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INVESTIGATION WORK PLAN
RMJ REALTY, LLC
709 NORTH STREET
ENDICOTT, NEW YORK

Prepared For:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Prepared By:

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1 INTRODUCTION

RMJ Realty, LLC (RMJ Realty) and GeoLogic NY, Inc. (GeoLogic) have developed this Work Plan for the investigation of potential tetrachloroethene contamination at the referenced site. Pursuant to a Voluntary Cleanup Agreement (VCA) signed on December 24, 2003, V-006677-7, RMJ Realty agrees to investigate potential contaminant Source Area(s) that currently, or reasonably, has the potential to adversely affect human health or cause significant off-site impact.

1.1 SITE DESCRIPTION

RMJ Realty owns the property located at 709 North Street in the Village of Endicott, Broome County, New York where Schapiro's Formal Shop, Inc. (Shapiro's) operates a dry cleaning, tuxedo and uniform rental business (see Drawing No. 1). The site, encompassing about one acre, is bordered on the south by North Street and on the east by residential homes, on the west by property owned by RMJ Realty and used as warehouse and commercial space and on the north by a railroad. South of North Street are residential homes. Further east, past the residences, are commercial properties. The site is in a mixed residential and commercial neighborhood (Drawing No. 2).

1.2 SITE HISTORY

The site has been used for commercial purposes since at least 1918. The first known commercial use of the 709 North Street property is shown on the 1918 Sanborn map; a lumberyard occupied the property. A building is shown on the 1918 Sanborn map in the same location as the current dry cleaning building. The same building, with a slightly longer storage area extending to the north, is shown on the 1940 Sanborn map and its use is identified as auto repair. Drawing No. 3 shows the location of the auto repair building in relationship to the current RMJ Realty building. The site was an auto repair shop until 1950. An auto dealership operated at the site from the mid 1950's to early 1970's. Ziebart operated at the site from the mid 1970's until Schapiro's began operations in 1981.

The eastern, western and northern portions of the building were added after 1981 for office and warehouse space. All dry cleaning activities have taken place within the footprint of the building shown on the 1940 Sanborn map (see Drawing No. 4). Schapiro's installed dry cleaning machines using tetrachloroethene in mid 1981 and used tetrachloroethene as a dry cleaning

solvent until 1999, when the dry cleaning solvent was switched to a petroleum-based solvent. The three dry cleaning machines where tetrachloroethene was used were located in the south central portion of the building (see Drawing No. 4). There were no known leaks or releases of tetrachloroethene. Tetrachloroethene was recycled within the machines and delivered to the site on an "as-needed" basis to replenish the machines, and pumped directly from the delivery vehicle into the machines.

When tetrachloroethene was being used, Schapiro's was a large quantity generator of hazardous waste. EPA ID number NYD981078306 was assigned to the site; no violations are listed for the facility.

1.3 PREVIOUS INVESTIGATIONS

IBM has been performing contaminant investigations and remediation in the area since 1980 in response to past spills of volatile organic chemicals (VOC's) including tetrachloroethene at its facility. Tetrachloroethene is the only chlorinated compound that has been used by Schapiro's. As part of the IBM investigation, monitoring wells have been installed north and south of RMJ Realty and a recovery well (EN-154) operates north of the site (see Drawing No. 2). The wells in the vicinity of RMJ Realty have been monitored since at least 1980, before Schapiro's even began dry cleaning operations at the site using tetrachloroethene.

Investigations performed by IBM indicate that the recovery zone for the well north of RMJ Realty includes the northern portion of the RMJ Realty property.

Historical data (1992-2002) from selected wells installed for the IBM investigation surrounding RMJ Realty (wells EN-95, EN-150, EN-152, EN-154, EN-202) and one well northeast of the property and close to the former EJ Tannery operations (EN-167) are plotted on Charts No. 6, 7, 8, 9, 10, 11. EN-150 and EN-152 are the closest wells on the north side of RMJ Realty and EN-154 is the closest recovery well north of RMJ Realty. Wells EN-95 and EN-202 are the closest wells south and southeast of the site.

Concentrations of tetrachloroethene, trichloroethene and 1,1,1-trichloroethane are plotted on the charts. The source of the data is from electronic data files supplied by the NYSDEC. Earlier data from these wells is not available electronically and has not yet been reviewed (see Section 2.2.3.1). The only earlier data for these wells reviewed to date is from a drawing produced by

Sanborn, Head and Associates, dated June 19, 2003, "Apparent Distribution of PCE in Groundwater 1980, 1993, and 2003". The following concentrations of tetrachloroethene are listed for these wells:

Well	**Location in Relation to RMJ Realty**	**Date**	**Tetrachloroethene Concentration** (ug/L)
EN-95	SW corner of Harrison & North Street South of RMJ Realty	1980	5
EN-150		1980	No concentration shown on drawing. Drawing indicates concentration of less than 1 ug/L.
EN-152		1980	No concentration shown on drawing. Drawing indicates concentration of less than 1 ug/L.
EN-154	Recovery Well North of RMJ Realty	1980	No concentration shown on drawing. Drawing indicates concentration of less than 5 ug/L.
EN-167	West of EJ Tannery Operations Northeast of RMJ Realty	1980	100
EN-202	Southeast of RMJ Realty		No concentration shown on drawing. Drawing indicates concentration of less than 1 ug/L.

Schapiro's has had yearly air samples taken within their facility (personal monitoring) as part of their on-going health and safety program and all results were always within regulatory limits. Personal monitoring air sampling results from 1989 and 1995 are included in Attachment C.

As part of the IBM investigation, indoor air samples and below slab soil vapor samples were taken at the RMJ Realty property in April 2003 by Air Toxics, Ltd. Sampling locations are

shown on Drawing No. 4. Until Schapiro's received the results from these air samples on July 10, 2003, they were unaware of any potential tetrachloroethene contamination at their facility.

The air samples taken by Air Toxics, Ltd. revealed the following concentrations:

Sample ID	Location	Tetrachloroethene Concentration (ug/m^3)
Sub-Structure Air Location A- Boiler Room	Below concrete floor slab of basement room	25,000
Basement Indoor Air Location A- Boiler Room	Indoor air within basement room	1,800
Sub-structure Air Location B – North End of Dry Cleaning Area (near steam pressing machines)	Below concrete floor slab in vicinity of press machines	130,000
Lowest Level Indoor Air Location B – North End of Dry Cleaning Area (near steam pressing machines)	Indoor air in the vicinity of press machines	200
Sub-Structure Air Location C – West-Central Portion of Uniform Storage/Cleaning Area	Below concrete floor slab in vicinity of uniform storage area	2,600
Lowest Level Indoor Air Location C – West-Central Portion of Uniform Storage/Cleaning Area	Indoor air in the vicinity of uniform storage area	340
Outdoor Air	Ambient air outside building	0.64

1.4 SUMMARY OF ENVIRONMENTAL CONDITIONS

1.4.1 Nature and Extent of Contamination

The Air Toxics, Ltd. results indicate contaminants in indoor air and in the soil vapor beneath the concrete slab of the original building near where the dry cleaning machines were located. Concentrations in indoor air range from one to three orders of magnitude lower than soil vapor concentrations beneath the concrete slab. Although

tetrachloroethene was detected beneath the concrete floor slab of the uniform warehouse area west of the original building (location C), concentrations in the air sample from this area were two orders of magnitude less than concentrations found beneath the concrete floor slab of the dry cleaning department and basement in the central portion of the facility (locations A and B).

1.4.2 Hydrogeologic Setting

The site is located within the Endicott-Johnson City Aquifer. Deposits beneath the site are mapped as outwash sands and gravels. The general direction of groundwater flow beneath the site is mapped as toward the southwest (Holecek and Randall, 1982).

Reports generated for IBM indicate that the northern portion of the RMJ Realty's property is within the capture zone of recovery well EN-154, north of the railroad tracks. The southern portion of the site is mapped as outside the zone of influence of this recovery well. The saturated thickness of the aquifer beneath the site is estimated to be 15 to 25 feet. The depth to groundwater is estimated to be 30 feet below ground surface.

2 PROPOSED INVESTIGATION

2.1 AREA AND CONTAMINANT OF CONCERN

The area of concern is the subsurface soil in the vicinity of the dry cleaning machines and the contaminant of concern is tetrachloroethene. The proposed scope of work will focus on investigating the extent of soil vapor, soil and groundwater contamination on the property as a result of possible release of tetrachloroethene from the dry cleaning machines.

2.2 SUMMARY OF PROPOSED WORK

2.2.1 Task #1 – Interim Soil Vapor Extraction System

Purpose: Minimize off-site migration of tetrachloroethene contaminated soil vapor until a permanent soil vapor extraction system can be installed.

Method: An interim soil vapor extraction system has been installed at the facility to immediately mitigate tetrachloroethene vapors beneath the building and minimize the potential for off-site migration of vapors. The interim soil vapor extraction consists of four soil vapor extraction points; a 4-inch diameter PVC well with a 10-foot screened section placed south of the dry cleaning machines on the outside of the building and three, 3-inch diameter sub-slab extraction points drilled through the floor next to the dry cleaning machines, EP-1, EP-2 and EP-3 (Drawing No.4). The subsurface log for the soil vapor extraction well, RW-1, is attached. The extraction points inside the building consists of a two-foot screened section of 2-inch diameter PVC pipe connected to a solid 3-inch diameter PVC pipe. The piping is sealed into the floor slab above the screened portion. Both the PVC well and sub-slab extraction point are connected to a Rotron EN 606 blower placed on the roof of the building. The exhaust pipe from the blower extends 10 feet above the roofline.

A pre-start up sample was taken at the exhaust pipe discharge of the blower on August 11, 2003. At the time of the pre-start up test, only RW-1 and EP-1 were installed and connected to the blower. The blower was operated at an airflow rate of 157 cfm for 35 minutes before a sample was taken from the discharge. The blower was turned off after sampling. An Air Facility Registration Form was submitted to the NYSDEC on September 4, 2003 with the sample results requesting that the system be operated at a flow rate of 70 cfm (Attachment D).

NYSDEC issued the Air Facility Registration on September 8, 2003 (Attachment D) and the system was turned on September 11, 2003. Two additional sub-slab extraction points in the vicinity of the dry cleaning machines were installed on November 19, 2003 (EP-2 and EP-3).

Air discharge samples have been taken from the system on September 11, October 3, and November 28, 2003. The samples were taken using 3-liter tedlar bags and analyzed using NYSDOH Method 311-6 for volatile chlorinated organic compounds. Laboratory results are included in Attachment C. Soil gas concentrations and pounds of tetrachloroethene emitted from the system based on airflow and concentration are shown on Charts No. 7 and 8.

2.2.2 Task #2 – Identify Subsurface Contaminant Conditions Beneath Facility

2.2.2.1 Task #2A – Perform Floor Drain Survey

Purpose: Investigate potential subsurface migration routes for tetrachloroethene.

Method: Identify floor drains in the RMJ Realty's facility and test drains to determine if they are connected to sanitary sewer, storm sewer or a dry well. A sewer and drain clearance service will test the floor drains to evaluate if they are connected to the sanitary or storm sewer. During the floor drain survey, a PID will be used to investigate whether volatile organic compounds are emanating from the floor drains. The information from the sewer and drain survey will be used to assist in locating sampling locations for Task #2B.

2.2.3 Task #2B – Obtain Soil Samples Beneath Facility

Purpose: Identify locations of highest tetrachloroethene concentration in soil (horizontally and vertically) in order to maximize efficiency of soil vapor extraction system.

Method: Obtain soil samples from up to 15 locations within the facility. Proposed locations for the first ten sampling points are shown on Drawing No. 4. These locations are within or close to the former dry cleaning area where tetrachloroethene was used. Based on field observations from the first ten sampling locations, up to five additional sampling points may be advanced. (Criteria that will be used to determine if additional sampling points will be advanced are described below.)

A concrete drill will be used to drill a hole through the floor before taking the soil samples. The soil samples will be obtained with a 2-inch diameter, 4-foot steel tube sampler (macrocore). The sampler has single-use acetate liners for sample collection. Continuous soil sampling will be attempted to a depth of 16 to 20 feet below the floor slab. Due to the limited clearance within the facility, the soil sampler and probe rods will be advanced using a portable hydraulic push sampling device with an electric jackhammer. If the electric jackhammer cannot advance the probe holes to the desired depth, a portable tripod rig will be used to advance the holes.

Soil samples will be scanned with a photoionization detector (PID) and selected soil samples analyzed. Soil samples will be placed in zip-lock plastic bags and allowed to equilibrate for 10 minutes before screening with a PID. Soil samples with the highest PID readings will be placed in laboratory supplied sample jars for analysis. Samples will be held at 4^{o} C in a cooler. Single-use latex or vinyl gloves will be used during sample handling. Up to ten soil samples will be analyzed for volatile organics using EPA Method 8260.

Additional sampling points may be added to identify potential source area(s).

2.2.4 Task #3 – Evaluate Routes of Contaminant Migration

2.2.4.1 Task #3A - Review Historical Data from IBM Wells

Purpose: Investigate hydrogeologic and water quality conditions in the vicinity of RMJ Realty prior to 1981 when tetrachloroethene was first used on the site, and trends in tetrachloroethene concentrations in the vicinity of the RMJ Realty's property over time.

Method: Historical data from wells installed by IBM in the vicinity of RMJ Realty's facility will be reviewed. Data after 1992 is available electronically. Data before 1992 is not available electronically and will be reviewed at the NYSDEC offices in Albany. Water quality data and water level information from selected wells will be reviewed. It is anticipated that the review will at a minimum include wells EN-95, EN-150, EN-152, EN-154, EN-202 and EN-167.

2.2.4.2 #3B - Install Monitoring Wells

Purpose: Investigate direction of groundwater flow and water quality conditions beneath the site.

Method: Four monitoring wells will be installed around the site to investigate groundwater quality and groundwater flow direction at the site. The proposed locations of the wells are shown on Drawing No. 4. One well will be on the north side of the facility between RMJ Realty and the recovery well north of the railroad track, two wells will be placed in the regional downgradient direction

from the site, west and southwest, and one well will be placed east of the facility.

The wells will be installed using a rotary drill rig equipped with 4¼-inch I.D. hollow stem augers. Continuous soil samples will be taken using a 2-inch O.D. split-spoon sampler. The sampler will be opened upon retrieval of the sample and visually classified for grain-size components. Samples will be placed in new glass sample jars and allowed to set at room temperature prior to scanning the headspace with a PID.

After the soil profile has been characterized, monitoring wells will be installed. The wells will be constructed of 2-inch diameter PVC well screen and well pipe. The well screens will be 10 feet long and have 0.020-inch size slots. The well screens will be placed to straddle the water table at the time the borings are advanced.

The PVC well casing will be placed down through the auger casing. The augers will be pulled back as the annular space between the PVC well casing and the borehole is filled. A medium-grade sandpack will be placed around the well screen from the bottom of the well to at least two feet above the top of the well screen. A minimum 2-foot bentonite seal will be placed above the sandpack. The remainder of the boring will be filled with a cement/bentonite grout. The well casings will be capped and flush-mounted curb boxes/or guard pipes will be placed over the wells for protection. Depths to water will be recorded.

If the water level is within about 20 feet of the grounds surface, a low-flow wale pump will be inserted down the well casings, and the monitoring wells will be initially developed to remove sediments that may be in the well casings and sandpacks from the installation process. If the water level is too deep to allow use of a wale pump, bailers will be used to develop the wells. All water removed during development will be collected and placed in 55-gallon drums. Although initial well development procedures typically remove quantities in excess of those quantities required to achieve stability for sampling purposes, conductivity, pH and temperature will be measured periodically during the

purging process to assure that stability has been achieved. Efforts will be made to achieve turbidity of less than 50 NTU.

The locations and elevations of the new monitoring wells will be established and a map depicting direction of groundwater flow will be developed. The scale of the map will be 1" =200' or less. The locations of the wells will be determined by taped measurements from existing site features. Elevations of the ground surface and the referenced points for the monitoring wells will be determined by differential leveling to the nearest 0.01 foot. Elevational data will be tied to IBM's datum using well EN-95, if access to this well is granted. Otherwise, elevations will be established using a temporary benchmark with an assumed elevation of 100.00.

2.2.4.3 Task #3C - Sample Monitoring Wells

Purpose: Investigate groundwater quality beneath the site.

Method: Between 5 and 10 days after the monitoring wells have been developed, water samples will be collected from each of the monitoring wells installed on the RMJ Realty's property, including the appropriate QA/QC samples, and depths to water will be recorded.

If the water level in the wells is within 20 feet of the ground surface, wells will be purged and water samples taken using a low-flow peristaltic pump. New polyethylene tubing will be used to purge and sample each well. If the water level is more than 20 feet below the ground surface, a single-use polyethylene disposable bailer with new nylon rope will be used to purge the wells and obtain the water samples. All purge water will be placed in 55-gallon drums.

The wells will be purged of at least three well volumes prior to sampling. Temperature, pH, conductivity and turbidity measurements will assist in determining when the wells have been sufficiently purged. The sampler will wear single-use latex or vinyl gloves during purging and sampling. Samples will be collected directly into laboratory-provided containers and held in a 4°C-maintained cooler. Samples will be submitted for volatile organic analysis by

EPA-8260 and analysis of base neutral semi-volatile organic compounds by EPA Method 8270. Samples will also be submitted for analysis of the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver).

If access is granted, water level measurements will be obtained from four of the IBM wells, EN-95, EN-202, EN-150 and EN-152 and water samples will also be obtained from three IBM wells, EN-95, EN-202, and EN-152.

2.2.4.4 Task #3D - Obtain Soil Vapor Samples Below Basement of Adjacent Homes

Purpose: Investigate potential for tetrachloroethene to migrate in soil vapor from RMJ Realty to neighboring homes.

Method: Soil vapor samples will be taken from below the basement of two residences directly east of the site. A separate letter was submitted on February 18, 2004 to the NYSDEC for this work and is included in Attachment E.

2.2.4.5 Task #3E - Obtain Soil Vapor Samples at Site Boundaries

Purpose: Investigate potential for tetrachloroethene to migrate in soil vapor off-site.

Method: Soil vapor samples will be obtained from soil vapor implants placed at up to 12 locations along the site boundary. Proposed sampling locations are shown on Drawing No. 4.

A truck-mounted, direct push sampler will be used to install the soil vapor implants at a depth of eight feet below the ground surface using. Soil vapor implants will be constructed of six-inch long, double woven stainless steel wire screen. The stainless steel implants will be connected to polyethylene tubing. The direct-push sampling rods will be advanced to a depth of eight feet. The soil vapor implant will be placed down through the rods, and then as the rods are withdrawn, the annular space around the implant will be filled with glass

beads to a height of six inches above the implant. Sand will be placed above the glass beads to a depth of two feet below the ground surface. Hydrated bentonite pellets will be used to seal the upper two feet of the annular space. The polyethylene tubing will extend at least six inches above the ground surface. To minimize the risk of ambient air being drawn down the borehole and into the implant during sampling, plastic sheeting will be placed on the ground surface extending at least one foot around the tubing. Hydrated bentonite will be placed over the plastic sheeting and around the tubing.

A 400-cc canister will be used to collect the soil vapor samples. Before taking soil vapor samples, the soil vapor implant and tubing will be purged of one volume of the vapor implant (one volume of sample probe and tube) using a vacuum pump. A tubing pinch valve will be used to seal the end of the tube after the tubing is purged. Immediately after purging, the tubing will be connected to the 400-cc canister and soil vapor samples will be collected directly into the 400-cc canisters for laboratory analysis laboratory. Purging and sample flow collection rates will not exceed 0.2 liters/minute. The samples will be collected over a one-hour period.

2.2.4.6 Task #3F - Obtain Soil Vapor Samples South of North Street

Purpose: Investigate potential for tetrachloroethene to migrate in soil vapor from RMJ Realty to homes south of North Street.

Method: The results of the soil vapor sampling along the property boundaries will be used to evaluate whether soil vapor samples should be collected south of North Street. If tetrachloroethene is detected in any of the soil vapor samples taken along the western or southern property boundaries at concentrations that could indicate a possible off-site impact, soil vapor samples will be taken along the right-of-way on the south side of North Street, if access is possible. The ability to take soil vapor samples will depend on the location of utilities. If access is possible, up to eight soil vapor samples will be obtained. The sampling methodology will be the same as that described in section 2.2.3.5.

2.2.5 Task #4 Develop Pilot Testing Program for Soil Vapor Extraction System

Purpose: Maximize efficiency of soil vapor extraction system.

Method: Based on the results of soil sampling beneath the floor of the building (Task #2), a pilot-testing program will be developed and submitted to the NYSDEC for approval prior to performing the pilot test. The pilot testing program will describe the depth of location of the soil vapor extraction well for the pilot test, the soil vapor monitoring points that will be used to monitor vacuum during the pilot test, proposed extraction flow rate for the test and sample analysis during the test.

2.2.6 Task #5 Prepare Investigation Report

Purpose: Summarize data collected during investigation and develop recommendations for the need for any additional data or remedial measures.

Method: The need for any additional data and the need for remedial action other than a soil vapor extraction system will be evaluated after the completion of the work proposed in Tasks 3A through 3F. A Work Plan (if warranted) to address additional data gathering or remediation options will be submitted to NYSDEC for approval.

3 HEALTH AND SAFETY PLAN

A Health and Safety Plan (HASP) prepared for personnel protection (both site workers and community), and safety practices and procedures for the field activities proposed under Section 2.2 Summary of Proposed Work, is attached. A Community Air Monitoring Program (CAMP) is included in Section 6.2 of the Health & Safety Plan.

