RECORD OF DECISION

Chalmers Building
Environmental Restoration Project
Amsterdam, Montgomery County
Site No. E429011
September 2013

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

Chalmers Building
Environmental Restoration Project
Amsterdam, Montgomery County
Site No. E429011
September 2013

Statement of Purpose and Basis

This document presents the remedy for the Chalmers Building site, an environmental restoration site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Chalmers Building site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternatives analysis (AA). The IRM undertaken at this site is discussed in Section 6.2.

Based on the implementation of the IRM, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRM conducted at the site attained the remediation objectives identified for this site in Section 6.5 for the protection of public health and the environment.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

September 23,2013

Date

Robert W. Schick, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

Chalmers Building
Amsterdam, Montgomery County
Site No. E429011
September 2013

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRM undertaken at this site is discussed in Section 6.2. Contaminants include hazardous wastes and/or petroleum.

Based on the implementation of the IRM, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This ROD identifies the IRM conducted and discusses the basis for No Further Action.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled, or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Amsterdam Free Library
Attn: Reference Desk
28 Church Street
Amsterdam, NY 12010
Phone: (518) 842-1080

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the alternatives analyses (AA) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the propsed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Chalmers Building was a former knitting/textile mill complex located on a 2.54-acre parcel at 21-41 Bridge Street and an adjacent 0.77-acre parcel at 32 Gilliland Avenue in the City of Amsterdam, Montgomery County. The site was investigated under the Environmental Restoration Program (ERP).

Site Features: The site is located on the south shore of the Mohawk River/Erie Canal at an elevation of approximately 271 feet above mean sea level. It is separated from the river by a concrete flood control wall and the river is approximately 15-20 feet below street level when the barge canal locks are closed. Most of the larger parcel was taken up by the building complex, with the remainder nearly flat consisting of grassy and vegetated areas. The smaller parcel was overgrown by trees and brush, but had no structures on it.

Current Zoning/Use: The site is located in a mixed commercial and residential area. The two parcels that make up the site are zoned commercial. There are residential units (apartments) within 100 feet of the site.

Past Use of the Site: Seven adjoining buildings ranging from one to seven stories tall comprised the former Chalmers Knitting Company and contained approximately 350,000 square feet of industrial space over a footprint of approximately 60,000 square feet. Construction of the structures began around 1913. The Chalmers Knitting Company conducted operations between approximately 1913 and the 1950s. Other smaller companies continued clothing manufacturing operations into the mid-1980s. The site is currently vacant and is owned by the City of Amsterdam.

Areas of potential environmental concern included two 20,000-gallon underground fuel oil storage tanks, floor drains and sumps, and electrical transformers possibly containing PCBs.

Site Geology/Hydrogeology: The bedrock underlying the site is mapped as middle Ordovician-aged limestone of the Trenton and Black River formations. The depth to bedrock is not known, but based on the fact that bedrock exposures are present in road cuts and stream cuts within a mile of the site, the depth of bedrock is probably less than 100 feet below grade. No bedrock was encountered during installation of any monitoring wells or borings.

Unconsolidated subsurface materials consist of approximately two to ten feet of fill materials which overlie silt and clay ranging from 0 to 10+ feet in thickness. Below the silt and clay zone, where present, are silty sand to gravely sand units that may represent alluvial/stream deposits.

Groundwater is approximately 15 to 20 feet below grade and generally flows northeast toward the Mohawk River, but the site's water table elevation may be affected by the flood control wall and whether the canal locks are open or closed.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

No PRPs have been documented to date.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. City of Amsterdam will assist the state in its efforts by providing all information to the state which identifies PRPs. City of Amsterdam will also not enter into any agreement regarding response costs without the approval of the Department.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCG in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminants of concern identified at this site are:

benz(a)anthracene	indeno(1,2,3-cd)pyrene
benzo(a)pyrene	arsenic
benzo(b)fluoranthene	lead
chrysene	mercury
dibenz(a,h)anthracene	PCB-Aroclor 1260

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

The following IRM has been completed at this site based on conditions observed during the RI.

IRM - Building Demolition, Underground Storage Tank and Transformer Removal

The IRM consisted of investigation, excavation, and removal of two 20,000-gallon underground storage tanks and associated contaminated soil. Removal of six 130-gallon PCB transformers from the central courtyard of the buildings was followed by demolition of the buildings, with associated asbestos abatement, to facilitate hazardous substance investigation and removal. Building demolition started in the spring of 2011 and was largely complete by the summer of 2012. Clean brick and concrete from the building demolition were used to backfill the basements and regrade the site. A demarcation layer (woven filter fabric) and a one-foot layer of clean soil (meeting commercial soil cleanup objectives as set forth in 6 NYCRR Part 375-6.7(d))were placed over the contaminated soil areas.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Nature and Extent of Contamination: The property is a former knitting/textile mill. Areas of potential environmental concern included underground petroleum storage tanks, floor drains and sumps, and electrical transformers. An IRM and supplemental site investigation have been completed.

There was widespread contamination of surface and sub-surface soil with a class of contaminants called polycyclic aromatic hydrocarbons (PAHs) and some metals above the commercial Soil Cleanup Objective (SCO). Some of the soil samples collected from the courtyard area, where the transformers were located, contained PCBs.

Groundwater in only two monitoring wells was contaminated with chlorinated solvents, just slightly above groundwater standards. Several metals detected across the site in groundwater above their respective standards were probably the result of natural conditions and sediment in the well water.

The soil vapor sampling indicates soil vapor intrusion is not a concern for off-site buildings. However, a few on-site soil vapor samples detected elevated levels of chlorinated VOCs. Soil vapor intrusion will need to be evaluated in any future construction or development on this site prior to occupation.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

A one foot thick clean soil cover over the site prevents direct contact with subsurface soil and groundwater contamination remaining on the site. However, persons who dig below the site cap may come into contact with contaminants in subsurface soil. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for people to inhale site contaminants in

indoor air due to soil vapor intrusion in any future on-site building development and occupancy. In addition, sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: SUMMARY OF SELECTED REMEDY

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department is selecting No Further Action and the implementation of ICs/ECs (Environmental Easement and Site Management Plan) as the remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The elements of the IRM already completed and the institutional and engineering controls are listed below:

1. Cover System

A one-foot soil cover currently exists and will be maintained to allow for commercial or industrial use of the site. Any future 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 of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. Where a soil cover is required, a demarcation layer will first be constructed before placement of the cover system. The present clean soil cover has been placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site met the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

2. Institutional Control

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 or industrial use 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 approval and necessary water quality treatment as determined by the NYSDOH or County DOH; and
•requires compliance with the Department-approved Site Management Plan.

3. Site Management Plan

A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement and groundwater use restriction discussed above.

Engineering Controls: The soil cover and demarcation layer as discussed above.

This plan includes, but may not be limited to:

•an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

•descriptions of the provisions of the environmental easement including any land use and/or groundwater use restrictions;
•a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
•provisions for the management and inspection of the identified engineering controls;
•maintaining site access controls and Department notification; and
•the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into four categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Groundwater

Groundwater samples were collected from 14 on-site monitoring wells to assess conditions in the upper water table (up to a depth of 28 feet). The results are shown on Figure 6. Contamination in groundwater at the site exceeds the SCGs for volatile organic compounds and inorganics.

Table 1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
Cis-1,2-dichloroethene	ND - 6	5	1 of 18
Trichloroethylene	ND - 10	5	1 of 18
Inorganics			
Antimony	ND - 7.7J	3	3 of 18
Iron	ND - 9,000	300	13 of 18
Lead	ND - 67	25	2 of 18
Magnesium	ND - 44,900	35,000	4 of 18
Manganese	ND - 5,940	300	5 of 18
Selenium	ND - 27.4J	10	4 of 18
Sodium	ND - 160,000	20,000	14 of 18

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than the method detection limit. The concentration given is an approximate value.

