

SPEED LETTER®

TO

MARY JANE PEACHEY/TODD CAFFOE

NYS-DEC AVON

FROM

MARK GREGOR

DIVISION OF ENVIRONMENTAL QUALITY

CITY OF ROCHESTER

SUBJECT

BAUSCH & LOMB PROJECT SITE

FOLD NO. 9 OF 10

MESSAGE

ATTACHED PLEASE FIND (1) LABELLA'S SUMMARY REPORT ON THE ENVIRONMENTAL FINDINGS FOR THE B&L PROJECT SITE AND (2) OUR WORK PLAN FOR ACTIVITIES TAKING PLACE AT SPEEDY'S THIS WEEK. LET ME KNOW IF YOU HAVE ANY QUESTIONS

DATE

12/7/93

SIGNED

Mark Gregor 428-5978

REPLY

RECEIVED

DEC 08 1993

NYS DEPT. OF ENVIRONMENTAL CONSERVATION-REGION 8 SWITCHBOARD

10:45 a.m.

RECEIVED
DEC 8 1993

NYS DEPT. OF ENVIRONMENTAL

CONSERVATION-REGION 8

DATE

SIGNED

WORK PLAN
SOIL INVESTIGATION AT THE SPEEDY'S CLEANERS SITE

PREPARED FOR THE
CITY OF ROCHESTER

DECEMBER 1993

1000107111111

PREPARED BY
SEELER ASSOCIATES

BACKGROUND

Based on the site visit and a review of the background data it is our understanding that the site has been active as a laundry since 1910. The surrounding area has also been active with both retail and commercial businesses such as, gasoline stations, an automobile dealership, a furniture manufacturing company, office buildings and parking lots. According to the La Bella Associates' Phase I Report, Speedy's Cleaners has occupied their present location since at least 1957.

LaBella Associates completed an audit of the area bounded by Court, Broad, Stone and Clinton Streets (the area) for the City in December of 1990. This initial audit identified several business operations in this area which could have potentially impacted the area. These business operations included Speedy's Cleaners, a former furniture manufacturing operation, a former automobile dealership, and several former gasoline station sites.

As a result of the initial audit, the City requested that LaBella conduct a Phase II investigation of the area which included the drilling of boreholes, the construction of monitoring wells, and the collection of soil and groundwater samples. In addition, samples of the subsurface soil were also collected from within the Speedy's building by both LaBella and Monroe Monitoring & Analysis (a consultant to Speedy's). The data collected outside of the Speedy's building suggests that the soil and groundwater have been affected by chemicals that are commonly associated with gasoline. The data collected from inside the Speedy's building suggests that the portions of the concrete floor and soil have been affected by perchloroethylene, methylene chloride, and chemicals commonly associated with Stoddard Solvent. It is reported by Speedy's that Stoddard Solvent is currently being used as a dry cleaning solvent. It is our understanding that Speedy's claims not to have used perchloroethylene or methylene chloride in their processes.

The City is concerned that the presence of perchloroethylene and, or methylene chloride may cause excavated soil and/or concrete to be classified as a hazardous waste (listed or characteristic). The classification of the soil or concrete as a hazardous waste would increase the cost of the building demolition and preparation of the site for construction of the new parking garage and potentially result in listing the property as an inactive hazardous waste site by New York State Department of Environmental Conservation (NYSDEC).

The City of Rochester has purchased the Speedy's property through Eminent Domain proceedings. A schedule has been developed for the construction of a new parking garage to serve the occupants of the new Bausch & Lomb building. Speedy's must vacate the property by February 15, 1994. To facilitate timely demolition of the Speedy's building and the excavation required for construction of the garage, the City desires to have a soil management plan in place at the time of demolition. Sampling of the soil beneath Speedy's is required before Speedy's vacates the property in order to have a plan in place. This work plan is designed to obtain the data required to characterize the soil and concrete for disposal and to facilitate preparation of a soil management plan.

WORK PLAN

Under this task Seeler Associates will collect soil samples from the site and coordinate sample analysis. In addition to the sampling of the soil and concrete, Seeler Associates will also attempt:

- To determine the volume of liquids contained in tanks located in the Speedy's building and to visually characterize the liquid to determine if special procedures will be required to remove and dispose of fluids and decommission the tanks.

- To determine the consistency of the soil and the presence of volatile organic vapors behind the concrete block retaining wall located in the basement of the Speedy's building, a steel rod or similar device will be driven into the soil.

Sample Locations

The proposed locations for sampling are present on Figure 1. A total of 8 boreholes will be advanced for sampling. Table 1 was developed to identify the proposed depths of each borehole. These depths were based on the proposed depth of excavation and the need to determine if the soils are a hazardous waste. Boreholes to be advanced within the Speedy's building and basement will require unconventional sampling techniques, because of restricted access and ceiling height. Boreholes located in the building may not achieve their planned depth because of the restrictions imposed by the building.

Sampling Methods

Soil samples will be collected using a split barrel sampler. For samples collected at locations outside of the Speedy's building, the sampler will be driven into the ground by a 140 pound hammer following the ASTM Standard Penetration Test Method. The borehole will be advanced using hollow stem augering equipment. Sample locations within the Speedy's building will be sampled in the following manner; a concrete coring machine will core a hole through the floor slab, a split barrel soil sampler will then be driven two feet into the soil using an air driven hammer and retrieved. If the borehole remains open sampling will continue until the borehole collapses. If the borehole collapses, a steel casing will be driven to the top of the new sample interval and cleared prior to collecting the next sample. In order to collect the dirt and dust generated by the sampling inside the Speedy's building, a "dust" hood will be placed over the borehole. The hood will have a hole drilled in the center so the sampling tools can access the borehole. In addition, sheet plastic will be draped over cleaning equipment and any clothing in the area. At the completion of sampling, the floor in the work area will be swept. Our soil sampling is proposed to be conducted after 5:00 p.m. on weekdays to minimize the disruption of business operations.

Soil samples obtained for analysis will be taken from unsaturated soil within the limits of the proposed excavation. From this soil, samples will be collected based on depth, the presence of stained soil, and or field screening results. Field screening of soil will be conducted using an Hnu Systems PI-101.1 organic vapor analyzer with a photoionization detector (Hnu). Soil samples having volatile organic vapor readings of greater than 20 parts per million will be considered for analysis. Two soil samples from each borehole will be retained for analysis. If the soil samples do not contain measurable organic vapors, a sample(s) will be collected from the soil that is representative of the soil profile.

Two samples of concrete will be selected for analysis. One sample will be collected from the basement floor slab adjacent to the former solvent tanks. The other concrete sample will be potentially collected from the main floor of the Speedy's building adjacent to chemical storage area and dry cleaning machine area. Samples will be obtained by coring through the floor with a concrete coring machine.

Sample Analysis

After the borehole is completed, samples for analysis will be selected using the sample

selection criteria discussed above. A portion of each soil sample will be retrieved for volatile organic analyses. The remaining soil from that sample will be placed in a glass bottle or steel basin and composited for use in other analyses as identified on Table 1. Samples will be kept cool, at a temperature of approximately four degrees centigrade, until delivery to the analytical laboratory.

The anticipated analyses for characterization will be dependent on the sample location, past sampling data, and field judgement. Table 1 presents the proposed sampling and analysis schedule. Soil collected from locations B-3, B-6, and B-7, will be analyzed using the following analyses: volatile organic compounds (VOC's) USEPA Methods 8240, and the Toxicity Characteristic Leaching Procedure (TCLP) followed by volatile organic compounds using USEPA Methods 8240. Soil collected from the remaining boreholes will be analyzed for VOC's by USEPA Method 8240. One concrete sample will be obtained from each boring location, B-3 and B-6. The concrete will have a liquid sample extracted from it using TCLP, followed by an analysis of the liquid for VOC's using USEPA Method 8240. General Testing Corporation of Rochester will conduct these analyses using procedures found in New York State's Analytical Services Protocols (ASP).

Decontamination

Drilling equipment will be decontaminated outside after each borehole using steam produced by a steam jenny. Sampling equipment will be decontaminated using a detergent wash after each sample is collected. All fluids will be drummed and left on site for disposal by the City.

Field documentation

Documentation from the field sampling will include field notes, sample location sketches, boring and sampling logs, and chain of custody forms.