Components of the monitoring will include work zone monitoring, community air monitoring, and vapor emission response plan. Real-time air monitoring for volatile organic compounds at the perimeter of the work areas will be performed.

4 QUALITY ASSURANCE/QUALITY CONTROL

Sampling will be performed by a geologist or chemist from GeoLogic. Chain-of-custody procedures will be followed from sample acquisition through to sample disposal. Groundwater and soil sample analysis for volatile organic compounds analyzed using EPA Method 8260 will be performed using ASP Category B deliverables. Water samples from the monitoring wells analyzed for semi-volatile organics using EPA Method 8270 and for metals will not be analyzed using Category B Deliverables. All sample containers will be provided by the laboratory. The laboratory that will

perform the analyses is Life Science Laboratory, a NYSDOH ELAP-CLP Certified Laboratory. A DUSR report will be prepared.

Soil vapor samples will be analyzed by Centek Laboratories for the IBM eleven chlorinated volatile organics using modified EPA Method TO-15, by SIMS. Centek Laboratories has been approved under the NELAP program by the NYSDOH for performing TO-15 analysis. The limit of quantitation (LOQ) for the chlorinated volatile organics to be analyzed is between 0.2 and 0.5 ug/m^3.

All down-the-hole drilling tools will be steam cleaned between each boring during the installation of the four monitoring wells. The split-barrel sampler will be cleaned using a Liquinox and water solution, and rinsed with potable water after each sampling attempt. The probing equipment was cleaned with a Liquinox and water solution before starting work at the site and between each probe hole to minimize the possibility of cross contamination. Decontamination water will be collected and disposed of properly.

The photoionization detector that will be used for the field screening of soils will be either a Photovac Model 2020 or MP-100, both equipped with 10.6 eV lamps. The instrument will be calibrated in accordance with manufacturer's instructions in the field daily prior to commencing work. Should the PID display not return to zero, the instrument will be cleaned and re-calibrated. A back-up PID will be on-site whenever a PID is being used. The pH, conductivity and temperature meters will be calibrated in accordance to manufacturer's instructions prior to each daily use.

Excess soil from the probe holes and borings will be containerized. PID readings taken during soil sampling will be used to evaluate the need for analysis. Soil samples will be placed in zip-lock plastic bags and allowed to equilibrate with the atmosphere for 10 minutes before screening with a PID. If all PID readings from a boring or probe hole are less than 1 ppm above background, soil will be reused on-site. If any PID readings in a probe hole or boring are greater than 1 ppm above background, the soil sample with the highest PID reading will be analyzed for chlorinated organics using EPA Method 8260 to evaluate appropriate disposal options. These samples will not be analyzed using ASP Category B deliverables.

SAMPLING CHART

RMJ REALTY, LLC

ENDICOTT, NEW YORK

Sample Location	Matrix	No. of Samples	No. Analyzed	Analysis
Monitoring Wells	Soil		If PID> 5 ppm	8260
Beneath Floor Slab of Building	Soil	60	10	8260 - ASP Category B
Lab QA/QC Samples	Soil		3	8260 - ASP Category B
Along Property Boundary	Air		12	TO –15 Modified SIMS for 11 IBM compounds
Field Duplicate	Air		1	TO –15 Modified SIMS for 11 IBM compounds
Adjacent Property – Sub Slab	Air		2	TO –15 Modified SIMS for 11 IBM compounds
Monitoring Wells (4 on-site, 3 off-site)	Water		7	8260 – ASP Category B 8270 – Base Neutral RCRA Metals
Lab QA/QC Samples	Water		4	8260 - ASP Category B

5 SCHEDULE AND REPORTING

Fieldwork for the investigation will begin within 3 weeks of receiving written approval from the NYSDEC of this Work Plan. It is anticipated that fieldwork will take two weeks to complete. Sample analysis is anticipated to require two weeks following completion of the fieldwork. The report will be submitted within one month of receiving the analytical results. The total anticipated time for completing the work included in this Work Plan is about three months.

6 PROJECT ORGANIZATION

Property Owner: RMJ Realty, LLC, 709 North Street, Endicott, NY 13761-7050. Contact: Robert and Michael Schapiro, 607-754-9166, ext. 201 and 101.

Environmental Consultant for RMJ Realty: GeoLogic NY, Inc., P.O. Box 5080, Cortland, NY 13045. Contact: Marjory Rinaldo-Lee, Principal-in-Charge; Susan M. Cummins, Health & Safety Officer; Judson Powell, field supervision, sample collection; Joseph Menzel, remediation system installation, 607-836-4400.

7 REFERENCES

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Sanborn Maps, Binghamton, New York, 1912.

Village Directories, Endicott, New York, 1979, 1954, 1950, 1949, 1948, 1947, 1945.

City Directories, Binghamton, New York, 1972, 1967, 1962, 1957.

Village of Endicott, Plat Book of Broome County, 1908.

8 ATTACHMENTS

A. Drawings
   1. Site Location Plan
   2. Site Vicinity Plan
   3. Former Building Location
   4. Sampling Location Plan
   5. Building Use

B. Charts
   1. VOC Concentration in EN-95
   2. VOC Concentration in EN-150
   3. VOC Concentration in EN-152
   4. VOC Concentration in EN-154
   5. VOC Concentration in EN-167
   6. VOC Concentration in EN-202
   7. Tetrachloroethene Emissions from Soil Vapor Extraction System in ug/m^3
   8. Tetrachloroethene Emissions from Soil Vapor Extraction System in lbs/year

C. Subsurface Logs

D. Air Sampling Results

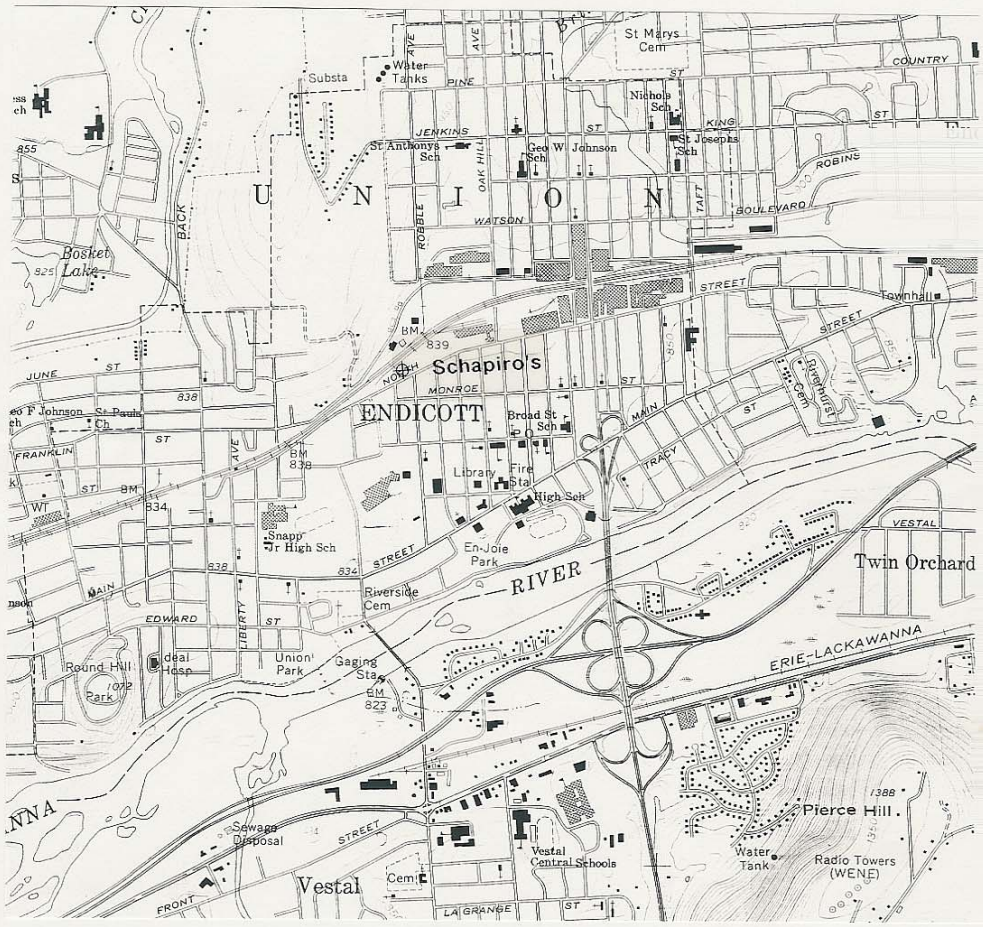
E. Air Facility Submittal & Registration

F. Sub-Slab Air Sampling Plan

G. Health & Safety Plan

ATTACHMENT A

DRAWINGS



ENDICOTT, N. Y.
SE/4 ENDICOTT 15' QUADRANGLE
42076-A1-TF-024

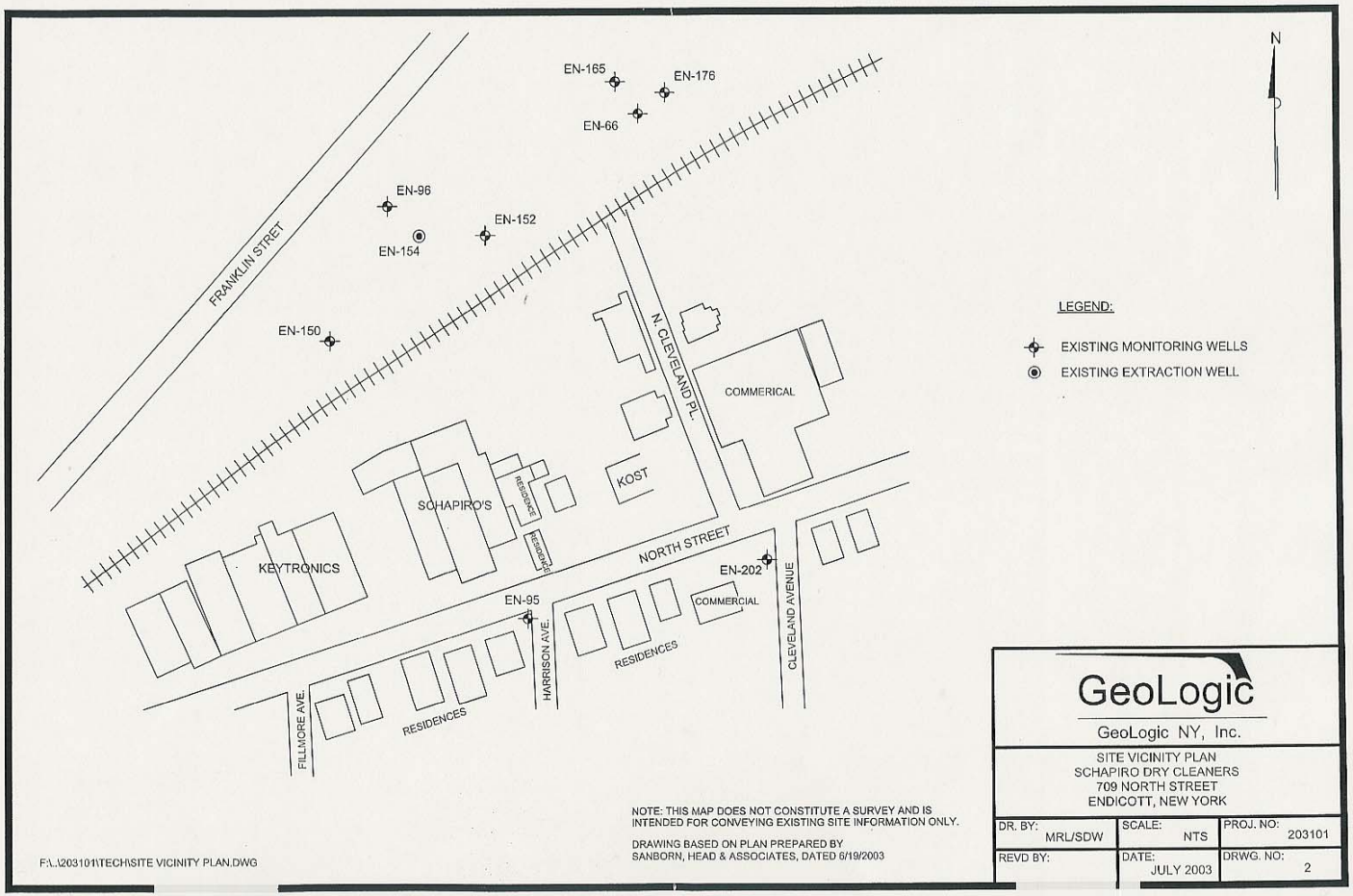
1969
PHOTOINSPECTED 1976
DMA 5768 II SE—SERIES V821

N

GeoLogic
GeoLogic NY, Inc.

SITE LOCATION PLAN
Schapiro's
706 North Street
Endicott, NY

DR. BY: mrl	SCALE: 1" = 2,000'	PROJ. NO.:203101
REV'D. BY:	DATE: July 2003	DRWG. NO.: 1



NOTE: THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS INTENDED FOR CONVEYING EXISTING SITE INFORMATION ONLY.

DRAWING BASED ON PLAN PREPARED BY SANBORN, HEAD & ASSOCIATES, DATED 6/19/2003

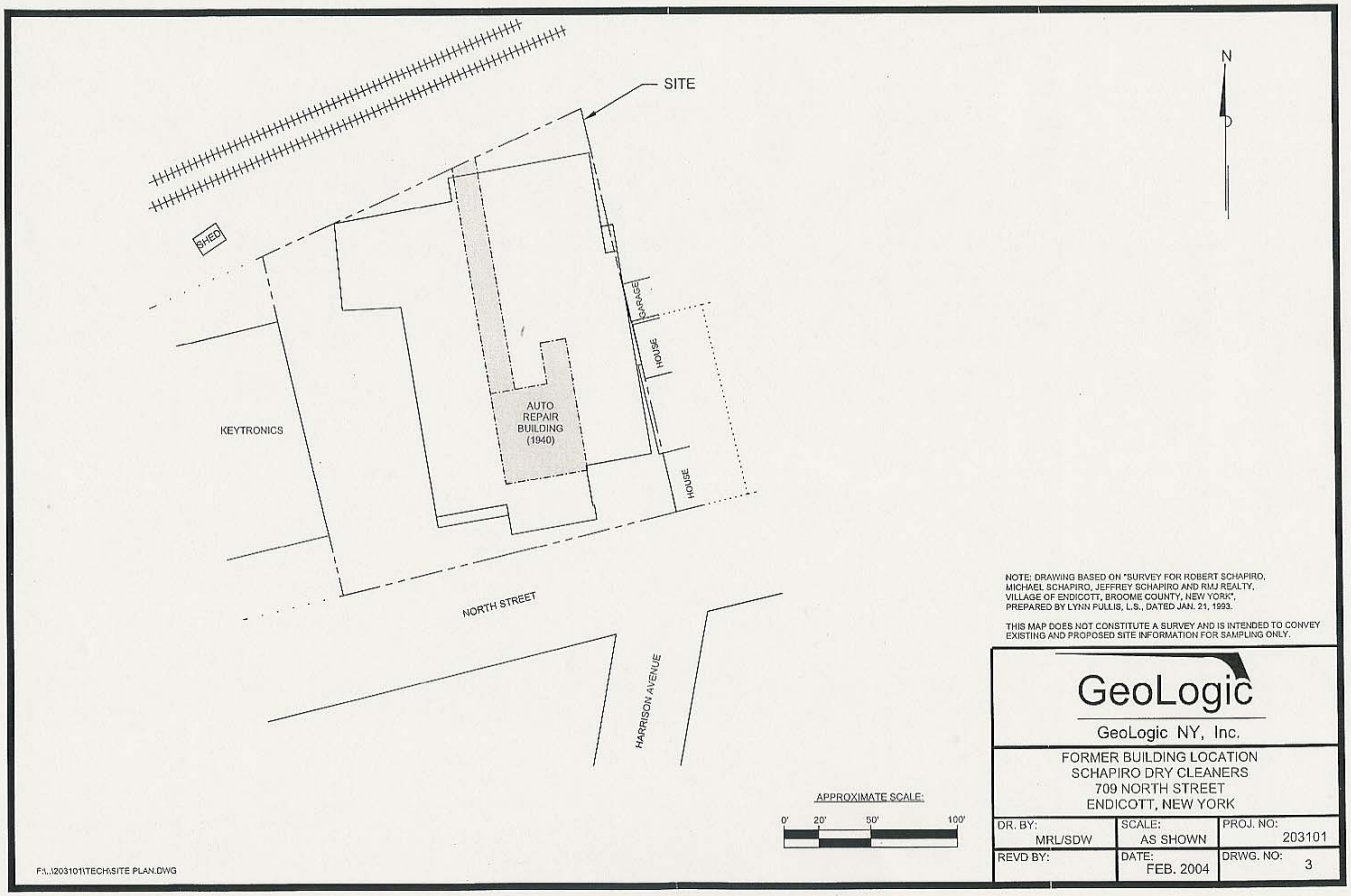
F:\..\203101\TECH\SITE VICINITY PLAN.DWG

GeoLogic

GeoLogic NY, Inc.

SITE VICINITY PLAN
SCHAPIRO DRY CLEANERS
709 NORTH STREET
ENDICOTT, NEW YORK

DR. BY: MRL/SDW	SCALE: NTS	PROJ. NO: 203101
REVD BY:	DATE: JULY 2003	DRWG. NO: 2



NOTE: DRAWING BASED ON "SURVEY FOR ROBERT SCHAPIRO, MICHAEL SCHAPIRO, JEFFREY SCHAPIRO AND RMJ REALTY, VILLAGE OF ENDICOTT, BROOME COUNTY, NEW YORK", PREPARED BY LYNN FULLIS, L.S., DATED JAN. 21, 1993.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS INTENDED TO CONVEY EXISTING AND PROPOSED SITE INFORMATION FOR SAMPLING ONLY.

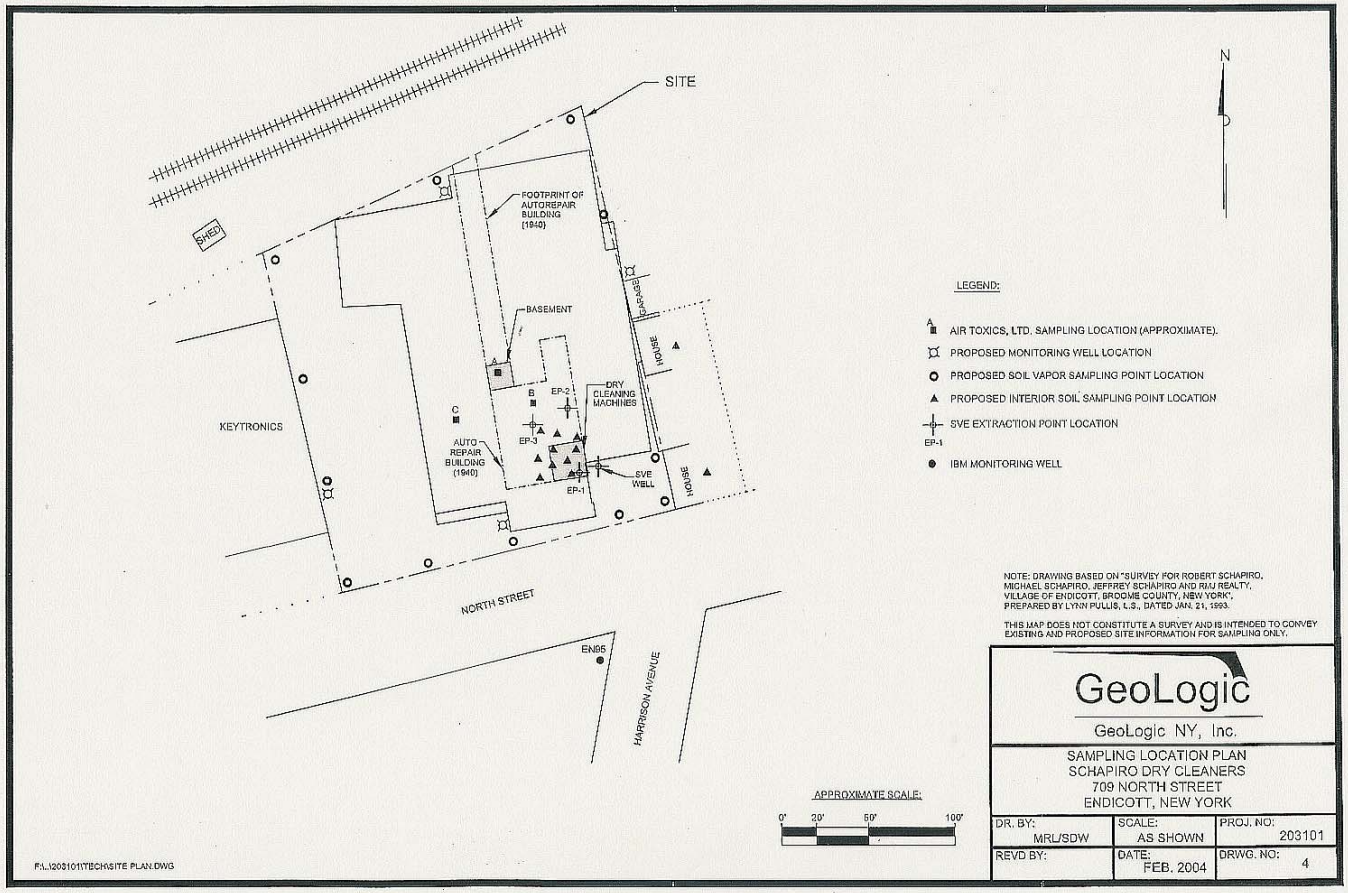
GeoLogic

GeoLogic NY, Inc.

