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WATERTOWN (ANTHONY ST.) NON-OWNED FORMER MGP SITE

WATERTOWN, NEW YORK

Site-Specific Work Plan
for
Site Characterization

October 2001

Prepared for:

Niagara Mohawk

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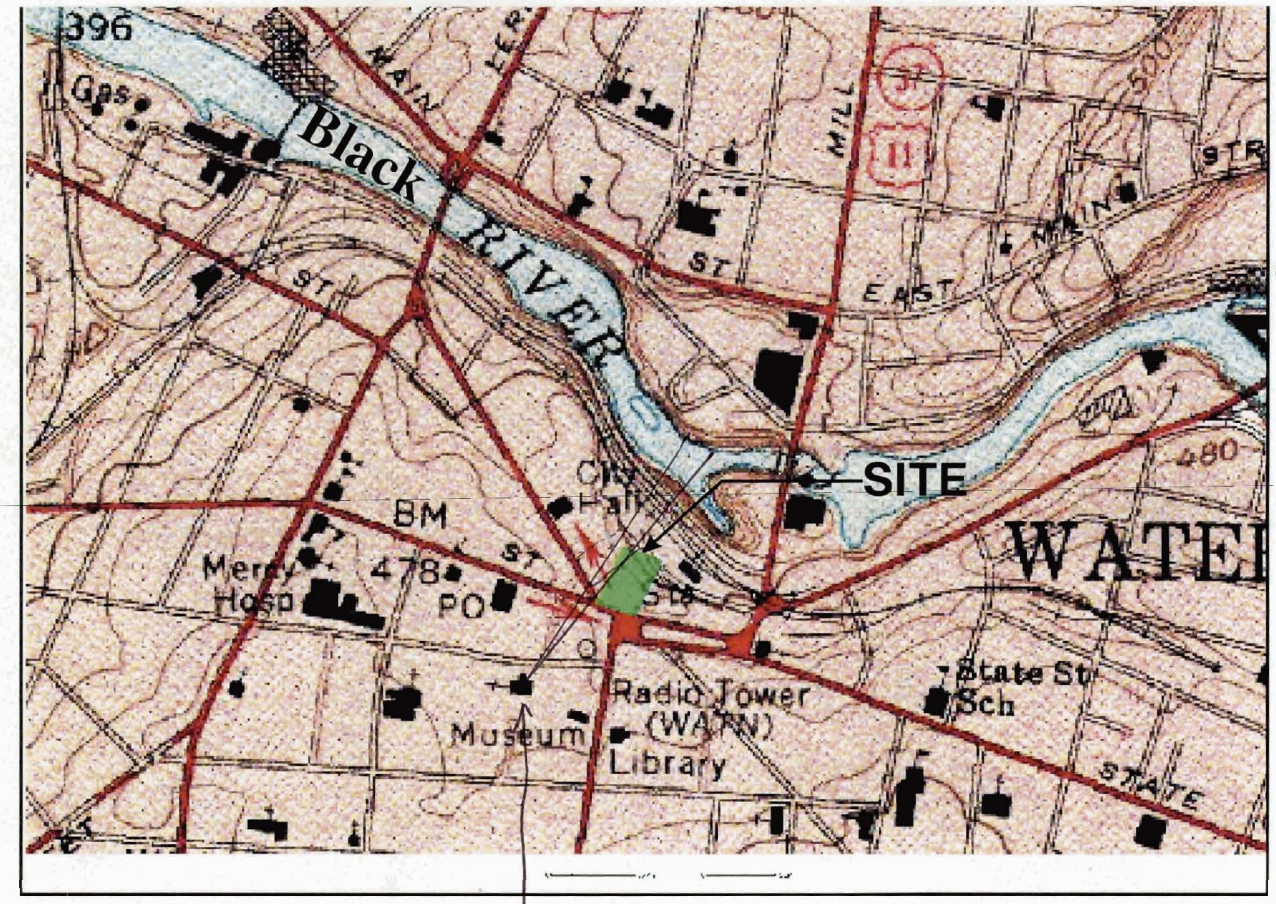
1.0 INTRODUCTION

This Work Plan presents the Site-specific scope of investigation activities and health and safety considerations for the Watertown (Anthony Street) Non-owned Former Manufactured Gas Plant (MGP) Site. The purpose and objectives of the investigation, rationale for the investigation approach, data quality objectives, field investigation procedures, quality assurance/quality control (QA/QC) requirements, and generic health and safety requirements are presented in the Generic Work Plan for Non-owned Former MGP Sites (Volume II).