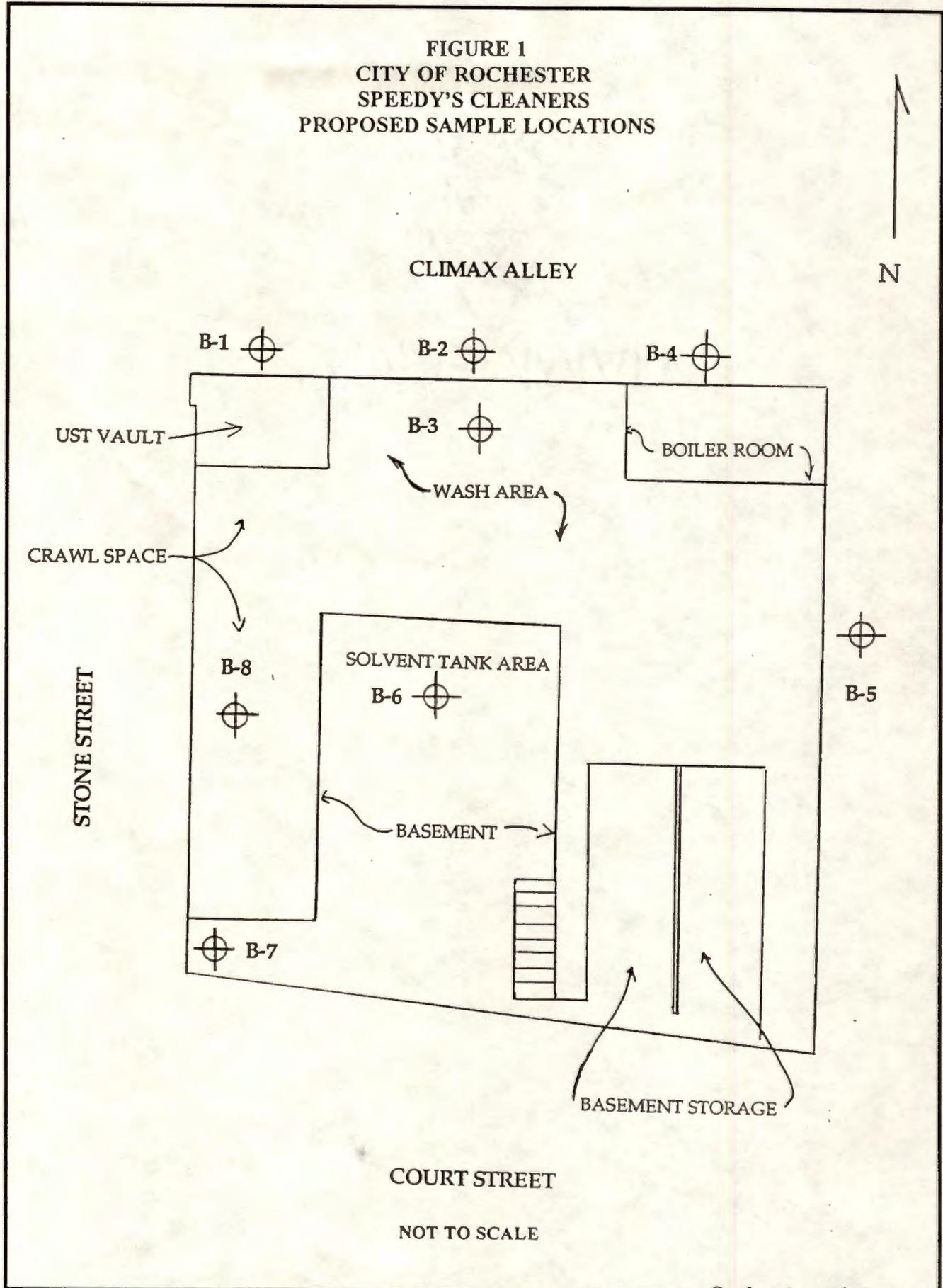
SCHEDULE

The project schedule for the program outlined above is included as Table 2. Seeler Associates understands that sampling may be delayed or expedited depending on access to the site property. For the purposes of the schedule presented below Seeler Associates assumed that only the City personnel would review the project report and that analytical services would provide a 21 day turnaround after receipt.

TABLE 1
CITY OF ROCHESTER
SPEEDY'S CLEANERS
PROPOSED SAMPLING SCHEDULE

Sample Location	Borehole Depth	Total No. of Samples	8240	TCLP 8240
B-1, Climax Alley, NW corner of Speedy's Bldg.	Approx. 28 ft. to bedrock.		✓	
B-2, Climax Alley, outside center most backdoor.	Approx. 28 ft. to bedrock.		✓	
B-3, Inside Speedy's bldg. adj. to dry cleaning area.	Approx. 28 ft. to bedrock.	3, 2 soil samples; 1 concrete sample (TCLP 8240 only)	✓	✓✓
B-4, Climax alley NE corner of Speedy's bldg.	Approx. 28 ft. to bedrock.	2	✓	
B-5, East side of Speedy's bldg. approx. center line of bldg.	Approx. 28 ft. to bedrock.	2	✓	
B-6, Speedy's bldg. basement adj. to solvent tanks.	Approx. 18 ft. to bedrock.	3, 2 soil samples, concrete sample (TCLP 8240 only)	✓	✓✓
B-7, SW corner of Speedy's basement	Approx. 18 ft. to bedrock.	2	✓	
B-8, Inside Speedy's bldg. main floor above the backfilled basement space.	Approx. 28 ft. to bedrock.	2	✓	✓

FIGURE 1
CITY OF ROCHESTER
SPEEDY'S CLEANERS
PROPOSED SAMPLE LOCATIONS



**PHASE II
SITE CHARACTERIZATION REPORT**

Prepared For:

**CITY OF ROCHESTER
DEPARTMENT OF ECONOMIC DEVELOPMENT**

LaBella Project No. 92189

September, 1992

LABELLA

**LaBella Associates, P.C.
300 State Street
Rochester, New York 14614**

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TABLE OF CONTENTS

	<u>Page</u>
1.0 EXECUTIVE SUMMARY	1
1.1 Site Description/Location	1
1.2 Previous Environmental Investigations	1
1.3 Subsurface Investigation Results	1
1.4 Groundwater Analytical Results	2
1.5 Conclusions/Observations	2
RECOMMENDATIONS	3
DISCLAIMER	3
2.0 OBJECTIVE	4
3.0 SCOPE OF WORK	4
3.1 Introduction	4
3.2 Subsurface Soil and Groundwater Investigation	4
3.2(a) Test Borings	4
3.2(b) Monitoring Well Installations	5
3.2(c) Groundwater Sampling and Analysis	5
4.0 SITE ASSESSMENT	6
4.1 Site Geography	6
4.2 Site Hydrogeology	6
4.2(a) Geology	6
4.2(b) Hydrology	6
4.3 Site Subsurface Conditions Assessment	6
4.3(a) Soils	6
4.3(b) Groundwater	8
4.3(c) Site Conditions Subsurface Assessment Summary	8
5.0 RECOMMENDATIONS	9
DISCLAIMER	9
FIGURES	
APPENDIX A BORING LOGS	
APPENDIX B GROUNDWATER SAMPLING FIELD LOGS	
APPENDIX C ANALYTICAL DATA	

1.0 EXECUTIVE SUMMARY

1.1 SITE DESCRIPTION/LOCATION

The Site is located at Court Street between South Avenue and Stone Street in downtown Rochester, New York (FIGURE 1). The Site (Site A) consists of two parking lots and one vacant four-story brick building at 124 South Avenue. A schematic site sketch is included as FIGURE 2.

Site A is bordered by South Avenue, Rundell Library, and the Genesee River to the west, Court Street and offices to the south, Stone Street and Speedy's Dry Cleaners to the east, and a combined office/residential/retail building to the north.

1.2 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Prior to the current investigation, a limited Phase I Environmental Site Assessment (ESA) and a Preliminary Site Characterization were performed for the adjacent city block bounded by Stone/Court/Clinton/Broad Streets (Site B).

The ESA identified several areas of potential environmental concern that required further investigation including a long history of petroleum storage adjacent to the site (on Site A and on the south side of Court Street) as well as an eighty year old dry cleaning facility (Speedy's) located on Site B.

Four monitoring wells were installed as part of the previous preliminary site characterization. Analytical results of groundwater samples indicated the presence of petroleum hydrocarbons and xylene in one of the four monitoring wells (GW-2).

In July, 1992 a limited Phase I ESA of Site A. The ESA revealed that two of the parcels on Site A were operated as gas stations for over 30 years dating back to the 1930's. The final disposition of the underground storage tanks (UST's) at the site could not be determined under the scope of the ESA. It is possible that UST's are still buried on the site. Because of the potential environmental concerns identified during all of these assessments it was decided to seek additional information concerning the subsurface soils and groundwater adjacent to Site A.

A 1935 Platt Map is included as FIGURE 3. This map shows the location of the former gasoline stations in the vicinity of the Site.

1.3 SUBSURFACE INVESTIGATION RESULTS

The environmental investigation at Site A was coordinated with a preliminary geotechnical investigation that was planned for the Site. Five (5) test borings with continuous split spoon samples were drilled for this purpose in the right of way bordering the Site (FIGURE 4). The test borings were conducted in the right of way because access to the site was not available at this time.

Monitoring wells were installed in borings B-2 and B-4 in order to obtain groundwater samples as well as groundwater elevation data. Test borings and soil samples were screened for evidence of contamination using an Hnu photo ionization detector (PID).

Boring logs indicated an odor at 14 feet during the drilling and sampling of boring B2. No positive responses were recorded on field air monitoring instruments. As the monitoring well installed in B2 was screened in close proximity to the depths where the odor was encountered, and a groundwater sample would be taken from that location, (soil samples were not sent to the laboratory for analysis).

1.4 GROUNDWATER ANALYTICAL RESULTS

Analytical results for the groundwater samples obtained from the two wells are outlined below:

<u>Location</u>	<u>Analyte Group</u>	<u>Method</u>	<u>Concentration</u>	<u>Constituents</u>
B-2 (GW-5)	Volatile Organics	EPA 8240	1400ug/L	Toluene
	Volatile Organics	EPA 8240	1400ug/L	Ethylbenzene
	Volatile Organics	EPA 8240	6700ug/L	Total Xylene
	Petroleum Hydro.	DOH 310-13	610ug/L	Gasoline
B-4 (GW-6)	Volatile Organics	EPA 8240	Not Detected	
	Petroleum Hydro.	DOH 310-13	43ug/L	N-dodecane

Note: ug/L is approximately equal to parts per billion (ppb). ND denotes non-detected.

The analytical results did indicate the presence of xylene, ethylbenzene, and toluene at GW-5 (B-2). Total petroleum hydrocarbon (TPH) analysis of this sample identified these constituents as being derived from gasoline. No volatiles were detected above laboratory limits in the sample at GW-6 (B-4), however, TPH analysis did reveal the presence of low levels of petroleum hydrocarbons. The laboratory noted that the mixture didn't allow for identification as a specific hydrocarbon. Therefore, the sample was calculated as n-Dodecane. No signs of free product were observed in groundwater during this investigation.

At this stage of the investigation, it is not possible to estimate costs associated with the handling of soils and groundwater with elevated levels of petroleum hydrocarbon materials which may be encountered during construction. These costs can vary based on concentrations encountered, availability of treatment capacity and/or disposal methods and current NYSDEC regulations and guidance documents.

1.5 CONCLUSIONS/OBSERVATIONS

The concentrations of xylene, ethylbenzene, and toluene all exceed the Drinking Water Standard of 50 ug/L established in Part 5 of Chapter I in the New York Sanitary Code for drinking water supplies. The NYSDEC generally uses a visible sheen as a remediation indicator.

The presence of petroleum hydrocarbons in the monitoring wells at Site A may be attributed to former gas stations on the Site near the corner of Stone and Court Streets, and near the corner of Court Street and South Avenue. The possibility of an off-site source cannot be precluded due to the historical presence of other petroleum storage facilities in close proximity to the Site.

Based on the groundwater elevations measured at all six monitoring wells at Sites A and B on September 4, 1992, horizontal groundwater flow at this time appears to flow towards the north. Groundwater elevation contours based on these data are illustrated in FIGURE 5. As this area's regional groundwater flow is generally towards the Genesee River, there appears to be a local influence on groundwater flow in the immediate vicinity of the Site. This influence may be explained by excavation for the recently completed Clinton Square building, and probable groundwater drainage or pumping at the Midtown Plaza underground parking garage and other nearby office buildings.

