR (2 FT INTERVAL) (NAVD 88)
- PROPERTY BOUNDARY
- STREET BOUNDARY
- NAPL COLLECTION TRENCH
- NAPL COLLECTION WELL
- EXISTING STRUCTURE
- STRUCTURE DESIGNATION (SEE TABLE ON FIG. 2)
- SOIL BORINGS (2013)
- DECOMMISSIONED TO INSTALL NAPL RECOVERY TRENCHES

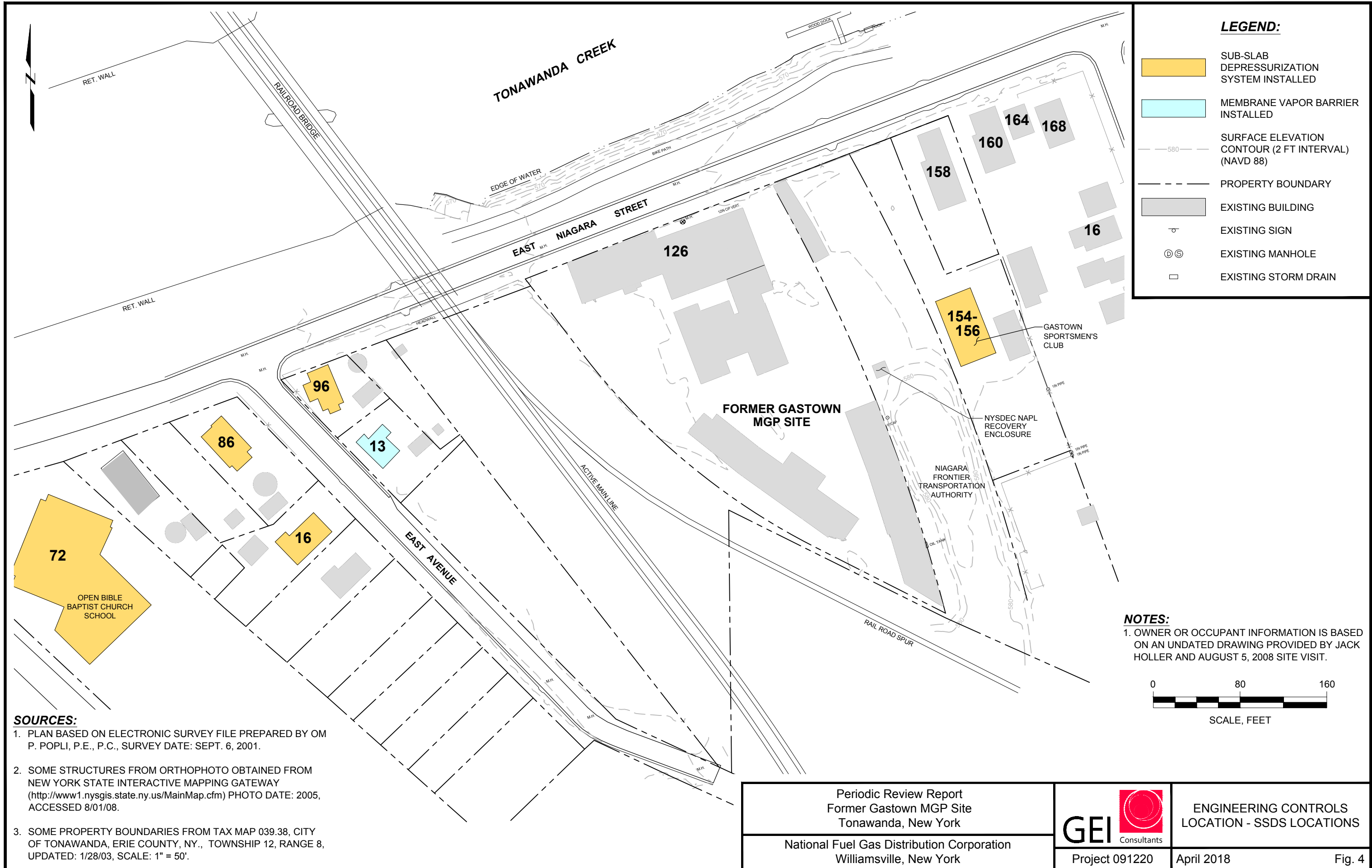
NOTES:
 1. INSTALL THE SUMP FOR TRENCH A OUTSIDE OF THE RAILROAD RIGHT-OF-WAY LIMITS.