Two volatile contaminants were present in the groundwater samples at very low concentrations. One individual VOC was detected in each of two wells at concentrations slightly above the groundwater standard (6 and 10 ppb compared to the standard of 5 ppb) when those wells were sampled in December 2006. When those same wells were sampled again in April 2012, the same VOCs were again detected in those wells, but at concentrations

below the groundwater standard. These detections do not represent gross contamination expected from the disposal of hazardous waste or hazardous substances.

The inorganic compounds found in the groundwater samples are naturally occurring metals. Iron, magnesium, manganese, and sodium are metals commonly found in soil. Antimony, lead, and selenium are less common, but of these, only lead was found in site soils at significant concentrations.

During the remedial investigation, groundwater "grab" samples were collected from two soil borings on the site. The results from these samples are shown on Figure 6, but not reported in the table above. These samples did not have sand pack to filter the water. In addition to the metals reported in Table 1, additional metals were detected in the two grab groundwater samples. The elevated metals concentrations in all the groundwater samples are likely due to turbidity (soil particles suspended in the water) of the samples at the time nitric acid was added as a preservative. Therefore, these metals are not considered site-specific contaminants of concern.

Groundwater samples contained no semi-volatile organic compounds or PCBs.

Public water is available in the area and utilization of on-site groundwater is unlikely. No site-related groundwater contamination of concern was identified during the RI; therefore, no remedial alternatives need to be evaluated for groundwater.

Soil

Surface and subsurface soil samples were collected at the site during the various stages of the Remedial Investigation. Over the course of the RI, 62 soil borings were advanced. Samples collected for laboratory analysis included 27 surface soil samples and 108 subsurface soil samples. Surface soil samples were collected from a depth of 0-2 inches to assess direct human exposure. Subsurface soil samples were collected from borings from as deep as 23 feet below the ground surface to assess soil contamination impacts to groundwater.

The Preliminary Site Investigation and Supplemental Site Investigation stages focused on areas of the site outside of the footprint of the Chalmers Building. During the Preliminary Site Investigation, samples collected for laboratory analysis included 19 surface soil samples and 23 subsurface soil samples. For the Supplemental Site Investigation, samples collected for laboratory analysis included 8 surface soil samples and 35 subsurface soil samples.

The Focused Site Investigation and Supplemental Focused Site Investigation stages concentrated on identifying and delineating impacts within the building footprint. During the Focused Site Investigation, 12 subsurface soil samples were collected. During the Supplemental Focused Site Investigation, 38 subsurface soil samples were collected from 9 soil borings. Analytical results above the Commercial SCO for the soil samples are shown on Figures 7 through 10.

The results in Table 2, below, indicate that surface and subsurface soil at the site exceed the unrestricted SCGs for volatile organics, semi-volatile organics, metals, and pesticides/PCBs. The restricted use SCGs were exceeded to a lesser extent.

Table 2 - Surface and Subsurface Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG
VOCs					
Acetone	ND - 2.4J	0.05	10 of 66	500	0 of 66
Tetrachloroethene	ND - 2.5J	1.3	2 of 66	150	0 of 66
Toluene	ND - 1.2J	0.7	1 of 66	500	0 of 66
SVOCs					
Benzo(a)anthracene	ND - 43	1	31 of 74	5.6	7 of 74
Benzo(a)pyrene	ND - 39	1	28 of 74	1	28 of 74
Benzo(b)fluoranthene	ND - 45	1	30 of 74	5.6	9 of 74
Chrysene	ND - 57J	1	30 of 74	56	1 of 74
Dibenz(a,h)anthracene	ND - 5.2	0.33	17 of 74	0.56	10 of 74
Indeno(1,2,3-cd)pyrene	ND - 19	0.5	27 of 74	5.6	6 of 74
Inorganics					
Arsenic	ND - 87.3	13	24 of 98	16	22 of 98
Barium	ND - 875	350	5 of 98	400	4 of 98
Cadmium	ND - 36.9	2.5	10 of 98	9.3	2 of 98
Chromium	ND - 97.2	30	8 of 98	1,500	0 of 98
Copper	ND - 1,410	50	61 of 98	270	8 of 98
Lead	ND - 34,800	63	107 of 124	1,000	15 of 124
Mercury	ND - 259	0.18	91 of 124	2.8	11 of 124
Nickel	ND - 242	30	11 of 98	310	0 of 98
Zinc	ND - 2,810	109	65 of 98	10,000	0 of 98
Pesticides/PCBs					
4,4'-DDT	ND - 0.058J	0.0033	4 of 8	47	0 of 8
Aroclor 1254	ND - 0.14J	0.1	3 of 65	1	0 of 65
Aroclor 1260	ND - 4J	0.1	6 of 65	1	1 of 65

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than the method detection limit. The concentration given is an approximate value.

The VOCs detected in soil were just above the Unrestricted SCO, but well below the Commercial Use SCO. The SVOCs detected in the soil samples represent a class of chemicals called polycyclic aromatic hydrocarbons (PAHs) which are associated with incomplete combustion of coal or oil. PAHs have low solubility in water and

tend to attach to soil. Soil samples exceeded the SCOs for PAHs in numerous cases, and there does not seem to be any pattern to the detections.

Subsurface soil samples were collected from the building footprint in an effort to determine if fabric dyeing operations contaminated the soil. While there are sporadic detections of several metals, there is no general pattern to these detections which would be indicative of gross contamination from dyeing operations. In fact, with the exception of an area of lead-contaminated soil beneath Structure 2, it appears that the contamination found in the subsurface soil is the result of historic fill material used when the building was built. The ubiquitous presence of PAHs also points to historic fill material.

PCBs detected in surface soil were limited to the area of the transformers located in the courtyard area, and the pesticide 4,4'-DDT was found in surface soil in the vacant western portion of the site. Both the PCBs and 4,4'-DDT were detected above the Unrestricted SCO, but well below the Commercial Use SCO.

During the building demolition IRM, the contractor removed the soil impacted by PCBs in the courtyard area and shipped it to an off-site permitted disposal facility. In addition, the lead-contaminated soil located beneath Structure 2 (also contaminated with other metals) was excavated and disposed off-site at a permitted disposal facility.

The rubble from the demolished building was placed over areas of contaminated soil and was used to regrade the contours of the site. The entire site (rubble and original soil) was then covered by a one-foot thick clean soil cover. This action removed the potential for direct contact with the contaminated soil at the site. Therefore, soil contamination identified during the RI was addressed during the IRM described in Section 6.2.

Soil Vapor

The potential for soil vapor intrusion resulting from the presence of site-related soil or groundwater contamination was evaluated by the sampling of soil vapor. Soil vapor samples were collected from beneath the slabs of the various structures that made up the Chalmers Building. At this site, the buildings were scheduled to be razed, so only soil vapor was evaluated. During the demolition IRM, any slabs remaining were cracked to their full depth before the basements were backfilled with concrete rubble.

Figure 11 shows the locations of the soil vapor samples and the chemicals detected. Based on the concentration detected, and in comparison with the NYSDOH Soil Vapor Intrusion Guidance, no site-related soil vapor contamination of concern was identified during the RI. However, a few on-site soil vapor samples detected elevated levels of chlorinated VOCs. Soil vapor intrusion will need to be evaluated in any future construction or development on this site prior to occupation. Soil vapor is not a concern for off-site structures based on the soil vapor sample data and since no occupied structures are in close proximity to the site.