RECOMMENDATIONS

1. As Site A historically has had gasoline stations located within its boundaries, and signs of gasoline materials have been noted in groundwater samples from the Site's boundaries, it is recommended that a contingency plan be prepared prior to on-site excavation. This plan should be reviewed by appropriate State and local agencies.

The contingency plan should include the following items:

- A. Procedures for identifying and handling materials with elevated petroleum hydrocarbon levels, which may be encountered during construction/excavation.
 - B. Procedures for removing underground storage tanks, which may be encountered during excavation.
 - C. A site specific health and safety plan.
 - D. Procedures for notifying the NYSDEC.
 - E. An environmental technician to be present during all on-site excavations.
2. During construction, engineering controls such as ventilation systems should be considered in order to minimize the potential for petroleum hydrocarbon vapors to enter future buildings.
 3. It is recommended that as the city gains access to the property, additional testing such as test borings and/or geotechnical surveys be performed to provide a better understanding of the conditions associated with both Site A and Site B.
 4. It should also be noted that access to on-site buildings has not been allowed during these investigations. Relevant environmental issues such as asbestos and lead based paint should be evaluated prior to property transfer and building demolitions.

This report is a professional opinion and judgment, dependent upon LaBella's knowledge, information and data supplied by governmental agencies, and data generated in the field.

In addition, LaBella cannot provide guarantees, certification or warranties that the property is or is not free of environmental impairment. The subsurface investigation program, the data and samples from any given soil boring or monitoring well will indicate conditions that apply only at that particular location, and such conditions may not necessarily apply to the general site as a whole.

2.0 OBJECTIVE

This preliminary site characterization was conducted under contract to the City of Rochester. The objective of this site characterization was to determine if contamination is present in soils and groundwater in the vicinity of the site and to identify possible source and migration pathways of contaminants.

This investigation was designed to supplement existing data for the site. A limited Phase I Environmental Site Assessment and documentation review performed by LaBella Associates indicated several areas of potential environmental concern that required further investigation. These issues include a long history of petroleum storage on and adjacent to the site as well as an eighty year old dry-cleaning facility located adjacent to the site.

3.0 SCOPE OF WORK

3.1 INTRODUCTION

Prior to the current investigation LaBella Associates performed a limited Phase I Environmental Site Assessment (ESA) and a Preliminary Site Characterization for the adjacent city block bounded by Stone/Court/Clinton/Broad Streets (Site B). The ESA identified several areas of potential environmental concern that required further investigation including a long history of petroleum storage adjacent to the site (on Site A and on the south side of Court Street) as well as an eighty year old dry cleaning facility (Speedy's) located on Site B. Four monitoring wells were installed as part of the site characterization of Site B. Analytical results of groundwater samples indicated the presence of petroleum hydrocarbons and xylene in one of the four monitoring wells (GW-2).

In July, 1992 LaBella Associates performed a limited Phase I ESA of Site A. The ESA revealed that two of the parcels on Site A were operated as gas stations for over 30 years dating back to the 1930's. Because of the potential environmental concerns identified during all of these assessments it was decided to seek additional information concerning the subsurface soils and groundwater adjacent to Site A.

The environmental investigation at Site A was coordinated with a preliminary geotechnical investigation that was planned for the Site. Five (5) test borings with continuous split spoon samples were drilled for this purpose in the right of way bordering the Site (FIGURE 3). Monitoring wells were installed in borings B-2 and B-4 in order to obtain groundwater samples as well as groundwater elevation data. LaBella Associates personnel observed the test borings and screened the soil samples for evidence of contamination using an Hnu photo ionization detector (PID) and by sight and smell.

3.1(a) Exclusion

The actual presence of radon, lead based paint, and urea formaldehyde foam insulation at the Site can only be determined through sampling and analysis, which you have determined to be beyond the scope of this assessment.

It is understood that no further assessment will be required at this time pertaining to the presence of radon, lead based paint, and urea formaldehyde foam insulation at the Site.

3.2 SUBSURFACE SOIL AND GROUNDWATER INVESTIGATION

3.2(a) Test Borings

Empire Soils Investigations, Inc. completed five (5) test borings at Site A in August, 1992. Test borings were conducted for geotechnical purposes as well as to evaluate potential contamination of soils and groundwater underlying the site.

A utility stake-out was performed prior to the initiation of all subsurface work. All borings were conducted in the right of way at the perimeter of the site because access to the site was not available at this time. There are numerous underground utilities which restricted the options for placement of test borings.

All borings were advanced to bedrock with the possible exception of B-4 which may have been terminated on a large boulder rather than bedrock. Ten feet of bedrock core was obtained at borings B-1 and B-3 for geotechnical purposes. Boring logs are contained in APPENDIX A.

Test borings were drilled by advancing a 4 1/4 inch I.D. hollow-stem auger following the split spoon sample. Split spoon samples were taken continuously throughout the boring program. The Project Geologist visually identified the soil, collected samples, and then prepared boring logs describing the subsurface conditions encountered at each location. In addition, the headspace of each soil sample was monitored with a Hnu PID. No PID readings above background were noted, however, a slight odor was noted in samples at B-2 and B-4.

3.2(b) Monitoring Well Installation

The work plan specified the installation of monitoring wells in two of the five test borings. The monitoring well locations were selected based on the proximity to potential sources as well as to clarify groundwater flow direction.

Prior to commencement of drilling activities at B-2 and B-4, all drilling equipment including augers, rods, bits, casings, and well material were decontaminated using a high pressure steam cleaner. Split spoon samplers were put through a sequential decontamination wash between samples. The spoon parts were scrubbed with a trisodium phosphate detergent solution and then triple rinsed.

Empire Soils completed the monitoring wells at Site A in borings B-2 and B-4. The wells are screened in overburden soils directly above the bedrock. As previously stated, Boring B-4 may have been terminated on top of a large boulder rather than bedrock.

Monitoring wells consisted of 2-inch diameter, threaded, flush-joint PVC casing, and No. 10 slot PVC screens. A No. 3 QROK silica sand filter pack was placed around the screens to a depth of 2 feet above the screen. A two foot bentonite pellet seal was placed above the sand pack, and a cement/bentonite grout mixture was placed from the top of the bentonite to the ground surface. The wells were completed with a steel flush mount protective casing to protect the wells.

Both wells were developed by bailing using dedicated Teflon^R bailers. These wells were allowed to sit for 24 hours after final grouting was completed prior to development. Approximately 4 well volumes of water were removed from GW-5 (B-2) causing the well to go nearly dry. Slow recharge prevented further development at that time. A petroleum odor was noted in the well during development, however no product sheen was observed. Approximately 10 well volumes of water were removed from GW-6 (B-4). It was noted that this water was black in color, no odor or product sheen was noted during well development.

3.2(c) Groundwater Sampling and Analysis

Groundwater samples were collected from the two completed monitoring wells installed as part of this investigation in September, 1992. These samples were analyzed for volatile organic compounds using EPA method 8240, and for petroleum hydrocarbon concentrations using NYSDOH method 310-13.

Samples were collected using dedicated, decontaminated Teflon^R bailers and polypropylene line. Prior to sampling, groundwater-level and total-depth-of-well readings were obtained. A minimum of three standing well volumes was then calculated and purged. Analytical results are discussed in Section 4.3(b).

Groundwater monitoring field forms are included in APPENDIX B.

4.0 SITE ASSESSMENT

4.1 SITE GEOGRAPHY

The site is located a completely developed urban area. Most of the site and surrounding area contains buildings or is paved. The topography is relatively flat with a slight gradient to the west toward the nearby Genesee River.

4.2 SITE HYDROGEOLOGY

4.2(a) Geology

Subsurface soil and bedrock information obtained during this investigation (Appendix A) indicates that depth to bedrock at these sites ranges from approximately 22 to 30 feet. Fill material was encountered above native soils at all five test borings with depth of fill ranging from 2 to 15.5 feet. Native soils consisted predominantly of sand and silt.

Bedrock beneath the site is the Lockport Dolomite. Rock cores indicated that the top three feet of bedrock is heavily fractured before becoming more competent.

4.2(b) Hydrology

Test borings revealed that the overburden soils and bedrock are hydraulically connected due to the absence of any confining layer.

On September 4, 1992 water levels were recorded at each of the monitoring wells at Sites A and B. Water level data are presented in TABLE 1 and groundwater elevation contours are illustrated on the map in FIGURE 5.

Horizontal groundwater flow at the time of water level measurement appeared to be to the north. As regional groundwater flow in this area is westerly toward the Genesee River, it can be logically assumed that local groundwater flow is being influenced by man-made conditions (i.e. basements, underground parking garages) in the immediate vicinity of the site.

4.3 SITE SUBSURFACE CONDITION ASSESSMENT

4.3(a) Soils

Fill material was encountered at all five test borings at Site A, consisting mostly of sand and gravel, but also containing some construction debris such as brick. Fill depth ranged from 2 to 15.5 feet below grade.

No visual or odoriferous signs of contamination were encountered at borings B-1, B-3, and B-5. No readings above background were detected with the Hnu PID during headspace screening of the soil samples.

A petroleum odor was noted in soil samples at the 12-14 foot level at boring B-2. No staining or visible signs of petroleum were observed at this location.

Soil samples at boring B-4 revealed a wet black sandy material at the 13 -15 foot level. A slight petroleum odor was noted in this sample. Sample volumes recovered were not sufficient to send to the laboratory for analysis.

**TABLE 1
WATER LEVEL DATA**

WELL #	DATE MEASURED	ELEVATION OF STEEL CASING	GRADE ELEVATION	WATER LEVEL (FEET FROM T.O.C.)*	WATER LEVEL (FEET ABOVE MSL)
GW-1	9/4/92	534.29	534.29	18.38	515.91
GW-2	9/4/92	530.75	530.75	11.46	519.29
GW-3	9/4/92	531.36	531.36	10.74	520.62
GW-4	9/4/92	530.74	530.74	18.41	512.33
GW-5	9/4/92	529.9	529.9	10.46	519.44
GW-6	9/4/92	527.3	527.3	12.26	515.04

*T.O.C. = TOP OF STEEL CASING

NOTE: Grade elevations were established from a USGS monument at the southeast corner of Court Street and South Avenue and are established as Feet above MSL.

R2122DPA

4.3(b) Groundwater

Groundwater samples were collected on September 4, 1992 from the two monitoring wells that were installed for this assessment. These samples were analyzed for volatile organic compounds using EPA method 8240, and for petroleum hydrocarbon concentrations using NYSDOH method 310-13.

