RECORD OF DECISION

Love Cleaners
Operable Unit Number 01: Remedial Program
State Superfund Project
Hempstead, Nassau County
Site No. 130187
March 2016

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

DECLARATION STATEMENT - RECORD OF DECISION

Love Cleaners
Operable Unit Number: 01
State Superfund Project
Hempstead, Nassau County
Site No. 130187
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Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 01: Remedial Program of the Love Cleaners site, a Class 2 inactive hazardous waste disposal 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, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 01 of the Love Cleaners 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

The elements of the selected remedy are as follows:

1. Remedial Design
A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;

- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use, where possible, and encouraging green and sustainable re-development.

2. Vapor Mitigation
Installation of a sub-slab depressurization system, or a similar engineered system, to mitigate the migration of soil vapors into the on-site building.

3. 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);

- restricts the use of groundwater as a source of potable water, without necessary water quality treatment as determined by the NYSDOH or County DOH;

- requires compliance with the Department approved Site Management Plan.

4. 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 discussed in item 3 above.

Engineering Controls: The Vapor Mitigation System discussed in item 2 above.

This plan includes, but may not be limited to:
- a provision for further investigation and remediation should redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department; and

- a provision for evaluation of the potential for soil vapor intrusion in future buildings developed on the site, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion; and

- provisions for the management and inspection of the identified engineering controls; 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

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the vapor mitigation system(s).

The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s); and

- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

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.

March 28, 2016
Date

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

RECORD OF DECISION

Love Cleaners
Hempstead, Nassau County
Site No. 130187
March 2016

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 hazardous wastes 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 hazardous wastes at this site, as more fully described in this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy. Because the remedy is limited to mitigation of the on-site building to protect occupants from potential inhalation of site-related contaminants due to soil vapor intrusion, no alternatives have been evaluated. Installation of a sub-slab depressurization system is the presumptive remedy for a building requiring such mitigation.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

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:

Hempstead Public Library
Attn: Reference Desk
115 Nichols Court
Hempstead, NY 11550

Phone: 516-481-6990

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) 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 proposed 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 Laundry Palace (formerly known as 'Love Cleaners') is located in the Village of Hempstead, Town of Hempstead, Nassau County, Long Island. The area is a densely developed mixture of urban small business and residential properties.

Site Features: The site is composed of a double lot whose combined size is approximately 83x106 feet, forming the northeast corner of Clinton Street and Lincoln Blvd. The one on-site building, a single-story, concrete block building comprising 4125 square feet and built in 1969, spans the entire rear of both lots and a paved parking lot for 8-10 cars is in the front along Clinton Street.

Current Zoning and Land Use: The site is zoned for commercial use and is operated as a laundromat that does not include dry cleaning. The nearest residential property is next door, approximately 20 feet to the north of the Site. Adjacent to the west of the Site is the Village of Hempstead's Clinton St. well field and water filtration plant, which supplies drinking water to a community of over 56,000 residents.

Past Use of the Site: The site operated as a dry cleaner (Love Cleaners) from approximately 1969 until 1999. Nassau County Department of Health Services documented disposal of tetrachloroethene (PCE), a dry cleaning solvent at the Site during a 1997 Underground Injection Control (UIC) Program inspection. Low-level PCE contamination was found in soils beneath a window where mist from a wastewater treatment machine was discharging and also in soils below a floor drain which was found in the building. Under NCDHS supervision, the discharges were ceased and the floor drain was investigated (sampled) and later sealed. Only minor PCE

contamination was detected.

A Site Characterization (SC) investigation was completed by the Department in December 2008. A follow-up soil vapor intrusion investigation was conducted by the Department, and a report of that investigation was issued in March 2010.

The site was listed as Class 2 inactive hazardous waste disposal site in May 2011 due to high levels of PCE in the soil vapor under the on-site building slab.

Operable Units: The site was divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical and administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable Unit 01 (OU 01) pertains to the on-site contamination. OU 02 consists of off-site soil vapor contamination attributable to the site.

Geology and Hydrology: The area is made up of coastal plain deposits which may be up to 2,000-ft thick. The site appears to be located on the Monmouth and Matawan groups within the Magothy formation, which consists of silty clay, glauconitic sandy clay, sand, and gravel units. Based on available data from the nearby Clinton Street well field, unconsolidated deposits underlying the site consist of sand and gravel mixtures up to approximately 65 feet below ground surface (bgs), before clay units occur. No clay formations were encountered in soil borings down to 100 feet bgs during the investigation. Groundwater beneath the Site is approximately 25-30 feet bgs and flows to the south.

Operable Unit (OU) Number 01 is the subject of this document.

A Record of Decision will be issued for OU 02 in the future.

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, an alternative which allows for unrestricted use of the site was evaluated.

A comparison of the results of the RI against unrestricted use standards, criteria and guidance values (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.

The PRPs for the site, documented to date, include:

Mark Weiboldt

Love Cleaners

John T. Chiarella

Ralph DeBonis Jr.

The Department and Mark Weiboldt entered into a Consent Order on December 2, 2012. The Order obligates the responsible parties to implement a full remedial program. After the remedy is selected, the Department will approach the PRPs to implement the selected remedy. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the state has incurred.

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:

- air
- groundwater
- soil
- soil vapor

- indoor air

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 SCGs 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 hazardous waste 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 contaminant(s) of concern identified for this Operable Unit at this site is/are:

tetrachloroethene (PCE) trichloroethene (TCE)

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable SCGs for:

- soil vapor intrusion

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.

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.

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.

The contaminants of concern (COCs) at this site are volatile organic compounds (VOC), primarily tetrachlorethene (aka perc or PCE), a common dry cleaning solvent, and its breakdown products- trichloroethene (TCE) and cis-1,2-dichloroethene (DCE). PCE was released to the environment at some time between 1969 and 1999 when the site operated as a dry cleaner.

Results of the investigation:
Soil: A total of eighteen (18) soil samples were collected from beneath the building slab (sub-slab), from the ground surface and from the subsurface. Samples were analyzed for VOCs, semi-volatile organic compounds (SVOC), polychlorinated biphenyls (PCB) pesticides and metals.