2.0 SITE DESCRIPTION

The Watertown (Anthony Street) Site, a former MGP, is located at 121 J. B. Wise Place (formerly Anthony Street), Jefferson County, Watertown, New York and comprises approximately 0.90 acres. Figure 1 illustrates the location of the property on the USGS 7.5 minute Rutland Center Quadrangle map.

Figure 1. Site Location Map



I am not sure that this is in the right spot

Stone street presbyterian site is below

2.1 Site History

Foster Wheeler Environmental performed a review of eight (8) Sanborn Fire Insurance maps (1884, 1890, 1895, 1902, 1909, 1949, 1958, and 1971), depicting the Site located along Anthony Street. Sanborn maps and other third party documentation are provided for informational purposes only and Niagara Mohawk (NM) does not warrant the accuracy of such information. The results of the review are discussed, by year, below.

1884 The facility is shown along Anthony Street and is located northwest of the railroad tracks. The facility includes nine retorts (in the gas house), a storage shed, a two-story coal house, and two iron gasometers (approximately 25 and 50 ft. diameter) in the middle of the Site.

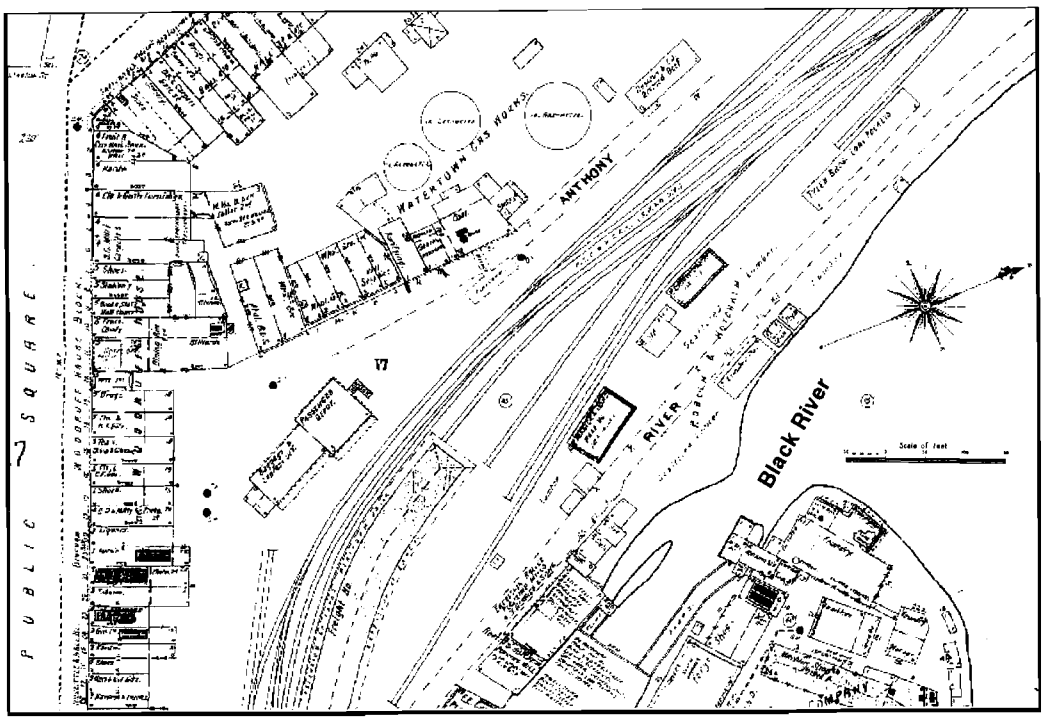
A steep bank, 15 to 20 ft. high is located northwest of the gasometers. The Site is surrounded by residential and commercial structures.

1890 The facility is named the Watertown Gas Works. A purifying house and purifiers were added adjacent to the retorts. A bridge from the coal shed traverses over Anthony Street and a platform has been built adjacent to the railroad tracks. Also, two buildings were added south of the gasometers. The Black River is shown approximately 275 ft. north-northeast of the Site.

1895 The facility appears the same as shown on the 1890 Sanborn map.

1902 The facility appears the same as shown on the 1895 Sanborn map with some exceptions. The engine room is located between the retorts and the coal shed. An iron gasometer (approximately 75 ft. in diameter) was added to the Site north of the existing gasometers (see Figure 2).

