

# DECISION DOCUMENT

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Chatsworth Coal and Supply Site  
Brownfield Cleanup Program  
Larchmont, Westchester County  
Site No. C360132  
August 2014



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

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Chatsworth Coal and Supply Site  
Brownfield Cleanup Program  
Larchmont, Westchester County  
Site No. C360132  
August 2014

## **Statement of Purpose and Basis**

This document presents the remedy for the Chatsworth Coal and Supply Site site, a brownfield cleanup 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 Chatsworth Coal and Supply Site site and the public's input to the proposed remedy presented by the Department.

## **Description of Selected Remedy**

The elements of the selected remedy are as follows:

### 1) Excavation

All on-site soils which exceed restricted residential soil cleanup objectives (SCOs), as defined by 6 NYCRR Part 375-6.8, will be excavated to a depth of approximately 4 to 8 feet and transported off-site for disposal. Approximately 7,500 cubic yards of contaminated soils will be removed from the site. Post-excavation endpoint sampling will be conducted to confirm that Track 2 SCOs have been achieved. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in, where necessary, to establish the designed grades at the site.

2) A cover system will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development, or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable SCOs. Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3) 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 restricted residential, commercial and 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 necessary water quality treatment as determined by the NYSDOH or Westchester County DOH; and
  - requires compliance with the Department approved Site Management Plan.

4) 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 discussed in Paragraph 3 above.

Engineering Controls: The soil cover discussed in Paragraph 2 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 groundwater 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.

b. a monitoring plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

### **Declaration**

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

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Date

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George Heitzman, Director  
Remedial Bureau C

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## **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 has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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 repositories:

Larchmont Public Library  
121 Larchmont Avenue  
Larchmont, NY 10538  
Phone: 914-834-2281 extension 115

NYSDEC Region 3 Office  
21 S. Putt Corners Road  
New Paltz, NY 12561  
Phone: (845) 256-3154

## **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 site is located at North Avenue and 2101 Palmer Avenue in Larchmont, Westchester County, and consists of two tax parcels totaling approximately 1.52 acres in size. It is located north of Palmer Avenue and southeast of the New England Thruway (Interstate 95) and the New York/New Haven Metro North Railroad Line.

**Site Features:** The property is primarily vacant, with no structures. With the exception of one bedrock outcrop, the entire site is paved. It had previously been used over the last several years for storage of trailers and has two fenced-in areas on the northern and southwestern sections.

**Current Zoning and Land Use:** The site property is primarily vacant and is currently zoned for commercial use.

**Past Use of the Site:** The site was part of the Chatsworth Coal and Supply Company since around 1919 and had railroad tracks running through it. By 1947, several structures related to Henigson's Building Materials had been constructed on the site's northeastern corner. By 1974, a designated parking area had been added in the southern portion of the site.

**Site Geology and Hydrogeology:** The site is at an elevation of approximately 36 feet above mean sea level (AMSL) at the northern end and 27 feet AMSL at the southern end. The site is underlain by granitic gneiss, which is likely part of the Harrison Gneiss formation. Approximately 14 feet of soil overlays the gneiss bedrock.

A thin layer of native soils is the uppermost hydrogeologic unit. This aquifer consists primarily of glacial tills consisting of a poorly sorted mixture of sand, silt, clay, gravel, and boulders. The till typically has a low to moderate permeability, and overlays the metamorphic bedrock. Depth of water in the vicinity of the site is estimated to be about 8 feet below grade. Groundwater flow is typically west to southwest.

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 restricted-residential use (which allows for commercial use and 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 Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

## **SECTION 5: ENFORCEMENT STATUS**

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

Certain contaminants have been found in site groundwater which appear to originate off the site. The Volunteer, in accordance with the Brownfield Cleanup Agreement, is not responsible for the remediation of contaminants in groundwater that are not attributable to the site.

## **SECTION 6: SITE CONTAMINATION**

### **6.1: Summary of the Remedial Investigation**

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil 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. 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 below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

CHROMIUM	indeno(1,2,3-cd)pyrene
BENZ(A)ANTHRACENE	BARIUM
BENZO(A)PYRENE	LEAD
BENZO(B)FLUORANTHENE	cis-1,2-Dichloroethene
BENZO[K]FLUORANTHENE	TETRACHLOROETHYLENE (PCE)
Chrysene	TRICHLOROETHENE (TCE)
DIBENZ[A,H]ANTHRACENE	

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil

### **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 Decision Document.

There were no IRMs performed at this site during the RI.

### **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. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Based on investigations conducted at the site to date, the primary constituents of concern found on-site include metals and PAHs in soil; and metals, PAHs and VOCs in groundwater. Site-related contaminants do not appear to be contributing to off-site environmental impacts that require additional investigation or remedial action.