No exceedances of Standards, Criteria and Guidance (SCGs) were observed for VOCs, SVOCs or PCBs in any soil sample. Minor detections of three pesticides and six metals exceeded Unrestricted Use Soil Cleanup Objectives (UUSCOs). One metal- copper, was detected at levels exceeding Residential Use Soil Cleanup Objectives (RUSCOs). Copper was detected at up to 515 ppm, exceeding its Commercial Use SCO (CUSCO) of 270 ppm in one soil sample collected from beneath the concrete building slab. No exceedences of RUSCOs were observed in any surface soil sample.

Groundwater: 109 groundwater samples were collected from various depths at thirteen locations on-site, upgradient and downgradient of the site. The samples were collected from temporary wells utilizing direct-push sampling techniques. All samples were analyzed for VOCs. At six on-site locations, groundwater table samples were additionally analyzed for SVOCs, PCBs, pesticides and metals.

Low levels of thirteen VOCs were detected in groundwater, with only one VOC naphthalene, which is not a site-related contaminant, marginally exceeding its SCG in one of the 109 samples. No site-related VOCs exceeded groundwater standards. SVOCs were non-detect (ND) in all six water table samples. PCBs were detected in one sample, but at a level below SGCs. Six metals (antimony, iron, manganese, mercury, sodium and thallium) and one pesticide (dieldrin), none of which are site-related compounds, were detected above SCGs in the on-site groundwater.

Soil Vapor Intrusion (SVI): Soil vapor, sub-slab soil vapor, indoor air and outdoor (ambient) air samples were collected and analyzed for VOCs. PCE and TCE were detected in sub-slab soil vapor samples at up to 5,700 micrograms per cubic meter of air (µg/m3) and 30.7 µg/m3, respectively. PCE was detected in the indoor air at up to 5.5 µg/m3. TCE was not detected in the indoor air. Soil vapor samples collected from beneath the parking lot identified PCE at levels ranging from 51 µg/m3 to 1,160,000 µg/m3. An off-site soil vapor sample collected across Clinton Street from the site had PCE at 6,660 µg/m3, leading the Department to initiate an off-site SVI investigation to determine the extent of site-related contamination. The off-site SVI investigation is being conducted separately under operable unit 02.

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.*

While site-related volatile organic compounds were not found in groundwater and soil at the site, soil vapor (air spaces within the soil) on site has been impacted. This contaminated soil vapor may move into overlying buildings and affect indoor air quality by a process known as soil vapor intrusion. Soil vapor intrusion is similar to the movement of radon gas from the subsurface into the indoor air of buildings. Given the levels detected beneath the on-site building, there is a potential for people to inhale site-related contaminants in indoor air due to soil vapor intrusion. However, sampling results indicate the levels detected in indoor air at the on-site building are commonly found in similar structures and do not represent a health concern. The potential exists for off-site migration of site-related contaminants in soil vapor.

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.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

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 THE SELECTED REMEDY

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy

must also attain the remedial action objectives identified for the site, which are presented in Section 6.5.

The selected remedy is referred to as the On-site Soil Vapor Mitigation remedy.

The estimated present worth cost to implement the remedy is $17,000. The cost to construct the remedy is estimated to be $12,000 and the estimated average annual cost is $200.

The elements of the selected remedy are as follows:

1. Remedial Design
A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use, where possible, and encouraging green and sustainable re-development.

2. Vapor Mitigation
Installation of a sub-slab depressurization system, or a similar engineered system, to mitigate the migration of soil vapors into the on-site building.

3. 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);

- restricts the use of groundwater as a source of potable water, without necessary water quality treatment as determined by the NYSDOH or County DOH;

- requires compliance with the Department approved Site Management Plan.

4. 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 discussed in item 3 above.

Engineering Controls: The Vapor Mitigation System discussed in item 2 above.

This plan includes, but may not be limited to:

- a provision for further investigation and remediation should redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department; and

- a provision for evaluation of the potential for soil vapor intrusion in future buildings developed on the site, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion; and

- provisions for the management and inspection of the identified engineering controls; 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

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the vapor mitigation system(s).

The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s); and

- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

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.

Waste/Source Areas

High levels of PCE were detected in soil vapor under the parking lot and under the on-site building slab. The soil vapor has the potential to migrate off-site and impact nearby structures.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site were substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium.

Groundwater

Groundwater: Direct-push groundwater sampling was conducted at thirteen locations on-site, upgradient and downgradient of the site. At each location, samples were collected at eight depth intervals- starting from the groundwater table at approximately 30 feet below ground surface (bgs), and again every ten feet to 100 feet bgs. In total, 109 groundwater samples were collected. All samples were analyzed for VOCs. At six on-site locations, samples from the first depth interval (30 feet bgs) were additionally analyzed for semi-volatile organic compounds (SVOC), polychlorinated biphenyls (PCBs), pesticides and Target Analyte List (TAL) metals.

Low levels of thirteen VOCs were detected in the groundwater at the site, with one VOC exceeding SCGs. Naphthalene, at 12 parts per billion (ppb) marginally exceeded its SCG of 10 ppb in one of the 109 samples. The exceedence was in a sample collected from the 100-foot below ground surface (bgs) interval and is not considered site-related. Reported detections of the site-related VOCs- PCE, TCE and DCE were all below SCGs.

No SVOCs were detected in any of the six water-table samples. PCBs were detected in one of six samples, but at a level below SGCs. The pesticide Dieldrin, detected at up to 0.14 ppb, exceeded it SCG of 0.004 ppb in three of six samples. Six metals were detected above SCGs: Antimony was detected at up to 5.6 ppb, exceeding its SCG value of 3 ppb in two samples. Iron was detected at up to 2,680 ppb, exceeding its SCG value of 300 ppb in three samples. Manganese was detected above its SCG value of 300 ppb all six samples, with results ranging from 1,900 ppb to 4,770 ppb. Mercury was detected at up to 0.827 ppb, exceeding its SCG value of 0.7 ppb in one sample. Sodium was detected above its SCG value of 20,000 ppb in all six samples, with results ranging

from 25,000 ppb to 31,300 ppb. Thallium was detected at up to 9.5 ppb, exceeding its SCG value of 0.5 ppb at two locations.