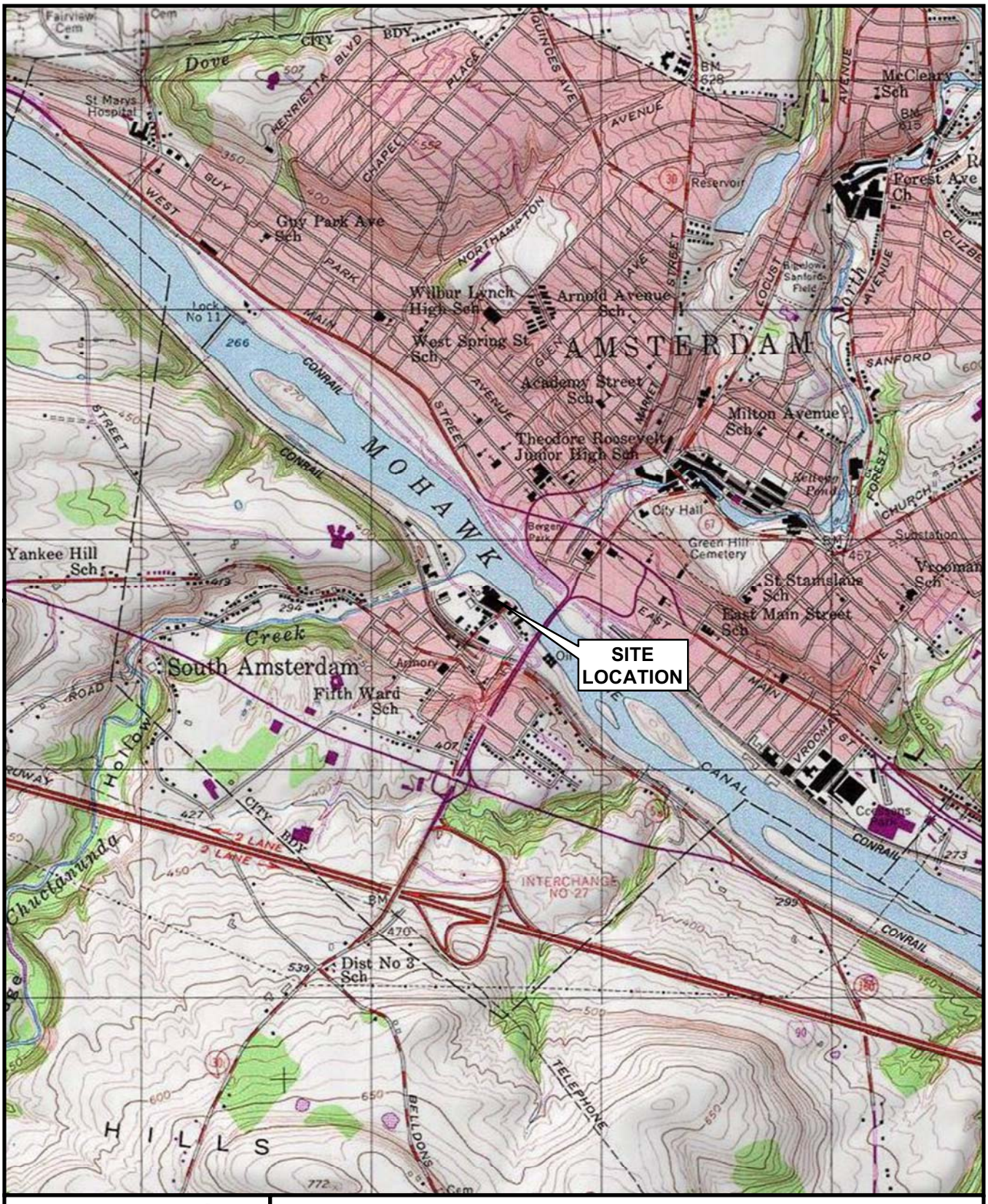

Figure 1

Site Location Map

Chalmers Building
City of Amsterdam/Montgomery County
Site No. E429011

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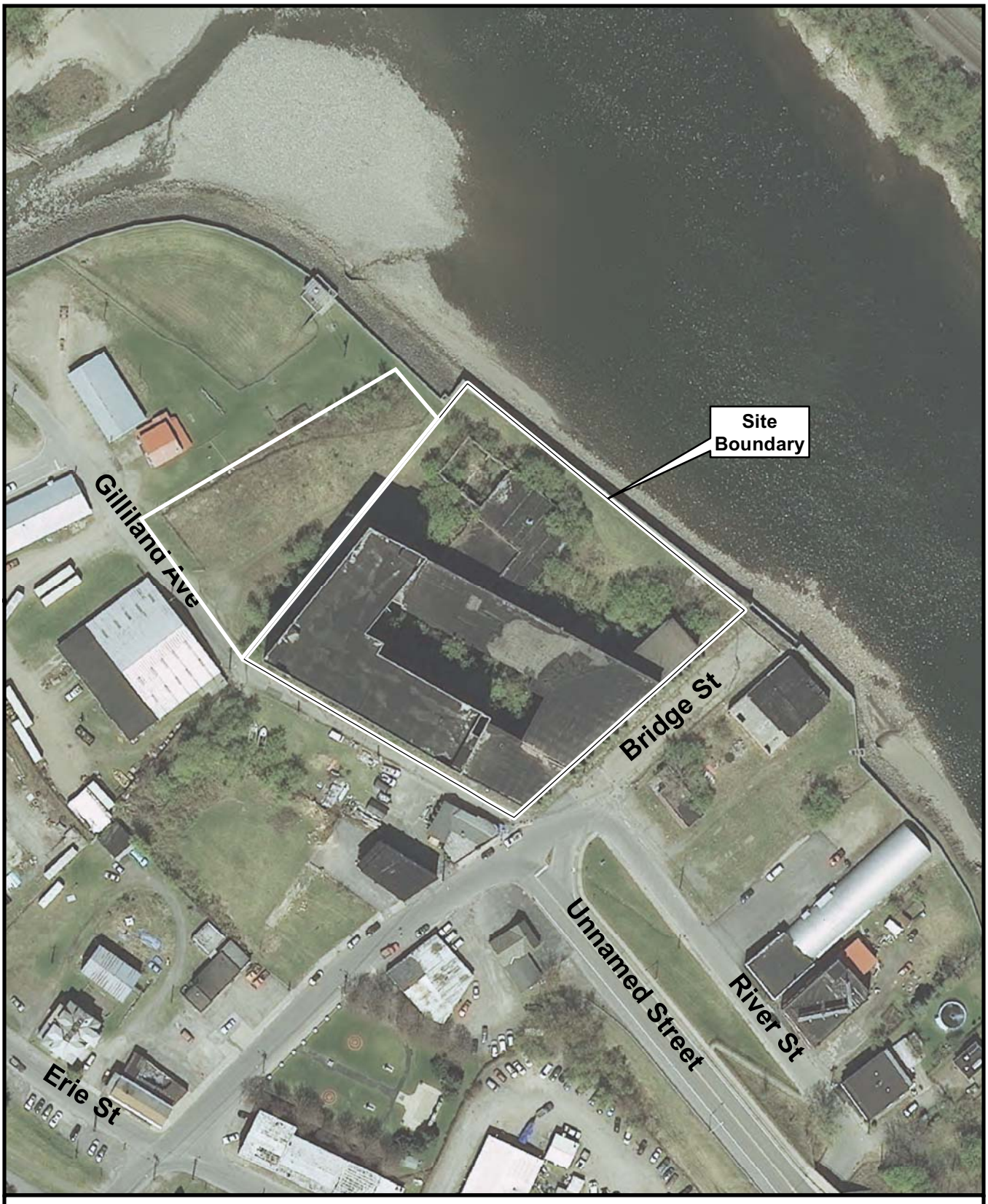