FORMER BUILDING LOCATION
SCHAPIRO DRY CLEANERS
709 NORTH STREET
ENDICOTT, NEW YORK

DR. BY:	SCALE:	PROJ. NO:
MRL/SDW	AS SHOWN	203101
REVD BY:	DATE:	DRWG. NO:
	FEB. 2004	3

F:\..\203101\TECH\SITE PLAN.DWG



NOTE: DRAWING BASED ON "SURVEY FOR ROBERT SCHAPIRO, MICHAEL SCHAPIRO, JEFFREY SCHAPIRO AND RAJ REALTY, VILLAGE OF ENDICOTT, BROOME COUNTY, NEW YORK", PREPARED BY LYNN PULLIS, L.S., DATED JAN. 21, 1993.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS INTENDED TO CONVEY EXISTING AND PROPOSED SITE INFORMATION FOR SAMPLING ONLY.

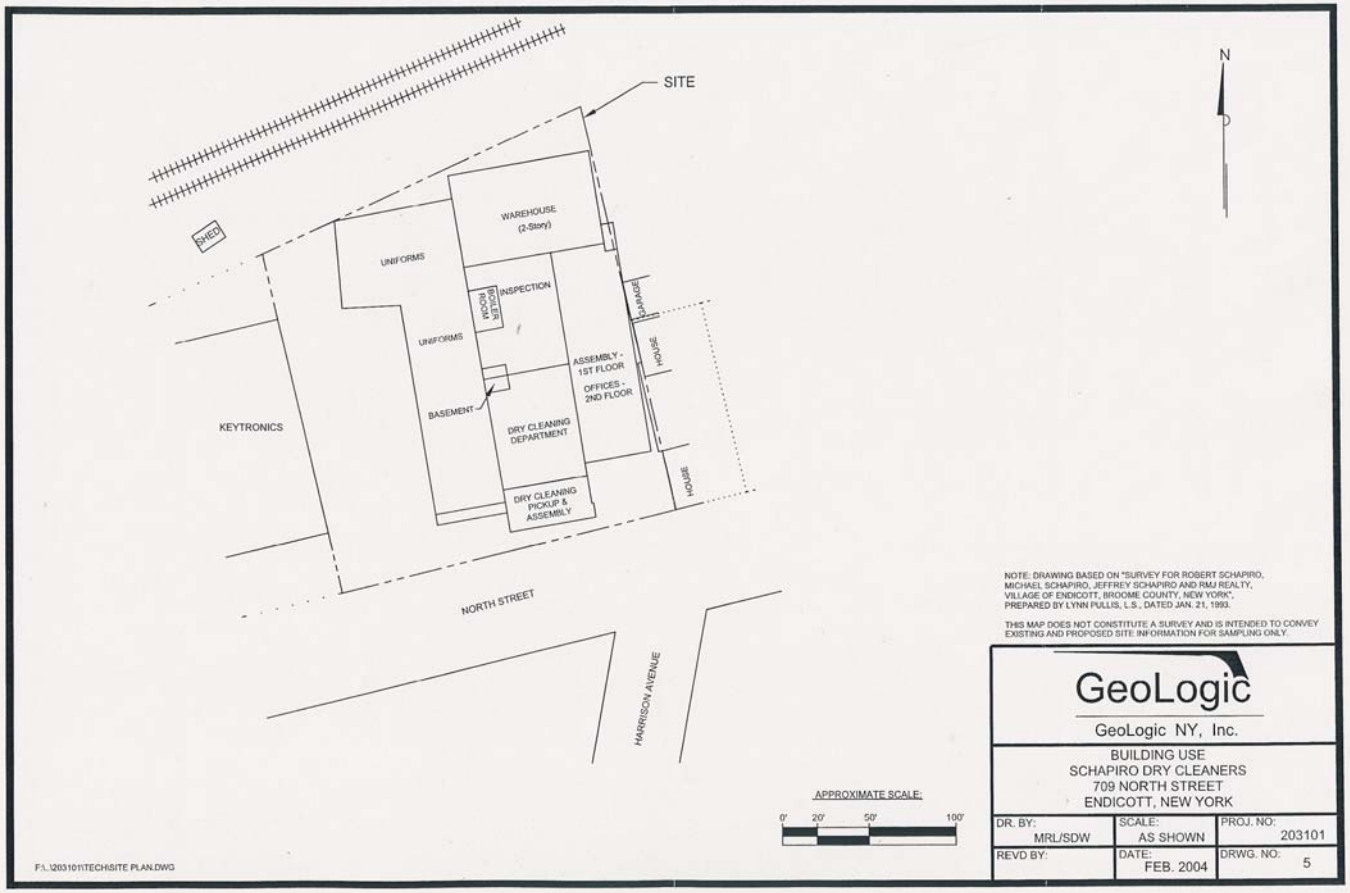
F:\...\203101\TECH\SITE PLAN.DWG

GeoLogic

GeoLogic NY, Inc.

SAMPLING LOCATION PLAN
SCHAPIRO DRY CLEANERS
709 NORTH STREET
ENDICOTT, NEW YORK

DR. BY:	SCALE:	PROJ. NO:
MRL/SDW	AS SHOWN	203101
REVD BY:	DATE:	DRWG. NO:
	FEB. 2004	4



NOTE: DRAWING BASED ON "SURVEY FOR ROBERT SCHAPIRO, MICHAEL SCHAPIRO, JEFFREY SCHAPIRO AND RMJ REALTY, VILLAGE OF ENDICOTT, BROOME COUNTY, NEW YORK", PREPARED BY LYNN PULLIS, L.S., DATED JAN. 21, 1993.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS INTENDED TO CONVEY EXISTING AND PROPOSED SITE INFORMATION FOR SAMPLING ONLY.

GeoLogic

GeoLogic NY, Inc.

BUILDING USE
SCHAPIRO DRY CLEANERS
709 NORTH STREET
ENDICOTT, NEW YORK

DR. BY:	SCALE:	PROJ. NO:
MRL/SDW	AS SHOWN	203101
REVD BY:	DATE:	DRWG. NO:
	FEB. 2004	5

F:\..\203101\TECH\SITE PLAN.DWG

ATTACHMENT B

CHARTS

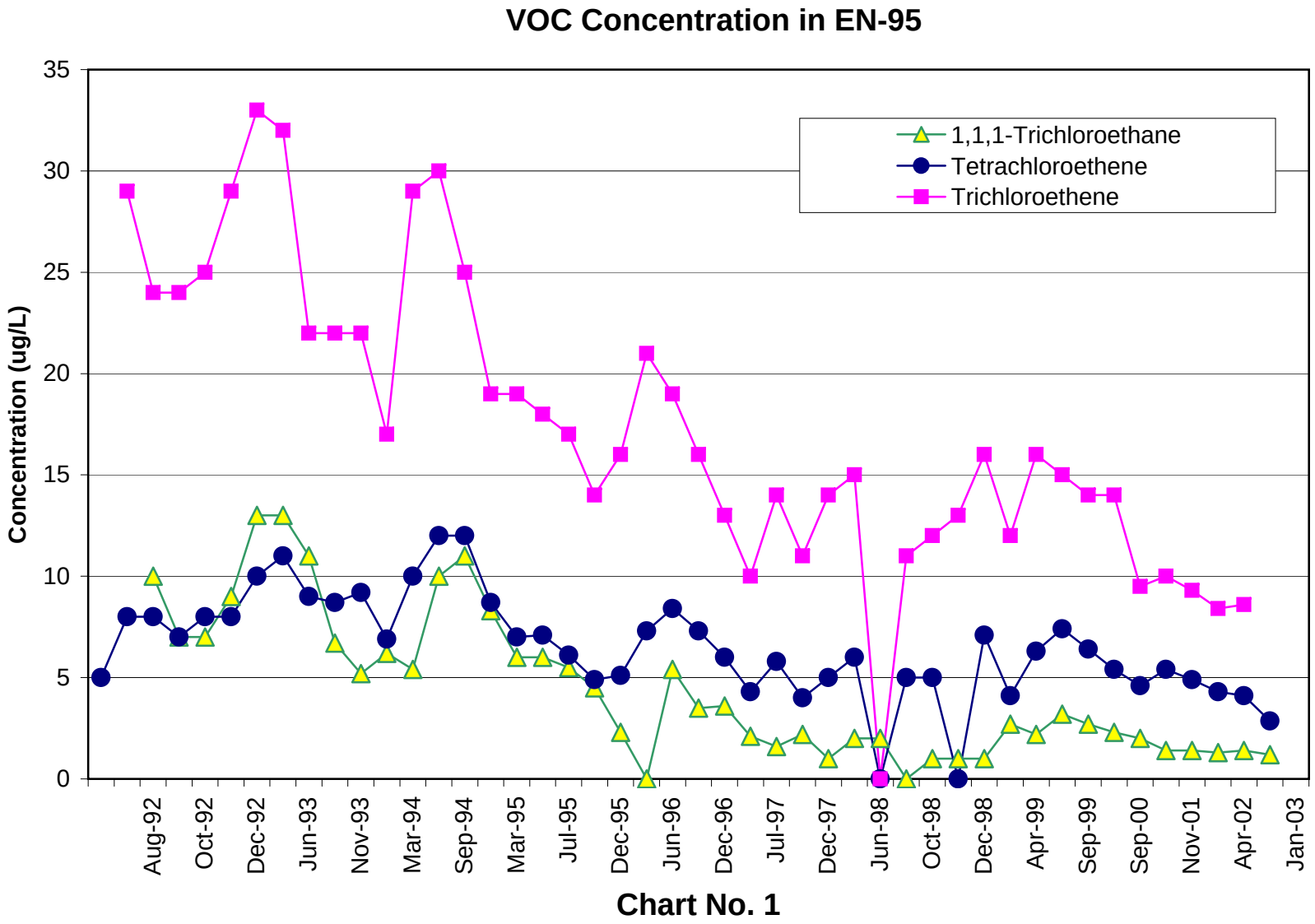

VOC Concentration in EN-95
Concentration (ug/L)
35
30
25
20
15
10
5
0
1,1,1-Trichloroethane
Tetrachloroethene
Trichloroethene
Aug-92
Oct-92
Dec-92
Jun-93
Nov-93
Mar-94
Sep-94
Mar-95
Jul-95
Dec-95
Jun-96
Dec-96
Jul-97
Dec-97
Jun-98
Oct-98
Dec-98
Apr-99
Sep-99
Sep-00
Nov-01
Apr-02
Jan-03