Preliminary laboratory results indicate that volatile organics and petroleum hydrocarbons were observed above laboratory detection limits in GW-5 (B-2), and petroleum hydrocarbons were present in GW-6 (B-4).

Analytical results for the groundwater samples obtained from the two wells are outlined below:

<u>Location</u>	<u>Analyte Group</u>	<u>Method</u>	<u>Concentration</u>	<u>Constituents</u>
B-2 (GW-5)	Volatile Organics	EPA 8240	1400ug/L	Toluene
	Volatile Organics	EPA 8240	1400ug/L	Ethylbenzene
	Volatile Organics	EPA 8240	6700ug/L	Total Xylene
	Petroleum Hydro.	DOH 310-13	610ug/L	Gasoline
B-4 (GW-6)	Volatile Organics	8240	Not Detected	
	Petroleum Hydro.	DOH 310-13	43ug/L	N-dodecane

Note: ug/L is approximately equal to parts per billion (ppb). ND denotes non-detected.

No free product or sheen was observed at any time during well development or sampling, however, the water in GW-6 (B-4) was black in color.

4.3(c) Subsurface Conditions Assessment Summary

The boring logs indicate that the top 10 to 15 feet of soils at the site are fill material above native soils. The majority of this material is sand and gravel, but bricks were also noted at B-4 and B-5 at the 12 to 15 foot depth. Petroleum odors were noted in soil samples at B-2 (GW-5).

Analytical results from two groundwater monitoring wells installed during this investigation did not reveal the presence of tetrachloroethylene (a solvent used in dry cleaning) or dissolved breakdown products associated with the same. These results did indicate the presence of xylene, ethylbenzene, and toluene at GW-5 (B-2). Total petroleum hydrocarbon (TPH) analysis of this sample identified these constituents as being derived from gasoline. No volatiles were detected above laboratory detection limits in the sample at GW-6 (B-4), however, TPH analysis did reveal the presence of low levels of petroleum hydrocarbons. The laboratory noted that the mixture didn't allow for identification as a specific hydrocarbon. Therefore the sample was calculated as n-Dodecane. No signs of free product were observed in groundwater during this investigation.

The concentrations of xylene, ethylbenzene, and toluene all exceed the Drinking Water Standard of 50 ug/L established in Part 5 of Chapter I in the New York Sanitary Code for drinking water supplies. The NYSDEC generally uses a visible sheen as a remediation indicator.

The presence of petroleum hydrocarbons in the monitoring wells at Site A may be attributed to former gas stations on the Site near the corner of Stone and Court Streets, and near the corner of Court Street and South Avenue. The possibility of an off-site source cannot be precluded due to the historical presence of other petroleum storage facilities in close proximity to the Site.

Based on the groundwater elevations measured at all six monitoring wells at Sites A and B on September 4, 1992, horizontal groundwater flow at this time appears to flow towards the north. Groundwater elevation contours based on these data are illustrated in FIGURE 5. As this area's regional groundwater flow is generally towards the Genesee River, there appears to be a local influence on groundwater flow in the immediate vicinity of the Site. This influence may be explained by excavation for the recently completed Clinton Square building, and probable groundwater drainage or pumping at the Midtown Plaza underground parking garage and other nearby office buildings.

At this stage of the investigation, it is not possible to estimate costs associated with the handling of soils and groundwater with elevated levels of petroleum hydrocarbon materials which may be encountered during construction. These costs can vary based on concentrations encountered, availability of treatment capacity and/or disposal methods and current NYSDEC regulations and guidance documents.

5.0 RECOMMENDATIONS

1. As Site A historically has had gasoline stations located within its boundaries, and signs of gasoline materials have been noted in groundwater samples from the Site's boundaries, it is recommended that a contingency plan be prepared prior to on-site excavation. This plan should be reviewed by appropriate State and local agencies.

The contingency plan should include the following items:

- A. Procedures for identifying and handling materials with elevated petroleum hydrocarbon levels, which may be encountered during construction/excavation.
 - B. Procedures for removing underground storage tanks, which may be encountered during excavation.
 - C. A site specific health and safety plan.
 - D. Procedures for notifying the NYSDEC.
 - E. An environmental technician to be present during all on-site excavations.
 - F. Prior to excavation, access to the procedures for additional testing such as test borings and/or geotechnical surveys to be performed prior to excavation to provide a better understanding of the conditions associated with both Site A and Site B.
2. During construction, engineering controls such as ventilation systems should be considered in order to minimize the potential for petroleum hydrocarbon vapors to enter future buildings.
 3. It should also be noted that access to on-site buildings has not been allowed during these investigations. Relevant environmental issues such as asbestos and lead based paint should be evaluated prior to building demolitions.

This report is a professional opinion and judgment, dependent upon LaBella's knowledge, information and data supplied by governmental agencies, and data generated in the field.

In addition, LaBella cannot provide guarantees, certification or warranties that the property is or is not free of environmental impairment. The subsurface investigation program, the data and samples from any given soil boring or monitoring well will indicate conditions that apply only at that particular location, and such conditions may not necessarily apply to the general site as a whole.

R2I17DP1

FIGURES

LIST OF FIGURES

- FIGURE 1 Location Map (USGS)
- FIGURE 2 Site Sketch
- FIGURE 3 Site Sketch 1935 Platt Map
- FIGURE 4 Test Boring Locations
- FIGURE 5 Groundwater Contour Map



FIGURE 1

SITE LOCATION

DOWNTOWN

ROCHESTER.

NEW YORK



SCALE: 1" = 2000'

LABELLA

LaBella Associates, P.C.