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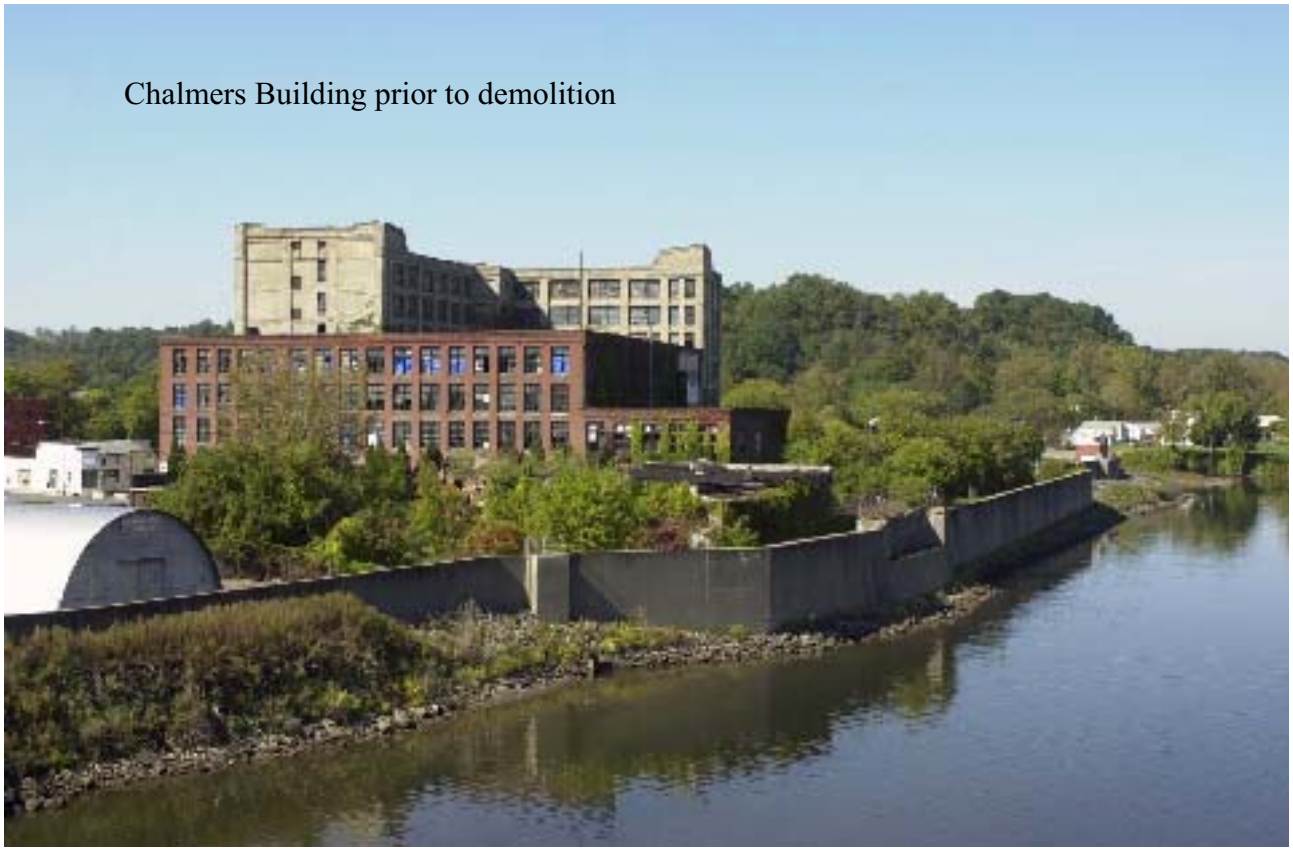
Figure 2
Site Map

Chalmers Building
City of Amsterdam, Montgomery County
Site No. E429011

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE



Underground fuel oil tank removal

FIGURE 3

Demolition activities

Rubble pile

FIGURE 4

Placement of soil cover on graded site

Site with vegetative cover

FIGURE 5

NOTES:

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MOHAWK RIVER

Permanent easement (see Map Ref. 1) for ingress / egress and regress

GILLILAND AVENUE

BRIDGE STREET

SAMPLE ID	MW-3	
SAMPLE DATA	12/12/2006	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
VOC		
TRICHLOROETHENE	5	10
METALS		
IRON	300	1180
MAGNESIUM	35000	44900
MANGANESE	300	1090
SODIUM	20000	67700
SAMPLE DATA	4/2012	
METALS		
IRON	300	3600
MAGNESIUM	35000	43500
MANGANESE	300	470
SODIUM	20000	48900

SAMPLE ID	MW-11	
SAMPLE DATA	08/18/2009	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
IRON	300	630
SODIUM	20,000	59.000

SAMPLE ID	MW-5	
SAMPLE DATA	12/11/2006	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
IRON	300	453
MANGANESE	300	437
SODIUM	20000	138000

SAMPLE ID	MW-4	
SAMPLE DATA	4/2012	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
ANTIMONY	3	7.7J
IRON	300	9000
SODIUM	20000	34300

SAMPLE ID	MW-12	
SAMPLE DATA	08/18/2009	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
IRON	300	6300

SAMPLE ID	MW-6	
SAMPLE DATA	12/12/2006	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
VOC		
CIS-1,2-DICHLOROETHENE	5	6
METALS		
IRON	300	3450
MANGANESE	300	2300
SODIUM	20000	60600
SAMPLE DATA	4/2012	
METALS		
IRON	300	420
SODIUM	20000	36100

SAMPLE ID	MW-7	
SAMPLE DATA	12/7/2006	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
IRON	300	4500
MANGANESE	300	5940
SELENIUM	10	14.8
SODIUM	20000	33200
SAMPLE DATA	4/2012	
METALS		
IRON	300	6200
SODIUM	20000	36100

SAMPLE ID	MW-14		
SAMPLE DATA	08/18/2009		
ANALYTE	GWS (ug/L)	RESULT (ug/L)	
METALS			
IRON	300	2300	
LEAD	25	67	
ANTIMONY	3	3.5	J
SELENIUM	10	15	

SAMPLE ID	GW/SB-18	
SAMPLE DATA	12/01/2006	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
ANTIMONY	3	10.8 J
ARSENIC	25	193
BARIUM	1000	2420
BERYLLIUM	3	9.5
CHROMIUM	50	226
COPPER	200	1550
IRON	300	239000
LEAD	25	4680
MAGNESIUM	35000	51500
MANGANESE	300	4770
NICKEL	100	248
SELENIUM	10	99.8
ZINC	2000	2430
MERCURY	0.7	218

SAMPLE ID	MW-2	
SAMPLE DATA	12/12/2006	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
MAGNESIUM	35000	35000
SELENIUM	10	27.4
SODIUM	20000	42800

SAMPLE ID	MW-10	
SAMPLE DATA	08/18/2009	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
IRON	300	810
SODIUM	20,000	44,000
SELENIUM	10	14

SAMPLE ID	MW-8	
SAMPLE DATA	08/18/2009	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
LEAD	25	30
ANTIMONY	3	4.9 J

SAMPLE ID	MW-9	
SAMPLE DATA	08/18/2009	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
IRON	300	650
MAGNESIUM	35,000	37,000
SODIUM	20,000	16,000

SAMPLE ID	GW/SB-17	
SAMPLE DATA	12/08/2006	
ANALYTE	GWS (ug/L)	RESULT (ug/L)
METALS		
ARSENIC	25	277
BARIUM	1000	3840
BERYLLIUM	3	20.9
CHROMIUM	50	442
COPPER	200	3240
IRON	300	676000
LEAD	25	6430
MAGNESIUM	35000	173000
MANGANESE	300	17100
NICKEL	100	684
SELENIUM	10	79.4
ZINC	2000	3810
MERCURY	0.7	19.1

EXISTING LEGEND

- PROPERTY BOUNDARY
- EXISTING OVERHEAD WIRES
- EXISTING GUARD RAIL
- EXISTING CATCHBASIN
- EXISTING STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING FIRE HYDRANT
- EXISTING TELEPHONE MANHOLE
- EXISTING MANHOLE
- EXISTING ELECTRIC MANHOLE
- EXISTING ELEVATOR SHAFT (APPROXIMATE LOCATION)
- EXISTING STAIRS TO BASEMENT (APPROXIMATE LOCATION)
- EXISTING CONCRETE PIT OR HOLE IN FLOOR (APPROXIMATE LOCATION)
- EXISTING BUILDING PERIMETER

SAMPLE LEGEND

- SV — SOIL VAPOR SAMPLE LOCATION
- IA — INDOOR AIR SAMPLE LOCATION
- OA — OUTDOOR AIR SAMPLE LOCATION
- SB — BASEMENT SOIL BORING LOCATION
- SB/MW — BASEMENT SOIL BORING AND MONITORING WELL LOCATION
- GW/SB — COURTYARD SOIL BORING AND GROUNDWATER SAMPLING LOCATION
- MW — MONITORING WELL LOCATION
- SS — SURFACE SOIL LOCATION
- SB — SOIL BORING LOCATION
- PCB — PCB SOIL BORING LOCATION