Soil- There are levels of inorganics in subsurface soils above the unrestricted SCO, including lead (333 ppm), barium (355 ppm) and chromium (36 ppm). There are SVOC levels above unrestricted SCO in shallow soils. Benzo(a)pyrene (4.7 ppm), benzo(b)fluoranthene (5 ppm), and chrysene (4.2 ppm) were all detected.

Groundwater - There were five SVOC constituents that slightly exceeded standards. They were benzo(a)pyrene (0.08 ppb), benzo(a)anthracene (0.04 ppb), benzo(b)fluoranthene (0.07 ppb), benzo(k)fluoranthene (0.03 ppb) and chrysene (0.07 ppb). Three VOC constituents were detected exceeding standards in on-site monitoring wells. They were cis-1,2-dichloroethene (5.3 ppb), tetrachloroethene (80 ppb), and trichloroethene (6 ppb). These contaminants were found in one monitoring well located downgradient of an automobile repair business, as well as other commercial businesses. The VOC contaminants are attributed to an off-site source as these were not found in any of the soil samples taken on-site, or previously documented to have been used on the site.

Soil Vapor - Several compounds were detected in soil vapor, including methylene chloride (4.13 mcg/m<sup>3</sup>), tetrachloroethene (10.8 mcg/m<sup>3</sup>), trichloroethene (1.77 mcg/m<sup>3</sup>), benzene (23.4 mcg/m<sup>3</sup>), cyclohexane (35.8 mcg/m<sup>3</sup>), xylenes (42.5 mcg/m<sup>3</sup>) and toluene (55.7 mcg/m<sup>3</sup>). No indoor air nor sub-slab vapor samples were taken as no buildings exist at the site.

#### **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*.

Access to the site is unrestricted. However, people are unlikely to come in contact with contaminated soil or groundwater unless they dig below the ground surface. 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 source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the 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. Because there is no on-site building, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a current concern. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion

for any future on-site development and occupancy. An evaluation of the potential for soil vapor intrusion to occur off-site is needed.

## **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.

#### **RAOs for Environmental Protection**

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

### **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.

### **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: ELEMENTS OF THE SELECTED REMEDY**

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 2: Restricted use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Excavation of soils to meet Restricted Residential SCOs remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1) Excavation

All on-site soils which exceed restricted residential soil cleanup objectives (SCOs), as defined by 6 NYCRR Part 375-6.8, will be excavated to a depth of approximately 4 to 8 feet and transported off-site for disposal. Approximately 7,500 cubic yards of contaminated soils will be removed from the site. Post-excavation endpoint sampling will be conducted to confirm that Track 2 SCOs have been achieved. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in, where necessary, to establish the designed grades at the site.

2) A cover system will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development, or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable SCOs. Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3) 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 restricted residential, commercial and 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 necessary water quality treatment as determined by the NYSDOH or Westchester County DOH; and
- requires compliance with the Department approved Site Management Plan.

4) 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 discussed in Paragraph 3 above.