Chart No. 1

VOC Concentrations in EN-150

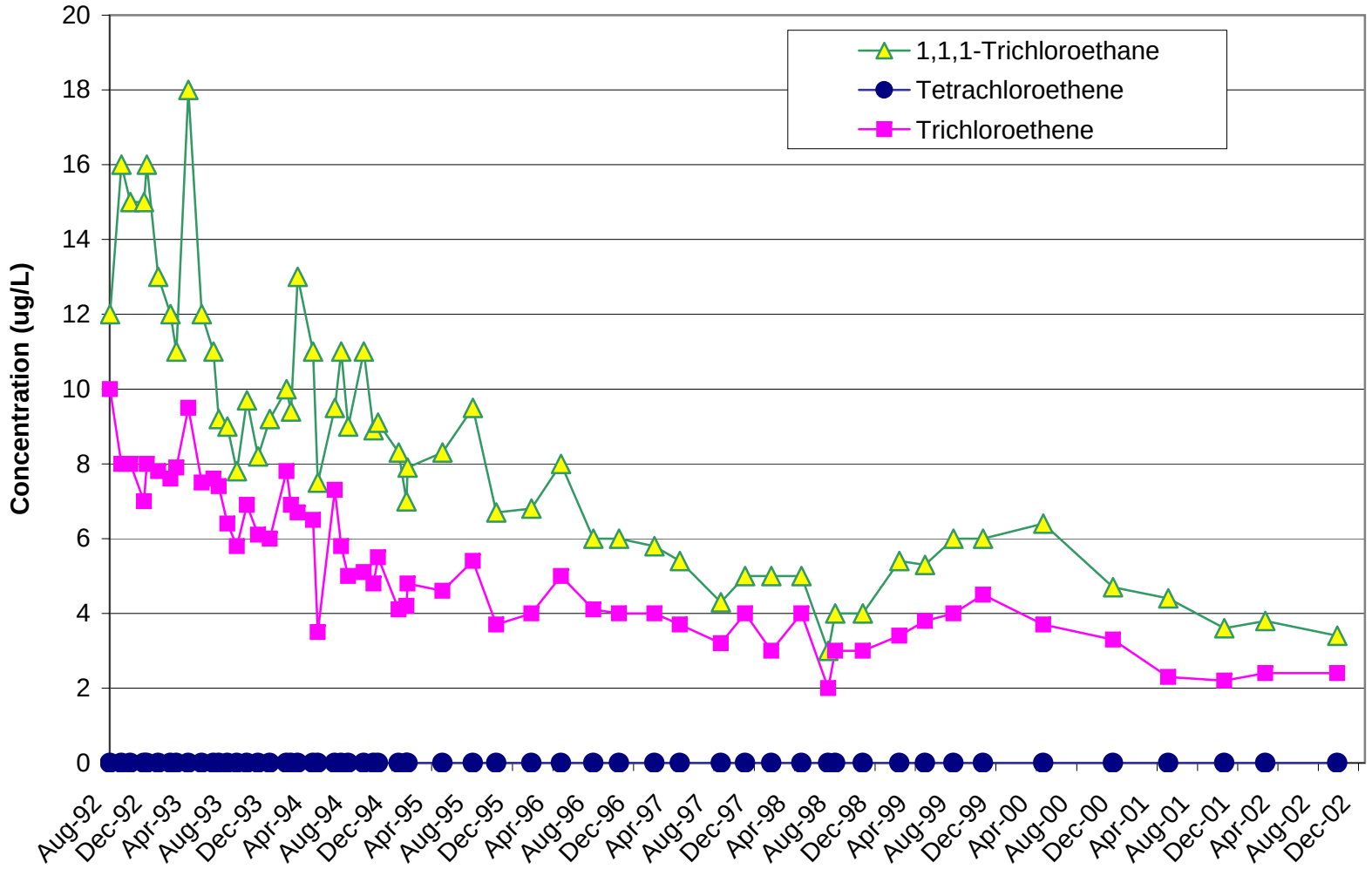


Chart No. 2

VOC Concentrations in EN-152

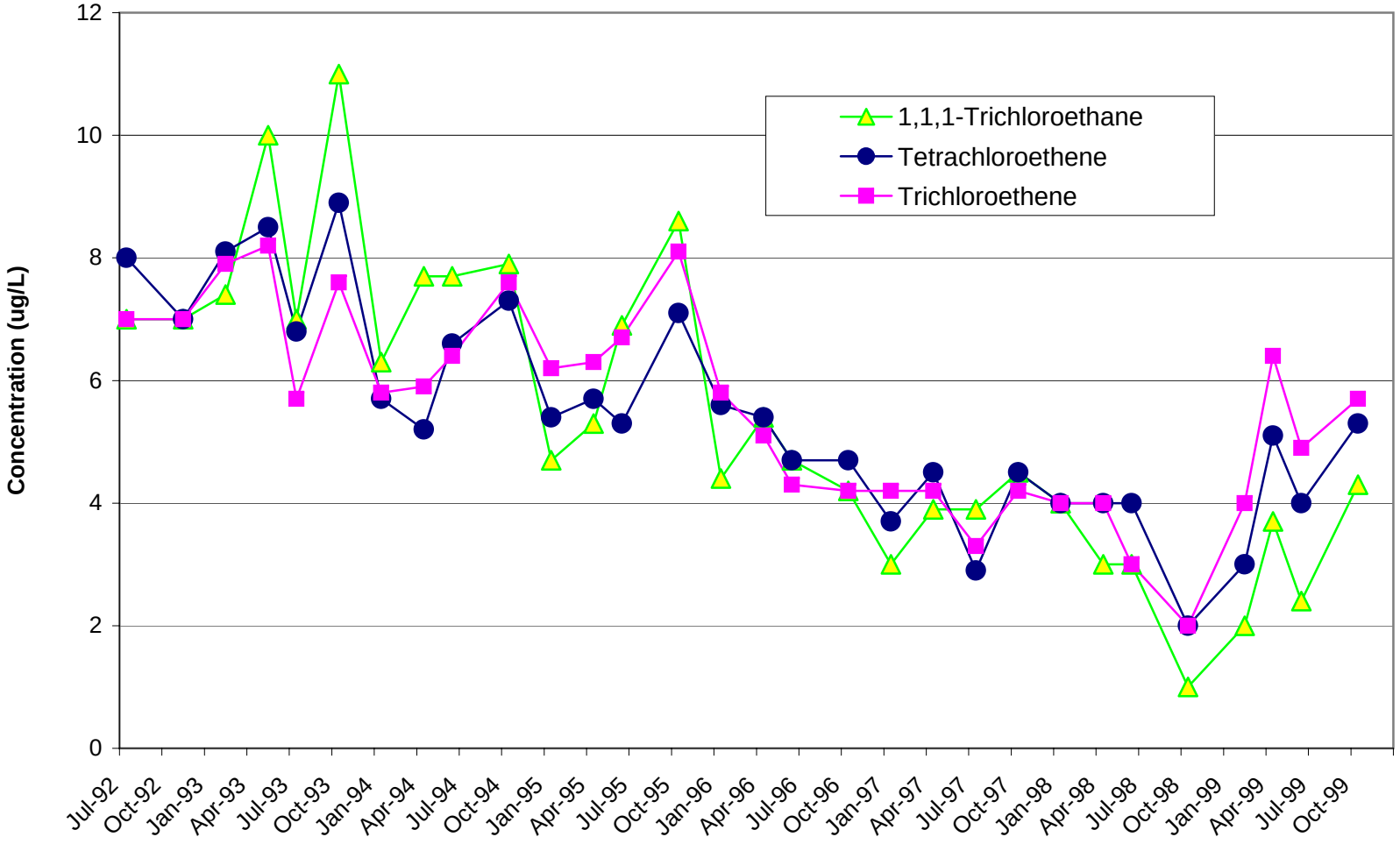


Chart No. 3

VOC Concentrations in EN-154

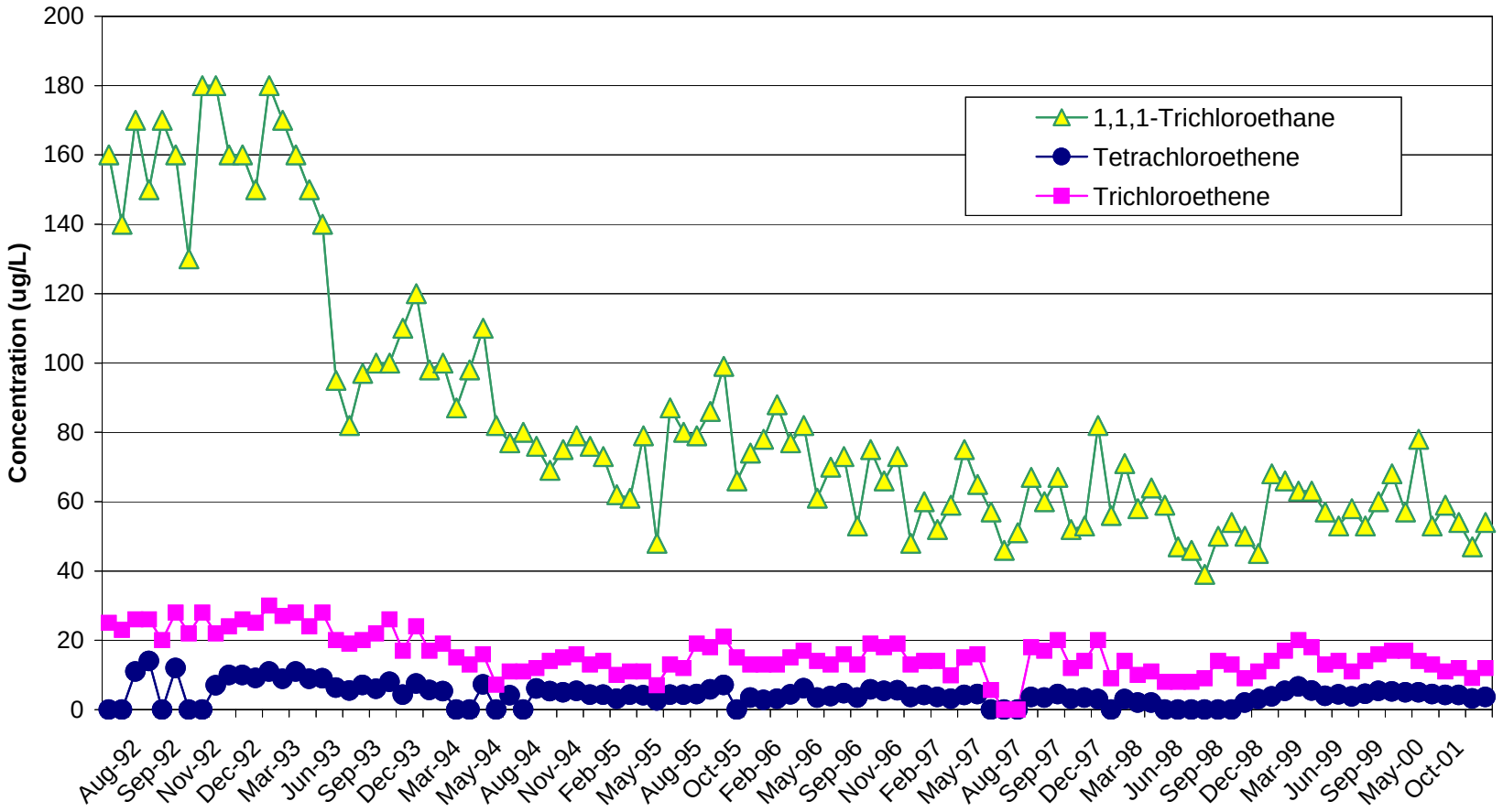


Chart No. 4

VOC Concentrations in EN-167

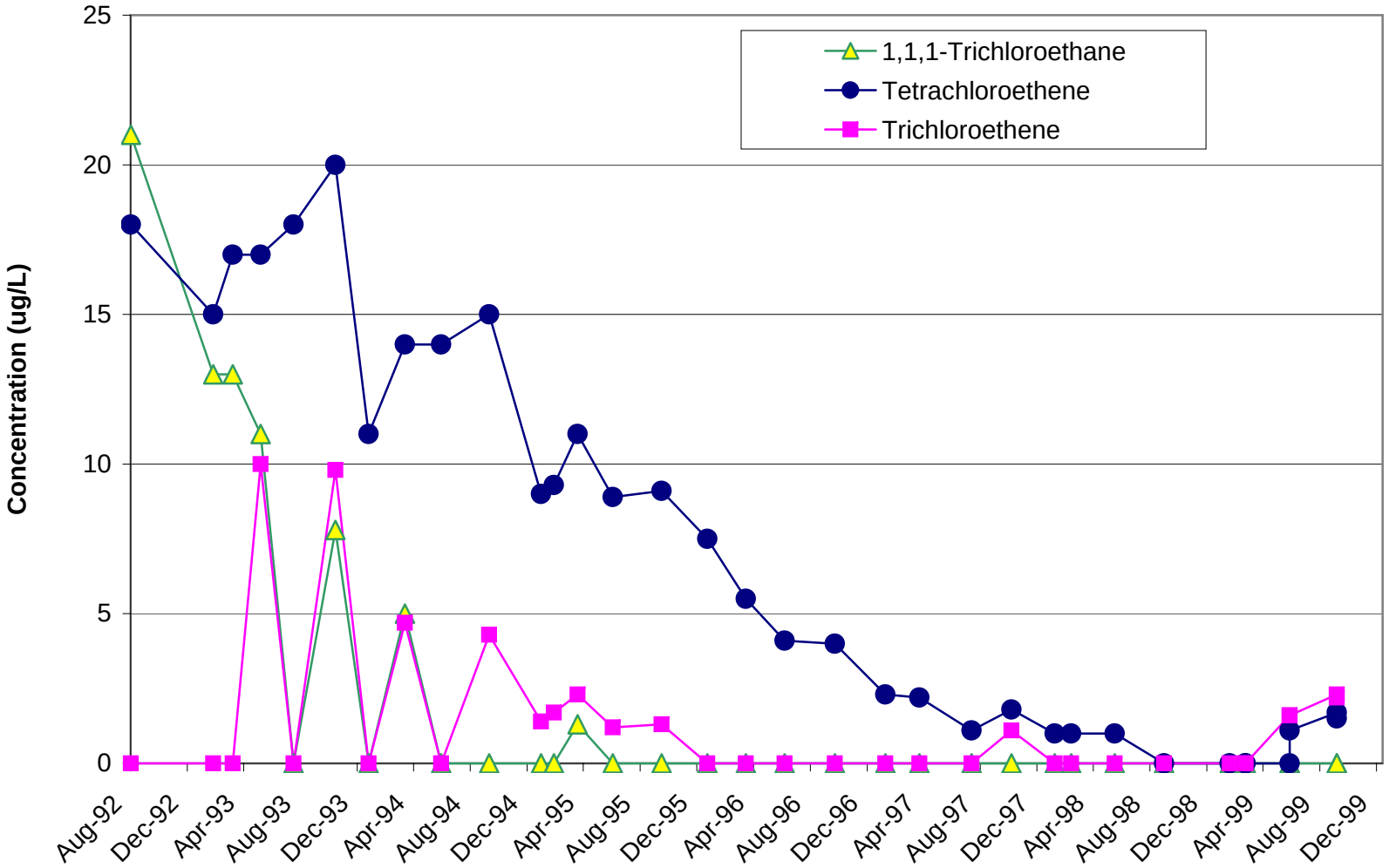


Chart No. 5

VOC Concentrations in EN-202

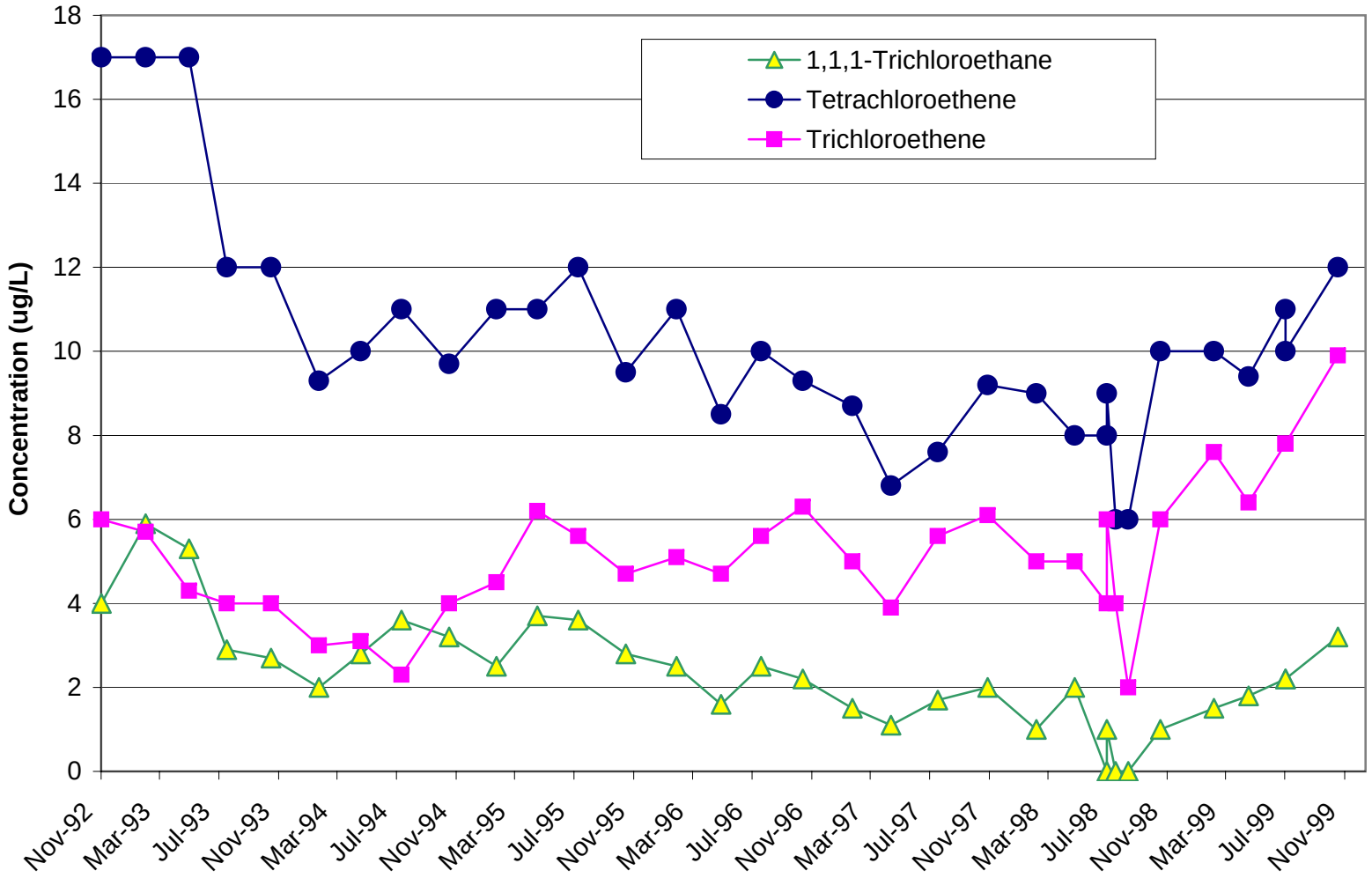


Chart No. 6

Tetrachloroethene Emisions From Soil Vapor Extraction System in ug/m^3

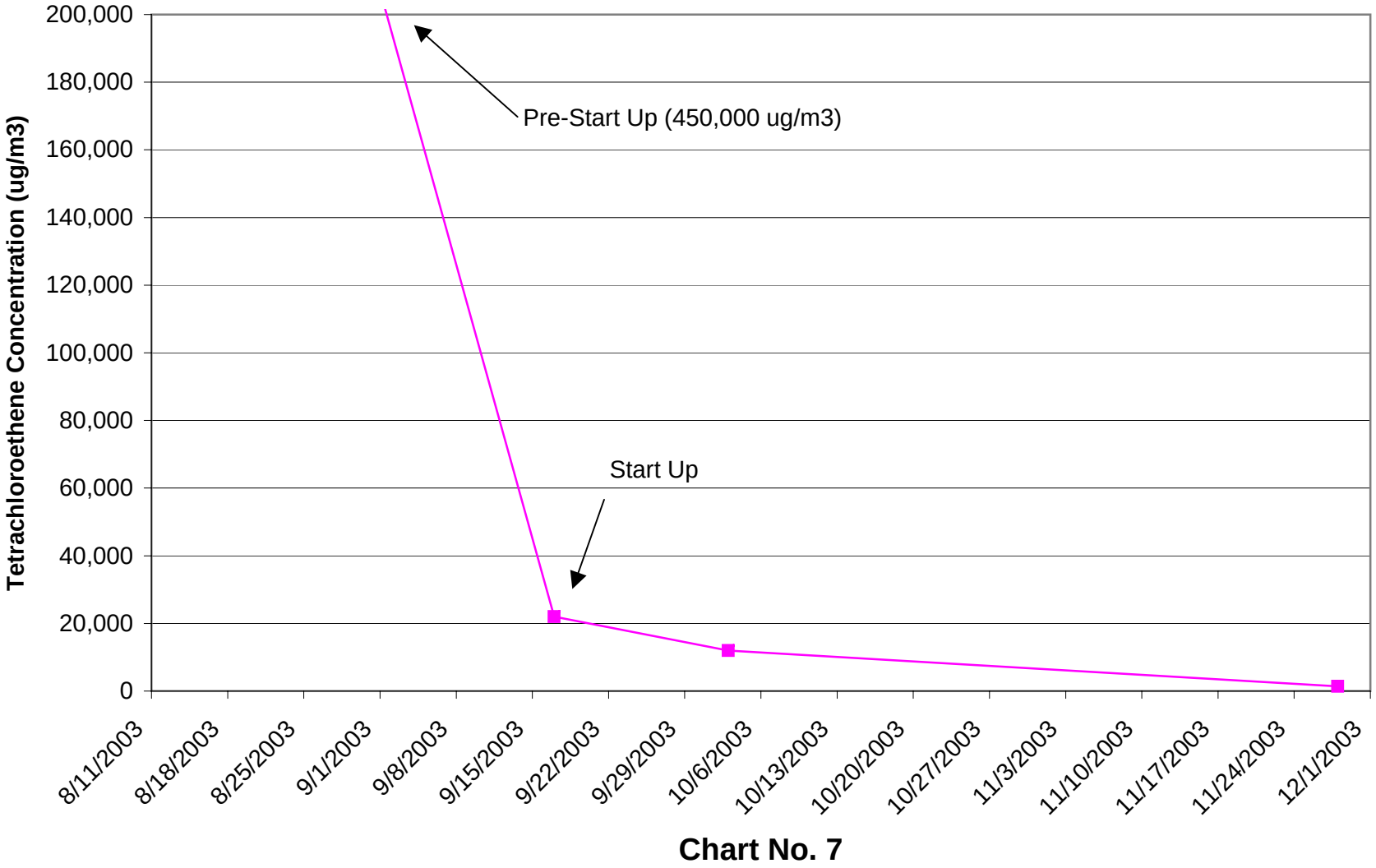


Chart No. 7

Tetrachloroethene Emissions
From Soil Vapor Extraction System in Pounds/Year

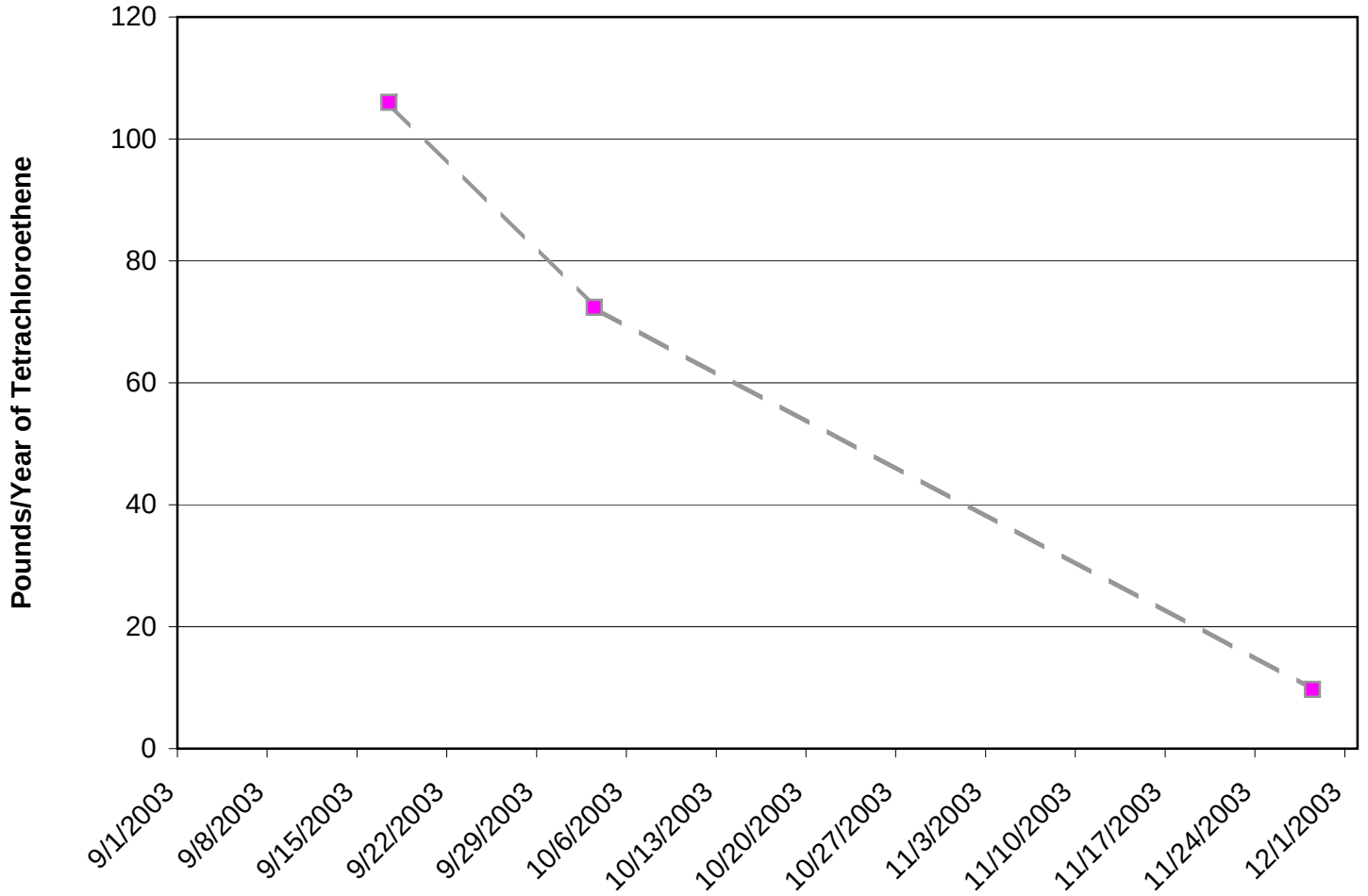


Chart No. 8

ATTACHMENT C

SUBSURFACE LOG

GeoLogic NY, Inc.
P. O. Box 5080
Cortland, New York 13045
(607) 836-4400

KEY TO SUBSURFACE LOG

Boring No.: B-1
Project No.: 200001
Date Started: 1/31/02
Date Completed: 1/31/02

Sheet 1 of 1

Project:
Location:

Reference Elevation: 100.0

Depth (ft.)	Sample No.	Type	SPT Blows	N-Value	Recovery (ft.)	PID Reading (ppm)	MATERIAL DESCRIPTION	REMARKS
0							Ground Surface	Water level at 2.0' with augers at 7.5'.
1	1	ss	1 2 2 1	4	2.0	32	Brown SILT, Some fine-coarse Sand, trace clay, moist-loose	At completion water level at 2.2' with augers at 10.0'.
2	2						Gray SHALE, medium hard weathered, thin bedded, some fractures	Run #1: 3.0'-5.0' 95% Recovery, 50% RQD

1 2 3 4 5 6 7 8 9 10

TABLE I

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine-grained soils also on basis of plasticity.

Soil Type		Soil Particle	
Boulder		> 12"	
Cobble		12" - 3"	
Gravel	- Coarse	3" - 3/4"	Coarse Grained
	- Fine	3/4" - #4	(Granular)
Sand	- Coarse	#4 - #10	
	- Medium	#10 - #40	
	- Fine	#40 - #200	
Silt-Non Plastic (Granular)		< #200	Fine Grained
Clay-Plastic (Cohesive)			

TABLE II

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.

Term	Percent of Total Sample
"and"	35 - 50
"some"	20 - 35
"little"	10 - 20
"trace"	1 - 10

(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

TABLE III

The relative compactness or consistency is described in accordance with the following terms.

Granular Soils		Cohesive Soils	
Term	**Blows per Foot, N**	**Term**	**Blows per Foot, N**
Loose	< 11	Very Soft	< 2
Firm	11 - 30	Soft	2 - 4
Compact	31 - 50	Medium	4 - 8
Very Compact	> 51	Stiff	8 - 15
		Very Stiff	15 - 30
		Hard	>30

(Large particles in the soils will often significantly influence the blows per foot recorded during the Penetration Test.)

TABLE IV

Stratified Soils		
Descriptive Term		**Thickness**
Parting	-	0" - 1/16"
Seam	-	1/16" - 1/2"
Layer	-	1/2" - 12"
Stratum	-	>12"
Varved Clay	-	Alternating seams or layers of sand, silt & clay
Pocket	-	small, erratic deposit, usually <12"
Lens	-	lenticular deposit
Occasional	-	one or less per foot of thickness
Frequent	-	more than one per foot of thickness

TABLE V

Rock Classification Terms			
Term		**Meaning**	
Hardness	Soft	Scratched by fingernail	
	Medium Hard	Scratched easily by penknife	
	Hard	Scratched with difficulty by penknife	
	Very Hard	Cannot be scratched by penknife	
Weathering	Very Weathered	Judged from the relative amounts of disintegration,	
	Weathered	iron staining, core recovery, clay seams, etc.	
	Sound		
Bedding	Laminated	Natural breaks in Rock Layers	<1"
	Thin bedded		1"-4"
	Bedded		4"-12"
	Thick bedded		12"-36"
	Massive		>36"
(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers.)			

GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The information presented in the following defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered.

1. The figures in the Depth column defines the scale of the Subsurface Log.
2. The Sample No. is used for identification on sample containers.
3. The sample column shows, graphically, the depth range from which a sample was recovered. (ss – split spoon; core – rock core; st – shelby tube; dp – direct push).
4. Blows on Sampler - shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches of penetration is recorded. The first 6 inches of penetration is considered to be a seating drive. The number of blows required for the second and third 6 inches of penetration is termed the penetration resistance, N. The outside diameter of the sampler, the hammer weight and the length of drop are noted at the bottom of the Subsurface Log.
5. Recovery shows the length of the recovered soil sample for the sample device noted.
6. All recovered soil samples are reviewed in the office by an experienced technical specialist or geologist, unless noted otherwise. The visual descriptions are made on the basis of a combination of the field descriptions and observations and the sample as received in the office. The method of visual classification is based primarily on the Unified Soil Classification (ASTM D 2487-83) with regard to the particle size and plasticity. (See Table I). Additionally, the relative portion, by weight, of two or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Technical Publication 479, June 1970. (See Table II) The description of the relative soil density or consistency is based upon the penetration records as defined on Table No. III. The description of the soil moisture is based upon the relative wetness of the soil as recovered and is described as damp, moist, wet and saturated. Water introduced in the boring either naturally or during drilling may have affected the moisture condition of the recovered sample. Special terms are used as required to describe materials in greater detail; several such terms are listed in Table IV. When sampling gravelly soils with a standard two-inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing/hollow stem augers and samplers blows or through the "action" of the drill rig.
7. The description of the rock shown is based on the recovered rock core and the field observations. The terms frequently used in the description are included in Table V.
8. The stratification lines represent the approximate boundary between soil types, and the actual transition may be gradual.
9. Miscellaneous observations and procedures noted in the field are shown in this column, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils), and that drill water used to advance the boring may have influenced the observations. The groundwater level typically will fluctuate seasonally. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusions cannot be made, it is often prudent to examine the conditions more thoroughly through test pit excavations or monitoring wells.
10. The length of core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total pieces of NX core exceeding 4 inches in length divided by the core run. The size of the core barrel used is also noted at the bottom of the subsurface log.