Engineering, Architecture
and Surveying

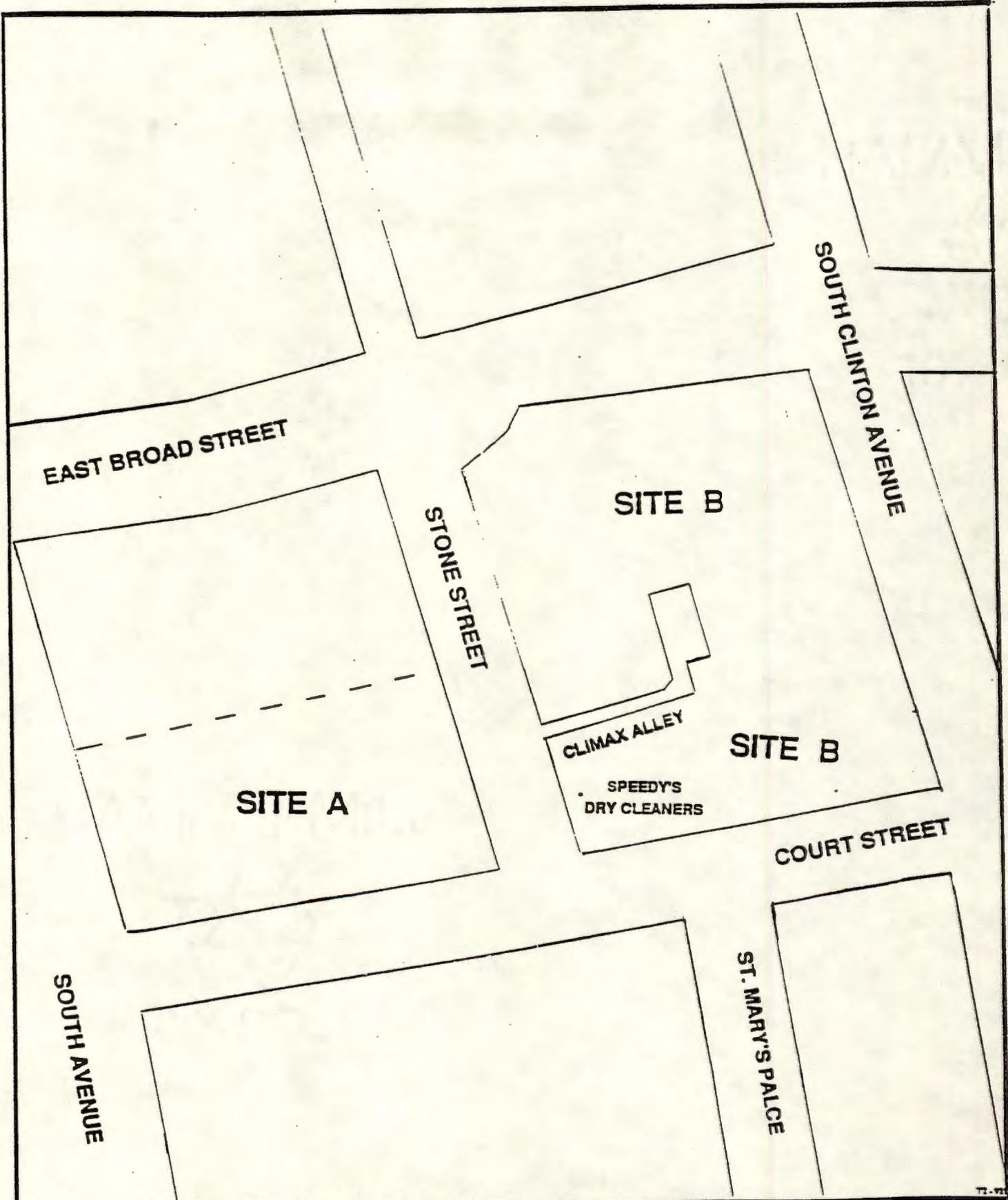


FIGURE 2
SITE SKETCH

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614
716-454-6110

Project No.:	92189
Scale:	1"=100'
Drawn By:	DP
Date:	9/10/92

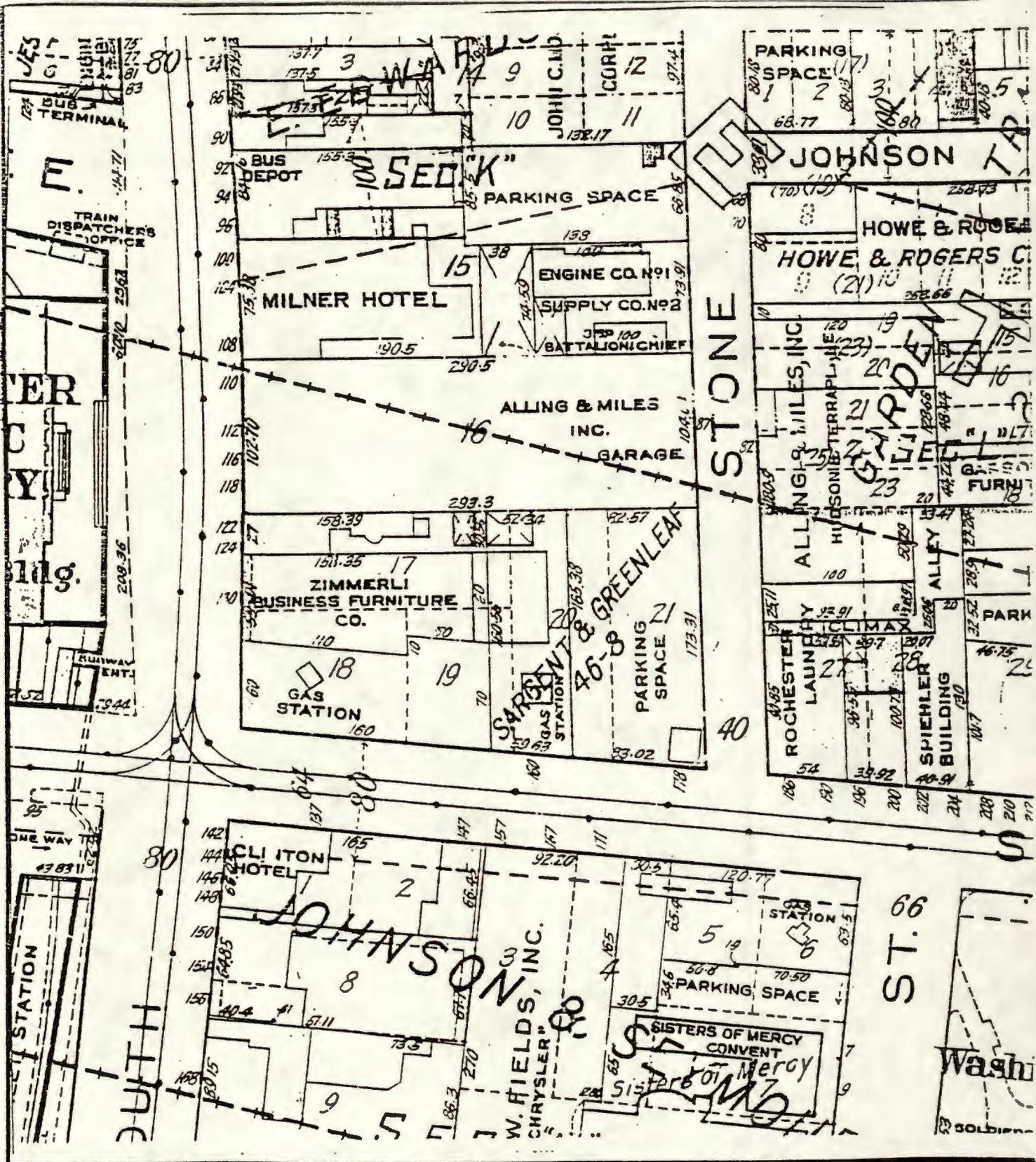


FIGURE 3
1935 PLAT MAP



SCALE: 1" = 2000'

LABELLA

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614
716 454-6110

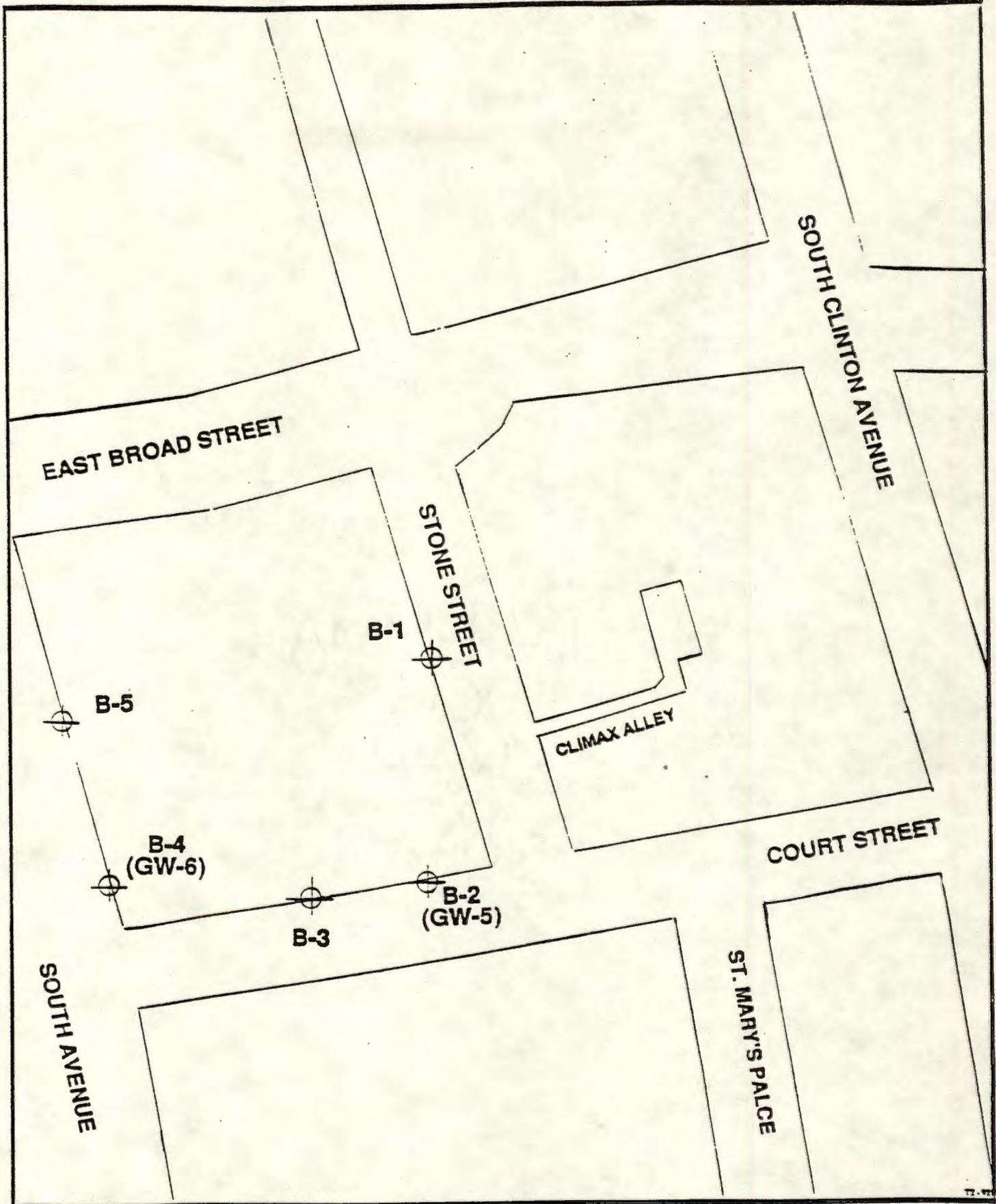


FIGURE 4
TEST BORING LOCATIONS

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614
716-454-6110

Project No.:	92189
Scale:	1"=100'
Drawn By:	DP
Date:	9/10/92

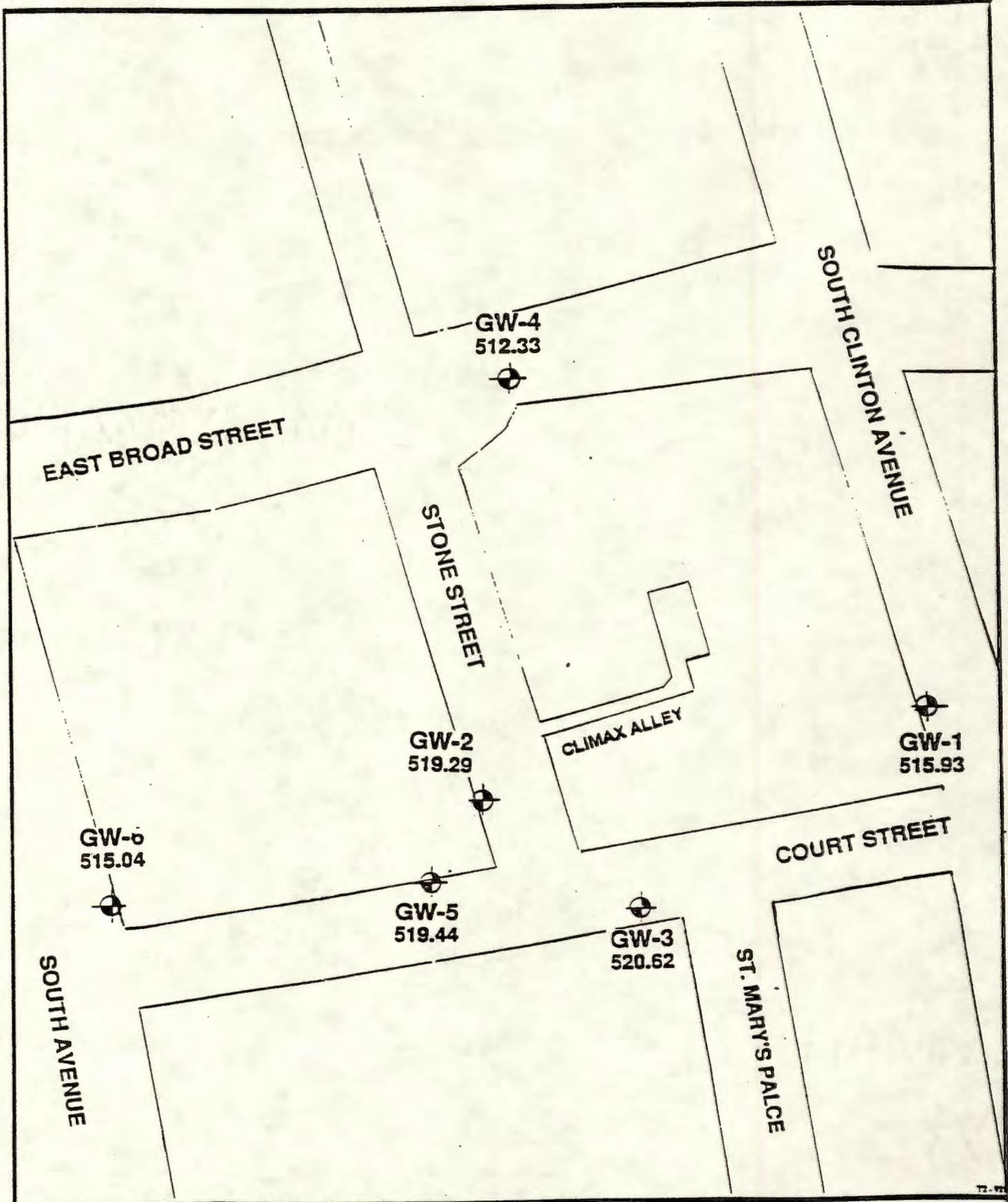


FIGURE 5
GROUNDWATER ELEVATION MAP

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614
716-454-6110

Project No.:	92189
Scale:	1"=100'
Drawn By:	DP
Date:	9/10/92

APPENDIX A

BORING LOGS

LABELLA ASSOCIATES, P.C.
 300 STATE STREET, ROCHESTER, NEW YORK
 ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
 CITY OF ROCHESTER
 STONE/COURT/SOUTH