J	ESTIMATED CONCENTRATION BELOW THE LIMITS OF QUANTITATION
SCO	COMMERCIAL SOIL CLEANUP OBJECTIVE PER 6 NYCRR PART 375.6
GWS	GROUNDWATER GUIDANCE VALUE OR STANDARD PER NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1
COC	CHEMICAL OF CONCERN
PSI	PRELIMINARY SITE INVESTIGATION
FSI	FOCUSED SITE INVESTIGATION

0 30 60 120

N

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NEW YORK CITY > SARATOGA SPRINGS > SYRACUSE

FINAL

CHALMERS BUILDING

ERP SITE #E429011

21-41 Bridge Street/32 Gilliland AVenue
Amsterdam, New York

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4	08-02-13	REVISION #4	RJM	DMS

SARATOGA ASSOCIATES PROJECT # 06083.10M

DATE: 10-20-09
DRAWN BY: SRD
CHECKED BY: DMS
REVISION: 1

COCs EXCEEDING GROUNDWATER STANDARDS / GUIDANCE VALUES

FIG. 6

NOTES:

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SAMPLE ID	SS-13	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)ANTHRACENE	5.6	10
BENZO(A)PYRENE	1	11
BENZO(B)FLUORANTHENE	5.6	14
DIBENZ(A,H)ANTHRACENE	.56	.98

SAMPLE ID	SS-14	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	25
BENZO(B)FLUORANTHENE	5.6	22
CHRYSENE	56	57

SAMPLE ID	SS-07	
SAMPLE DATA	11/30/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1.4

SAMPLE ID	SS-12	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (MG/KG)	RESULT (MG/KG)
SVOC		
BENZO(A)PYRENE	1	3.9
METALS		
ARSENIC	16	17.8

SAMPLE ID	SS-11	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1.5

SAMPLE ID	SS-10	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)ANTHRACENE	5.6	16
BENZO(A)PYRENE	1	16
BENZO(B)FLUORANTHENE	5.6	20
DIBENZ(A,H)ANTHRACENE	.56	2
INDENO(1,2,3-C,D)PYRENE	5.6	5.7

SAMPLE ID	SS-15	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	2.6

SAMPLE ID	SS-16	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	3.4

SAMPLE ID	SS-17	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (MG/KG)	RESULT (MG/KG)
SVOC		
BENZO(A)PYRENE	1	2.4
METALS		
ARSENIC	16	19.8

SAMPLE ID	SS-08	
SAMPLE DATA	11/30/2006	
ANALYTE	SCO (MG/KG)	RESULT (MG/KG)
SVOC		
BENZO(A)ANTHRACENE	5.6	13
BENZO(B)FLUORANTHENE	5.6	10
BENZO(A)PYRENE	1	8.2
DIBENZ(A,H)ANTHRACENE	0.56	3.4
INDENO(1,2,3-CD)PYRENE	5.6	8.8
METALS		
ARSENIC	16	21.6
CADMIUM	9.3	36.9

SAMPLE ID	SS-09	
SAMPLE DATA	11/30/2006	
ANALYTE	SCO (MG/KG)	RESULT (MG/KG)
SVOC		
BENZO(A)ANTHRACENE	5.6	23
BENZO(A)PYRENE	1	15
BENZO(B)FLUORANTHENE	5.6	18
DIBENZ(A,H)ANTHRACENE	0.56	5.2
INDENO(1,2,3-CD)PYRENE	5	.614
METALS		
ARSENIC	16	17.5
BARIUM	400	490
CADMIUM	9.3	9.7

SAMPLE ID	PCB-08	
SAMPLE DATA	12/01/2006	
ANALYTE	SCO (MG/KG)	RESULT (MG/KG)
PCB		
AROCLOR 1260	1	4.00 J

EXISTING LEGEND

- PROPERTY BOUNDARY
- EXISTING OVERHEAD WIRES
- EXISTING GUARD RAIL
- EXISTING CATCHBASIN
- EXISTING STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
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SAMPLE LEGEND

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- SB — EXISTING SOIL BORING LOCATION
- PCB — EXISTING PCB SOIL BORING LOCATION

J	ESTIMATED CONCENTRATION BELOW THE LIMITS OF QUANTITATION
SCO	COMMERCIAL SOIL CLEANUP OBJECTIVE PER 6 NYCRR PART 375.6
GWS	GROUNDWATER GUIDANCE VALUE OR STANDARD PER NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES (1.1.1)
COC	CHEMICAL OF CONCERN
PSI	PRELIMINARY SITE INVESTIGATION
FSI	FOCUSED SITE INVESTIGATION

0 30 60 120

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SARATOGA ASSOCIATES PROJECT # 06083.10M

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COCs EXCEEDING COMMERCIAL SCOs - *PSI & SSI SURFACE SOILS*

FIG. 7

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SAMPLE ID	SB-16(16-17)	
SAMPLE DATA	11/29/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)ANTHRACENE	5.6	11
BENZO(A)PYRENE	1	11
BENZO(B)FLUORANTHENE	5.6	10
DIBENZ(A,H)ANTHRACENE	0.56	2.5
INDENO(1,2,3-CD)PYRENE	5.6	8.1
METALS		
LEAD	1000	1700

SAMPLE ID	SB-22(15-16)	
SAMPLE DATA	11/30/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1.8 J
METALS		
ARSENIC	16	17.7 J
BARIUM	400	841 J
LEAD	1000	5410 J

SAMPLE ID	SB-05(15-16)	
SAMPLE DATA	11/29/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
DIBENZ(A,H)ANTHRACENE	0.56	0.74

SAMPLE ID	SB-11-15(0-4)	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)ANTHRACENE	5.6	43
BENZO(A)PYRENE	1	39
BENZO(B)FLUORANTHENE	5.6	45
INDENO(1,2,3-C,D)PYRENE	5.6	19

SAMPLE ID	SB-23(16-17)	
SAMPLE DATA	11/30/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1.5 J
METALS		
BARIUM	400	681 J

SAMPLE ID	SB-11-07(0-2)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
ARSENIC	16	19.8
SAMPLE ID	SB-11-08(8-12)	
METALS		
ARSENIC	16	38.3
COPPER	270	804

SAMPLE ID	SB-11(5-6)	
SAMPLE DATA	11/27/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	3.2
METALS		
ARSENIC	16	21.3

SAMPLE ID	SB-03(1-2)	
SAMPLE DATA	11/27/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
LEAD	1000	1076

SAMPLE ID	SB-12(21-23)	
SAMPLE DATA	11/28/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	4.4
BENZO(B)FLUORANTHENE	5.6	5.7
METALS		
LEAD	1000	1750

SAMPLE ID	SB-11-10(12-16)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
ARSENIC	16	87.3

SAMPLE ID	SB-11-11(0-4)	
SAMPLE DATA	10/11/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	4.4
DIBENZ(A,H)ANTHRACENE	.56	1
METALS		
MERCURY	2.8	5.7

SAMPLE ID	SB-04(9-10)	
SAMPLE DATA	11/30/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1.7 J

SAMPLE ID	SB-11-13(0-2)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
ARSENIC	16	19.8
SAMPLE ID	SB-11-13(12-16)	
METALS		
BARIUM	400	875
LEAD	1000	1620

SAMPLE ID	SB-19(2-3)	
SAMPLE DATA	11/29/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1.8

SAMPLE ID	SB-20(1-4)	
SAMPLE DATA	11/29/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1.1

SAMPLE ID	SB-01(5-7.5)	
SAMPLE DATA	11/27/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
MERCURY	2.8	4.5

SAMPLE ID	SB-07(5-6)	
SAMPLE DATA	11/28/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
ARSENIC	16	32.7
MERCURY	2.8	3.7

SAMPLE ID	SB-02(5-6)	
SAMPLE DATA	11/27/2006	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	1