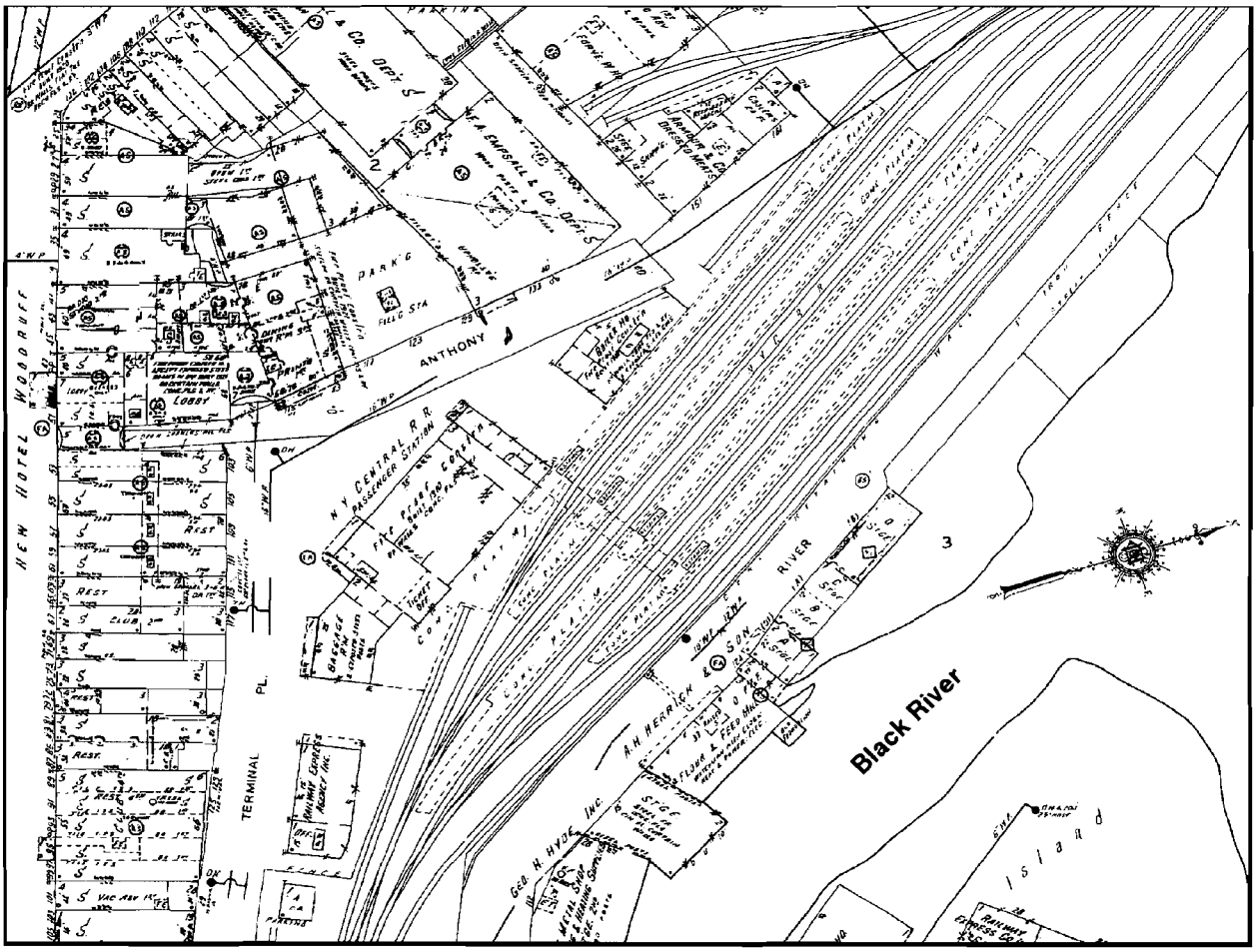
Figure 2. 1902 Sanborn Map



1909 The MGP operations appear to have stopped and the buildings utilized for other uses. The former purifying house is now vacant. The gas house is an auto repair shop and the former coal house is a commercial building. The gasometers are no longer shown on the map. Additional railroad tracks are present in the former location of Anthony Street.