The Subsurface Logs attached to this report present the observations and mechanical data collected at the site, supplemented by classification of material removed from the borings as determined through visual identification. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples will provide a basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and the recovered samples must be performed by knowledgeable Professionals.

GeoLogic NY, Inc.

P.O. Box 5080
Cortland, NY 13045
607-836-4400
607-836-4403 (fax)

SUBSURFACE LOG

Project: Shapiro's
Location: 709 North Street, Endicott, New York

Boring No.: RW-1
Project No.: 203101
Date Started: 07/25/03
Date Completed: 07/25/03
Reference Elevation: N/A

Depth (ft)	Sample Number	Sample SPT Blows (6")	Sample N-Value	Recovery (ft.)	MATERIAL DESCRIPTION	Well Installation	Remarks
0					Asphalt at surface 0.8'		Curb Box with locking cap Portland Cement
1							
2							Bentonite Seal 2.0' - 3.5'
3							
4	1	8 4 2 3	6	1.5	Brown fine-coarse SAND, little to Some Gravel, little silt, moist		4" Dia. PVC Riser, 0' - 5.0'
5							
6					Brown fine-coarse SAND, trace silt, moist		Sandpack 3.5' - 15.0'
7							
8							
9							
10	2	4 3 3 3	6	1.1	similar		4" Dia. PVC Well Screen, 0.020 Slot, 5.0' - 15.0'
11							
12							
13					Brown fine-coarse SAND, little to Some Gravel, little silt, moist		
14	3	10 16 18 17	34	1.1			
15					End of Borehole		
16							
17							
18							
19							
20							

Sampling Method: ASTM D-1586
Notes: 6 1/4" ID Hollow Stem Augers

Visually Classified by: Geologist
File: 203101/tech/RW-1

ATTACHMENT D

AIR SAMPLING RESULTS

B U C K
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Lab Log No.: **0308087**

August 13, 2003

GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

TEL: (607) 836-4400
FAX: (607) 836-4403

RE: 203101

Dear Project Manager:

Buck Environmental Labs, Inc. received 2 samples on 08/11/03 for the analyses presented in the following report.

Two air samples were delivered to the Lab in Tedlar sample bags by Marjory Rinaldo-Lee on 8/11/03. The first sample (labeled #1) was trapped on a DOH 311-6 adsorbent tube on 8/11 and analyzed the same day. Sample #2 (0303087-02A) was trapped on an adsorbent tube on 8/12 and analyzed that day. A significant difference in tetrachloroethene concentration was observed between the two bags analyzed on separate days.

The analytical results for your samples are presented on the enclosed laboratory report(s). In accordance with NYSDOH-ELAP and NELAC regulations, we are required to notify you of any aspects of the analysis that did not comply with these regulations. A summary of problems, notations, and non-compliant parameters is presented on the attached "Narrative". Any data qualifiers are noted directly on the laboratory report. The Laboratory also maintains a "Sample Receipt Checklist" and the submitted "Chain of Custody" form in its files that are available on request.

The pagination at the bottom of the narrative and reports indicates the total number of pages in the client submittal. No duplication of this report should be done without duplication of the entire package, including cover letter and narrative.

Thank you for the opportunity to provide these analytical services. Please contact Pamela Davis, Client Services Manager, or Barbara Houskamp, QA/QC Manager, with questions on the analysis.

Sincerely,

John H. Buck, P.E.

Buck Environmental Labs, Inc.
3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403
Fax 607.753.3415
Info@Bucklabs.com

RECEIVED
AUG 19 2003

ELAP # 10795
EPA # NY00935

Buck Environmental Labs, Inc. **Date:** *13-Aug-03*

CLIENT: GEOLOGIC NY, INC
Project: 203101
Lab Order: 0308087

CASE NARRATIVE

Samples were analyzed using Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition or other methods specifically approved by NYSDOH-ELAP. All quality control parameters for the analysis of samples under this lab log number met the laboratory acceptance limits and no data were qualified.

Glossary of terms and acronyms used in the lab reports:

CAS - Chemical Abstract Series identification for the analyte.
DF - "1" indicates that there was no dilution. Any other number indicates that the sample was diluted by that factor.
PQL - Practical Quantitation Limit - The lowest level that the lab would report a value.
Result -This is the numerical result of the analysis (in bold). An "ND" indicates that the analyte was not detected at greater than the PQL concentration.
Units - The units of measure for the analysis. Ug/L (ppb) and mg/L (ppm) are for liquid samples. Ug/kg (ppb) and mg/kg (ppm) are for solid based units.
Qual - An entry in this column indicates that the results are "qualified" according to the following codes (generally related to lab QC results):

J - The analyte was detected at less than the PQL, but the amount is not precisely known.
B - The analyte was detected in the lab blank indicating possible contamination.
E - The result is estimated because the measurement exceeded the upper calibration limit.
D - Surrogate recovery was low due to sample dilution.
S - Spike recovery was outside laboratory acceptance limits.
R - RPD was outside laboratory acceptance limits.
H - The measurement is estimated because the sample was analyzed after regulatory holding time expired.
* - The result exceeds the public drinking water maximum contaminant level.

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *13-Aug-03*
Lab Log No: **0308087**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080
Project: 203101
Lab ID: 0308087-01A

Client Sample ID: DISCHARGE SVE-1
Sampled By: J. N.
Collection Date: 08/11/03 8:40:00 AM
Received at Lab: 08/11/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **TZ**		Analysis Date: **Aug 11, 2003 7:37 pm**			
1,1,1-Trichloroethane	71-55-6	1	0.68	**110**	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0.68	ND	µg/m³	
1,1-Dichloroethane	75-34-3	1	0.68	ND	µg/m³	
1,1-Dichloroethene	75-35-4	1	0.68	ND	µg/m³	
Chloromethane	74-87-3	1	0.68	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	1	0.68	**330**	µg/m³	
Methylene chloride	75-09-2	1	0.68	**450**	µg/m³	B
Tetrachloroethene	127-18-4	100	68	**450000**	µg/m³	
trans-1,2-Dichloroethene	156-60-5	1	0.68	ND	µg/m³	
Trichloroethene	79-01-6	1	0.68	**810**	µg/m³	
Vinyl chloride	75-01-4	1	0.68	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	1	60-125	89.5	%REC	

NYSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *13-Aug-03*
Lab Log No: **0308087**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080
Project: 203101
Lab ID: 0308087-02A

Client Sample ID: DISCHARGE SVE-2
Sampled By: J. N.
Collection Date: 08/11/03 8:43:00 AM
Received at Lab: 08/11/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **TZ**		Analysis Date: **Aug 12, 2003 6:37 pm**			
1,1,1-Trichloroethane	71-55-6	1	0.65	ND	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0	ND	µg/m³	
1,1-Dichloroethane	75-34-3	1	0.65	ND	µg/m³	
1,1-Dichloroethene	75-35-4	1	0.65	ND	µg/m³	
Chloromethane	74-87-3	1	0.65	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	1	0.65	**260**	µg/m³	
Methylene chloride	75-09-2	1	0.65	**520**	µg/m³	B
Tetrachloroethene	127-18-4	1	0.65	**4200**	µg/m³	
trans-1,2-Dichloroethene	156-60-5	1	0.65	ND	µg/m³	
Trichloroethene	79-01-6	1	0.65	**340**	µg/m³	
Vinyl chloride	75-01-4	1	0.65	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	1	60-125	112	%REC	

NYSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Lab Log No.: 0309164

September 25, 2003

GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

TEL: (607) 836-4400
FAX: (607) 836-4403

RE: 203101

Dear Project Manager:

Buck Environmental Labs, Inc. received 2 samples on 09/17/03 for the analyses presented in the following report.

The analytical results for your samples are presented on the enclosed laboratory report(s). In accordance with NYSDOH-ELAP and NELAC regulations, we are required to notify you of any aspects of the analysis that did not comply with these regulations. A summary of problems, notations, and non-compliant parameters is presented on the attached "Narrative". Any data qualifiers are noted directly on the laboratory report. The Laboratory also maintains a "Sample Receipt Checklist" and the submitted "Chain of Custody" form in its files that are available on request.

The pagination at the bottom of the narrative and reports indicates the total number of pages in the client submittal. No duplication of this report should be done without duplication of the entire package, including cover letter and narrative.

Thank you for the opportunity to provide these analytical services. Please contact Pamela Davis, Client Services Manager, or Barbara Houskamp, QA/QC Manager, with questions on the analysis.

Sincerely,

John H. Buck, P.E.
Laboratory Director

RECEIVED
SEP 29 2003

Buck Environmental Labs, Inc.
3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403
Fax 607.753.3415
Info@Bucklabs.com

ELAP # 10795
EPA # NY00935

ACCREDITED IN ACCORDANCE WITH nelac

Buck Environmental Labs, Inc. **Date:** *25-Sep-03*

CLIENT: GEOLOGIC NY, INC
Project: 203101
Lab Order: 0309164

CASE NARRATIVE

Samples were analyzed using Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition or other methods specifically approved by NYSDOH-ELAP. All quality control parameters for the analysis of samples under this lab log number met the laboratory acceptance limits and no data were qualified.

Glossary of terms and acronyms used in the lab reports:

CAS - Chemical Abstract Series identification for the analyte.
DF - "1" indicates that there was no dilution. Any other number indicates that the sample was diluted by that factor.
PQL - Practical Quantitation Limit - The lowest level that the lab would report a value.
Result -This is the numerical result of the analysis (in bold). An "ND" indicates that the analyte was not detected at greater than the PQL concentration.
Units - The units of measure for the analysis. Ug/L (ppb) and mg/L (ppm) are for liquid samples. Ug/kg (ppb) and mg/kg (ppm) are for solid based units.
Qual - An entry in this column indicates that the results are "qualified" according to the following codes (generally related to lab QC results):

J - The analyte was detected at less than the PQL, but the amount is not precisely known.
B - The analyte was detected in the lab blank indicating possible contamination.
E - The result is estimated because the measurement exceeded the upper calibration limit.
D - Surrogate recovery was low due to sample dilution.
S - Spike recovery was outside laboratory acceptance limits.
R - RPD was outside laboratory acceptance limits.
H - The measurement is estimated because the sample was analyzed after regulatory holding time expired.
* - The result exceeds the public drinking water maximum contaminant level.

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *25-Sep-03*
Lab Log No: **0309164**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

Project: 203101
Lab ID: 0309164-01A

Client Sample ID: SVE EFF (SLAB & SVE)
Sampled By: J. N.
Collection Date: 09/17/03 8:20:00 AM
Received at Lab: 09/17/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **CP**		Analysis Date: **Sep 21, 2003 1:20 am**			
1,1,1-Trichloroethane	71-55-6	10	7.8	ND	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	10	7.8	ND	µg/m³	
1,1-Dichloroethane	75-34-3	10	7.8	ND	µg/m³	
1,1-Dichloroethene	75-35-4	10	7.8	ND	µg/m³	
Chloromethane	74-87-3	10	7.8	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	10	7.8	ND	µg/m³	
Methylene chloride	75-09-2	10	7.8	ND	µg/m³	
Tetrachloroethene	127-18-4	10	7.8	22000	µg/m³	
trans-1,2-Dichloroethene	156-60-5	10	7.8	ND	µg/m³	
Trichloroethene	79-01-6	10	7.8	ND	µg/m³	
Vinyl chloride	75-01-4	10	7.8	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	10	60-125	73.4	%REC	

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *25-Sep-03*
Lab Log No: 0309164

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

Project: 203101
Lab ID: 0309164-02A

Client Sample ID: SVE EFF (SLAB ONLY)
Sampled By: J. N.
Collection Date: 09/17/03 10:30:00 AM
Received at Lab: 09/17/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260		Analyst: CP		Analysis Date: Sep 18, 2003 6:31 am		
1,1,1-Trichloroethane	71-55-6	1	0.61	ND	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0.61	ND	µg/m³	
1,1-Dichloroethane	75-34-3	1	0.61	ND	µg/m³	
1,1-Dichloroethene	75-35-4	1	0.61	ND	µg/m³	
Chloromethane	74-87-3	1	0.61	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	1	0.61	ND	µg/m³	
Methylene chloride	75-09-2	1	0.61	290	µg/m³	
Tetrachloroethene	127-18-4	10	6.1	ND	µg/m³	
trans-1,2-Dichloroethene	156-60-5	1	0.61	16000	µg/m³	
Trichloroethene	79-01-6	1	0.61	ND	µg/m³	
Vinyl chloride	75-01-4	1	0.61	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	1	60-125	ND	µg/m³	
				89.6	%REC	

RECEIVED
SEP 29 2003

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequences of any action taken in connection with this report. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included on the cover letter.

NYSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Lab Log No.: **0310030**

October 08, 2003

GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

TEL: (607) 836-4400
FAX: (607) 836-4403

RE: 203101

Dear Project Manager:

Buck Environmental Labs, Inc. received 1 sample on 10/03/03 for the analyses presented in the following report.

The analytical results for your samples are presented on the enclosed laboratory report(s). In accordance with NYSDOH-ELAP and NELAC regulations, we are required to notify you of any aspects of the analysis that did not comply with these regulations. A summary of problems, notations, and non-compliant parameters is presented on the attached "Narrative". Any data qualifiers are noted directly on the laboratory report. The Laboratory also maintains a "Sample Receipt Checklist" and the submitted "Chain of Custody" form in its files that are available on request.

The pagination at the bottom of the narrative and reports indicates the total number of pages in the client submittal. No duplication of this report should be done without duplication of the entire package, including cover letter and narrative.

Thank you for the opportunity to provide these analytical services. Please contact Pamela Davis, Client Services Manager, or Barbara Houskamp, QA/QC Manager, with questions on the analysis.

Sincerely,

John H. Buck, P.E.
Laboratory Director

Buck Environmental Labs, Inc.
3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403
Fax 607.753.3415
Info@Bucklabs.com

ELAP # 10795
EPA # NY00935

Buck Environmental Labs, Inc. **Date:** *08-Oct-03*

CLIENT: GEOLOGIC NY, INC
Project: 203101
Lab Order: 0310030

CASE NARRATIVE

Samples were analyzed using Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW846, 3rd Edition or other methods specifically approved by NYSDOH-ELAP.

The following parameters did not meet the laboratory or regulatory QC requirements:

Extraction surrogate was recovered at less than the laboratory acceptance criteria.

Glossary of terms and acronyms used in the lab reports:

CAS - Chemical Abstract Series identification for the analyte.
DF - "1" indicates that there was no dilution. Any other number indicates that the sample was diluted by that factor.
PQL - Practical Quantitation Limit - The lowest level that the lab would report a value.
Result -This is the numerical result of the analysis (in bold). An "ND" indicates that the analyte was not detected at greater than the PQL concentration.
Units - The units of measure for the analysis. Ug/L (ppb) and mg/L (ppm) are for liquid samples. Ug/kg (ppb) and mg/kg (ppm) are for solid based units.
Qual - An entry in this column indicates that the results are "qualified" according to the following codes (generally related to lab QC results):

J - The analyte was detected at less than the PQL, but the amount is not precisely known.
B - The analyte was detected in the lab blank indicating possible contamination.
E - The result is estimated because the measurement exceeded the upper calibration limit.
D - Surrogate recovery was low due to sample dilution.
S - Spike recovery was outside laboratory acceptance limits.
R - RPD was outside laboratory acceptance limits.
H - The measurement is estimated because the sample was analyzed after regulatory holding time expired.
* - The result exceeds the public drinking water maximum contaminant level.

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *08-Oct-03*
Lab Log No: **0310030**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080
Project: 203101
Lab ID: 0310030-01A

Client Sample ID: SVE EFFLUENT
Sampled By: J. NOSSAL
Collection Date: 10/03/03 8:35:00 AM
Received at Lab: 10/03/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **CP**		Analysis Date: **Oct 03, 2003 6:07 pm**			
1,1,1-Trichloroethane	71-55-6	1	1.4	ND	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	1.4	ND	µg/m³	
1,1-Dichloroethane	75-34-3	1	1.4	ND	µg/m³	
1,1-Dichloroethene	75-35-4	1	1.4	ND	µg/m³	
Chloromethane	74-87-3	1	1.4	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	1	1.4	ND	µg/m³	
Methylene chloride	75-09-2	1	1.4	ND	µg/m³	
Tetrachloroethene	127-18-4	10	14	**12000**	µg/m³	
trans-1,2-Dichloroethene	156-60-5	1	1.4	ND	µg/m³	
Trichloroethene	79-01-6	1	1.4	ND	µg/m³	
Vinyl chloride	75-01-4	1	1.4	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	1	60-125	55.8	%REC	S

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OCT 10 2003

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequences of any action taken in connection with this report. This report is incomplete unless all pages indicated in the footnote are present and .... authorized signature is included on the cover letter.

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Lab Log No.: **0312001**

December 16, 2003

GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

TEL: (607) 836-4400
FAX: (607) 836-4403

RE: 203101

Dear Project Manager:

Buck Environmental Labs, Inc. received 4 samples on 12/01/03 for the analyses presented in the following report.

The analytical results for your samples are presented on the enclosed laboratory report(s). In accordance with NYSDOH-ELAP and NELAC regulations, we are required to notify you of any aspects of the analysis that did not comply with these regulations. A summary of problems, notations, and non-compliant parameters is presented on the attached "Narrative". Any data qualifiers are noted directly on the laboratory report. The Laboratory also maintains a "Sample Receipt Checklist" and the submitted "Chain of Custody" form in its files that are available on request.

The pagination at the bottom of the narrative and reports indicates the total number of pages in the client submittal. No duplication of this report should be done without duplication of the entire package, including cover letter and narrative.

Thank you for the opportunity to provide these analytical services. Please contact Pamela Davis, Client Services Manager, or Barbara Houskamp, QA/QC Manager, with questions on the analysis.

Sincerely,

John H. Buck, P.E.
Laboratory Director

Buck Environmental Labs, Inc.
3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403
Fax 607.753.3415
Info@Bucklabs.com

ELAP # 10795
EPA # NY00935

Buck Environmental Labs, Inc. **Date:** *16-Dec-03*

CLIENT: GEOLOGIC NY, INC
Project: 203101
Lab Order: 0312001

CASE NARRATIVE

Samples were analyzed using Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition or other methods specifically approved by NYSDOH-ELAP. All quality control parameters for the analysis of samples under this lab log number met the laboratory acceptance limits and no data were qualified.

Glossary of terms and acronyms used in the lab reports:

CAS - Chemical Abstract Series identification for the analyte.
DF - "1" indicates that there was no dilution. Any other number indicates that the sample was diluted by that factor.
PQL - Practical Quantitation Limit - The lowest level that the lab would report a value.
Result -This is the numerical result of the analysis (in bold). An "ND" indicates that the analyte was not detected at greater than the PQL concentration.
Units - The units of measure for the analysis. Ug/L (ppb) and mg/L (ppm) are for liquid samples. Ug/kg (ppb) and mg/kg (ppm) are for solid based units.
Qual - An entry in this column indicates that the results are "qualified" according to the following codes (generally related to lab QC results):

J - The analyte was detected at less than the PQL, but the amount is not precisely known.
B - The analyte was detected in the lab blank indicating possible contamination.
E - The result is estimated because the measurement exceeded the upper calibration limit.
D - Surrogate recovery was low due to sample dilution.
S - Spike recovery was outside laboratory acceptance limits.
R - RPD was outside laboratory acceptance limits.
H - The measurement is estimated because the sample was analyzed after regulatory holding time expired.
* - The result exceeds the public drinking water maximum contaminant level.

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *16-Dec-03*
Lab Log No: **0312001**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

Project: 203101
Lab ID: 0312001-01A

Client Sample ID: EP-1
Sampled By: J. M.
Collection Date: 11/28/03 11:30:00 AM
Received at Lab: 12/01/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260		Analyst: **CP**		Analysis Date: **Dec 15, 2003 4:36 pm**		
1,1,1-Trichloroethane	71-55-6	1	0.58	ND	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0.58	ND	µg/m³	
1,1-Dichloroethane	75-34-3	1	0.58	ND	µg/m³	
1,1-Dichloroethene	75-35-4	1	0.58	ND	µg/m³	
Chloromethane	74-87-3	1	0.58	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	1	0.58	ND	µg/m³	
Methylene chloride	75-09-2	1	0.58	ND	µg/m³	
Tetrachloroethene	127-18-4	1	0.58	ND	µg/m³	
trans-1,2-Dichloroethene	156-60-5	1	0.58	**1100**	µg/m³	
Trichloroethene	79-01-6	1	0.58	ND	µg/m³	
Vinyl chloride	75-01-4	1	0.58	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	1	60-125	ND	µg/m³	
				119	%REC	

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequences of any action taken in connection with this report. This report is incomplete unless all pages indicated in the footnote are present and authorized signature is included on the cover letter.

NYSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *16-Dec-03*
Lab Log No: **0312001**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080
Project: 203101
Lab ID: 0312001-02A

Client Sample ID: EP-2
Sampled By: J. M.
Collection Date: 11/28/03 11:35:00 AM
Received at Lab: 12/01/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **CP**		Analysis Date: **Dec 15, 2003 5:07 pm**			
1,1,1-Trichloroethane	71-55-6	1	0.62	ND	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0.62	ND	µg/m³	
1,1-Dichloroethane	75-34-3	1	0.62	ND	µg/m³	
1,1-Dichloroethene	75-35-4	1	0.62	ND	µg/m³	
Chloromethane	74-87-3	1	0.62	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	1	0.62	ND	µg/m³	
Methylene chloride	75-09-2	1	0.62	ND	µg/m³	
Tetrachloroethene	127-18-4	1	0.62	**1000**	µg/m³	
trans-1,2-Dichloroethene	156-60-5	1	0.62	ND	µg/m³	
Trichloroethene	79-01-6	1	0.62	ND	µg/m³	
Vinyl chloride	75-01-4	1	0.62	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	1	60-125	105	%REC	

NYSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

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DEC 18 2003

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *16-Dec-03*
Lab Log No: **0312001**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

Project: 203101
Lab ID: 0312001-03A

Client Sample ID: EP-3
Sampled By: J. M.
Collection Date: 11/28/03 11:40:00 AM
Received at Lab: 12/01/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **CP**		Analysis Date: **Dec 15, 2003 5:37 pm**		
1,1,1-Trichloroethane	71-55-6	1	0.61	ND	µg/m³
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0.61	ND	µg/m³
1,1-Dichloroethane	75-34-3	1	0.61	ND	µg/m³
1,1-Dichloroethene	75-35-4	1	0.61	ND	µg/m³
Chloromethane	74-87-3	1	0.61	ND	µg/m³
cis-1,2-Dichloroethene	156-59-2	1	0.61	ND	µg/m³
Methylene chloride	75-09-2	1	0.61	ND	µg/m³
Tetrachloroethene	127-18-4	1	0.61	**3200**	µg/m³
trans-1,2-Dichloroethene	156-60-5	1	0.61	ND	µg/m³
Trichloroethene	79-01-6	1	0.61	ND	µg/m³
Vinyl chloride	75-01-4	1	0.61	ND	µg/m³
Surr: Extraction Surrogate	79-00-5	1	60-125	113	%REC

NYSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *16-Dec-03*
Lab Log No: **0312001**

CLIENT: GEOLOGIC NY, INC
PO BOX 5080
CORTLAND, NY 130455080

Project: 203101
Lab ID: 0312001-04A

Client Sample ID: STACK DISCHARGE
Sampled By: J. M.
Collection Date: 11/28/03 12:00:00 PM
Received at Lab: 12/01/03
Matrix: AIR

Analyses	CAS	DF	PQL	Result	Units
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **CP**		Analysis Date: **Dec 15, 2003 6:08 pm**		
1,1,1-Trichloroethane	71-55-6	1	0.74	ND	µg/m³
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0.74	ND	µg/m³
1,1-Dichloroethane	75-34-3	1	0.74	ND	µg/m³
1,1-Dichloroethene	75-35-4	1	0.74	ND	µg/m³
Chloromethane	74-87-3	1	0.74	ND	µg/m³
cis-1,2-Dichloroethene	156-59-2	1	0.74	ND	µg/m³
Methylene chloride	75-09-2	1	0.74	ND	µg/m³
Tetrachloroethene	127-18-4	1	0.74	**1400**	µg/m³
trans-1,2-Dichloroethene	156-60-5	1	0.74	ND	µg/m³
Trichloroethene	79-01-6	1	0.74	ND	µg/m³
Vinyl chloride	75-01-4	1	0.74	ND	µg/m³
Surr: Extraction Surrogate	79-00-5	1	60-125	88.6	%REC

YSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

Visit No. 3025571
I. D. No. S8703

3/8/89

APPENDIX - Air Sampling Results - Perchlorethylene

	Fernando Vazquez Dry Cleaner	Shari Harding Dry Cleaning Assistant
8 Hr. Average Exposure	47 ppm*	28 ppm

*ppm = part per million

OSHA has established an eight hour Time Weighted Average Permissible Exposure Limit for Perchlorethylene of 100 ppm.

TABLE I

SCHAPIRO'S FORMAL WEAR, INC.
NORTH STREET, ENDICOTT, NEW YORK

MARCH 21, 1995.

PERSONAL AIR SAMPLING RESULTS

EMPLOYEE: P. June
OPERATION: Dry Cleaning

SUBSTANCE	8 HOUR TWA EXPOSURE(1)	SHORT TERM EXPOSURE(2)	OSHA SHORT TERM EXPOSURE LIMIT	OSHA 8 HOUR TWA - PEL
Perchloroethylene	10 ppm.	17 ppm.	200 ppm.	100 ppm.

TWA = Time Weighted Average
PEL = Permissible Exposure Limit
ppm. = Parts Per Million

(1) = Based on a 460 minute sampling period with a 20 minute zero exposure increment included for unsampled time.

(2) = Fifteen minute sample at the end of the shift, which included perchloroethylene filter clean-out.

ATTACHMENT E

AIR FACILITY SUBMITTAL & REGISTRATION

Post-it™ brand fax transmittal memo 7671 | # of pages ▸
To Marjorie | From Tom
Co. | Co
Dept. | Phone #
Fax # 836-4 | #

New York State Department of Environmental Conservation

Registration ID: 7-0346-00121/00002 **Facility DEC ID:** 7-0346-00121

AIR FACILITY REGISTRATION CERTIFICATE
in accordance with 6NYCRR Part 201-4

Registration Issued to:
SHAPIRO'S FORMAL SHOP INC.
MICHEAL SHAPIRO
709 NORTH STREET
ENDICOTT,NY 13760

Contact:
SHAPIRO'S FORMAL SHOP INC.
MICHEAL SHAPIRO
709 NORTH STREET
ENDICOTT,NY 13760
(607) 754-9165

Facility:
SHAPIRO'S FINE DRYCLEANERS
709 NORTH STREET
ENDICOTT,NY 13760

Description:
The facility operates four petroleum dry cleaning machines which are closed loop and controlled with refridgerated condensers. The facility also operates a soil vapor extraction system to remediate soil contaminated with tetrachloroethylene.

Total Number of Emission Points: 1 **Cap By Rule:** No

Authorized Activity By Standard Industrial Classification Code:
7216 - DRY CLEANING PLANTS, EXCEPT RUGS

Registration Effective Date: 09/08/2003 **Registration Expiration Date:** (Not Applicable)

This registrant is required to operate this facility in accordance with all air pollution control applicable Federal and State laws and regulations. Failure to comply with these laws and regulations is a violation of the Environmental Conservation Law (ECL) and the registrant is subject to fines and/or penalties as provided by the ECL.

Reginald G. Parker

REGINALD G PARKER
REGION 7 AIR POLLUTION CONTROL ENGINEER
615 ERIE BLVD WEST
SYRACUSE,NY 13204

This registrant is required to operate this facility in accordance with all air pollution control applicable Federal and State laws and regulations. Failure to comply with these laws and regulations is a violation of the ECL and the registrant is subject to fines and/or penalties as provided by the ECL. If ownership of this facility changes, the registrant is required to notify the Department at the address shown below using the appropriate forms and procedures within 30 days after the transfer takes place. The present registrant will continue to be responsible for all fees and penalties until the Department has been notified of any change in ownership.

FINAL 09/08/2003

September 4, 2003

Mr. Thomas Elter
New York State Department of Environmental Conservation
Division of Air
615 Erie Blvd. West
Syracuse, NY 13204-2400

Reference: Air Facility Registration
Schapiro's
709 North Street
Endicott, NY

Dear Mr. Elter:

Attached is the Air Facility Registration Form for the soil vent extraction system (SVE) installed at the Schapiro's facility in Endicott, New York. I have attached the analytical results from an air sample taken from the discharge of the SVE system after running the system for 35 minutes at a flow rate of 157 cfm. The principal organic compound detected in the air sample was tetrachloroethane. Based on these analytical results, we ran the Air Guide-1 analysis using a flow rate of 70 cfm and a stack height of 20 feet above the building. The Air Guide-1 analysis results are attached. The results of the Air Guide-1 analysis show that at a flow rate of 70 cfm with the concentrations measured in the initial air sample, the actual annual discharge will be below the DAR-1 annual guidance concentration limit of 1.0 ug/m^3 for tetrachloroethane.

Schapiro's would like to start up the SVE system as soon as possible. Please let me know if it is acceptable for them to begin using the SVE system. If you have any questions about the form or attachments, please call me at 607-836-4400.

Sincerely

GeoLogic NY, Inc.

ORIGINAL SIGNATURE ON FILE

Marjory Rinaldo-Lee
President

Enc: (Air Facility Registration, Analytical Results, Air Guide-1 Analysis, Facility Plan)

cc: Schapiro's (w/o enc.)

New York State Department of Environmental Conservation
Air Facility Registration

DEC ID
- -

Owner/Firm			Taxpayer ID
Name Schapiro's Fine Dry Cleaning			
Street Address 709 North Street			
City / Town / Village Endicott	State or Province NY	Country USA	Zip 137--

Owner/Firm Contact	
Name Robert Schapiro	Phone No. (607-754-8179

Facility	
Name Schapiro's Fine Dry Cleaning	
Location Address 709 North Street	
☐ City / ☐ Town / ☒ Village Endicott	Zip 13760

Facility Information	
Total Number of Emission Points: One	☐ Cap by Rule

Description

Proposed emmission from a soil vapor extraction system to remediate soil contaminated with tetrachloroethene, Air Guide 1 Analysis, facility plan and analytical results from air testing are attached.

Standard Industrial Classification Codes					
7216					

HAP CAS Numbers					
127 - 18 - 4	79 - 01 - 6	156 - 59 - 2	71 - 55 - 6	- -	- -
- -	- -	- -	- -	- -	- -

Applicable Federal and New York State Requirements (Part Nos.)					
201-4					

Certification

I certify that this facility will be operated in conformance with all provisions of existing regulations.

Responsible Official Robert Schapiro	Title VP
Signature Robert Schapiro VP	Date 9 / 2 / 03

7/29/96

CLIENT: GEOLOGIC NY, INC
Project: 203101
Lab Order: 0308087

CASE NARRATIVE

Samples were analyzed using Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW846, 3rd Edition or other methods specifically approved by NYSDOH-ELAP. All quality control parameters for the analysis of samples under this lab log number met the laboratory acceptance limits and no data were qualified.

Glossary of terms and acronyms used in the lab reports:

CAS - Chemical Abstract Series identification for the analyte.
DF - "1" indicates that there was no dilution. Any other number indicates that the sample was diluted by that factor.
PQL - Practical Quantitation Limit - The lowest level that the lab would report a value.
Result -This is the numerical result of the analysis (in bold). An "ND" indicates that the analyte was not detected at greater than the PQL concentration.
Units - The units of measure for the analysis. Ug/L (ppb) and mg/L (ppm) are for liquid samples. Ug/kg (ppb) and mg/kg (ppm) are for solid based units.
Qual - An entry in this column indicates that the results are "qualified" according to the following codes (generally related to lab QC results):

J - The analyte was detected at less than the PQL, but the amount is not precisely known.
B - The analyte was detected in the lab blank indicating possible contamination.
E - The result is estimated because the measurement exceeded the upper calibration limit.
D - Surrogate recovery was low due to sample dilution.
S - Spike recovery was outside laboratory acceptance limits.
R - RPD was outside laboratory acceptance limits.
H - The measurement is estimated because the sample was analyzed after regulatory holding time expired.
* - The result exceeds the public drinking water maximum contaminant level.

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *13-Aug-03*
Lab Log No: **0308087**

CLIENT:	GEOLOGIC NY, INC PO BOX 5080 CORTLAND, NY 130455080	**Client Sample ID:**	DISCHARGE SVE-1
		Sampled By:	J. N.
		Collection Date:	08/11/03 8:40:00 AM
Project:	203101	**Received at Lab:**	08/11/03
Lab ID:	0308087-01A	**Matrix:**	AIR

Analyses	CAS	DF	PQL	Result	Units	Qual
DOH 311-6 COMPOUNDS IN AIR BY EPA 8260	Analyst: **TZ**		Analysis Date: **Aug 11, 2003 7:37 pm**			
1,1,1-Trichloroethane	71-55-6	1	0.68	**110**	µg/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1	0.68	ND	µg/m³	
1,1-Dichloroethane	75-34-3	1	0.68	ND	µg/m³	
1,1-Dichloroethene	75-35-4	1	0.68	ND	µg/m³	
Chloromethane	74-87-3	1	0.68	ND	µg/m³	
cis-1,2-Dichloroethene	156-59-2	1	0.68	**330**	µg/m³	
Methylene chloride	75-09-2	1	0.68	**450**	µg/m³	B
Tetrachloroethene	127-18-4	100	68	**450000**	µg/m³	
trans-1,2-Dichloroethene	156-60-5	1	0.68	ND	µg/m³	
Trichloroethene	79-01-6	1	0.68	**810**	µg/m³	
Vinyl chloride	75-01-4	1	0.68	ND	µg/m³	
Surr: Extraction Surrogate	79-00-5	1	60-125	89.5	%REC	

NYSDOH ELAP #10795

EPA LAB ID #NY00935

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

CONTAMINANT EMISSIONS SUMMARY 8/27/ 3

CAS NUMBER	CONTAMINANT NAME	NUM. OF EPs PER CONTAM.	EMISSIONS (lbs/hour)	EMISSIONS (lbs/year)
127184	tetrachloroethene	1	0.1178800	1032.60000
156592	cis 1,2 dichloroethene	1	0.0000864	0.76000
71556	1,1,1 trichloroethane	1	0.0000288	0.25000
79016	trichloroethene	1	0.0002120	1.86000
SUMMARY TOTALS		4	0.1182072	1035.47000

AGCs & SGCs 8/27/ 3

CAS NUMBER	CONTAMINANT NAME	SGC ug/m3	H O W	AGC ug/m3	H T O O W X CODES
127184	tetrachloroethene	0.00000		1.000000000	?
156592	cis 1,2 dichloroethene	0.00000		1900.000000000	?
71556	1,1,1 trichloroethane	0.00000		1000.000000000	?
79016	trichloroethene	0.00000		0.450000000	?

CONTAMINANT ASSESSMENT SUMMARY OF AIRGUIDE 1 ANALYSIS 8/27/ 3

SHORT-TERM CAVITY POINT or AREA SOURCE

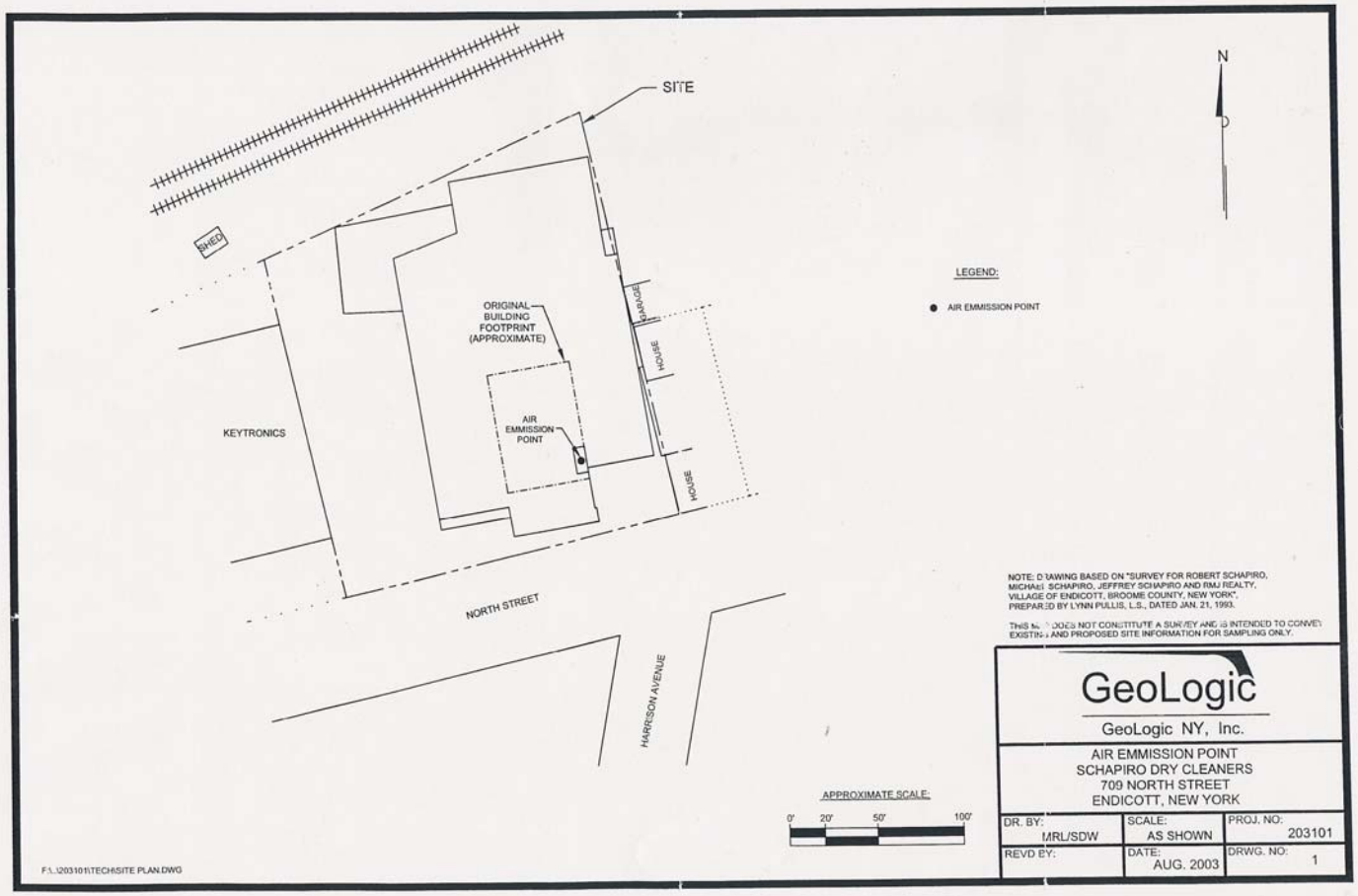
CAS NUMBER	AGC ug/m3	MAXIMUM (Cav,Pt,Area) % OF SGC	ACTUAL ANNUAL % OF AGC	POTENTIAL ANNUAL % OF AGC	ACTUAL ANNUAL % OF AGC
127184	1.00000000	0.0000	0.0000	94.7856	94.8913
156592	1900.00000000	0.0000	0.0000	0.0000	0.0000
71556	1000.00000000	0.0000	0.0000	0.0000	0.0000
79016	0.45000000	0.0000	0.0000	0.3788	0.3798
SUMMARY TOTALS		0.0000	0.0000	95.1645	95.2712

CONTAMINANT IMPACT SUMMARY OF AIRGUIDE 1 ANALYSIS 8/27/ 3

SHORT-TERM CAVITY POINT or AREA SOURCE

	MAXIMUM	ACTUAL	POTENTIAL	ACTUAL
	AGC (Cav,Pt,Area)	ANNUAL	ANNUAL	ANNUAL
CAS NUMBER	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
127184	1.00000000	31.37462	0.00000	0.94786	0.94891
156592	1900.00000000	0.02300	0.00000	0.00069	0.00070
71556	1000.00000000	0.00767	0.00000	0.00023	0.00023
79016	0.45000000	0.05643	0.00000	0.00170	0.00171
SUMMARY TOTALS		31.46171	0.00000	0.95049	0.95155

LOC FAC EP DATE HA/hA hs D T V Q Dpl/D BW/S BL #											
	feet feet in. degF fps acfm feet feet feet										
CAS NUMBER	EMISSIONS (lb/hr)					EMISSIONS (lb/year)					Rat %Ctrl
Schapiros	709 North Street					Endicott					
SIC: 7216 SC:	APP:	UTME:	0.	UTMN:	0.	BL DIR: 360.0					
total 827 3	20.	33.	3.	51.	24.00	70.00	50.	130.	200.	4	
71556	0.000028800000000					0.250000000000000					0.0000
79016	0.000212000000000					1.860000000000000					0.0000
156592	0.000086400000000					0.760000000000000					0.0000
127184	0.117880000000000					1032.600000000000000					0.0000



NOTE: DRAWING BASED ON "SURVEY FOR ROBERT SCHAPIRO, MICHAEL SCHAPIRO, JEFFREY SCHAPIRO AND RMJ REALTY, VILLAGE OF ENDICOTT, BROOME COUNTY, NEW YORK". PREPARED BY LYNN PULLIS, L.S., DATED JAN. 21, 1993.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS INTENDED TO CONVEY EXISTING AND PROPOSED SITE INFORMATION FOR SAMPLING ONLY.

GeoLogic

GeoLogic NY, Inc.

AIR EMMISSION POINT
SCHAPIRO DRY CLEANERS
709 NORTH STREET
ENDICOTT, NEW YORK

DR. BY:	SCALE:	PROJ. NO:
MRL/SDW	AS SHOWN	203101
REVD BY:	DATE:	DRWG. NO:
	AUG. 2003	1

F:\..\203101\TECH\SITE PLAN.DWG

ATTACHMENT F

SUB-SLAB AIR SAMPLING PLAN

February 18, 2004

Mr. Thomas Suozzo, P.E.
New York State Department of Environmental Conservation
Kirkwood Sub-Office, Region 7
1679 NY Route 11
Kirkwood, NY 13795-1602

Reference: Voluntary Cleanup Application
Schapiro's Fine Dry Cleaning
V-00667-7

Dear Mr. Suozzo:

This letter is in response to our meeting on February 10, 2004 and the letter from Dolores Tuohy, dated February 12, 2004. Ms. Tuohy requested a letter modification to the investigation Work Plan we submitted in August 2003 to address air testing related to the homes directly east of the site and on North Street before March 12, 2004.