EXISTING LEGEND

- PROPERTY BOUNDARY
- EXISTING OVERHEAD WIRES
- EXISTING GUARD RAIL
- EXISTING CATCHBASIN
- EXISTING STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING FIRE HYDRANT
- EXISTING TELEPHONE MANHOLE
- EXISTING MANHOLE
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- EXISTING BUILDING PERIMETER

SAMPLE LEGEND

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J	ESTIMATED CONCENTRATION BELOW THE LIMITS OF QUANTITATION
SCO	COMMERCIAL SOIL CLEANUP OBJECTIVE PER 6 NYCRR PART 375.6
GWS	GROUNDWATER GUIDANCE VALUE OR STANDARD PER NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1
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PSI	PRELIMINARY SITE INVESTIGATION
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4	08-02-13	REVISION #4	KJM	DMS

SARATOGA ASSOCIATES PROJECT # 06083.10M

DATE: 10-20-09
DRAWN BY: SRD
CHECKED BY: DMS
REVISION: 1

COCs EXCEEDING COMMERCIAL SCOs - *PSI & SSI SUBSURFACE SOILS*

FIG. 8

NOTES:

1. SURVEY SHOWN WAS PREPARED FROM AN OCTOBER 12, 2007 FIELD SURVEY OF THE CHALMERS PROPERTY PREPARED BY MATSON LAND SURVEYING, PLLC.
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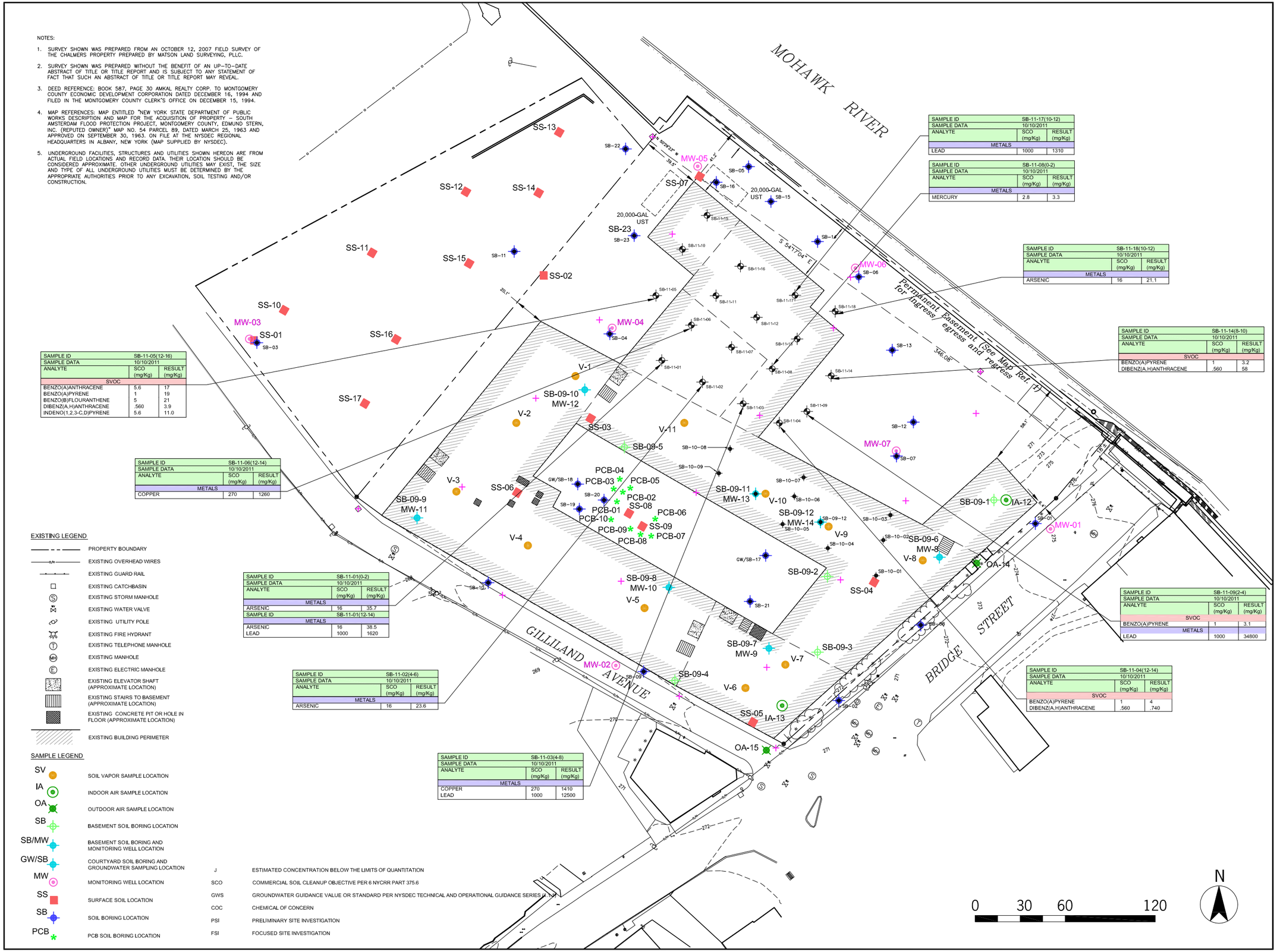

SAMPLE ID	SB-11-17(10-12)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
LEAD	1000	1310

SAMPLE ID	SB-11-08(0-2)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
MERCURY	2.8	3.3

SAMPLE ID	SB-11-18(10-12)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
ARSENIC	16	21.1

SAMPLE ID	SB-11-14(8-10)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	3.2
DIBENZ(A,H)ANTHRACENE	.560	58

SAMPLE ID	SB-11-05(12-16)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)ANTHRACENE	5.6	17
BENZO(A)PYRENE	1	19
BENZO(B)FLOURANTHENE	5	21
DIBENZ(A,H)ANTHRACENE	.560	3.9
INDENO(1,2,3-C,D)PYRENE	5.6	11.0

SAMPLE ID	SB-11-06(12-14)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
COPPER	270	1260

SAMPLE ID	SB-11-09(2-4)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	3.1
METALS		
LEAD	1000	34800

SAMPLE ID	SB-11-01(0-2)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
ARSENIC	16	35.7
SAMPLE ID	SB-11-01(12-14)	
METALS		
ARSENIC	16	38.5
LEAD	1000	1620

SAMPLE ID	SB-11-02(4-6)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
ARSENIC	16	23.6

SAMPLE ID	SB-11-04(12-14)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOC		
BENZO(A)PYRENE	1	4
DIBENZ(A,H)ANTHRACENE	.560	.740

SAMPLE ID	SB-11-03(4-8)	
SAMPLE DATA	10/10/2011	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
COPPER	270	1410
LEAD	1000	12500

EXISTING LEGEND

- PROPERTY BOUNDARY
- EXISTING OVERHEAD WIRES
- EXISTING GUARD RAIL
- EXISTING CATCHBASIN
- EXISTING STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING FIRE HYDRANT
- EXISTING TELEPHONE MANHOLE
- EXISTING MANHOLE
- EXISTING ELECTRIC MANHOLE
- EXISTING ELEVATOR SHAFT (APPROXIMATE LOCATION)
- EXISTING STAIRS TO BASEMENT (APPROXIMATE LOCATION)
- EXISTING CONCRETE PIT OR HOLE IN FLOOR (APPROXIMATE LOCATION)
- EXISTING BUILDING PERIMETER

SAMPLE LEGEND

- SV — SOIL VAPOR SAMPLE LOCATION
- IA — INDOOR AIR SAMPLE LOCATION
- OA — OUTDOOR AIR SAMPLE LOCATION
- SB — BASEMENT SOIL BORING LOCATION
- SB/MW — BASEMENT SOIL BORING AND MONITORING WELL LOCATION
- GW/SB — COURTYARD SOIL BORING AND GROUNDWATER SAMPLING LOCATION
- MW — MONITORING WELL LOCATION
- SS — SURFACE SOIL LOCATION
- SB — SOIL BORING LOCATION
- PCB — PCB SOIL BORING LOCATION