Periodic Review Report
 Former Gastown MGP Site
 Tonawanda, New York
 National Fuel Gas Distribution Corporation
 Williamsville, New York



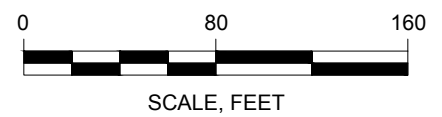
ENGINEERING CONTROLS -
 NAPL COLLECTION TRENCH
 AND WELL PLAN
 Project 091220 April 2018 Fig. 3



LEGEND:

- SUB-SLAB DEPRESSURIZATION SYSTEM INSTALLED
- MEMBRANE VAPOR BARRIER INSTALLED
- SURFACE ELEVATION CONTOUR (2 FT INTERVAL) (NAVD 88)
- PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING SIGN
- EXISTING MANHOLE
- EXISTING STORM DRAIN

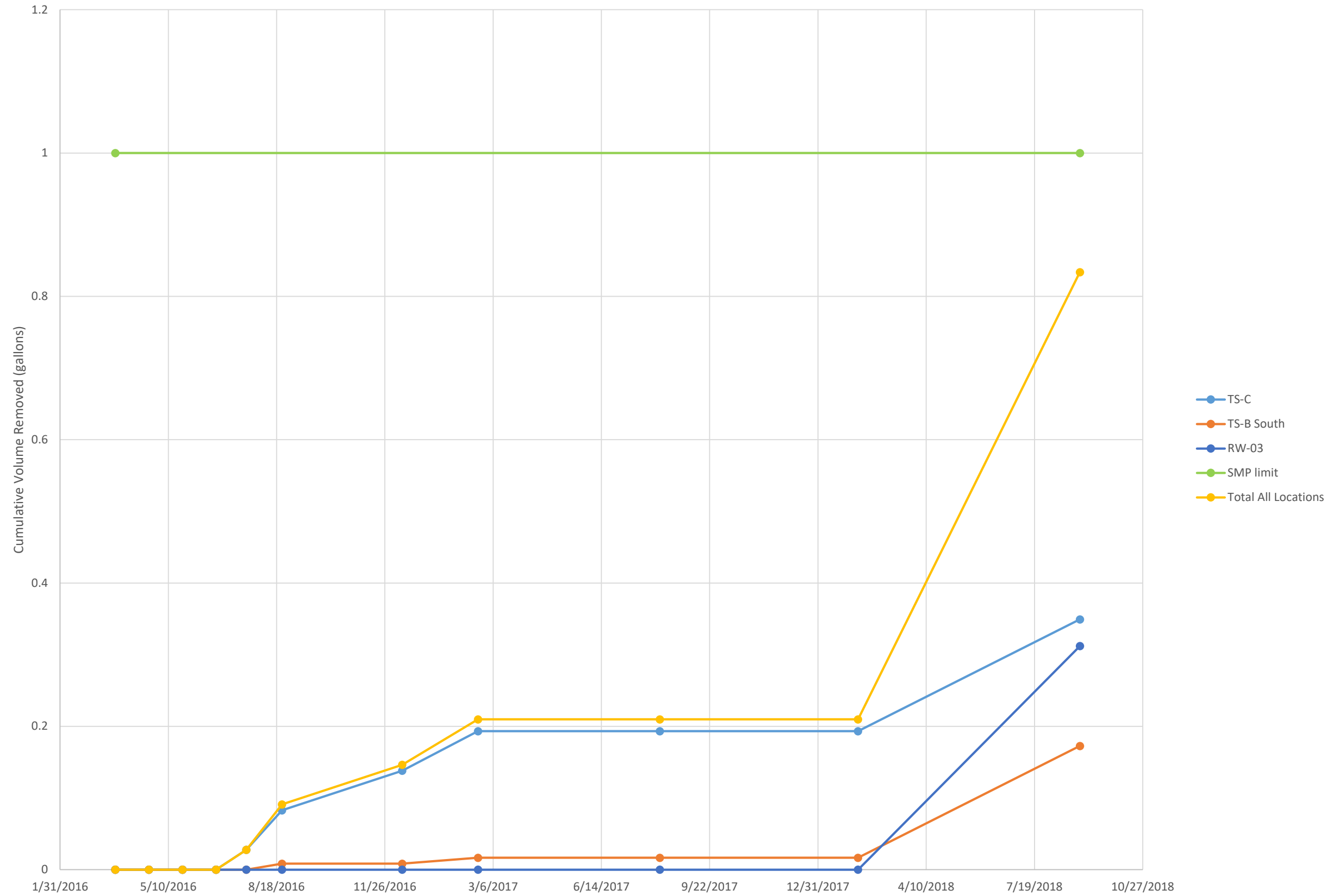
NOTES:
 1. OWNER OR OCCUPANT INFORMATION IS BASED ON AN UNDATED DRAWING PROVIDED BY JACK HOLLER AND AUGUST 5, 2008 SITE VISIT.