Following our meeting, the Schapiro's agreed to perform sub-slab testing at the residences directly east of their property, as discussed with you. The purpose of this letter is to provide the requested modification to the Work Plan relating to sampling the two residences next to their east property line.

The Schapiro's have contacted the owner of the property at 801 North Street where both homes are located. Before allowing access to the homes, the owner is contacting an out-of-town attorney and we are waiting for his response. After we obtain permission to access the homes, we will verify the condition of the basements.

If access is granted by the owner, testing is proposed for the March 9, 2004, and one sub-slab sample will be taken from each residence. The procedure to be used is described below depending on whether the homes have a basement with a concrete floor (vapor barrier), or a crawl space or basement with no vapor barrier (soil floor). The condition of the basements will be verified before sampling is performed.

Sample Collection - Basement with Concrete Floor

1. Sample Location

Before selecting a sampling location, the condition of the basement floor slab will be observed for apparent cracks, floor drains or sump holes. Sub-slab conditions will be noted and a potential location near the center of the building and away from any cracks, floor penetrations, or foundation walls selected. The proposed location will be reviewed with the building owner. After receiving permission to collect a sample, the location will be marked, documented and photographed.

2. Preparation for Sampling

Drill a 3/8"-diameter hole through the concrete floor using a 3/8" drill bit. Extend the hole about 3" into the sub-slab material using the drill bit or a steel probe rod.

Insert a section of 3/8" O.D., ¼" I.D. polyethylene tubing through the floor slab into sub-slab material.

Seal annular space between 3/8" tubing and 3/8" hole in the floor slab with a beeswax seal.

3. Sample Collection

Place the 400-cc canister next to the sampling location and record sample number on canister tag and on chain-of-custody sheet.

Remove protective cap from canister.

Connect the tubing to an air-sampling pump with polyethylene discharge tubing. Purge approximately 1 liter of soil gas from the sampling point using the air-sampling pump and collect the purged soil gas into a 1-liter tedlar bag. Screen the soil gas in the tedlar bag using a PID and record reading.

Disconnect the air-sampling pump and immediately connect end of sample tube to regulator intake.

Insert sampler tip of canister into regulator, making sure there is no gap between regulator and canister. Sampler will automatically start collecting the sample.

Check vacuum gauge periodically for loss in vacuum (vacuum starts at about 30" Hg and ends at about 1-5" Hg).

Record time on chain-of-custody sheet.

Take photograph of sample canister and surrounding area.

Allow sample to collect in canister for one hour.

At end of one hour, record gauge pressure, record time on chain-of custody, and disconnect regulator from canister. Install protective cap on canister sampler tip.

4. Sample Point Abandonment

Remove tubing from hole.

Seal hole in concrete floor using concrete mix.

Sample Collection – Crawl Space or Basement with Soil Floor

1. Sample Location

A potential location will be selected about five feet above the floor of the basement or one foot above the floor of a crawl space near the center of the building and away from any windows or other potential sources of air drafts and air supply vents. The proposed location will be reviewed with the building owner. After receiving permission to collect a sample, the location will be marked, documented and photographed.

2. Sample Collection

Place the 400-cc canister next to the sampling location and record sample number on canister tag and on chain-of-custody sheet.

Remove protective cap from canister.

Insert sampler tip of canister into regulator, making sure there is no gap between regulator and canister. Sampler will automatically start collecting the sample.

Check vacuum gauge periodically for loss in vacuum (vacuum starts at about 30" Hg and ends at about 1-5" Hg).

Record time on chain-of-custody sheet.

Take photograph of sample canister and surrounding area.

Allow sample to collect in canister for 24 hours.

At end of 24 hours, record gauge pressure, record time on chain-of custody, and disconnect regulator from canister. Install protective cap on canister sampler tip.

Sample Analysis

Samples will be analyzed by Centek Laboratories for the IBM eleven chlorinated volatile organics using modified EPA Method TO-15, by SIMS. Centek Laboratories has been approved under the NELAP program by the NYSDOH for performing TO-15 analysis. The limit of quantitation (LOQ) for the chlorinated volatile organics to be analyzed is between 0.2 and 0.5 ug/m^3.

We will be submitting a revised Work Plan addressing other comments in your letter of January 6, 2004 and Dolores Tuohy's letter of February 12, 2004 by March 1, 2004.

We would appreciate your response in writing to this letter modification of the Work Plan for sub-slab air testing at the adjacent residences.

Sincerely,

GeoLogic NY, Inc.

ORIGINAL SIGNATURE ON FILE

Marjory Rinaldo-Lee
President

cc: Robert and Michael Schapiro, Schapiro's
Kate Fitzgerald, Hinman Howard & Katell
Lorrie Schapiro, Hinman Howard & Katell

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ATTACHMENT G

HEALTH & SAFETY PLAN

GeoLogic NY, Inc.

PO Box 5080, Cortland, NY 13045, 607-836-4400, Fax: 607-836-4403

HEALTH AND SAFETY PLAN

FOR THE

INVESTIGATION WORK PLAN

AT

SCHAPIRO'S
709 NORTH STREET
VILLAGE OF ENDICOTT, NEW YORK

September 2004 - Revised

Prepared By:

GEOLOGIC NY, INC.

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1. INTRODUCTION

These health and safety guidelines are an accompaniment to GeoLogic NY, Inc.'s Health and Safety Policies that have been provided to all employees.

The Health and Safety Plan (HASP) addresses the health and safety practices that will be employed by all GeoLogic NY, Inc. (GNY) Employees that will be participating in the work set forth in the Work Plan. A Site Location Map and a Site Plan are attached.

It is expected that officials from NYSDEC and NYSDOH will be visiting the site during site activities. GNY does not guaranty the health and/or safety of any person entering this site. Due to the potential hazards of this site and the activities occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards, which may be encountered. Strict adherence to the health and safety guidelines set forth herein, will reduce, but may not eliminate, the potential for injury at this site. The health and safety guidelines in this plan were prepared specifically for this site and should not be used on any other site. Copies are to be provided to NYSDEC and NYSDOH personnel prior to commencing field activities.

The HASP takes into account the specific hazards inherent to this project and presents procedures that are to be followed by GNY Employees. The objective of this project is to perform a subsurface evaluation in order to determine the extent of any soil, groundwater, and/or soil vapor contamination from past use or disposal of dry cleaning solvents.

The HASP is applicable to the following site activities:

- subsurface soil sampling
- subsurface air sampling
- drilling and monitoring well installation
- groundwater sampling
- real time air monitoring

This Health and Safety Plan covers all employees of GNY who visit and/or work at this site.

2. SITE DESCRIPTION

2.1 Physical Description and Site History

Schapiro's is located at 709 North Street in the Village of Endicott, Broome County, New York (see Drawing No. 1). The site, encompassing about one acre, is bordered on the south by North Street and on the east by a residential home, on the west by property owned by Schapiro's that is used as warehouse space, and on the north by a railroad. South of North Street are residential homes. Further east past the residence are commercial properties. The site is in a mixed residential and commercial neighborhood (Drawing No. 2).

Schapiro's installed dry cleaning machines using tetrachloroethene in late 1981 and used tetrachloroethene as a dry cleaning solvent until 1999, when the dry cleaning solvent was switched to a petroleum-based solvent.

As part of the IBM investigation, air samples were taken at the Schapiro's facility in April 2003 by Air Toxics, Ltd. Sampling locations are shown on Drawing No. 3. The air samples taken by Air Toxics, Ltd. revealed the following concentrations:

Sample ID	Location	Tetrachloroethene Concentration (ug/m3)
Sub-Structure Air Location A- Basement Beneath Dry Cleaning Area	Below concrete floor slab of basement room	25,000
Basement Indoor Air Location A- Basement Beneath Dry Cleaning Area	Indoor air within basement room	1,800
Sub-structure Air Location B – North End of Dry Cleaning Area (near steam pressing machines	Below concrete floor slab in vicinity of press machines	130,000

Sample ID	Location	Tetrachloroethene Concentration (ug/m3)
Lowest Level Indoor Air Location B – North End of Dry Cleaning Area (near steam pressing machines)	Indoor air in the vicinity of press machines	200
Sub-Structure Air Location C – West-Central Portion of Uniform Storage/Cleaning Area	Below concrete floor slab in vicinity of uniform storage area	2,600
Lowest Level Indoor Air Location C – West-Central Portion of Uniform Storage/Cleaning Area	Indoor air in the vicinity of uniform storage area	340
Outdoor Air	Ambient air outside building	0.64

2.2 Summary of Major Health and Safety Risks

- Work around soil sampling drill rig and hydraulic punch probe, including entrapment, pinch points and electrical shock.
- Slip, trips and falls.
- Noise.

3. EMERGENCY CONTACTS & COMMUNICATIONS

3.1 Communications

Telephones are available at the Schapiro's facility. In addition, GNY field personnel will be equipped with cellular telephones. This will enable field personnel to communicate directly with local emergency support units should an accident or injury occur during field operations.

The safety officer is Susan Cummins. The Principal–in-Charge is Marjory Rinaldo-Lee, President. Both can be contacted at **(607) 836-4400**. The health and safety officer can be reached at (607) 836-6084 (night).

3.2 Emergency Contacts

Emergency Phone Numbers for this site are:

Police	911
Fire	911 - Local
Ambulance	911
Hospital	911
	United Health Services Hospital
	57 Harrison Street, Johnson City, New York
	607-763-6000

Directions: Exit the site on to North Street, taking a left; then another immediate right onto Harrison Street. Take first left on Monroe Street; proceed about 0.5 miles on Monroe. Right on McKinley Ave, which becomes Route 26 South. Follow NYS Rt. 26 south, then take right exit to NYS Rt. 17 East. Proceed on NYS Route 17 for about 2.2 miles. Take the exit for NYS Rt. 17C East toward Westover. Continue about 2.2 miles on NYS Rt. 17C east. Take a right on to Harrison Street.
(Map to hospital is attached)

GNY Office 1-800-836-4401 or 1-607-836-4400

NYSDEC Spill Hotline 1-800-457-7362 (Spills must be reported within 2 hours of their discovery.)

The First Aid Kit provided by GNY must be kept within a reasonable distance of personnel at all times.

3.3 Safety Items

A utility clearance for drilling operations will be arranged by GNY. During the initial site visit, identify and record possible hazards that do, or may, exist at the site.

The safety of employees working around drilling equipment should be maintained at all times.

All accidents or injuries must be reported within a 24-hour period to the Health and Safety Officer (if not available, report to Marjory Rinaldo-Lee or Staria Dixon-Warner, Office Manager). This includes even minor cuts and abrasions. Failure to immediately report accidents and injuries sustained on the job may result in the loss of workers compensation and disability benefits. All employees reporting an accident or injury will be required to fill out an accident report form.

All GNY personnel working/visiting the site must sign this plan in the space provided below. A copy of this signed acknowledgement will be kept in each signatories personnel file and in the project file **Job No. 203101**.

NAME	DATE
NAME	DATE
NAME	DATE
NAME	DATE
NAME	DATE

4. SITE HAZARD ASSESSMENT

4.1 Physical Hazards

The physical hazards associated with the work to be performed by GNY are mainly associated with the operation of drill rigs. Personnel will be experienced in the proper operation of the equipment and familiar with the equipment-specific hazards and the built-in safety mechanism of that equipment. The emergency kill switch on the drill rig will be checked daily to assure that it is in good working condition.

The hazards involved with the use of drill rigs are significant and include the hazards of pinch points, entrapment in the machinery, impact from moving parts, fatigue, electrocution of overhead power lines and buried utilities. The driller and the driller's helper are the only two people allowed to operate the drill rig. Other site personnel should not stand directly behind the drill rig to avoid falling or projected objects. Personnel near the drill rig should be aware of what is overhead during drilling procedures. GNY shall require that other personnel entering the Work Zone make their presence known to the driller and driller helper, and when possible, maintain visual contact with these persons.

For purposes of this Health and Safety Plan, "Work Zone" will be defined as the area within a 10-foot radius of the drilling equipment (drill rig or hydraulic probe).

4.1.1 Manual Lifting

Manual lifting of heavy objects will be required. Failure to follow proper lifting techniques can result in back injuries and strains. Special attention will be given to the lifting and moving of heavy objects (drill casings, augers, drill rods and 55-gallon barrels). All personnel will be trained in the proper methods of lifting heavy objects.

4.1.2 Utilities

GNY will be responsible for contacting UFPO to locate public utilities, both underground and aboveground. These locations shall be physically marked in the field. Location of

boring points will take into consideration the degree of accuracy of these locations and provide adequate distances from the identified utilities. GNY personnel will have the right to make adjustment to boring locations should they feel that there are safety issues associated with the designated location.

4.1.3 Noise

Noise is a potential health hazard associated with the operation of the drill rig and excavation activities. Physical responses to excessive noise can include an increase in heart rate, blood pressure and respiration rate, muscle tension and fatigue. Excessive noise can inhibit verbal communications between site personnel. Hearing protection will be worn during drilling operations. For other site activities, in the absence of instrumentation, an appropriate rule of thumb is that when normal conversation is difficult at a distance of 2 to 3 feet, hearing protection is required.

4.1.4 Temperature Extremes

The air temperatures are expected to be 30°-60°F in the spring. Based on expected temperature conditions, neither heat stress or cold stress conditions are anticipated.

4.2 Chemical Hazards

Based on previous investigations at the site by others and the known history of the site, the contaminant of concern is the dry cleaning solvent (tetrachloroethene and its transformations products, trichloroethene, dichloroethene and vinyl chloride). These contaminants may be encountered during the drilling of holes through the floor slab of the building, in the soil or soil vapor in these borings, drilling and sampling of soil vapor monitoring points along the periphery of the property, or during drilling and sampling the groundwater monitoring wells. There are several possible routes of exposure to persons working at the site that include dermal and respiratory routes, ingestion, and eye contact. The personal protection equipment and monitoring to be used at this site is listed in Section 5 and Section 6.

5. LEVELS OF PROTECTION

Since site personnel may be exposed to chemical contaminants released during the sampling activities, various levels of Personal Protection Equipment may be necessary. The monitoring

equipment and PPE to be used are determined based on the task being performed. It is anticipated that most work will be performed in Level D, with potential upgrade to Level C. The task specific equipment and PPE are summarized below:

Task: Soil Sampling Below Floor of Building

The initial PPE to be worn by GNY personnel performing these activities will be at Level D and may include: hardhat, steel-toed boots and OSHA-approved eye, and ear protection. Level C PPE will be immediately available for use, if monitoring results warrants use.

Tasks: Monitoring Well Installation and Soil Vapor Sampling Along Property Boundary

The initial PPE that will be worn by the driller and driller's helper during drilling activities will include: hardhat, steel-toed boots and OSHA-approved eye, and ear protection. The PPE to be used by the supervisor may include: hardhat, and OSHA-approved eye protection and ear protection. Level C PPE will be immediately available for use by the driller, driller's helper and other GNY field personnel, if monitoring results warrant use.

Task: Groundwater Sampling of Monitoring Wells

The PPE to be used during groundwater sampling operations will be contingent upon conditions encountered during drilling. Minimal PPE may include chemically resistant gloves and OSHA-approved eye protection during groundwater sampling.

No confined-space entry will be allowed.

6. MONITORING

6.1 Work Zone Monitoring

The photoionization detector (PID) may be used during the drilling operations in order to determine the approximate concentrations of ionizable vapors emanating from the boring and/or well, and to check background conditions. The breathing zones occupied by all workers may be checked with the PID during soil sample retrieval and/or when solvent-like odors are noticed. Upwind monitoring with a PID may also be performed as needed to establish background concentrations.

If the concentrations detected by the PID are less than 5 ppm in the breathing zone, no breathing apparatus is necessary. If sustained concentrations are greater than 5 ppm, an air-purifying respirator with the appropriate cartridges must be worn. If the concentrations are greater than 500 ppm, all work must be stopped and the work area must be re-evaluated.

6.2 Community Air Monitoring Plan

During the outdoor drilling activities (monitoring well installation and soil vapor sampling) offsite transport of volatile organic chemicals (VOC's) is possible. Depending upon site conditions at the time the work is performed and atmospheric conditions, controls may be necessary to reduce the offsite transport of VOC's. These controls may include wetting soils removed during drilling activities.

Real-time air monitoring for volatile compounds at the perimeter of the work area is necessary. The plan will include the following:

- Volatile organic compounds must be continually monitored daily at the downwind perimeter of the work area. Upwind monitoring will be performed as needed to establish background concentrations. If total organic vapor levels exceed 5 ppm above background, work activities must be halted and monitoring continued under the provisions of a Vapor Emission Response Plan. All readings must be recorded and be available for State (DEC & DOH) personnel to review.

6.3 Vapor Emission Response Plan

If the ambient air concentration of organic vapors exceeds 5 ppm above background at the

perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities can resume, but more frequent intervals of monitoring, as directed by the Safety Officer, must be conducted. If the organic vapor levels are greater than 5 ppm over background, but less than 25 ppm over background at the perimeter of the work area, activities can resume provided:

- the organic vapor level 200 ft. downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background and;

If the organic vapor level is above 25 ppm over background at the perimeter of the work area, activities must be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety Officer will be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Emission section.

6.4 Major Vapor Emission

If the organic vapor levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted.

If, following the cessation of the work activities, or as the result of an emergency, organic vapor levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20-Foot Zone).

If efforts to abate the emission source are unsuccessful, and if any of the unacceptable organic vapor levels (greater than 5 ppm above background) persist for more than 30 minutes in the 20-Foot Zone, then the Major Vapor Emission Response Plan shall automatically be placed into effect.

However, the Major Vapor Emission Response Plan shall be immediately placed into effect

if organic vapor levels are greater than 10 ppm above background.

6.5 Major Vapor Emission Response Plan

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in the Health and Safety Plan of the Work Plan will go into effect.

2. The local police authorities will immediately be contacted by the Safety Officer and be advised of the situation.

3. Frequent air monitoring will be conducted at 30-minute intervals within the 20-Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.

7. SITE CONTROL

It is important to minimize the possibility of human exposure to contamination, further contamination of the surrounding environment, and cross contamination of equipment. Access to portions of the site and proposed work areas are already physically restricted by the site setting. Pylons and caution tape will assist in keeping unauthorized personnel from entering the Work Zone during drilling and sampling activities.

Based on the anticipated levels of contamination to be encountered, the only "work zone" for the work proposed in the Investigation Work Plan will include the work area itself. For purposes of this Health and Safety Plan, the "Work Zone" is defined as the area within a 10-foot radius of the drilling equipment (drill rig or hydraulic probe).

Free phase solvents are not anticipated at this site. However, sorbent pads are to be readily available in case accidental spillage occurs.

A temporary decontamination area will be set up near each of the work areas to collect wash water during decontamination procedures. The liquids will be containerized for disposal in the sanitary sewer. Proper procedures for sampling, decontamination of equipment, disposal of contaminated equipment and disposal of contaminated soil and/or water samples will be followed at all times.

8. DECONTAMINATION

All disposable field equipment and clothing should be disposed of properly on site, if possible, or containerized in disposable plastic bags for disposal at GNY's office dumpster.

All contaminated, reusable equipment and tools will be cleaned on site. Any contaminated equipment returned to the office will be cleaned immediately.

Drilling tools and equipment will be steam cleaned prior to the commencement of drilling operations and after the advancement of each boring (including the last boring drilled at the site).

9. TRAINING

Any GNY personnel working at this site must have completed the basic 40-hour OSHA health and safety training course and, if applicable, the supplemental yearly 8-hour refresher courses.

All GNY personnel who will be working at this site must go over site specific details outlining the field procedures with the project manager prior to visiting and/or working at the site.