J	ESTIMATED CONCENTRATION BELOW THE LIMITS OF QUANTITATION
SCO	COMMERCIAL SOIL CLEANUP OBJECTIVE PER 6 NYCRR PART 375.6
GWS	GROUNDWATER GUIDANCE VALUE OR STANDARD PER NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES (1.1.1)
COC	CHEMICAL OF CONCERN
PSI	PRELIMINARY SITE INVESTIGATION
FSI	FOCUSED SITE INVESTIGATION

SARATOGA ASSOCIATES

Landscape Architects, Architects, Engineers, and Planners, P.C.
NEW YORK CITY > SARATOGA SPRINGS > SYRACUSE

FINAL

CHALMERS BUILDING
ERP SITE #E429011

21-41 Bridge Street/32 Gilliland AVenue
Amsterdam, New York

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COCs EXCEEDING COMMERCIAL SCOs - *PSI & SSI SUBSURFACE SOILS, CONT.*

FIG. 9
2 OF 2

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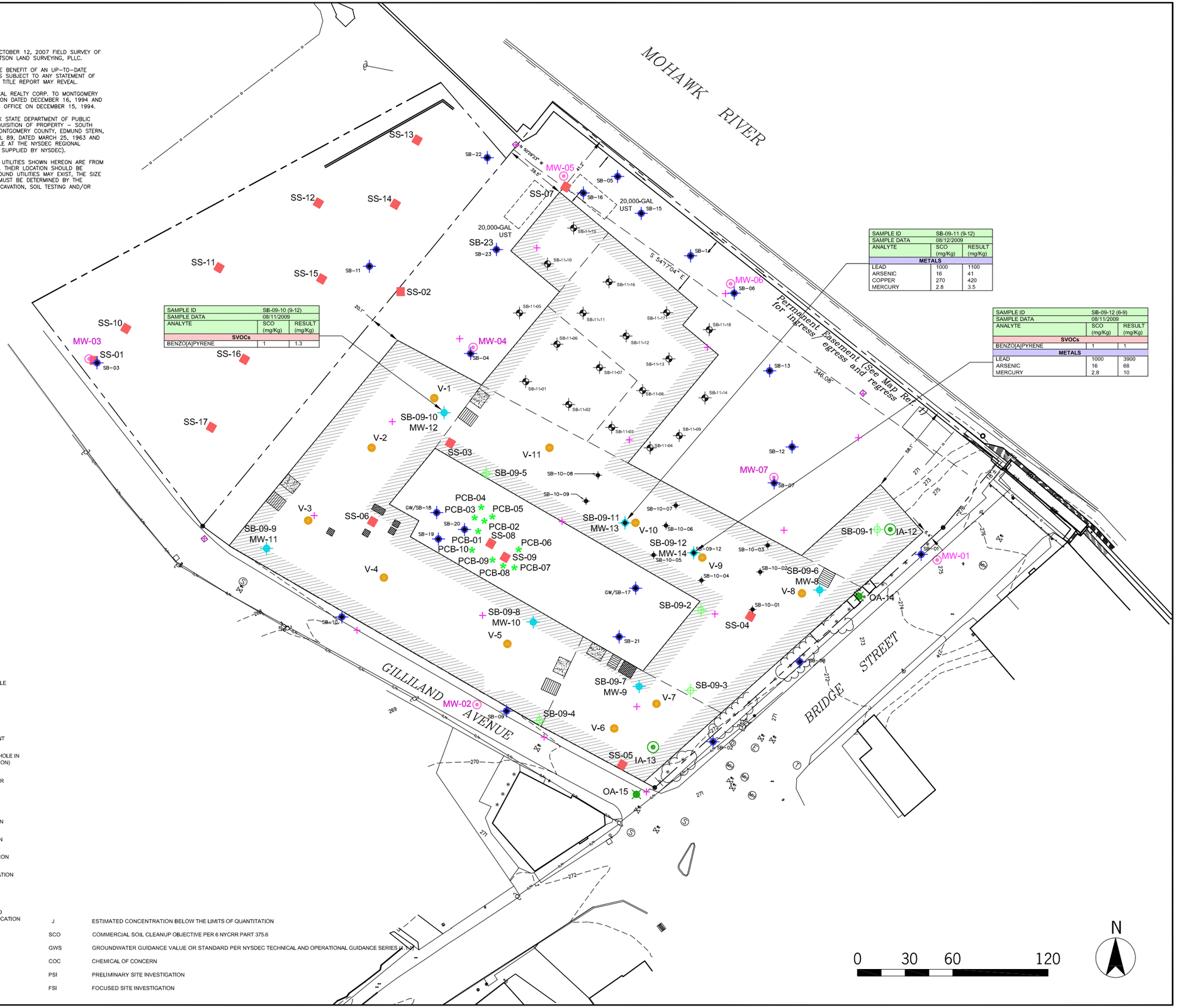

SAMPLE ID	SB-09-10 (9-12)	
SAMPLE DATA	08/11/2009	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOCs		
BENZO[A]PYRENE	1	1.3

SAMPLE ID	SB-09-11 (9-12)	
SAMPLE DATA	08/12/2009	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
METALS		
LEAD	1000	1100
ARSENIC	16	41
COPPER	270	420
MERCURY	2.8	3.5

SAMPLE ID	SB-09-12 (6-9)	
SAMPLE DATA	08/11/2009	
ANALYTE	SCO (mg/Kg)	RESULT (mg/Kg)
SVOCs		
BENZO[A]PYRENE	1	1
METALS		
LEAD	1000	3900
ARSENIC	16	68
MERCURY	2.8	10

EXISTING LEGEND

- PROPERTY BOUNDARY
- EXISTING OVERHEAD WIRES
- EXISTING GUARD RAIL
- EXISTING CATCHBASIN
- EXISTING STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING FIRE HYDRANT
- EXISTING TELEPHONE MANHOLE
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- SS — SURFACE SOIL LOCATION
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- PCB — PCB SOIL BORING LOCATION

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SCO	COMMERCIAL SOIL CLEANUP OBJECTIVE PER 6 NYCRR PART 375.6
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COCs EXCEEDING COMMERCIAL SCOs - *FSI & SFSI SUBSURFACE SOILS*