Metals detections in groundwater are not considered to be site-related contaminants. Levels of iron, sodium and manganese are consistent with regional conditions commonly found in Long Island groundwater.

Table 1 lists all detected analytes that exceeded groundwater SCGs, along with results for site-related VOC contaminants. Figure 2 depicts the groundwater sampling locations and the detections of site-related VOC contaminants of concern.

Table 1 - Groundwater	**130187**	Screening Criteria in use: NEW YORK STATE CLASS GA	
Detected Constituents	**Concentration Range Detected (ppb)[a]**	**SCG[b] (ppb)**	**Frequency Exceeding SCG**
VOC NYS CLASS GA			
Napthalene	0-12	10	1/109
Tetrachloroethylene (PCE)	0-3.9	5	0/109
Trichloroethylene (TCE)	0-1.4	5	0/109
Cis-1,2-Dichloroethene (DCE)	0-1.2	5	0/109
Metals NYS CLASS GA			
Antimony	0-5.6	3	2/6
Iron	240-2,680	300	3/6
Manganese	1,900-4,770	300	6/6
Mercury	0-0.827	0.7	1/6
Sodium	25,000-31,300	20,000	6/6
Thallium	0-9.5	0.5	3/6
Pesticides NYS CLASS GA			
Dieldrin	0-0.14	0.004	3/6

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).

No site-related groundwater contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for groundwater.

Soil

Surface soil, sub-surface soil and sub-slab soil samples were collected during the investigation and analyzed for VOCs, SVOCs, PCBs, pesticides and TAL metals. No exceedance of Unrestricted Use Soil Cleanup Objectives (UUSCOs) for VOCs, SVOCs or PCBs were identified in any of the soil samples. Minor detections of three pesticides: 4,4'-Dichlorodiphenyldichloroethylene (4,4'-DDE), 4,4'-dichlorodiphenyltrichloroethane (4,4'-DDT) and Dieldrin, and six metals: arsenic, lead, copper, mercury, zinc and silver exceeded UUSCOs. With the exception of copper no analyte exceeded Residential Use Soil Cleanup Objectives (RUSCOs) in any soil sample. Copper was detected at up to 515 ppm, exceeding its Commercial Use SCO (CUSCO) of 270 ppm in one sub-slab soil sample. The RUSCO and CUSCO for copper are the same- 270 ppm.

Table 2 lists all detected analytes exceeding Unrestricted Use Soil Cleanup Objectives, along with each corresponding Residential Use Soil Cleanup Objective. Figure 3 shows the soil sampling locations along with the lone result exceeding RUSCOs.

Table 2 - Soil 130187 Screening Criteria in use: 375 SOIL - RESIDENTIAL USE, 375 SOIL - UNRESTRICTED USE

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted Use SCG[b] (ppm)	Frequency Exceeding Unrestricted Use SCG	Restricted Use SCG[c] (ppm)	Frequency Exceeding Restricted Use SCG
Metals PART 375					
Arsenic	0-13.5	13	1/18	16	0/18
Copper	0-515	50	3/18	270	1/18
Lead	0-246	63	5/18	400	0/18
Mercury	0-0.27	0.18	2/18	0.73	0/18
Silver	0-6.7	2	1/18	36	0/18
Zinc	0-307	109	6/18	2,200	0/18
Pesticides/PCBs PART 375					
4,4'-DDE	0-0.27	0.0033	3/18	1.8	0/18
4,4'-DDT	0-0.045	0.0033	4/18	1.7	0/18
Dieldrin	0-0.011	0.005	1/18	0.039	0/18

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Use Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Residential Use, unless otherwise noted.

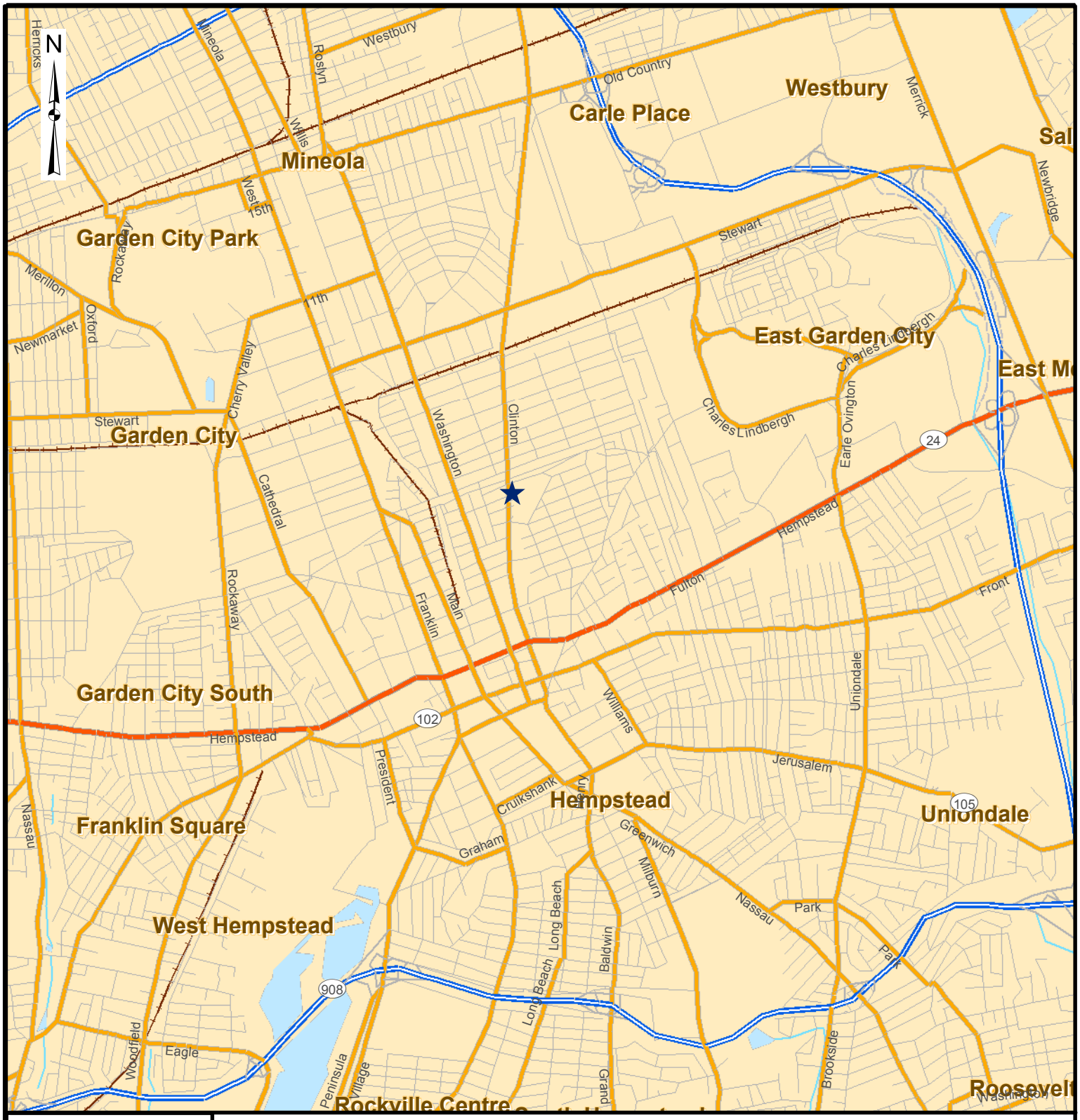
No site-related soil contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for soil.