1949 The property has undergone extensive change and no remnants of the MGP are evident. One building (F.A. Empsall & Co. Department Store) covers the majority of the Site and a parking lot occupies the property south of the Site (see Figure 3). The density of buildings in the area have increased. Anthony Street is a dead end street.

Figure 3. 1949 Sanborn Map



1958 The property remains the same as the 1949 Sanborn map.

1971 The property remains the same as the 1958 Sanborn map; however, Anthony Street has been renamed J.B. Wise Place.

Based on a review of the "Survey of Town Gas and By-product Production and Locations in the U.S (1880-1950)", no information is available for the Watertown (Anthony Street) Site.

2.2 Current Conditions

The Watertown (Anthony Street) Site is located in a mixed residential and commercial district of the City of Watertown. The Site is currently utilized as a municipal parking (owned by the City of Watertown) and is adjacent to the F.A. Empsall & Co. Department. No evidence or existence of above ground structure of the former MGP operations was noted during the NM Site visit on November 19, 1999.

3.0 SCOPE OF INVESTIGATION

The scope of the Site Characterization of the Watertown (Anthony St.) Non-owned Former MGP Site is described below. Preliminary sample locations are shown on Figure 4. Field activities will be performed in accordance with the Generic Plans (Volume II).

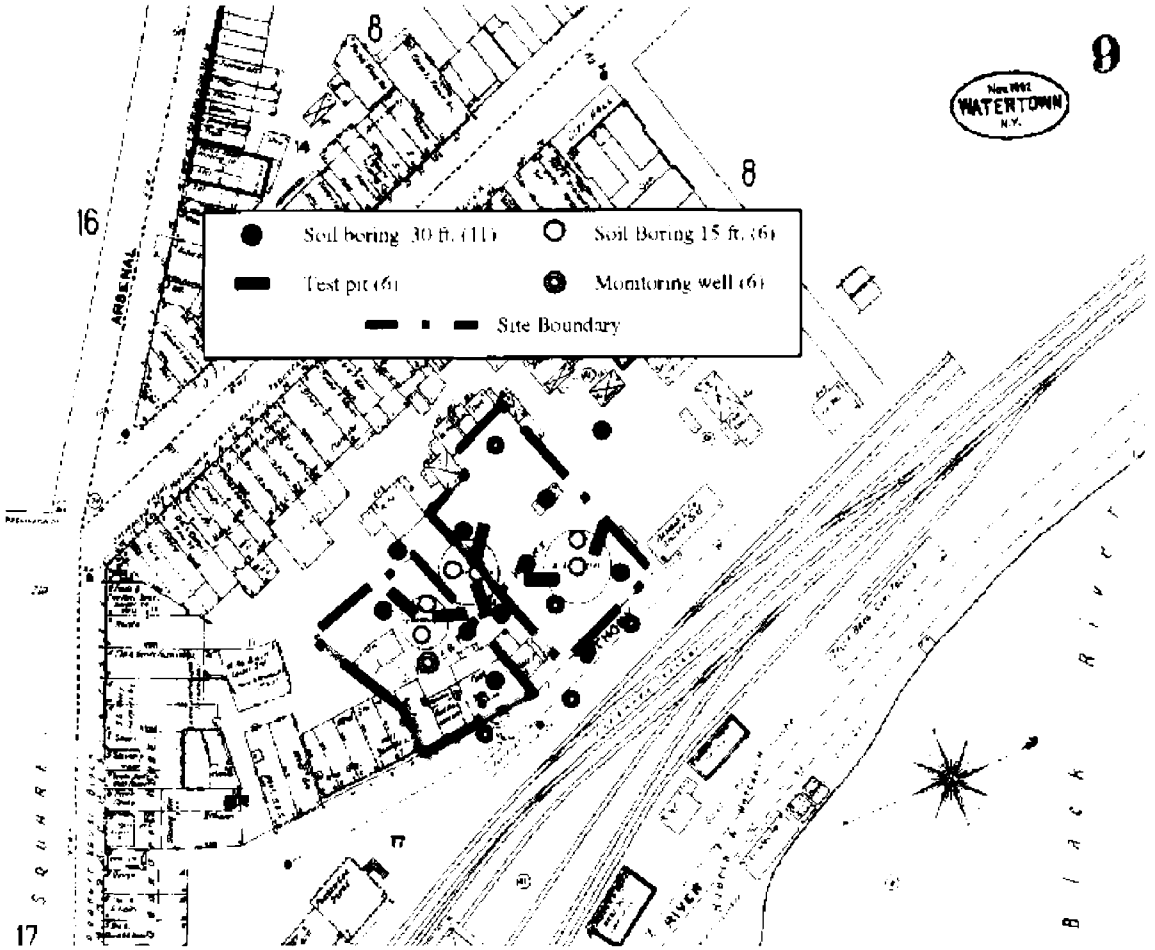
The Site Characterization at the Watertown (Anthony St.) Site will include the following:

1. Advancement of seventeen (17) soil borings of which eleven (11) will be advanced to a target depth of 30 feet below ground surface (bgs) and six (6) will be advanced to a target depth of 20 feet bgs inside the holder to assess subsurface conditions. If soil samples indicate the presence of MGP impacts, the soil borings will be advanced deeper until there is reasonable assurance we are beyond the zone of impact. The locations of the borings are in a modified grid, biased toward areas suspected to contain former MGP structures and to document background conditions. Soil boring locations will be biased towards the tar-tank, and the holder areas, including borings inside the holders (center and perimeter) to determine the presence of DNAPL or impacted material in the holder and the configuration/construction material of the holder foundation (e.g., sloped, cone, etc.). Background boring locations have been selected in an area upgradient of potential Site impacts.
2. Six (6) of the borings will be converted into monitoring wells. The position of five (5) of these borings will be downgradient of the holder areas to detect impacts in groundwater, if any, from these former structures and on-site operations. One of the monitoring wells will be positioned upgradient of the Site to provide background data. The wells will be oriented for the collection of water level measurements to ascertain groundwater flow direction and to obtain representative groundwater samples. The wells will be constructed of 2-inch PVC Schedule 40 screen and riser, with a target depth of 30 feet.
3. Excavation of six (6) test pits, two (2) located across opposite walls of each of the three (3) gas holders, and one (1) in the vicinity of the tar tank to determine the location, dimensions, construction of these former MGP structures, and whether MGP impacts are still present.
4. Analytical samples will be collected from specific sample locations/intervals at the following frequency: 1) up to six (6) soil samples from each soil boring and monitoring well location at five (5) foot intervals will be analyzed for BTEX, PAHs and CN; 2) one soil sample will be collected from each borehole and analyzed for TOC; 3) based on field observations, samples collected adjacent to the holder and others may be designated for GC fingerprint analysis, particularly if non-MGP impacts are suspected; 4) two (2) rounds of groundwater samples from each of the wells analyzed for full TCL/TAL and natural attenuation parameters; and 5)

two (2) Shelby tube samples will be collected for analysis of geotechnical parameters (i.e., porosity, permeability, bulk density, grain size, Atterberg limits, percent moisture, specific gravity). See Table 1 for analytical testing details.

5. A Phase IA Cultural Resources Survey will be conducted at the Site after the completion of the Site Characterization. The Stage IA Survey will include the results of background investigations on the history and prehistory of the project area, report on the results of file searches at both the New York State Office of Parks, Recreation and Historic Preservation and the New York State Museum, provide an evaluation of the effects of proposed Site

Figure 4. Site Characterization Samples and Test Pit Locations



Proposed
11 borings
6 test pits
5 wells
6 shallow borings

TABLE 1
Summary of Laboratory Analyses for Site Characterization
Watertown (Anthony St.) Non-owned Former MGP Site

Subtask	Sample Matrix	Laboratory Analysis	Field QC Samples: No. of Samples	Trip Blanks[3]	Field Duplicates	Laboratory QC Samples: Equipment/ Field Blanks	MS/MSD[1]	MSB/LCS[2]	Total
Subsurface Soil	Soil	BTEX, PAHs, CN^-	90	0	5	5	5/5	5/5	120
		TOC	17	0	0	0	0	0	17
		GC Fingerprint	1	0	0	0	0	0	1
		Geotechnical parameters[4]	2	0	0	0	0	0	2
Groundwater	Water	TCL VOCs, SVOCs, TAL metals, NA[5].	12[6]	4	2	2	2/2	2/2	28

NOTES:

1 MS/MSD: matrix spike/matrix spike duplicate.
2 MSB/LCS: matrix spike blank/laboratory control sample.
3 Trip blanks will be analyzed for TCL VOC parameters only.
4 Porosity, permeability, bulk density, grain size, Atterberg Limits, % moisture and specific gravity.
5 NA: Natural attenuation parameters consist of ferrous iron, dissolved methane, TDS, chloride, COD, BOD, dissolved CO_2, total and diffuse cyanide, standard plate count, alkalinity, orthophosphate, ammonia, sulfate, nitrate, TOC and ferric iron.
6 Based on two rounds of groundwater sampling.