- SOURCES:**
1. PLAN BASED ON ELECTRONIC SURVEY FILE PREPARED BY OM P. POPLI, P.E., P.C., SURVEY DATE: SEPT. 6, 2001.
 2. SOME STRUCTURES FROM ORTHOPHOTO OBTAINED FROM NEW YORK STATE INTERACTIVE MAPPING GATEWAY (<http://www1.nysgis.state.ny.us/MainMap.cfm>) PHOTO DATE: 2005, ACCESSED 8/01/08.
 3. SOME PROPERTY BOUNDARIES FROM TAX MAP 039.38, CITY OF TONAWANDA, ERIE COUNTY, NY., TOWNSHIP 12, RANGE 8, UPDATED: 1/28/03, SCALE: 1" = 50'.

Periodic Review Report Former Gastown MGP Site Tonawanda, New York	 GEI Consultants	ENGINEERING CONTROLS LOCATION - SSDS LOCATIONS
National Fuel Gas Distribution Corporation Williamsville, New York		Project 091220 April 2018 Fig. 4

Cumulative NAPL Volume Removed



Appendix A

2017 and 2018 SMP Inspection Forms

SITE INSPECTION FORM

Gastown Former Manufactured Gas Plant Site

SITE INSPECTION DATE: 1-27-17 TIME OF ARRIVAL: 11:00 am

DEPARTURE: 12:00 pm

WEATHER: Partly cloudy, 35 F

National Fuel Gas Representative(s): Tanya Alexander

INSPECTION TYPE: **Annual Inspection** or Emergency Inspection

(if emergency indicate event that required an inspection): _____

Are the Institutional Controls in place, performing properly, and remain effective?

Site Signage in Place? None required Yes / No / **NA**

Does the Site comply with NYSDEC-approved Site Management Plan? **Yes** / No

Has ownership of the property changed since the last inspection? Yes / **No**

(Verify with Real Estate and Survey Departments)

Are there any changes to intended site use (restricted Residential, Commercial Yes / **No**

Or Industrial which would affect the SMP or institutional controls?

Is site used for agricultural purpose or vegetable gardens? Yes / **No**

Is groundwater used as source of potable or process water onsite Yes / **No**

If yes to the above – does water go through the necessary water quality treatment?

Yes/No

SITE INSPECTION FORM
Gastown Former Manufactured Gas Plant Site

Is solidified material visible? Yes / No

Is there any evidence of the damage to solidified soil from frost and wave Yes / No

Are the Engineering Controls in place, performing properly, and remain effective?

Surface Cover Intact (i.e. no evidence of erosion, excavations)? Yes / No

GENERAL SITE OBSERVATIONS:

Have there been any changes to the property since the last inspection? **No.**
(i.e. new equipment, residential buildings or facilities, changes in site topography, erosion, etc.)

NOTE:

Inspections should be made a minimum once a year and within 5 days of an emergency, such as a natural disaster or an unforeseen failure or damage to the building occurs. Inspections will be conducted by National Fuel Gas (or their agent) and results reported to NYSDEC.

COMPLETED BY: Daniel Kopcow, GEI

SIGNATURE: 

SITE INSPECTION FORM

Gastown Former Manufactured Gas Plant Site

SITE INSPECTION DATE: 4-17-18 TIME OF ARRIVAL: 10:45 am

DEPARTURE: 11:30 am

WEATHER: Partly cloudy, 30 F

National Fuel Gas Representative(s): None

INSPECTION TYPE: **Annual Inspection** or Emergency Inspection

(if emergency indicate event that required an inspection):

Are the Institutional Controls in place, performing properly, and remain effective?

Site Signage in Place? None required Yes / No

Does the Site comply with NYSDEC-approved Site Management Plan? Yes / No

Has ownership of the property changed since the last inspection? Yes / No

(Verify with Real Estate and Survey Departments)

Are there any changes to intended site use (restricted Residential, Commercial Yes /

No

Or Industrial which would affect the SMP or institutional controls?