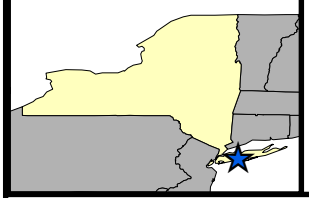
Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of sub-slab soil vapor under structures, and indoor air inside structures. At this site due to the presence of a building in the impacted area a full suite of samples were collected to evaluate whether soil vapor intrusion was occurring.

Soil vapor, sub-slab soil vapor, indoor air and outdoor air samples were collected and analyzed for VOCs. PCE and TCE were detected in sub-slab soil vapor samples at up to 5,700 micrograms per cubic meter of air ($\mu g/m^3$) and 30.7 $\mu g/m^3$, respectively. PCE was detected in the indoor air at up to 5.5 $\mu g/m^3$. TCE was not detected in any indoor air sample. Soil vapor samples collected from beneath the parking lot identified PCE at levels ranging from 51 $\mu g/m^3$ to 1,160,000 $\mu g/m^3$. An off-site soil vapor sample collected across Clinton Street from the site had PCE at 6,660 µg/m3, leading the Department to initiate an off-site SVI evaluation. Figures 4, 5 and 6 show the results of several rounds of soil vapor intrusion sampling at the site, conducted between 2008 and 2015.

Based on the concentrations of PCE and TCE detected, and in comparison with the State's Soil Vapor Intrusion Guidance (NYSDOH, 2006), the on-site building requires measures to mitigate the potential for soil vapor intrusion into the indoor air of VOCs from under the building slab. The off-site SVI evaluation is being conducted as a separate operable unit (OU 2).