Characterization activities on potentially significant historic properties, and if necessary, make recommendation regarding the need for additional work. It is assumed that NM will provide and/or arrange: 1) a copy of any historical information available for the Site, 2) all cultural resources information available, if any, and 3) access to the project area for a Site visit.

6. A Fish and Wildlife Impact Analysis (FWIA) will also be performed at the Site. The analysis will be conducted in accordance with the NYSDEC guidance document "Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites" revised October 1994. The overall objectives of the FWIA are to evaluate ecological impacts in areas contaminated with hazardous waste and to assist in planning the scope of work required for Site investigation and remediation. The currently planned scope of the FWIA is to complete Steps I through IIB. Subsequent steps will be undertaken if required based on the results of Steps I through IIB.

7. A baseline ground survey of the Site will be performed to develop a base map of the Site for development of the Site GIS and for presentation of data. This baseline survey will encompass surveying surface features, elevations (2-foot contours), underground utilities, structures, materials of construction, easements, property lines, and other relevant information located within the survey limits identified by Foster Wheeler Environmental for the Site. The second phase, Post Investigation Survey, will be conducted after Foster Wheeler Environmental conducts Site Characterization at the Site. Upon completion of the field investigation activities, a Post Investigation Survey will be performed and will include the survey of wells installed, soil borings drilled, test pits excavated, and sampling locations.

8. Analytical data from the Site Characterization will be obtained from the laboratories in GIS-compatible format and imported into GIS\Key™ for data tracking, analysis and presentation. Within the GIS, data will be compared to regulatory limits (e.g., TAGM 4046 for soils, etc.). Maps depicting the groundwater flow direction and the soil and groundwater analytical data will be developed in the GIS for incorporation into the Site Characterization Report; the figures will provide a summary of the data as well as highlighting regulatory exceedances. Boring logs and cross sections will also be developed in the GIS based on the field data for presentation in the Site Characterization Report. In the event upon review of the data generated, additional investigation is needed at the Site, we will negotiate with the NM PM a reduced deliverable (Data Deliverable) to the NYSDEC.

9. The analytical data generated from the field activities will undergo data validation. A Data Usability Summary Report (DUSR) will be prepared following completion of the data validation task.