Is site used for agricultural purpose or vegetable gardens? Yes / No

Is groundwater used as source of potable or process water onsite Yes /

No

SITE INSPECTION FORM
Gastown Former Manufactured Gas Plant Site

If yes to the above – does water go through the necessary water quality treatment?

Yes/No

Is solidified material visible?

Yes /

No

Is there any evidence of the damage to solidified soil from frost and wave

Yes /

No

Are the Engineering Controls in place, performing properly, and remain effective?

Surface Cover Intact (i.e. no evidence of erosion, excavations)?

Yes / No

GENERAL SITE OBSERVATIONS:

Have there been any changes to the property since the last inspection? No.

(i.e. new equipment, residential buildings or facilities, changes in site topography, erosion, etc.)

NOTE:

Inspections should be made a minimum once a year and within 5 days of an emergency, such as a natural disaster or an unforeseen failure or damage to the building occurs. Inspections will be conducted by National Fuel Gas (or their agent) and results reported to NYSDEC.

COMPLETED BY: Daniel Kopcow

SIGNATURE:

GEI Consultants, Inc., P.C.



Appendix B

2018 SSDS Inspection Forms

GENERAL MONITORING INFORMATION

GEI Field Representative(s):	J. Belonsoff, J. Peake	Address:	96 East Niagara Street, Bardo
Date:	1/16/2018	Monitoring Start Time:	11:05
Weather:	partly cloudy, 24	Monitoring End Time:	11:13
Fan Type:	GP 501 (GP501 / HS5000)		

INSTRUMENTATION INFORMATION (if used)

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)				ppm Isobutylene	Y / N
Manometer				Time: NA	Cal. Reading (ppm): NA

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration	
Fan Running?	Y / N
Exterior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior extraction point penetrations (cracks, peeling, leaks, etc.)?	good / fair / poor
Slab or Wall Cracks / Openings That Impair System Performance?	Y / N
Vacuum Reading at U-Tube Manometer:	-3.2 inches of water column

NOTES:

ppm = parts per million
 PID = photoionization detector

COMMENTS:

System in good condition

Reviewed by: _____

GENERAL MONITORING INFORMATION

GEI Field Representative(s):	J. Belonsoff, J. Peake	Address: 86 East Niagara St, Hockenberry
Date:	1/16/2018	Monitoring Start Time: 11:50
Weather:	partly cloudy, 24	Monitoring End Time: 12:05
Fan Type:	HS2000 (GP501 / HS5000)	

INSTRUMENTATION INFORMATION (if used)

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	RAE	3000		___ ppm Isobutylene Time:	Y / N Cal. Reading (ppm):
Manometer				NA	NA

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration	
Fan Running?	Y / N
Exterior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior extraction point penetrations (cracks, peeling, leaks, etc.)?	good / fair / poor
Slab or Wall Cracks / Openings That Impair System Performance?	Y / N
Vacuum Reading at U-Tube Manometer:	_-7.0_ inches of water column

NOTES:

ppm = parts per million
 PID = photoionization detector

COMMENTS:

System had been off for 3 days due to high water levels. Allowed vacuum to equilibrate before taking readings. System makes high pitch tone in frigid weather. Sump pump cover is not sealed. PID = 0.0 ppm

Reviewed by: _____

GENERAL MONITORING INFORMATION

GEI Field Representative(s):	J. Belonsoff, J. Peake	Address:	16 East Ave, Fisher
Date:	1/16/2018	Monitoring Start Time:	10:55
Weather:	partly cloudy, 24	Monitoring End Time:	11:05
Fan Type:	HS2000 (GP501 / HS5000)		

INSTRUMENTATION INFORMATION (if used)

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	NA			___ ppm Isobutylene Time:	Y / N Cal. Reading (ppm):
Manometer				NA	NA

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration	
Fan Running?	Y / N
Exterior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior extraction point penetrations (cracks, peeling, leaks, etc.)?	good / fair / poor
Slab or Wall Cracks / Openings That Impair System Performance?	Y / N
Vacuum Reading at U-Tube Manometer:	_0.35_ inches of water column

NOTES:

ppm = parts per million
 PID = photoionization detector

COMMENTS:

System in good condition.