Legend

★ Site Location

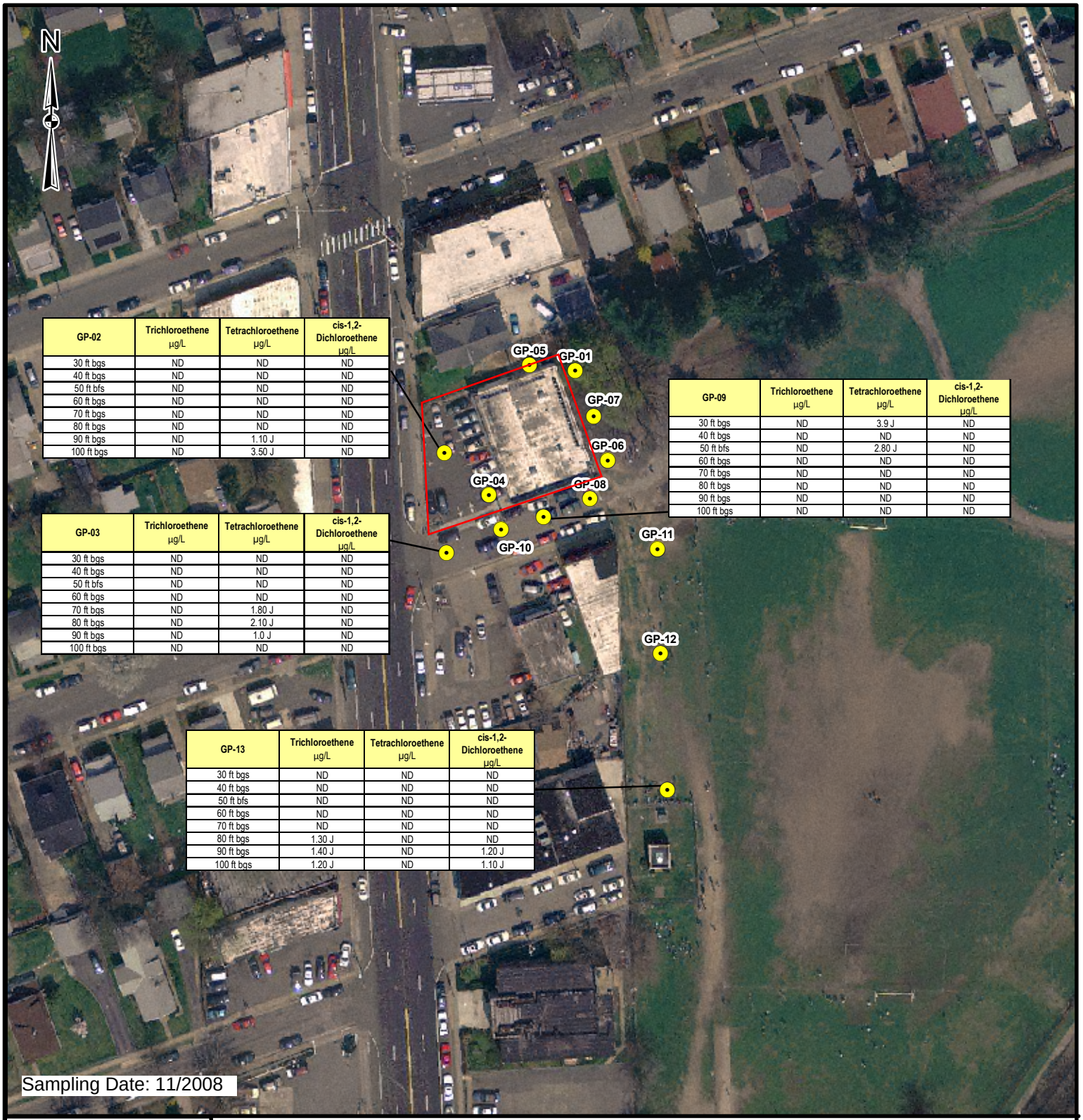
0 0.2 0.4 0.8 1.2 1.6 Miles

Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION REPORT
HEMPSTEAD, NEW YORK

FIGURE 1
Site Location Map

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JMB	CJS	DCC	JMB	AS SHOWN	MAY 2009	14368.34	GIS/PROJECTS/ FIGURE1.MXD

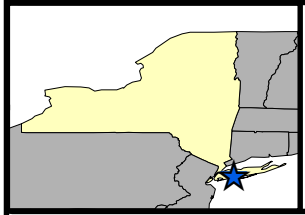


GP-02	Trichloroethene µg/L	Tetrachloroethene µg/L	cis-1,2-Dichloroethene µg/L
30 ft bgs	ND	ND	ND
40 ft bgs	ND	ND	ND
50 ft bfs	ND	ND	ND
60 ft bgs	ND	ND	ND
70 ft bgs	ND	ND	ND
80 ft bgs	ND	ND	ND
90 ft bgs	ND	1.10 J	ND
100 ft bgs	ND	3.50 J	ND

GP-09	Trichloroethene µg/L	Tetrachloroethene µg/L	cis-1,2-Dichloroethene µg/L
30 ft bgs	ND	3.9 J	ND
40 ft bgs	ND	ND	ND
50 ft bfs	ND	2.80 J	ND
60 ft bgs	ND	ND	ND
70 ft bgs	ND	ND	ND
80 ft bgs	ND	ND	ND
90 ft bgs	ND	ND	ND
100 ft bgs	ND	ND	ND

GP-03	Trichloroethene µg/L	Tetrachloroethene µg/L	cis-1,2-Dichloroethene µg/L
30 ft bgs	ND	ND	ND
40 ft bgs	ND	ND	ND
50 ft bfs	ND	ND	ND
60 ft bgs	ND	ND	ND
70 ft bgs	ND	1.80 J	ND
80 ft bgs	ND	2.10 J	ND
90 ft bgs	ND	1.0 J	ND
100 ft bgs	ND	ND	ND

GP-13	Trichloroethene µg/L	Tetrachloroethene µg/L	cis-1,2-Dichloroethene µg/L
30 ft bgs	ND	ND	ND
40 ft bgs	ND	ND	ND
50 ft bfs	ND	ND	ND
60 ft bgs	ND	ND	ND
70 ft bgs	ND	ND	ND
80 ft bgs	1.30 J	ND	ND
90 ft bgs	1.40 J	ND	1.20 J
100 ft bgs	1.20 J	ND	1.10 J



Legend

- Groundwater Sampling Location
- µg/L Micrograms per liter
- ND Non-Detect
- J Estimated Value