4.0 HEALTH AND SAFETY INFORMATION

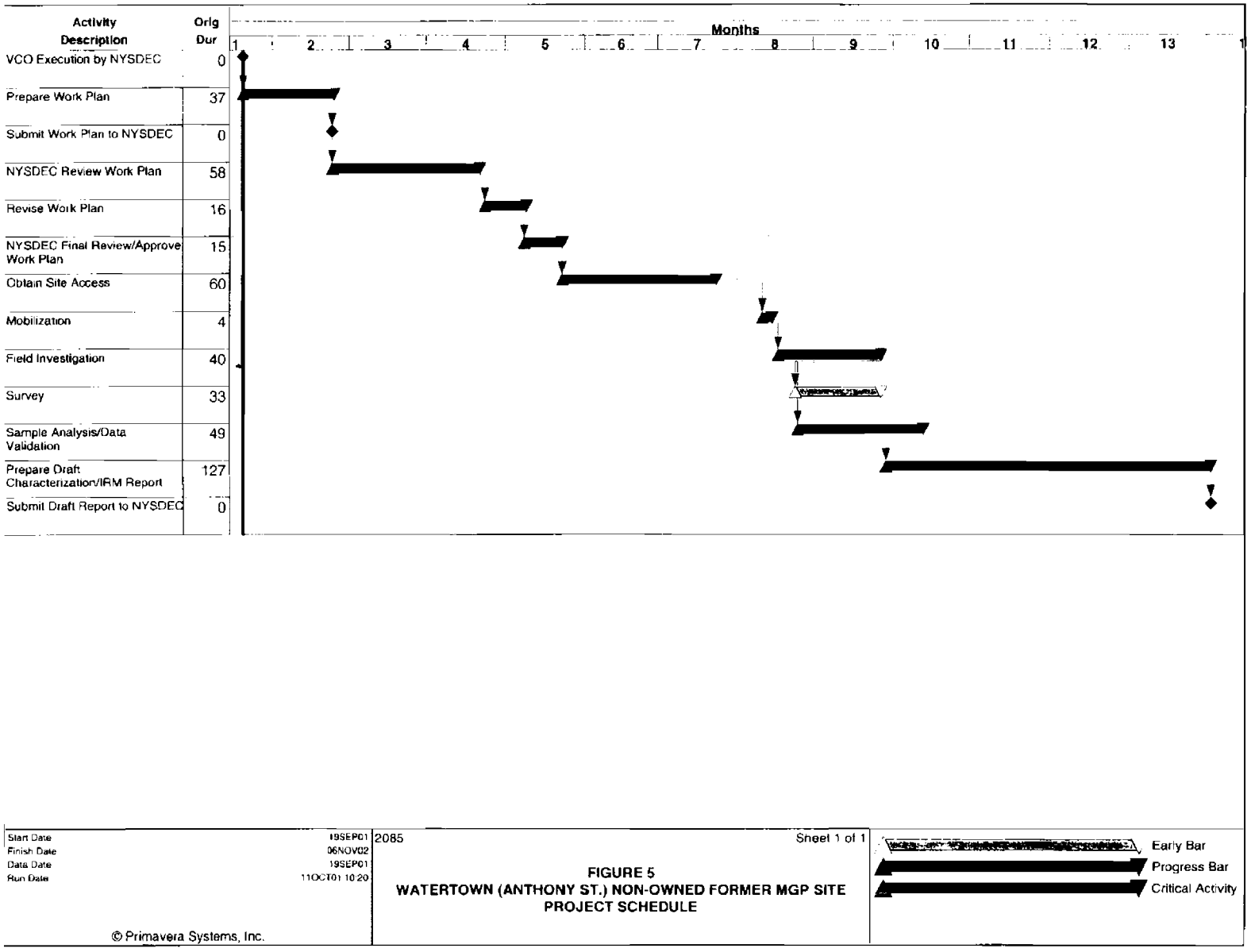
Health and safety requirements for Site Characterization activities are provided in the Generic Health and Safety Plan (Volume II). The Site-specific Hospital Route Map and Emergency and Site Contacts are provided as Attachments A and B, respectively, to this Work Plan.

5.0 PROJECT SCHEDULE

The schedule for implementation of the Watertown Non-owned Former MGP Site Characterization activities is provided in Figure 5. This conceptual project schedule identifies major milestones for the overall Site Characterization for the Watertown (Anthony St.) Non-owned Former MGP Site. Under the Voluntary Cleanup Order, NM is concurrently performing Site Characterization activities at a number of Sites. In order to complete these investigations as efficiently as possible, NM may adjust the schedule of the intermediate activities (e.g., field investigation, survey, etc.) at the Watertown (Anthony St.) Non-owned Former MGP Site to allow these activities to be performed sequentially with other sites in the proximity to the Watertown (Anthony St.) Non-owned Former MGP Site.

6.0 REFERENCES

Radian, 1985: Survey of Town Gas and By-Product Productions and Locations in the U.S. (1880-1950, Robert Eng, Radian Corporation for USEPA (EPA/600/7-85/004), February 1985.