Reviewed by: _____

GENERAL MONITORING INFORMATION

GEI Field Representative(s):	J. Belonsoff, J. Peake	Address: 154 E. Niagara St, Sportsmen's Club
Date:	1/16/2018	Monitoring Start Time: 12:10
Weather:	partly cloudy, 26	Monitoring End Time: 12:22
Fan Type:	HS5000 (GP501 / HS5000)	

INSTRUMENTATION INFORMATION (if used)

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	RAE	3000		___ ppm Isobutylene Time:	Y / N Cal. Reading (ppm):
Manometer				NA	NA

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration	
Fan Running?	Y / N
Exterior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior Pipe Condition (cracks, damage, etc.)?	good / fair / poor
Interior extraction point penetrations (cracks, peeling, leaks, etc.)?	good / fair / poor
Slab or Wall Cracks / Openings That Impair System Performance?	Y / N
Vacuum Reading at U-Tube Manometer:	_-1.3_ inches of water column

NOTES:

ppm = parts per million
 PID = photoionization detector

COMMENTS:

System in good condition. PID = 0.0 ppm

Reviewed by: _____

Open Bible Baptist School

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	J. Belonsoff, J. Peake	Monitoring Start Time:	11:15
	_____	Monitoring End Time:	11:48
Date:	1/16/2018		
Weather:	partly cloudy, 24		

INSTRUMENTATION INFORMATION (if used)				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	RAE	3000	___ ppm Isobutylene Time:	Y / N Cal. Reading (ppm):
NA Manometer (in. H ₂ O)			N/A	Zeroed before each reading? Y / N
NA Anemomaster (CFM)			N/A	N/A

FIELD MEASUREMENTS & OBSERVATIONS						
System Status/Configuration		* NA	Pressure Measurements		System Flow Rate Data	
Blower Enclosure Secure?	Y / N		Monitoring Point	Pressure (in. H ₂ O)	Velocity (ft/min)	System Flowrate (CFM)
Blower On?	Y / N		North Header	-1.8	NA	
Auto Dialer On?	Y / N		South Header	-5.2		
Auto Dialer Tested?	Y / N		East Header	-1.2		
Hour Meter Reading:	NA		Combined System Influent	-7.5		
Exterior Pipe Condition (cracks, damage, etc.)?			good / fair / poor			
Interior Pipe Condition (cracks, damage, etc.)?			good / fair / poor			
Interior extraction point penetrations (cracks, peeling, leaks, etc.)?			good / fair / poor			

ABBREVIATIONS	COMMENTS
ppm = parts per million CFM = cubic feet per minute PID = photoionization detector ft/min = feet per minute N/A = Not Applicable NM = Not Measured VOC = volatile organic compound in. H ₂ O = inches of water column	System in good condition. PID = 0.0 ppm Heard water gurgling in zone 2 storage room, likely due to high water levels. No water observed on pipe or on floor. * Auto dialer on but not connecting to Verizon network. Will be replaced.

Reviewed By: _____

Open Bible Baptist School

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	J. Belonsoff, J. Peake	Monitoring Start Time:	11:15
	_____	Monitoring End Time:	11:48
Date:	1/16/2018		
Weather:	partly cloudy, 24		

INSTRUMENTATION INFORMATION (if used)				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	RAE	3000	___ ppm Isobutylene Time:	Y / N Cal. Reading (ppm):
NA Manometer (in. H ₂ O)			N/A	Zeroed before each reading? Y / N
NA Anemomaster (CFM)			N/A	N/A

FIELD MEASUREMENTS & OBSERVATIONS						
System Status/Configuration		* NA	Pressure Measurements		System Flow Rate Data	
Blower Enclosure Secure?	Y / N		Monitoring Point	Pressure (in. H ₂ O)	Velocity (ft/min)	System Flowrate (CFM)
Blower On?	Y / N		North Header	-1.8	NA	
Auto Dialer On?	Y / N		South Header	-5.2		
Auto Dialer Tested?	Y / N		East Header	-1.2		
Hour Meter Reading:	NA		Combined System Influent	-7.5		
Exterior Pipe Condition (cracks, damage, etc.)?			good / fair / poor			
Interior Pipe Condition (cracks, damage, etc.)?			good / fair / poor			
Interior extraction point penetrations (cracks, peeling, leaks, etc.)?			good / fair / poor			

ABBREVIATIONS	COMMENTS
ppm = parts per million CFM = cubic feet per minute PID = photoionization detector ft/min = feet per minute N/A = Not Applicable NM = Not Measured VOC = volatile organic compound in. H ₂ O = inches of water column	System in good condition. PID = 0.0 ppm Heard water gurgling in zone 2 storage room, likely due to high water levels. No water observed on pipe or on floor. * Auto dialer on but not connecting to Verizon network. Will be replaced.

Reviewed By: _____