FIG. 10

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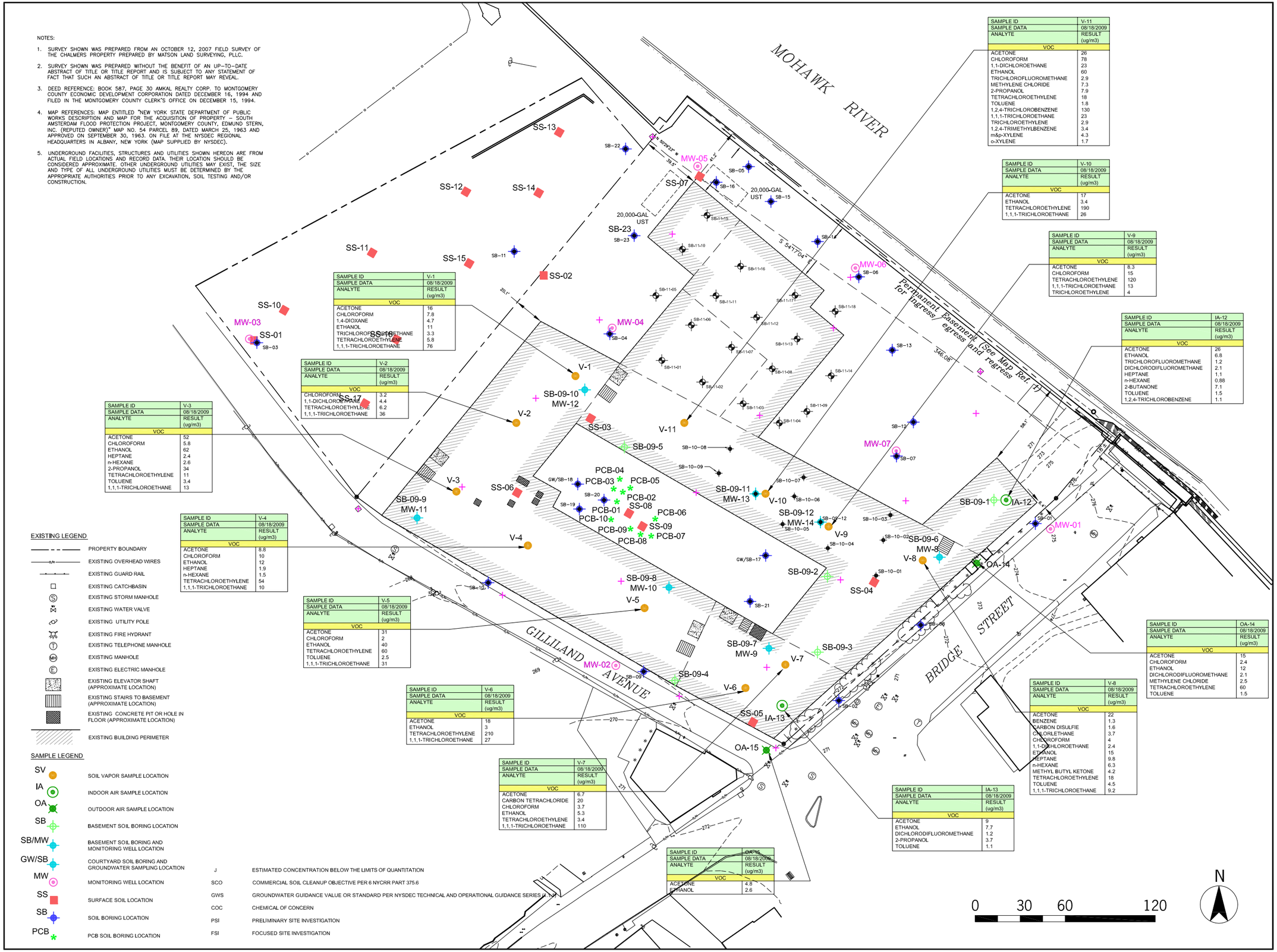

SAMPLE ID	V-1
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	16
CHLOROFORM	7.8
1,4-DIOXANE	4.7
ETHANOL	11
TRICHLOROFLUOROMETHANE	3.3
TETRACHLOROETHYLENE	5.8
1,1,1-TRICHLOROETHANE	76

SAMPLE ID	V-2
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
CHLOROFORM	3.2
1,1-DICHLOROETHANE	4.4
TETRACHLOROETHYLENE	6.2
1,1,1-TRICHLOROETHANE	36

SAMPLE ID	V-3
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	52
CHLOROFORM	5.8
ETHANOL	62
HEPTANE	2.4
n-HEXANE	2.6
2-PROPANOL	34
TETRACHLOROETHYLENE	11
TOLUENE	3.4
1,1,1-TRICHLOROETHANE	13

SAMPLE ID	V-4
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	8.8
CHLOROFORM	10
ETHANOL	12
HEPTANE	1.9
n-HEXANE	1.5
TETRACHLOROETHYLENE	54
1,1,1-TRICHLOROETHANE	10

SAMPLE ID	V-5
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	31
CHLOROFORM	2
ETHANOL	40
TETRACHLOROETHYLENE	60
TOLUENE	2.5
1,1,1-TRICHLOROETHANE	31

SAMPLE ID	V-6
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	18
ETHANOL	3
TETRACHLOROETHYLENE	210
1,1,1-TRICHLOROETHANE	27

SAMPLE ID	V-7
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	6.7
CARBON TETRACHLORIDE	20
CHLOROFORM	3.7
ETHANOL	5.3
TETRACHLOROETHYLENE	3.4
1,1,1-TRICHLOROETHANE	110

SAMPLE ID	V-8
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	22
BENZENE	1.3
CARBON DISULFIE	1.6
CHLORLETHANE	3.7
CHLOROFORM	4
1,1-DICHLOROETHANE	2.4
ETHANOL	15
HEPTANE	9.8
n-HEXANE	6.3
METHYL BUTYL KETONE	4.2
TETRACHLOROETHYLENE	18
TOLUENE	4.5
1,1,1-TRICHLOROETHANE	9.2

SAMPLE ID	V-9
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	8.3
CHLOROFORM	15
TETRACHLOROETHYLENE	120
1,1,1-TRICHLOROETHANE	13
TRICHLOROETHYLENE	4

SAMPLE ID	V-10
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	17
ETHANOL	3.4
TETRACHLOROETHYLENE	190
1,1,1-TRICHLOROETHANE	26

SAMPLE ID	V-11
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	26
CHLOROFORM	78
1,1-DICHLOROETHANE	23
ETHANOL	60
TRICHLOROFLUOROMETHANE	2.9
METHYLENE CHLORIDE	7.3
2-PROPANOL	7.9
TETRACHLOROETHYLENE	18
TOLUENE	1.8
1,2,4-TRICHLOROBENZENE	130
1,1,1-TRICHLOROETHANE	23
TRICHLOROETHYLENE	2.9
1,2,4-TRIMETHYLBENZENE	3.4
m&p-XYLENE	4.3
o-XYLENE	1.7

SAMPLE ID	IA-12
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	26
ETHANOL	6.8
TRICHLOROFLUOROMETHANE	1.2
DICHLORODIFLUOROMETHANE	2.1
HEPTANE	1.1
n-HEXANE	0.88
2-BUTANONE	7.1
TOLUENE	1.5
1,2,4-TRICHLOROBENZENE	1.1

SAMPLE ID	OA-14
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	15
CHLOROFORM	2.4
ETHANOL	12
DICHLORODIFLUOROMETHANE	2.1
METHYLENE CHLORIDE	2.5
TETRACHLOROETHYLENE	60
TOLUENE	1.5

SAMPLE ID	IA-13
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	9
ETHANOL	7.7
DICHLORODIFLUOROMETHANE	1.2
2-PROPANOL	3.7
TOLUENE	1.1

SAMPLE ID	OA-15
SAMPLE DATA	08/18/2009
ANALYTE	RESULT (ug/m3)
VOC	
ACETONE	4.8
ETHANOL	2.6

EXISTING LEGEND

- PROPERTY BOUNDARY
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- EXISTING GUARD RAIL
- EXISTING CATCHBASIN
- EXISTING STORM MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
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- EXISTING BUILDING PERIMETER

SAMPLE LEGEND

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GWS	GROUNDWATER GUIDANCE VALUE OR STANDARD PER NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES 1.1.1
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COCs DETECTED DURING SOIL VAPOR INVESTIGATION

FIG. 11

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Chalmers Building
Environmental Restoration Project
Amsterdam, Montgomery County, New York
Site No. E429011

The Proposed Remedial Action Plan (PRAP) for the Chalmers Building site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on August 2, 2013. The PRAP outlined the remedial measure proposed for the contaminated soil, groundwater, and subslab soil vapor at the Chalmers Building site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on August 22, 2013, which included a presentation of the remedial investigation and interim remedial measure for the Chalmers Building as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on September 15, 2013.

This responsiveness summary responds to all questions and comments raised during the public comment period. There were no comments raised at the meeting or received during the 45-day comment period.

APPENDIX B

Administrative Record

Administrative Record

Chalmers Building
Environmental Restoration Project
Amsterdam, Montgomery County, New York
Site No. E429011

1. *Proposed Remedial Action Plan for the Chalmers Building site,* dated August 2013, prepared by the Department.

2. The Department and the City of Amsterdam entered into a State Assistance Contract, Contract No. C303155, November 30, 2006.

3. "Final Site Investigation Report", dated May 24, 2013, prepared by Saratoga Associates.

4. "Construction Completion Report", dated March 2013, prepared by Saratoga Associates and C.T. Male Associates.

5. "Project Manual - Final, Interim Remedial Measures", dated October 29, 2010, prepared by Saratoga Associates.