0 55 110 220 Feet

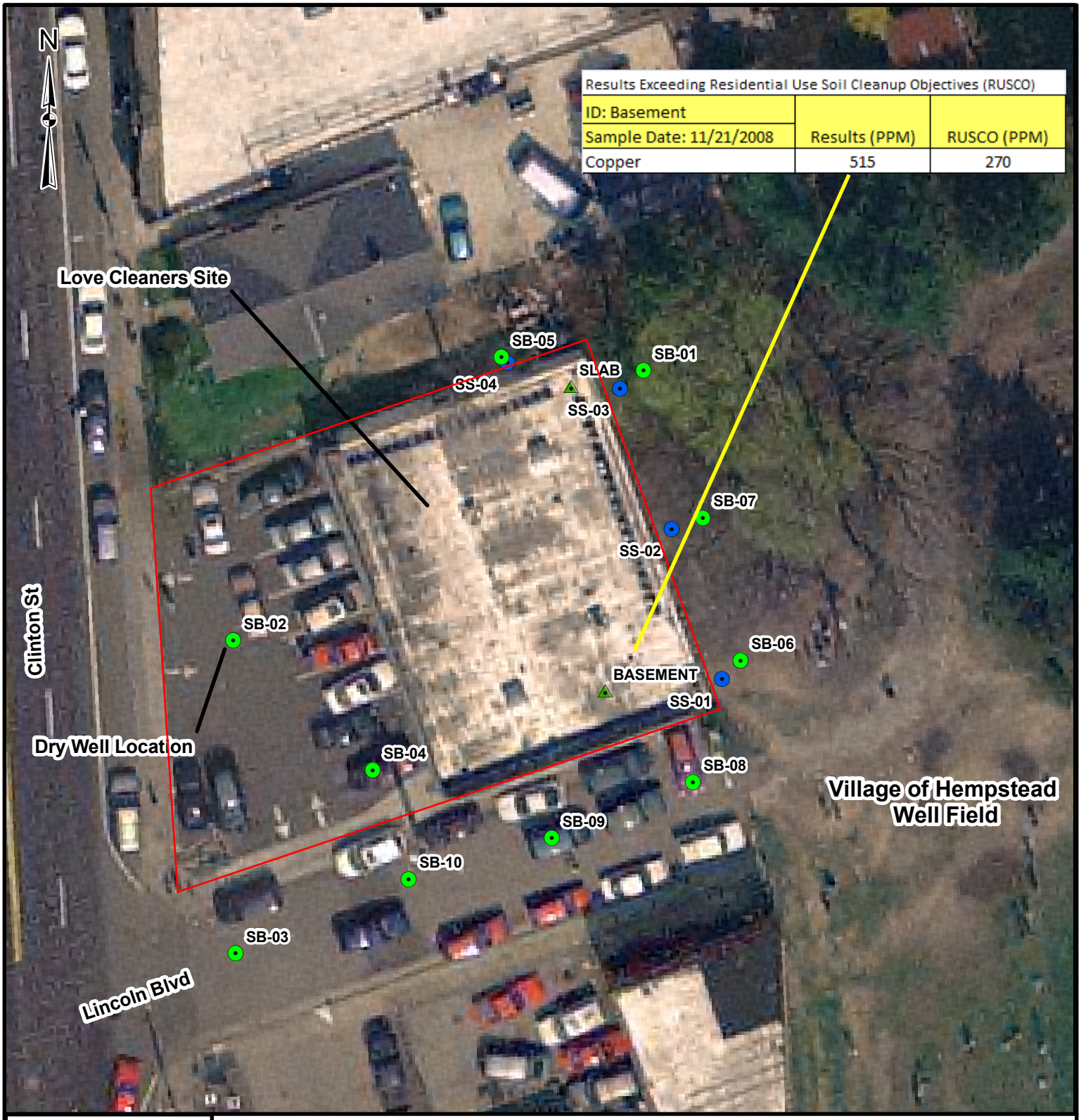
Site Boundary (approx.)

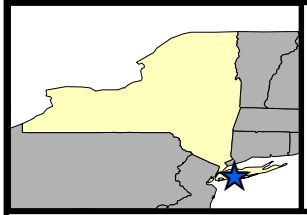
Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION REPORT
HEMPSTEAD, NEW YORK

FIGURE 2
Contaminants of Concern
Detected in Groundwater Samples

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JMB	DCC	JCP	JMB	AS SHOWN	MAY 2009	14368.34	GIS/PROJECTS/ FIGURE9.MXD





Legend

- Subsurface Soil Sample Location
- Surface Soil Sample Location
- Sub-Slab Soil Sample Location

0 12.5 25 50 Feet

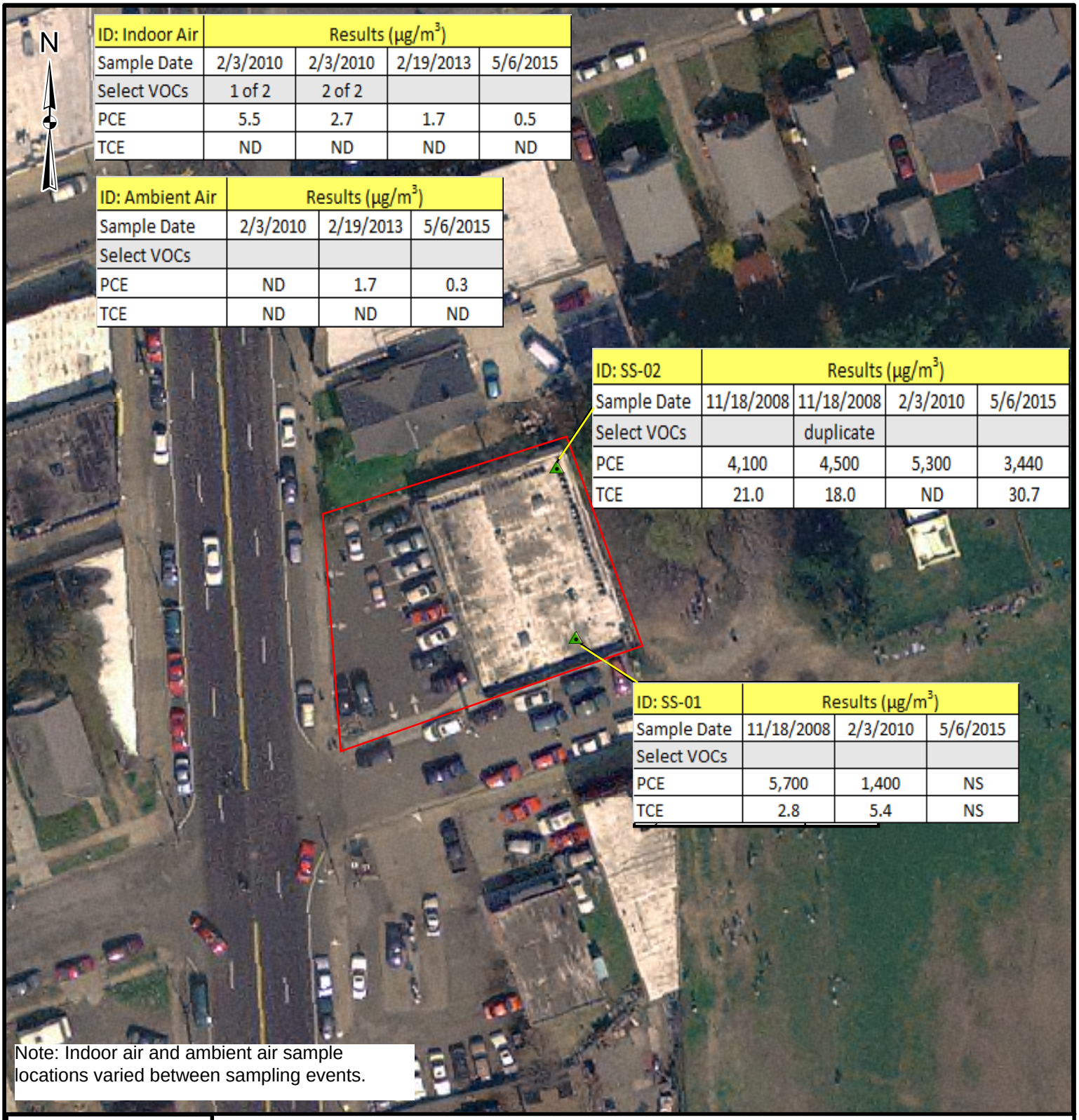
Site Boundary (approx.)

Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION REPORT
HEMPSTEAD, NEW YORK

FIGURE 3
Surface, Subsurface, and Sub-Slab Soil Sampling Locations

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JMB	DCC	JCP	JMB	AS SHOWN	MAY 2009	14368.34	GIS/PROJECTS/ FIGURE5.MXD



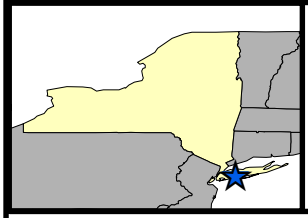
ID: Indoor Air	Results (µg/m^3)			
Sample Date	2/3/2010	2/3/2010	2/19/2013	5/6/2015
Select VOCs	1 of 2	2 of 2		
PCE	5.5	2.7	1.7	0.5
TCE	ND	ND	ND	ND

ID: Ambient Air	Results (µg/m^3)		
Sample Date	2/3/2010	2/19/2013	5/6/2015
Select VOCs			
PCE	ND	1.7	0.3
TCE	ND	ND	ND

ID: SS-02	Results (µg/m^3)			
Sample Date	11/18/2008	11/18/2008	2/3/2010	5/6/2015
Select VOCs		duplicate		
PCE	4,100	4,500	5,300	3,440
TCE	21.0	18.0	ND	30.7

ID: SS-01	Results (µg/m^3)		
Sample Date	11/18/2008	2/3/2010	5/6/2015
Select VOCs			
PCE	5,700	1,400	NS
TCE	2.8	5.4	NS

Note: Indoor air and ambient air sample locations varied between sampling events.



Legend

▲ Sub-Slab Vapor Sample Location
ug/m^3 Micrograms per cubic meter
ND Non-Detect
NS Not Sampled

0 20 40 80 Feet

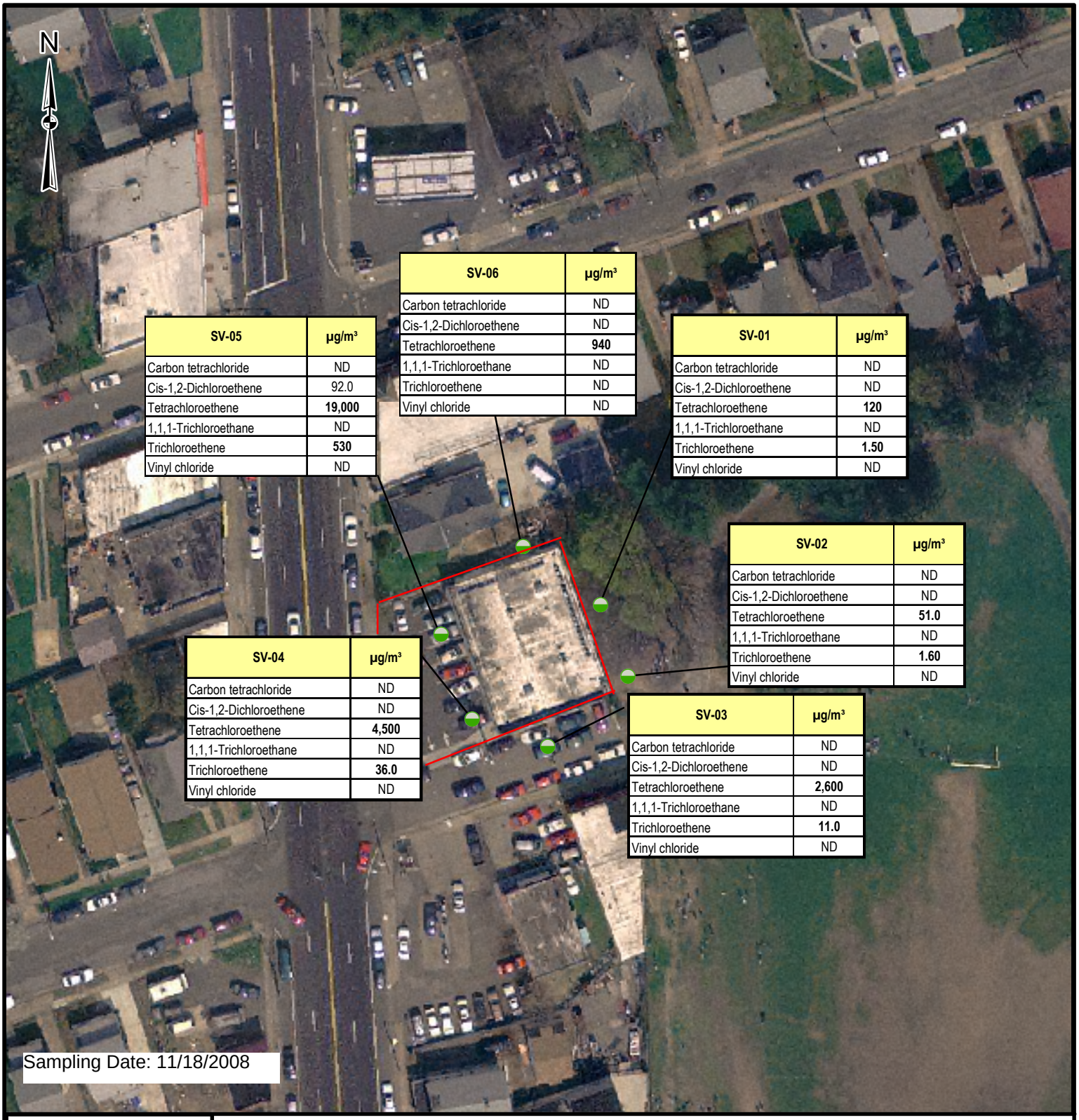
Site Boundary (approx.)