BORING # B-1
 SHEET 1 OF 2
 JOB # 92189
 CHKD. BY DP

CONTRACTOR EMPIRE SOILS **BORING LOCATION** Stone Street (sidewalk)
DRILLER Joe Jenson **GROUND SURFACE ELEVATION** 531.87
LABELLA REPRESENTATIVE Dennis Peck **START DATE** 8/20/92 **END DATE** 8/21/92

		WATER LEVEL DATA				
TYPE OF DRILL RIG	Acker Soil Max	DATE	TIME	WATER	CASING	REMARKS
AUGER SIZE AND TYPE	4 - 1/4 inch I.D. HSA					
OVERBURDEN SAMPLING METHOD	1-3/8 inch I.D. Split spoon					
ROCK DRILLING METHOD						

DEPTH	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO. /6"	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)					
1						Concrete sidewalk			
2	11	S-1	1-3	7	6	Brown fine to coarse SAND, trace Gravel little Silt, moist (FILL)		BG	1 Boring backfilled with cuttings and grouted to surface
3	4								
4	32	S-2	3-3.9	100/0.4	2	... some Cobbles		BG	
5	100/4								
6	17	S-3	5-7	120	14	... and dark gray rock fragments		BG	
7	40								
8	80								
9	35								
10	23	S-4	7-9	12	10			BG	
11	6								
12	6								
13	64	S-5	9-9.9	100/0.4	5	... trace brick		BG	
14	100/4								
15	100/6	S-6	12-12.5	100/0.6	5	Brown, fine, very dense SAND and Silt little coarse Sand, little Gravel, moist		BG	
16	35	S-7	14-15.5	165	12	... wet		BG	
17	65								
	100								

LEGEND
 S - SPLIT SPOON SOIL SAMPLE
 U - UNDISTURBED SOIL SAMPLE
 C - ROCK CORE SAMPLE

NOTES:
 1. BG denotes background reading on Hnu

GENERAL NOTES:
 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA ASSOCIATES, P.C. 300 STATE STREET ROCHESTER, NEW YORK						PROJECT CITY OF ROCHESTER STONE/COURT/CLINTON/BROAD		BORING # B-1 SHEET 2 of 2 JOB # 92189 CHKD. BY	
ENVIRONMENTAL ENGINEERING CONSULTANTS									
DEPTH	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO. / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)				
18	30	S-8	17-18.5	158	12	Brown fine to coarse SAND, some Gravel little Silt		BG	
	58								
	100								
19	40	S-9	19-20	100	12	Gray-brown, very dense fine SAND and Silt trace Gravel, wet		BG	
20	100								
21									Boring backfilled with cuttings and grouted to surface
22									
23	30	S-10	22-23	100	8			BG	
	100								
24									
	100/3	S-11	24-24.3	100/0.3	3	... moist		BG	
25									
26									
	100/5	S-12	26-26.5	100/0.5	5			BG	
27									
28									
29						Top of bedrock at 29.1'			
		C-1	29.1-32.9	72.4%	86.8%			BG	2
30						Gray, hard unweathered bedded Lockport DOLOMITE. Stylitic, wavy fractures, silt coated fractures at 30.1, 30.6, 32.2, 32.3, 32.5, apparent heavily fractured zone at 32.9, vuggy at 37.4			
31									
32		C-2	32.9-39.1	91.1%	100%			BG	
33									
34									
35									
36									
37									
38									
39						Bottom of boring at 39.1'			

LEGEND

- S - SPLIT SPOON SOIL SAMPLE
- U - UNDISTURBED SOIL SAMPLE
- C - ROCK CORE SAMPLE

NOTES:

- 2. Driller notes 75% coring water lost after Run #1, core blockage ended Run #1

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

CONTRACTOR	EMPIRE SOILS	BORING LOCATION	Court Street (sidewalk)
DRILLER	D. Panelli	GROUND SURFACE ELEVATION	529.91
LABELLA REPRESENTATIVE	Steve Wisley/Greg Senecal	START DATE	8/24/92
		END DATE	8/25/92

TYPE OF DRILL RIG: Acker AD II AUGER SIZE AND TYPE: 4 - 1/4 inch I.D. HSA OVERBURDEN SAMPLING METHOD: 1-3/8 inch I.D. Split spoon ROCK DRILLING METHOD:	WATER LEVEL DATA <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>TIME</th> <th>WATER</th> <th>CASING</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	DATE	TIME	WATER	CASING	REMARKS															
DATE	TIME	WATER	CASING	REMARKS																	

DEPTH	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)					
	/ 6"								
1	13	S-1	0-2	19	4	6" concrete sidewalk			
	15					Brown SAND and gray ROCK fragments, little brick, moist, FILL			
	4								
2	3								
	3	S-2	2-4	26	12	Brown medium dense fine SAND and Silt, trace coarse Sand, moist			BG
3	9								
	17								
4	21								
	7	S-3	4-6	43	16	... trace Gravel			BG
5	18								
	25								
6	33								
	35	S-4	6-8	67	22				BG
7	32								
	35								
8	38								
	9	S-5	8-10	83	18				BG
9	33								
	50								
10	46								
	15	S-6	10-12	113	20				BG
11	33								
	80								
12	80								
	27	S-7	12-13.4	100/4	12	... gray-brown			BG
13	80								
	100/4								
14									
	41	S-8	14-14.8	100/3					BG
15	100/3								
16									
	150/6	S-9	16-16.6	150/6	0	... no recovery			BG
17									

LEGEND S - SPLIT SPOON SOIL SAMPLE U - UNDISTURBED SOIL SAMPLE C - ROCK CORE SAMPLE	NOTES: 1. BG denotes background reading on Hnu 2. Driller notes water encountered at 12' 3. Petroleum or solvent odor noted
---	---

GENERAL NOTES:

- STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
- WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA ASSOCIATES, P.C.
300 STATE STREET ROCHESTER, NEW YORK

PROJECT
CITY OF ROCHESTER
STONE/COURT/CLINTON/BROAD

BORING # B-2
SHEET 2 of 2
JOB # 92189
CHKD. BY

ENVIRONMENTAL ENGINEERING CONSULTANTS

DEPTH H	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO.	DEPTH	N-VALUE	RECOVERY					
	/6"	(FT.)	/RQD(%)	(INCHES)					
18	150/6	S-10	18-18.5	150/6	3	... sandstone fragment		BG	
19									
20									
21	25	S-11	20-22	180	2	Hard Gray-brown SILT, little fine Sand, trace Gravel, moist		BG	
22	100								
23	80								
24	100								
25	145/6	S-12	22-22.6	100/1	3	... red sandstone fragment		BG	#2 QROK sandpack (12.0 - 27.0 feet)
26									
27	40	S-13	24-25	145/6	10			BG	2 inch I.D. schedule 10 PVC screen (14.0 - 27.0 feet)
28	145/6								
29									
30									
31									
32									
33									
34									
35									
36									
37	150/6	S-14	26-26.5	150/6	5			BG	
	100/1	S-15			0	... no recovery		BG	
						Bottom of boring at 27.3' with auger refusal			

LEGEND

S - SPLIT SPOON SOIL SAMPLE
U - UNDISTURBED SOIL SAMPLE
C - ROCK CORE SAMPLE

NOTES:

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LBA

BORING # B-2

LABELLA ASSOCIATES, P.C.
 300 STATE STREET, ROCHESTER, NEW YORK

PROJECT
 CITY OF ROCHESTER
 STONE/COURT/SOUTH

BORING # B-3
 SHEET 1 OF 2
 JOB # 92189
 CHKD. BY DP

ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR EMPIRE SOILS **BORING LOCATION** Court Street (sidewalk)
DRILLER Joe Jenson **GROUND SURFACE ELEVATION** 528.31
LABELLA REPRESENTATIVE Greg Senecal **START DATE** 8/24/92 **END DATE** 8/25/92

TYPE OF DRILL RIG	AUGER SIZE AND TYPE	OVERBURDEN SAMPLING METHOD	ROCK DRILLING METHOD	WATER LEVEL DATA			
				DATE	TIME	WATER	CASING
Acker Soil Max	4 - 1/4 inch I.D. HSA	1-3/8 inch I.D. Split spoon					

D E P T H	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	N O T E S
	BLOW NO. / 6"	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)					
						6" concrete sidewalk			
1	13	S-1	1-3	22	18	Brown fine to coarse SAND, little Silt		BG	1
2	10					2" gray Clayey SILT and Gravel layer			
	12					FILL			
3	10								
	8	S-2	3-5	10	16	Tan fine to coarse SAND and SILT		BG	
4	5					trace Gravel			
	5					FILL			
5	5								
	8	S-3	5-7	10	20	Brown fine to coarse SAND and SILT		BG	
6	5					little Gravel, moist			
	5					(possible FILL)			
7	6								
	8	S-4	7-9	14	20			BG	
8	7								
	7								
9	7								
	4	S-5	9-11	7	20			BG	
10	4								
	3								
11	3								
	16	S-6	11-13	60	20	Very dense Gray-brown f-c SAND and		BG	
12	30					GRAVEL, some Silt, moist			
	30								
13	40								
14									
15									
	17	S-7	15-16.5	84	16	... layers of fine SAND and SILT		BG	
16	34								
	50								

LEGEND
 S - SPLIT SPOON SOIL SAMPLE
 U - UNDISTURBED SOIL SAMPLE
 C - ROCK CORE SAMPLE

NOTES:
 1. BG denotes background reading on Hnu

GENERAL NOTES:

- STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA ASSOCIATES, P.C. 300 STATE STREET ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS					PROJECT CITY OF ROCHESTER STONE/COURT/CLINTON/BROAD		BORING # B-3 SHEET 2 of 2 JOB # 92189 CHKD. BY	
DEPTH H / 6"	SAMPLE				SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)				
18								
19								
20								
21	30	S-8	20-21.5	160				BG
	60							
	100							
22		C-1	21.7-24	47.6%	Lockport DOLOMITE boulder			BG 2
23								
24								
25	72	S-9	24-25	100	Very dense brown m-c SAND, some Gravel			BG
	100				trace SILT, wet			
26	47	S-10	25-26	100	... trace Gravel			BG
	100							
27					Bedrock encountered at 27.2'			
28		C-2	27.2-29	66.7% 100%	Gray hard unweathered bedded Lockport DOLOMITE, Styolitic, horizontal wavy fractures except as noted, silt coated			BG
29					heavily fractured zones 29.8-30.3, 30.7-30.9			
30		C-3	29-32	16.7% 63.3%	silt coated high angle fracture 29-29.2, silt coated fractures 29.6, 29.8, 29.9, silt coated heavily fractured zone 30.1-30.6			BG
31								
32								
33		C-4	32-37.2	100% 100%				BG
34								
35								
36								
37					Bottom of boring at 37.2'			
LEGEND S - SPLIT SPOON SOIL SAMPLE U - UNDISTURBED SOIL SAMPLE C - ROCK CORE SAMPLE					NOTES: 2. Completed drilling to 22' on 8/24/92, on the following morning water at 13' in augers			
GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
LBA							BORING # B-3	

CONTRACTOR	EMPIRE SOILS	BORING LOCATION	South Avenue
DRILLER	Joe Jenson	GROUND SURFACE ELEVATION	527.28'
LABELLA REPRESENTATIVE	Greg Senecal	START DATE	8/24/92
		END DATE	8/24/92

TYPE OF DRILL RIG	Acker Soil Max	WATER LEVEL DATA				
AUGER SIZE AND TYPE	4 - 1/4 inch I.D. HSA	DATE	TIME	WATER	CASING	REMARKS
OVERBURDEN SAMPLING METHOD	1-3/8 inch I.D. Split spoon					
ROCK DRILLING METHOD						

DEPTH	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)					
1						Concrete sidewalk			
2	10	S-1	1-3	24	10	Brown f-c SAND, little Gravel, trace Silt moist, FILL		Flush mount curb box protective casing	BG
3	11								
4	13					... little Silt		2 inch I.D. schedule PVC riser (0.0 - 10.2 feet)	BG
5	8	S-2	3-5	17	8				
6	9					... little brick		Cement grout (0.0 - 7.5 feet)	BG
7	6								
8	6					... little brick			
9	7	S-3	5-7	14	12				
10	7					BRICK			
11	5								
12	6	S-4	7-9	8	16	... wet, trace fine Sand		Bentonite pellet seal (7.5 - 9.5 feet)	BG
13	4								
14	4					Black fine SAND and SILT, petroleum odor, wet,			
15	8	S-5	9-11	8	2				
16	4					Black fine SAND and SILT, petroleum odor, wet,		2 inch I.D. No. 10 slot PVC screen (10.2 - 22.2 feet)	BG
17	4								
18	8	S-6	11-13	8	3	Very dense gray-brown fine SAND and SILT trace m-c Sand, black staining, wet			
19	4								
20	4					Very dense gray-brown fine SAND and SILT trace m-c Sand, black staining, wet		#2 QROK Sandpack (9.5 - 22.2 feet)	BG
21	11	S-8	15-16.3	100/3	12				
22	40								
23	100/3								

LEGEND S - SPLIT SPOON SOIL SAMPLE U - UNDISTURBED SOIL SAMPLE C - ROCK CORE SAMPLE	NOTES: 1. BG denotes background reading on Hnu 2. Driller notes water encountered at 13'
---	---

GENERAL NOTES:

- STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA ASSOCIATES, P.C.
 300 STATE STREET ROCHESTER, NEW YORK
 ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
 CITY OF ROCHESTER
 STONE/COURT/CLINTON/BROAD

BORING # B-4 (MW-6)
 SHEET 2 of 2
 JOB # 92189
 CHKD. BY

DEPTH H / 6"	SAMPLE				SAMPLE DESCRIPTION	EQUIPMENT		NOTES
	BLOW NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)		INSTALLATION	LOG	
18	80	S-9	17-19	20	3	... trace Gravel		
	10							
	10							
19	100/3							2 inch I.D. No. 10 slot PVC screen (10.2 - 22.2 feet)
20								
	10	S-10	20-21.5	30				#2 QROK Sandpack (9.5 - 22.2 feet)
21	10							
	20							
22								
23						Bottom of boring at 22.2' with split spoon and auger refusal		
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								

LEGEND
 S - SPLIT SPOON SOIL SAMPLE
 U - UNDISTURBED SOIL SAMPLE
 C - ROCK CORE SAMPLE

NOTES:

GENERAL NOTES:
 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE



LABELLA ASSOCIATES, P.C.
300 STATE STREET, ROCHESTER, NEW YORK
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
CITY OF ROCHESTER
STONE/COURT/SOUTH

BORING # B-5
SHEET 1 OF 2
JOB # 92189
CHKD. BY DP

CONTRACTOR EMPIRE SOILS BORING LOCATION South Avenue
DRILLER D. Pannell GROUND SURFACE ELEVATION 528.17
LABELLA REPRESENTATIVE Steve Wisley START DATE 8/24/92 END DATE 8/24/92

TYPE OF DRILL RIG	ACKER AD II	WATER LEVEL DATA				
		DATE	TIME	WATER	CASING	REMARKS
AUGER SIZE AND TYPE	4 - 1/4 inch I.D. HSA					
OVERBURDEN SAMPLING METHOD	1-3/8 inch I.D. Split spoon					
ROCK DRILLING METHOD						

DEPTH	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO. / 6"	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)					
						Concrete sidewalk			
1	11	S-1	1-3	24	6	f-c SAND, BRICK, moist FILL		BG	1
2	11								
	13								
3	13								
	19	S-2	3-5	23	5	... concrete fragments		BG	
4	12								
	11								
5	8							BG	
	2	S-3	5-6.5	9	6				Boring backfilled with cuttings and grouted to surface
6	5								
	4								
7	1	S-4	6.5-8	12	6			BG	
	5								
8	7								
	6	S-5	8-10	10	6			BG	
9	8								
	2								
10	8								
	12	S-6	10-11.1	REF	2			BG	
11	13								
	100/1								
12	8	S-7	12-14	19	10	Black f-c SAND, trace brick, moist		BG	
13	9								
	10					FILL			
14	32								
	29	S-8	14-15.4	REF		Very dense brown fine SAND and SILT trace m-c Sand, moist		BG	
15	59								
	100/4								
16									
	100/4	S-9	16-16.4	REF		... some Silt, wet		BG	
17									

LEGEND
S - SPLIT SPOON SOIL SAMPLE
U - UNDISTURBED SOIL SAMPLE
C - ROCK CORE SAMPLE

NOTES:
1. BG denotes background reading on Hnu

GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA ASSOCIATES, P.C.
 300 STATE STREET ROCHESTER, NEW YORK
 ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
 CITY OF ROCHESTER
 STONE/COURT/CLINTON/BROAD

BORING # B-5
 SHEET 2 of 2
 JOB # 92189
 CHKD. BY

DEPTH	SAMPLE					SAMPLE DESCRIPTION	EQUIPMENT INSTALLATION LOG	HNU	NOTES
	BLOW NO. / 6"	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (INCHES)					
18	38	S-10	18-19.4	REF	8	... and SILT		BG	
19	96								
	100/4								
20	28	S-11	20-20.9	REF	8	... becomes gray-brown		BG	
21	100/4								
22	100/4	S-12	22-22.4	REF	3	Gray-brown SILT and fine SAND, trace Gravel, moist		BG	Boring backfilled with cuttings and grouted to surface
23									
24	57	S-13	24-24.9	REF	10				
25	100/4					Bottom of boring at 26.3' with auger refusal		BG	
26	100/0	S-14	26	REF	0				
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									

LEGEND
 S - SPLIT SPOON SOIL SAMPLE
 U - UNDISTURBED SOIL SAMPLE
 C - ROCK CORE SAMPLE

NOTES:

GENERAL NOTES:
 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE



APPENDIX B

GROUNDWATER SAMPLING FIELD LOGS

GROUNDWATER MONITORING FIELD FORM

Site Location: Cont St Site Number: _____

Weather: Heavy Humid 77° Date: 8/28/92

Well ID# B-2 (MW-5)

Well Development

PURGE INFORMATION

Purge Method. Bailer: () PVC () Teflon () St. Steel () Other _____

Pump: () Peristaltic () Submersible () Other _____

- Volume Calculation -

Well Depth (ft) 27.27 BTC

Static Water Level (ft) 10.18 BTC

Depth of Water Column (ft) 7.09

X, Well Constant (gal/ft) X = .16

Volume Standing in Well 2.7 gallons

Well Constants (X): .16
27 gallons

[0.16 gal/ft = 2" OD well; .065 gal/ft = 4" OD well. Calc to Determine Constant:]

[Constant X = 0.7854 x (casing diameter in inches)² x 12]

Purge Time: Start 10:50 Stop 11:20 Start 11:55 Stop 12:30 2.5 gal bailed dry

Total Volume Purged: 10.5 gallons

% of Volume Casings purged ~4%

Purging Observation/Measurements

Brown Very turbid
Bailed 2 gallons almost dry 11:20
let recharge for 15 minutes

Sampling Information: Sample Method. Bailer: () PVC () Teflon () St. Steel () Other _____

Pump: () Peristaltic () Submersible () Other _____

Time: _____

Number of Bottles Taken: _____ Field Preservation (Y or N): _____

Field Filtered (Y or N), Date/Time ____/____/____ Filtering Method _____

Sample Appearance: _____

2692
35
27.27

GROUNDWATER MONITORING FIELD FORM

Site Location: South 1 Court Site Number: _____

Weather: Heavy Humid 80° Date: 8/22/92

Well ID# B-4¹ / MW-6

PURGE INFORMATION

Purge Method. Bailer: PVC Teflon St. Steel Other _____

Pump: Peristaltic Submersible Other _____

- Volume Calculation -

Well Depth (ft) 22.49

Static Water Level (ft) 12.34 BTC

Depth of Water Column (ft) 10.15

X. Well Constant (gal/ft) X = 1.16

Volume Standing in Well 1.62 gallons

Well Constants (X)