GNY personnel authorized to work at this site include:

Susan Cummins – Health & Safety Officer

Marjory Rinaldo-Lee – Partner-in-Charge, Project Oversight

Joseph Menzel – Remedial System Installation, Sampling

Judson Powell – Sampling

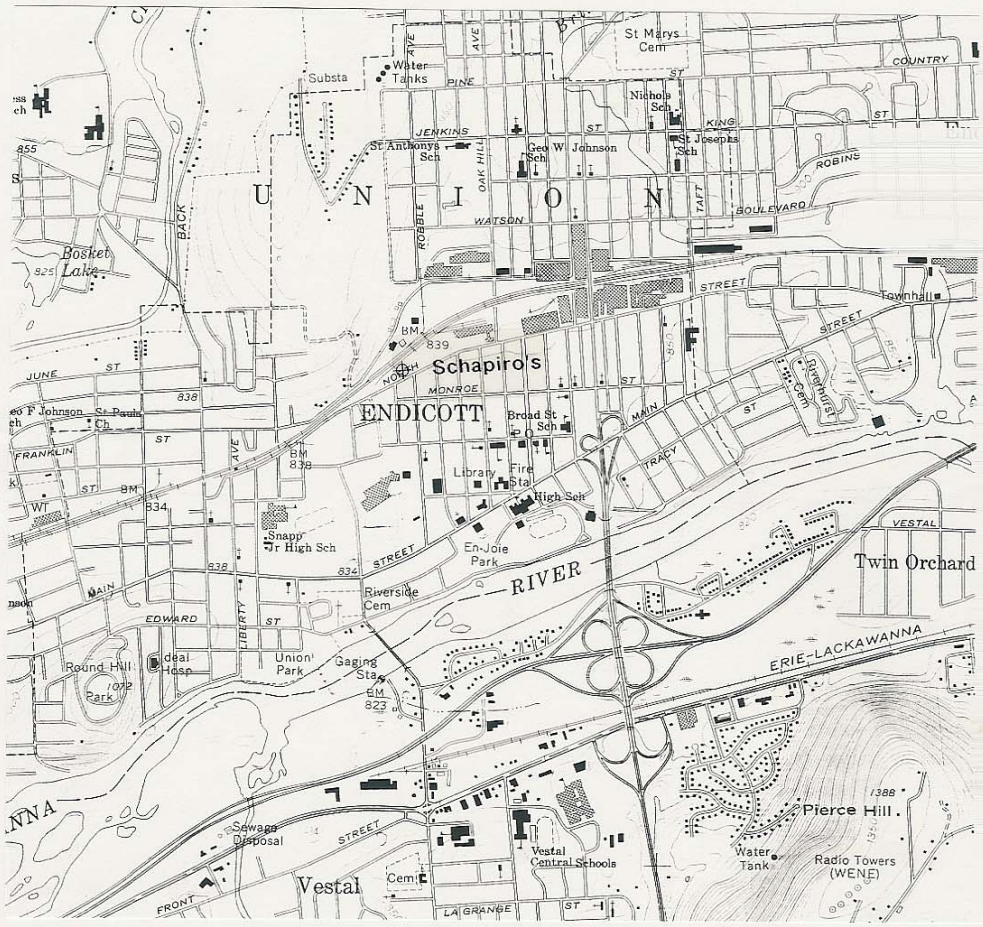
Steven Laramee – Drill Rig Operator

RECOMMENDED PPE

TASK TO BE PERFORMED	Anticipated Level of Protection	Coverall/ Tyvek	Glove In/Out	Air Purifying Respirator Cartridge/Can	Other Personal Protective Equipment
Drilling Soil Borings	D	Optional	LATEX /VINYL	IF NEEDED	Hardhat, steel-toed boots, eye and hearing protection
Soil Sampling Using Hydraulic Probe	D	Optional	LATEX /VINYL	IF NEEDED	Hardhat, steel-toed boots, eye and hearing protection
Installing Monitoring Wells	D	Optional	LATEX /VINYL	IF NEEDED	Hardhat, steel-toed boots, eye and hearing protection
Collecting Soil Vapor Samples	D	Optional	LATEX /VINYL	IF NEEDED	
Collecting Groundwater Samples	D		LATEX /VINYL	IF NEEDED	Eye protection

HAZARD CHARACTERISTICS OF CONTAMINANTS OF CONCERN
POTENTIAL CONTAMINANTS AT SCHAPIRO'S
709 NORTH STREET
ENDICOTT, NY

Compound	CAS No.	Toxicity	Maximum Historical Concentrations, ppbv	Physical Characteristic/Symptoms
Tetrachloroethene	127-18-4	Cancer-causing IDLH 500 ppm PEL 100 ppm 200 ppm ceiling 300 ppm 5-min/3-hour peak	130,000 (soil vapor)	Colorless liquid; chloroform or sweet ether odor; non-flammable / irritant to mucous membranes; drowsiness, headaches, nausea
1,2-Dichloroethene	540-59-0	IDLH 1000 ppm PEL 200 ppm	0.12 (indoor air)	Colorless liquid; slight chloroform odor; non-flammable / irritant to mucous membranes, CNS depressant
Trichloroethene	79-01-6	IDLH 1000 ppm PEL 100 ppm 200 ppm ceiling 300 ppm 5-min/3-hour peak	2.0 (indoor air)	Colorless liquid; chloroform odor, / irritant to mucous membranes, skin irritant; headache, nausea, visual disturbance
Vinyl Chloride	75-01-4	IDLH N.D. PEL 1 ppm Ceiling 5 ppm	0.53 (indoor air)	Colorless liquid with a pleasant odor in high concentrations / frostbite-like skin and eye irritant / weakness, abdominal pain, pallor or cyan of extremities



ENDICOTT, N. Y.
SE/4 ENDICOTT 15' QUADRANGLE
42076-A1-TF-024

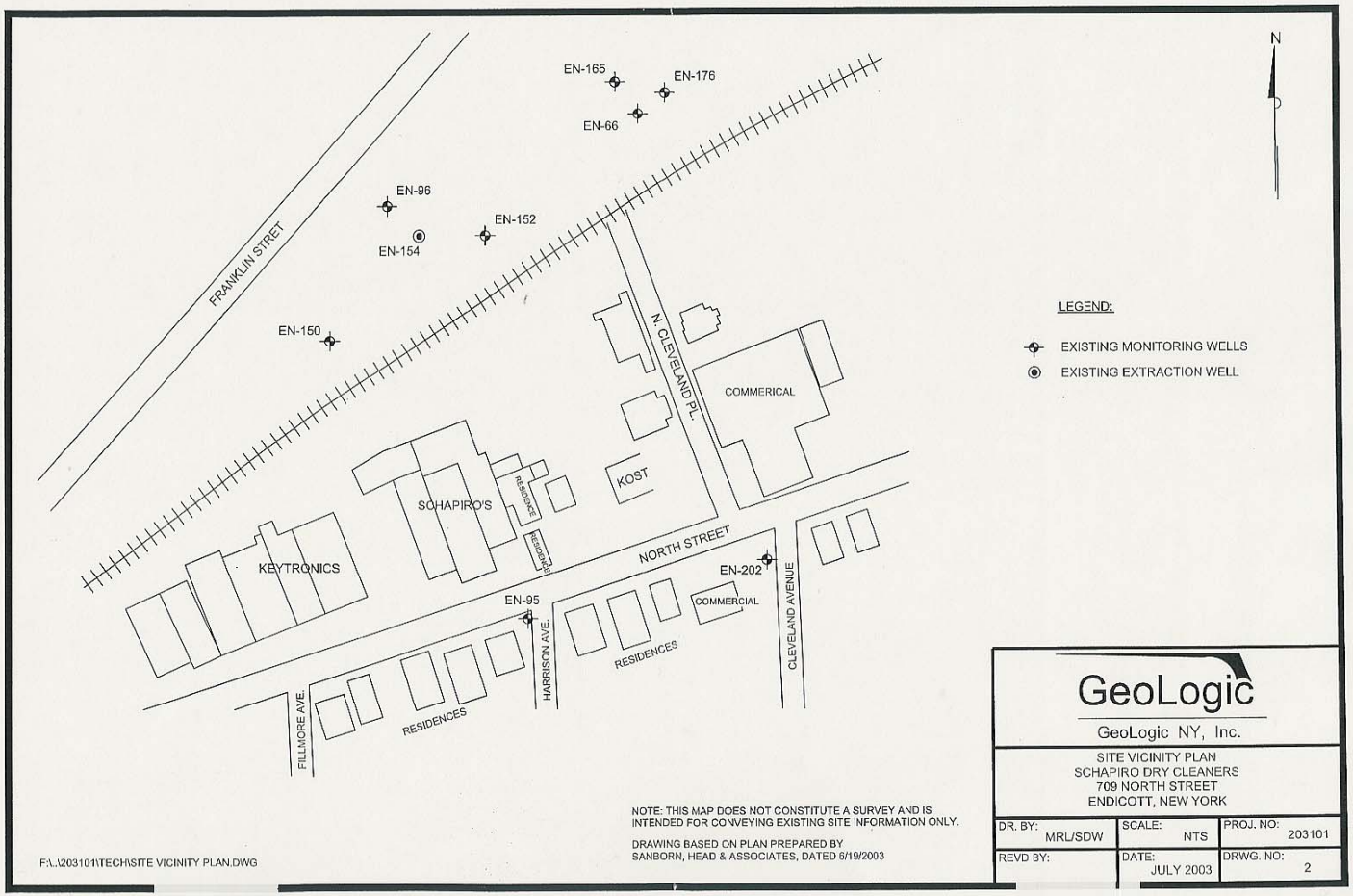
1969
PHOTOINSPECTED 1976
DMA 5768 II SE—SERIES V821

N

GeoLogic
GeoLogic NY, Inc.

SITE LOCATION PLAN
Schapiro's
706 North Street
Endicott, NY

DR. BY: mrl	SCALE: 1" = 2,000'	PROJ. NO.:203101
REV'D. BY:	DATE: July 2003	DRWG. NO.: 1



NOTE: THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS INTENDED FOR CONVEYING EXISTING SITE INFORMATION ONLY.

DRAWING BASED ON PLAN PREPARED BY SANBORN, HEAD & ASSOCIATES, DATED 6/19/2003

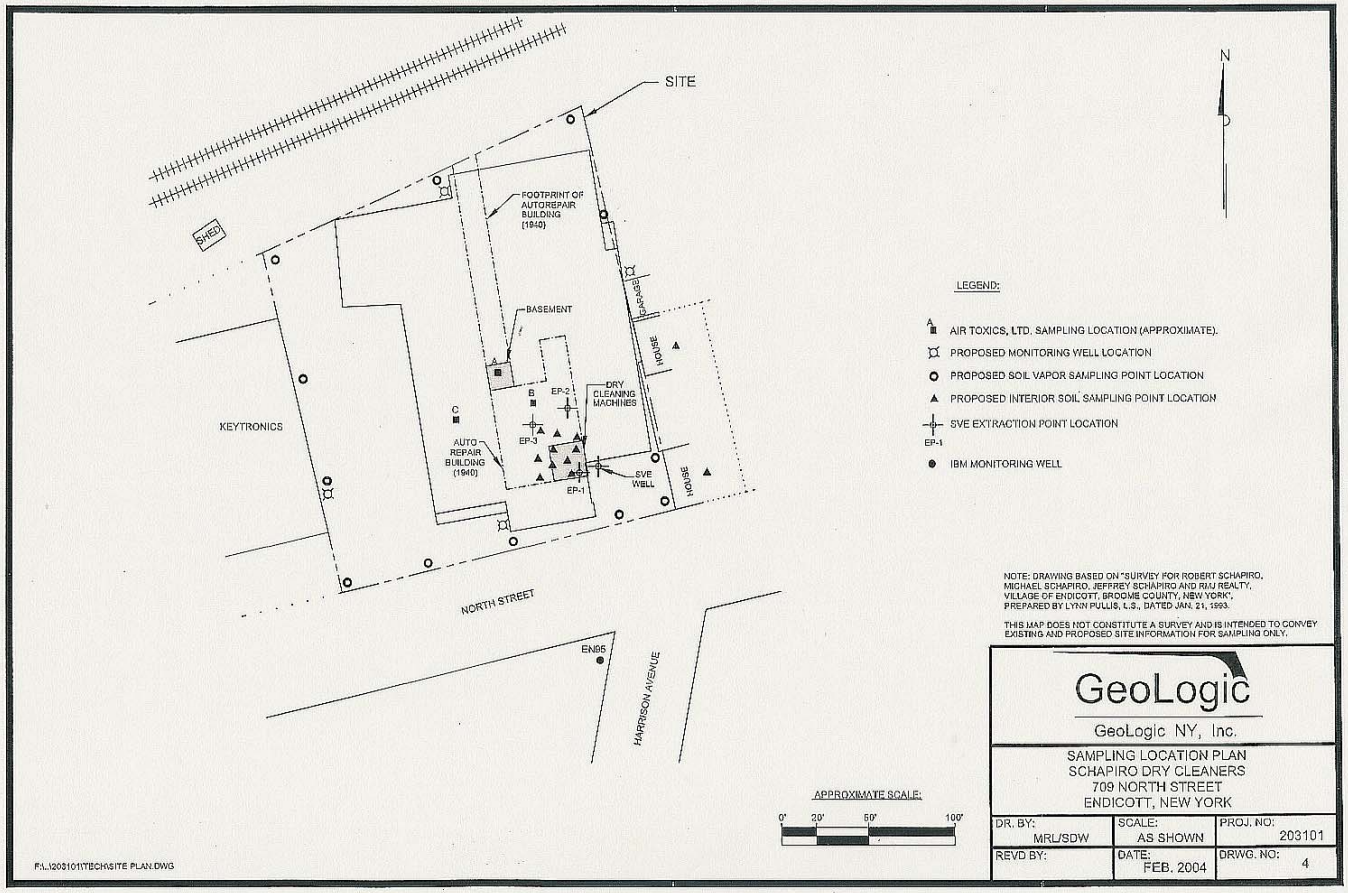
F:\..\203101\TECH\SITE VICINITY PLAN.DWG

GeoLogic

GeoLogic NY, Inc.

SITE VICINITY PLAN
SCHAPIRO DRY CLEANERS
709 NORTH STREET
ENDICOTT, NEW YORK

DR. BY: MRL/SDW	SCALE: NTS	PROJ. NO: 203101
REVD BY:	DATE: JULY 2003	DRWG. NO: 2



NOTE: DRAWING BASED ON "SURVEY FOR ROBERT SCHAPIRO, MICHAEL SCHAPIRO, JEFFREY SCHAPIRO AND RAJ REALTY, VILLAGE OF ENDICOTT, BROOME COUNTY, NEW YORK", PREPARED BY LYNN PULLIS, L.S., DATED JAN. 21, 1993.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS INTENDED TO CONVEY EXISTING AND PROPOSED SITE INFORMATION FOR SAMPLING ONLY.

F:\...\203101\TECH\SITE PLAN.DWG

GeoLogic

GeoLogic NY, Inc.

SAMPLING LOCATION PLAN
SCHAPIRO DRY CLEANERS
709 NORTH STREET
ENDICOTT, NEW YORK

DR. BY:	SCALE:	PROJ. NO:
MRL/SDW	AS SHOWN	203101
REVD BY:	DATE:	DRWG. NO:
	FEB. 2004	4

Yahoo! Maps

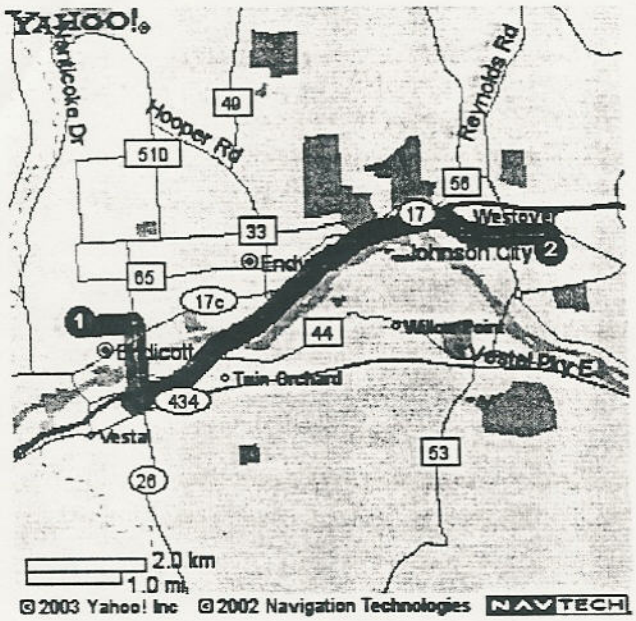
Back to Directions

Starting from: ❶ 709 North Street, Endicott, NY 13760-5011

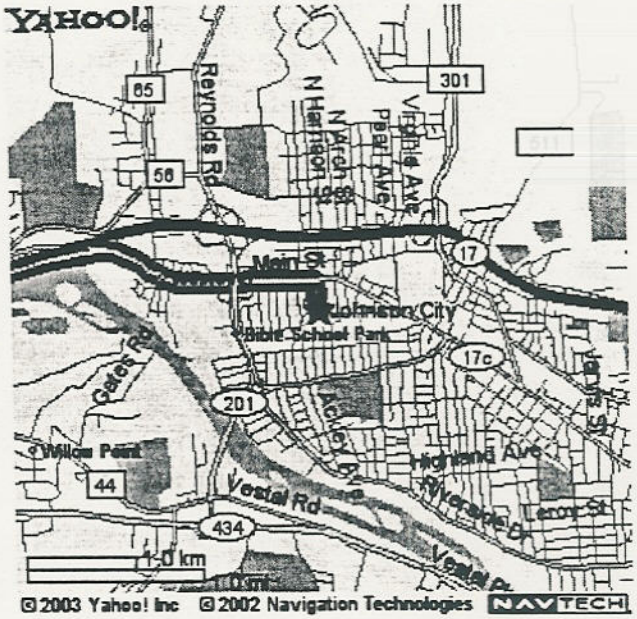
Arriving at: ❷ 57 Harrison Street, Johnson City, NY 13790-2143

Distance: 6.8 miles **Approximate Travel Time:** 13 mins

Full Route



Destination



Directions		Miles	
1.	Start on **NORTH ST**	0.0	↑
2.	Bear Left on **FILLMORE AVE**	0.0	↖
3.	Turn Left on **MONROE ST**	0.6	↰
4.	Turn Right on **MCKINLEY AVE**	0.2	↱
5.	Continue on **RT-26 SOUTH**	0.7	↑
6.	Bear Right to take the **RT-17 EAST** ramp towards **BINGHAMTON**	0.2	↗
7.	Merge on **RT-17 EAST**	2.5	↗
8.	Take the **RT-17C EAST** exit towards **WESTOVER**, exit **#69**	0.2	↗
9.	Continue on **RT-17C EAST**	2.3	
10.	Turn Right on **HARRISON ST**	0.2	↱

Distance: 6.8 miles **Approximate Travel Time:** 13 mins

When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.

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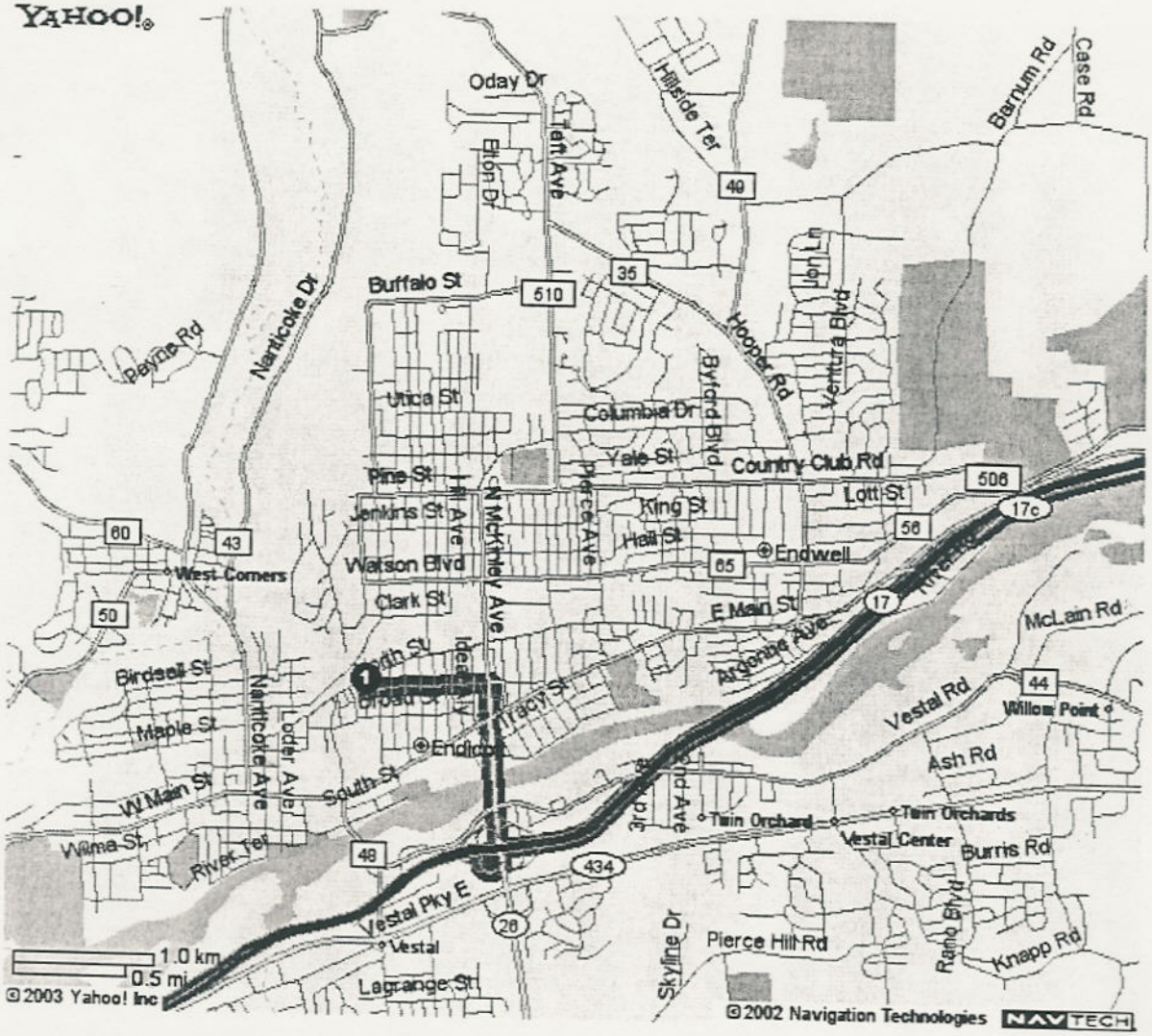
Back to Map

★ **57 Harrison Street, Johnson City, NY 13790-2143**



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