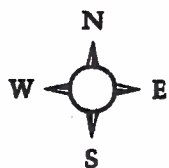
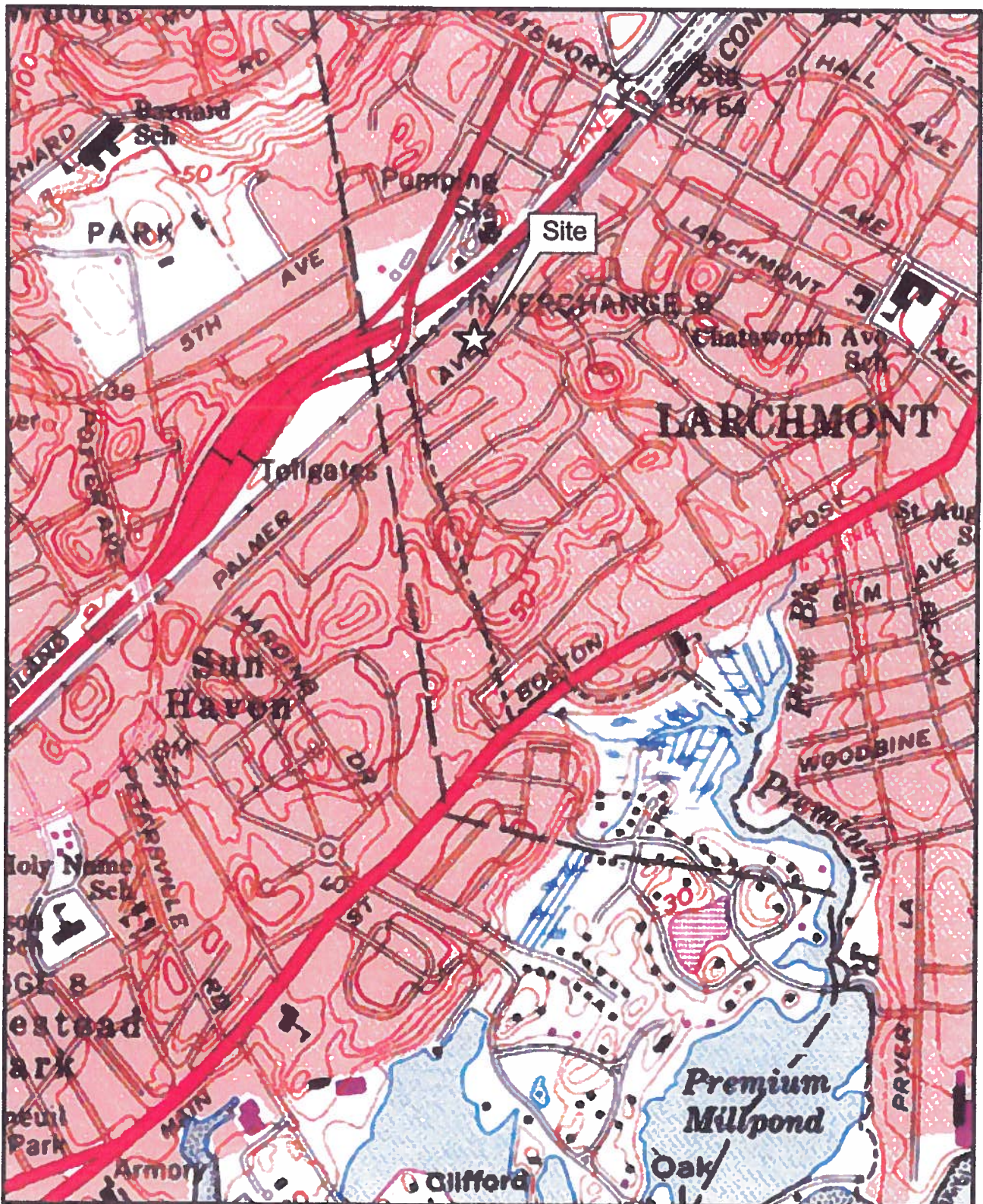
Engineering Controls: The soil cover discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