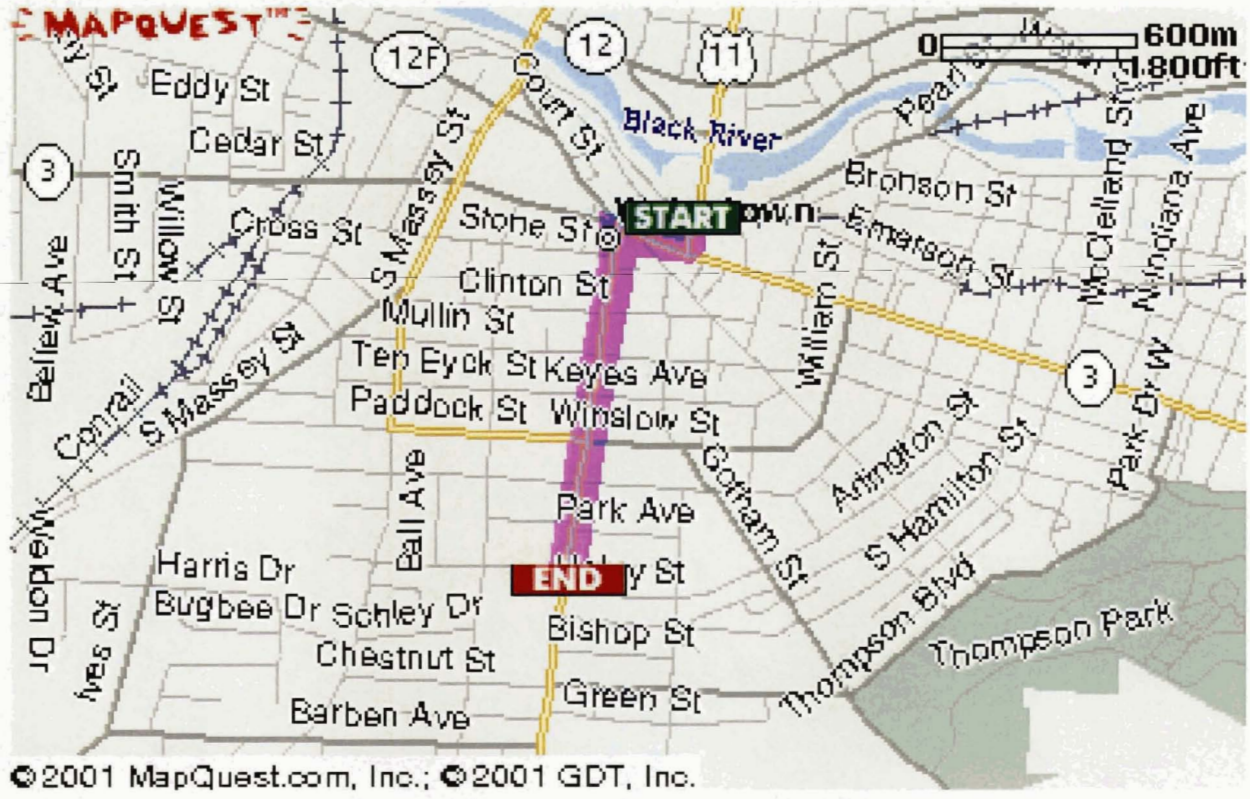
60 days for access, yeah right

FIGURE 5
WATERTOWN (ANTHONY ST.) NON-OWNED FORMER MGP SITE
PROJECT SCHEDULE

ATTACHMENT A

HOSPITAL ROUTE MAP

SAMARITAN MEDICAL CTR
830 WASHINGTON ST
WATERTOWN, NY 13601
315-785-4000



DIRECTIONS:
1: Start out going Southwest on US-11/NY-12 towards NY-3 by turning right. 0.0
2: Turn RIGHT onto NY-3. 0.1 miles
3: Turn LEFT onto PUBLIC SQ. 0.0 miles
4: PUBLIC SQ becomes US-11. 0.7 miles

ATTACHMENT B

EMERGENCY AND SITE CONTACTS

EMERGENCY AND SITE CONTACTS

CONTACT	FIRM OR AGENCY	TELEPHONE NUMBER
Police		911
Fire		911
Hospital	SAMARITAN MEDICAL CTR 830 WASHINGTON ST WATERTOWN, NY 13601	315-785-4000
Ambulance		911
NM Project Manager Steve Stucker	Niagara Mohawk	315-428-5652
NM Safety Department William Todeschini	Niagara Mohawk	315-460-1303
Foster Wheeler Environmental Project Manager Tom Wollen	Foster Wheeler Environmental Corp.	315-472-5962
Foster Wheeler Environmental Project Environmental and Safety Manager Grey Coppi	Foster Wheeler Environmental Corp.	215-702-4079
Foster Wheeler Environmental FOL TBD *	Foster Wheeler Environmental Corp.	973-452-4279 (Field Cell Phone)
Chemtrec		800-424-9300
National Response Center		800-424-8802
NYSDEC Spill Hotline	NYSDEC	800-457-7362 518 457-7362
Poison Control Center		800-336-6997
Underground Facility Protective Organization	UFPO	800-962-7962
Utility Emergencies (Electric & Gas)	Niagara Mohawk	800-932-0301

The Emergency Phone Numbers listed are preliminary. Upon mobilization, the FOL will verify all numbers, and document the changes in the Site Logbook. Any changes will also be documented with a field change request form and appended to this Site-Specific Work Plan.

* TBD – To Be Determined, the FOL has not been selected for this project at this time.