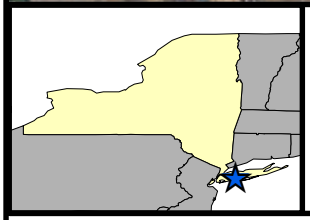
Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION REPORT
HEMPSTEAD, NEW YORK

FIGURE 4
Select VOCs in Sub-slab Soil Vapor and Indoor Air

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JMP	DCC	JCP	JMB	AS SHOWN	MAY 2009	14368.34	GIS/PROJECTS/ FIGURE8.MXD





Legend

Soil Vapor Point Location

ug/m^3 Micrograms per cubic meter

0 25 50 100 Feet

Site Boundary (approx.)

Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION REPORT
HEMPSTEAD, NEW YORK

FIGURE 5
Select VOCs Soil Vapor Samples
2008 Results

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JMP	DCC	JCP	JMB	AS SHOWN	MAY 2009	14368.34	GIS/PROJECTS/ FIGURE7.MXD

LAUNDRY PALACE
416 CLINTON STREET
SUBSLAB
(DESTROYED)

SS2R

DOORS DOORS DOORS

SMH

UTP

PARKING

CB

SVE

VP-1

VP-2

VP-3

CONCRETE SIDEWALK

CONCRETE SIDEWALK

UMH

TRAP

SS-2R (May 6, 2015)
PCE - 3,440 µg/m^3

VP-1 (Feb 19, 2013)
PCE - 1,160,000 µg/m^3

VP-2 (Feb 19, 2013)
PCE - 6,200 µg/m^3

VP-3 (May 6, 2015)
PCE - 7,050 µg/m^3

VP-4 (May 6, 2015)
PCE - 6,660 µg/m^3

TO WELLINGTON ST.

CLINTON STREET

CONCRETE SIDEWALK

VP-4

TO LINCOLN BLVD.

Site Boundary (approx.)

0' 5' 10' 15' 20'
APPROX SCALE

FIGURE 6
Soil Vapor Investigation
PCE Results
2013-2015

Conklin Services and Construction, Inc. - Environmental Division
94 Stewart Avenue, Newburgh, New York 12550
www.conklinservices.com

VAPOR RECOVERY SITE SKETCH
PROJECT# E-17118
STATE SUPERFUND PROGRAM
SITE CODE # 130187
DRAWN BY A. SCHEU
DATE 05/13/2015

LAUNDRY PALACE
aka/ LOVE CLEANERS
416 CLINTON STREET
HEMPSTEAD, NY 11550

SCALE NONE | SHEET 1 OF 1 | SITE SKETCH

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Love Cleaners
Operable Unit No. 01: Remedial Program
State Superfund Project
Hempstead, Nassau County, New York
Site No. 130187

The Proposed Remedial Action Plan (PRAP) for the Love Cleaners 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 February 24, 2016. The PRAP outlined the remedial measure proposed for the contaminated sub-slab soil vapor at the Love Cleaners 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 March 21, 2016, which included a presentation of the remedial investigation for the Love Cleaners site 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 March 26, 2016.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: On the institutional control to prevent on-site use of groundwater, how would that be implemented regarding the existing on-site well?

RESPONSE 1: The institutional control to prevent on-site use of groundwater is worded to restrict the use of groundwater as a source of potable water, without necessary water quality treatment as determined by the NYSDOH or County DOH. The use of groundwater for process purposes is not prohibited, however discharge of this water must account for any contamination present and be managed appropriately.

COMMENT 2: How does the sub-slab depressurization system (SSDS) work?

RESPONSE 2: The SSDS consists of a pipe or series of pipes which are installed through holes drilled into the building slab. A small fan, attached to the pipe(s) creates a slight negative pressure (vacuum) under the building slab, drawing contaminated soil vapor up into the pipe and venting it outside of the building. The SSDS provides a preferential pathway for the sub-slab soil vapors to travel to the atmosphere, preventing them from entering the indoor air.

COMMENT 3: Who will manage the sub slab system?

RESPONSE 3: Sub-slab system operation and maintenance (e.g., fan replacement, if necessary) are the responsibility of the State if the site is a State-lead project, or the responsible party (RP), if an RP-lead project pursuant to an Order on Consent.

COMMENT 4: How is the SSDS maintained?

RESPONSE 4: The SSDS is maintained by periodic observation that the fan is running and/or verifying that an attached pressure gauge (manometer) is indicating a vacuum condition. The fan may require replacement every few years. Periodic certification that the system continues to operate to is required. The requirements are (or will be) detailed in the Site Management Plan (SMP).

COMMENT 5: How far down did the contamination go beneath the building?

RESPONSE 5: While no site-related VOC soil contamination was documented during the investigation, based on experience, the sub-slab soil vapor is caused by some VOC contamination present in the shallow soil under the building slab.

APPENDIX B

Administrative Record

Administrative Record

Love Cleaners
Operable Unit No. 01: Remedial Program
State Superfund Project
Hempstead, Nassau County, New York
Site No. 130187

1. *Proposed Remedial Action Plan for the Love Cleaners site, Operable Unit* No. 01, dated February 2016, prepared by the Department.

2. Order on Consent, Index No. A1-0780-11-11, between the Department and Mark Wieboldt, executed on February 17, 2012.

3. *Remedial Investigation Report*, dated October 21, 2015, prepared by Optima Environmental Services, Inc.

4. *Remedial Investigation Workplan Addendum (RIWP)*, dated September 29, 2014, prepared by Conklin Services & Construction Inc.

5. *Love Cleaners Remedial Investigation Report*, dated May 17, 2013, prepared by Conklin Services & Construction Inc.

6. *Final Site Characterization Report*, Dated May 2009, prepared by EA Engineering.