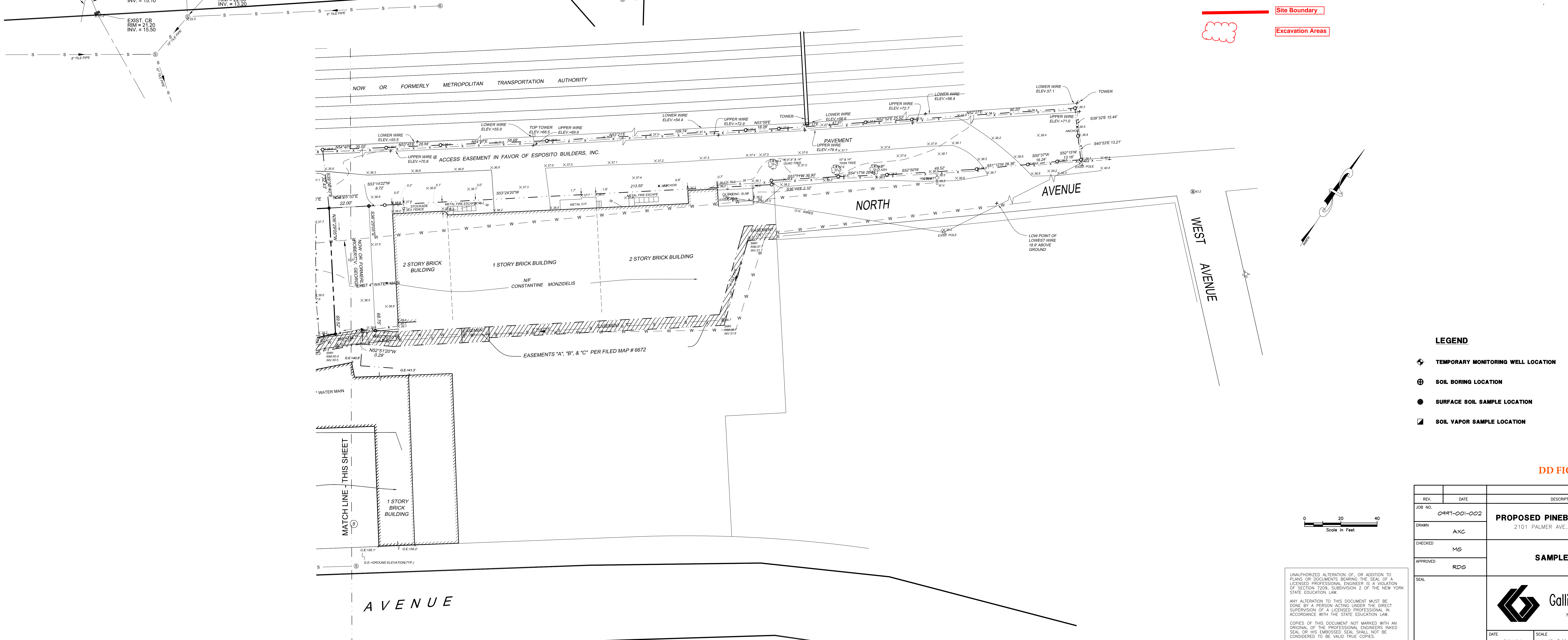
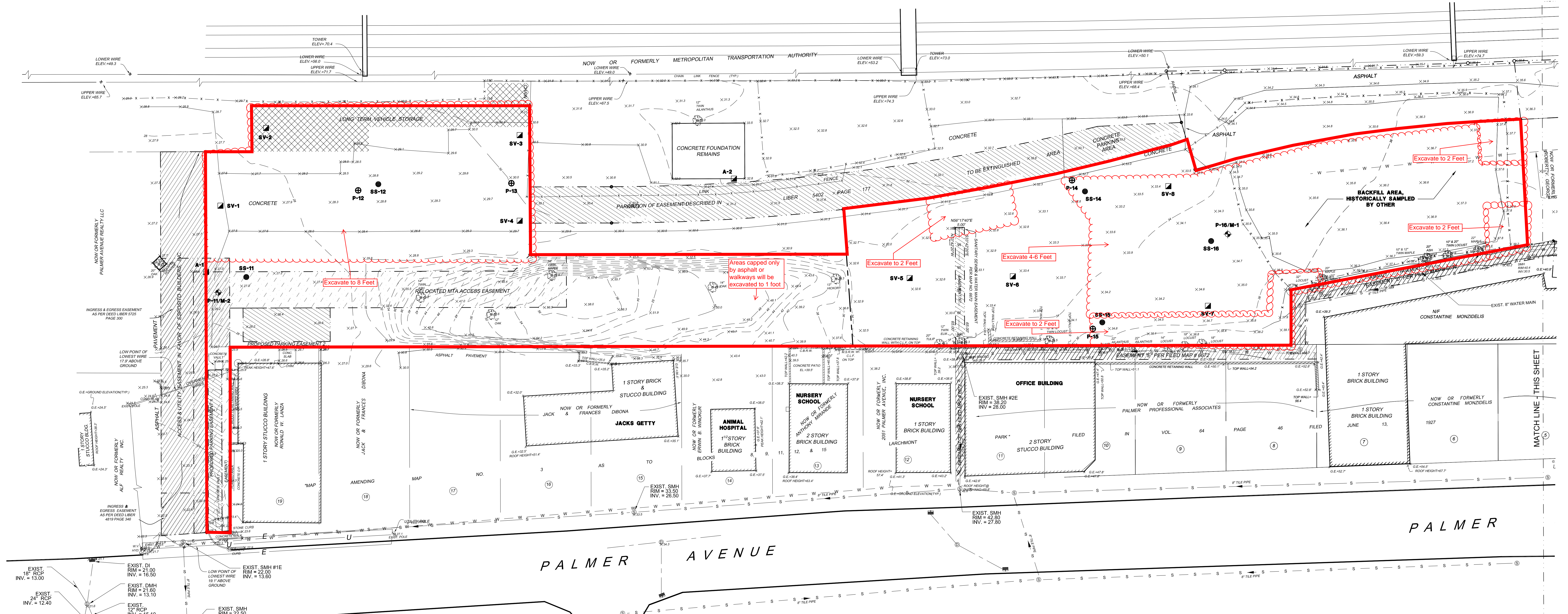
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater restrictions;
- a provision for evaluation of the potential for soil vapor 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.

b. a monitoring plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



**Figure 1: Site Location Map**  
 Palmer Avenue Property  
 Town of Mamaroneck, Village of Larchmont  
 Westchester County, New York  
 Base Map: USGS 7.5-minute Topographic Map  
 1 inch = 1,000 feet



Site Boundary  
 Excavation Areas

- LEGEND**
- TEMPORARY MONITORING WELL LOCATION
  - SOIL BORING LOCATION
  - SURFACE SOIL SAMPLE LOCATION
  - SOIL VAPOR SAMPLE LOCATION

DD FIGURE 2

REV.	DATE	DESCRIPTION	BY
0			
1	03/19/14	PROPOSED PINEBROOK CONDOMINIUMS 2101 PALMER AVE., LARCHMONT, N.Y. 10538	AXC
2		SAMPLE LOCATIONS	MS
3			RDC



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