$\frac{1.62}{10} = 16.2 \text{ galls}$

[0.16 gal/ft = 2" OD well; 0.65 gal/ft = 4" OD well. Calc to Determine Constant:]

[Constant X = $0.7854 \times (\text{casing diameter in inches})^2 \times 12$]

231

Purge Time. 45 Min

Total Volume Purged: 17 gallons

of Volume Casings purged 10+

Purging Observation/Measurements

Black! - (like swamp water)
Very turbid did not clear

Sampling Information Sample Method. Bailer. PVC Teflon St. Steel Other _____

Pump: Peristaltic Submersible Other _____

Time: _____

Number of Bottles Taken: _____ Field Preservation (Y or N): _____

Field Filtered (Y or N). Date/Time / / Filtering Method _____

Sample Appearance: _____

22.14
35

GROUNDWATER MONITORING FIELD FORM

Sampling

Site Location: Court St Site Number: _____

Weather: _____ Date: 9/2/92

Well ID: B-2 (MW-5)

PURGE INFORMATION

Purge Method. Bailer: () PVC (x) Teflon () St. Steel () Other _____

Pump: () Peristaltic () Submersible () Other _____

- Volume Calculation -

Well Depth (ft) 27.27'

Static Water Level (ft) 10.42

Depth of Water Column (ft) 16.85

X. Well Constant (gal/ft) X = .16

Volume Standing in Well ~3 gallons

Well Constants (X): ~3
~9 gallons for 3 Volumes

[0.16 gal/ft = 2" OD well; .065 gal/ft = 4" OD well. Calc to Determine Constant:]

[Constant X = 0.7854 x (casing diameter in inches)² x 12]

Purge Time: 25 Min 1450 - 1515

Total Volume Purged: 85 gallons

% of Volume Casings purged ~3

-Groundwater Elevation Calculation-

Well Elevation (ft) MSL _____

Static Water Level (ft) _____

Groundwater Elev. MSL _____ ft

Petroleum or solvent odor when opened

Purging Observation/Measurements

light brown, moderately turbid
Bailed well almost dry, 5.5 gal
will let recharge before sampling
water at 26.45' BTC

Sampling Information: Sample Method. Bailer: () PVC (x) Teflon () St. Steel () Other _____

Pump: () Peristaltic () Submersible () Other _____

Time: 1605 Water level at 26.45' BTC at time of sampling at end of purge

4 Number of Bottles Taken: _____ Field Preservation (Y or N): Ice HCL in VOA's

Field Filtered (Y or N): (x) Date/Time _____ Filtering Method _____

Sample Appearance: almost clear

GROUNDWATER MONITORING FIELD FORM

Sampling

Site Location: South + Court Site Number: _____

Weather: Mostly Sunny 75° Date: 9/2/92

Well ID# B-4 (YMW-6)

PURGE INFORMATION

Purge Method. Bailer: () PVC (X) Teflon () St. Steel () Other _____

Pump: () Peristaltic () Submergible () Other _____

- Volume Calculation -

Well Depth (ft) 22.49 BTC

Static Water Level (ft) 12.32 BTC

Depth of Water Column (ft) 10.17

X. Well Constant (gal/ft) X = .16

Volume Standing in Well ~1.6 gallons

Well Constants (X): 13
~5 gallons

[0.16 gal/ft = 2" OD well; .065 gal/ft = 4" OD well. Calc. to Determine Constant:]

[Constant X = 0.7854 x (casing diameter in inches)² x 12]
231.

-Groundwater Elevation Calculation-

Well Elevation (ft) MSL _____

Static Water Level (ft) _____

Groundwater Elev. MSL _____ ft

12.72' after purg
BTC

Purge Time: 15 Min

Total Volume Purged: 5 gallons

of Volume Casings purged 3+

Purging Observation/Measurements

1st bailer clean Black at bottom
Black after that, very turbid

Sampling Information: Sample Method. Bailer: () PVC (X) Teflon () St. Steel () Other _____

Pump: () Peristaltic () Submergible () Other _____

Time: 15:45 QC site
3 VOA 2 for Hydrocarbons 1-4 liter
1-1 liter

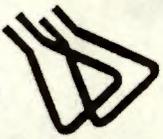
5 Number of Bottles Taken: _____ Field Preservation (Y or N) Y Ice HCL in bottles from lab (VOA)

Field Filtered (Y or N). Date/Time _____ Filtering Method _____

Sample Appearance: Black, very turbid

APPENDIX C

ANALYTICAL DATA

General
Testing
Corporation 

A Full Service Environmental Laboratory

SEPT 15 1992

Mr. Dennis Peck
Labella Associates
300 State Street
Rochester, NY 14614

Re: Monitoring Wells

Dear Mr. Dennis Peck

Enclosed are the results of the analysis requested.. All data has been reviewed prior to report submission. Should you have any questions please contact me at 454-3760.

Thank you for letting us provide this service.

Sincerely,

GENERAL TESTING CORPORATION



Marshall Shannon
Customer Service Director

Enc.



GTC LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. For further explanation see case narrative / cover letter.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range and reanalysis could not be performed.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- N - Spiked sample recovery not within control limits. (Flag the entire batch - Inorganic analytes only)
- * - Duplicate analysis not within control limits. (Flag the entire batch - Inorganic analysis only)
- Also used to qualify Organics QC data outside limits. (Only used on the QC summary sheets)
- M - Duplication injection precision not met (GFA only).
- S - Reported value determined by Method of Standard Additions. (MSA)
- X - As specified in the case narrative.

COMPANY: LABELLA ASSOCIATES
Monitoring Wells
JOB #: R92/03834

PETROLEUM HYDROCARBONS

Labella water samples were analyzed for Petroleum Hydrocarbons using NYSDOH method 310-13.

The Petroleum Hydrocarbons detected in the sample R92/03834-001 did not match the "fingerprint" of any of the standard analyzed, therefore the sample was quantitated as n-Dodecane as per methodology. In addition there were other later eluting peaks present in this sample that were not quantitated by this method.

The matrix spike(MS) and matrix spike duplicate(MSD) were both outside recommended QC limits on sample R92/03834-001, however the reference spike recovery and precision data were acceptable. This was probably caused by matrix interferences in the sample.

No other analytical or QC problems were encountered with this analysis.

LABORATORY REPORT

Job No: R92/03834

Date: SEPT 15 1992

Client:

Mr. Dennis Peck
 Labella Associates
 300 State Street
 Rochester, NY 14614

Sample(s) Reference

Monitoring Wells

Received

: 09/02/92

P.O. #:

HSL VOLATILES BY EPA METHOD 8240* ANALYTICAL RESULTS - ug/l

Sample:	-001	-002						
Location:	B-4	B-2						
Date Collected:	09/02/92	09/02/92						
Time Collected:	15:45	16:05						
Date Analyzed:	9/10/92	9/10/92						
Dilution:	1	50						
Chloromethane	5.0 U	250 U						
Bromomethane	5.0 U	250 U						
Vinyl Chloride	5.0 U	250 U						
Chloroethane	5.0 U	250 U						
Methylene Chloride	5.0 U	250 U						
Acetone	10 U	500 U						
Carbon Disulfide	10 U	500 U						
Vinyl Acetate	10 U	500 U						
1,1-Dichloroethene	5.0 U	250 U						
1,1-Dichloroethane	5.0 U	250 U						
trans-1,2-Dichloroethene	5.0 U	250 U						
cis-1,2-Dichloroethene	5.0 U	250 U						
Chloroform	5.0 U	250 U						
2-Butanone (MEK)	10 U	500 U						
1,2-Dichloroethane	5.0 U	250 U						
1,1,1-Trichloroethane	5.0 U	250 U						
Carbon Tetrachloride	5.0 U	250 U						
Bromodichloromethane	5.0 U	250 U						
1,2-Dichloropropane	5.0 U	250 U						
1,3-Dichloropropane (Trans)	5.0 U	250 U						
Trichloroethene	5.0 U	250 U						
Dibromochloromethane	5.0 U	250 U						
1,1,2-Trichloroethane	5.0 U	250 U						
Benzene	5.0 U	250 U						
1,3-Dichloropropene(Cis)	5.0 U	250 U						
Bromoform	5.0 U	250 U						
4-Methyl-2-pentanone(MIBK)	10 U	500 U						
2-Hexanone	10 U	500 U						
Tetrachloroethene	5.0 U	250 U						
1,1,2,2-Tetrachloroethane	5.0 U	250 U						
Toluene	5.0 U	1400						
Chlorobenzene	5.0 U	250 U						



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R92/03834

Date: SEPT 15 1992

Client:

Mr. Dennis Peck
 Labella Associates
 300 State Street
 Rochester, NY 14614

Sample(s) Reference

Monitoring Wells

Received

: 09/02/92

P.O. #:

HSL VOLATILES BY EPA METHOD 8240*		ANALYTICAL RESULTS - ug/l					
Sample:	-001	-002					
Location:	B-4	B-2					
Date Collected:	09/02/92	09/02/92					
Time Collected:	15:45	16:05					
Date Analyzed:	9/10/92	9/10/92					
Dilution:	1	50					
Ethylbenzene	5.0 U	1400					
Styrene	5.0 U	250 U					
Total Xylene (o,m,p)	5.0 U	6700					
Surrogate Standard Recoveries							

1,2-Dichloroethane-d4	96	99					
(Acceptance limits: 76-114%)							
Toluene d8	97	99					
(Acceptance limits: 88-110%)							
4-Bromofluorobenzene	107	104					
(Acceptance limits: 86-115%)							

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

- NY ID# in Rochester: 10145
- NJ ID# in Rochester: 73331
- NJ ID# in Hackensack: 02317
- NY ID# in Hackensack: 10801

Michael K. Pe

Laboratory Director



A Full Service Environmental Laboratory

LABORATORY REPORT

Job No: R92/03834

Date: SEPT 15 1992

Client:

Mr. Dennis Peck
 Labella Associates
 300 State Street
 Rochester, NY 14614

Sample(s) Reference:

Monitoring Wells

Received

: 09/02/92

P.O. #:

METHOD 310-13		ANALYTICAL RESULTS - ug/l					
Sample:	-001	-002					
Location:	B-4	B-2					
Date Collected:	09/02/92	09/02/92					
Time Collected:	15:45	16:05					
Petroleum Hydrocarbons, GC							
Date Extracted:	09/03/92	09/03/92					
Date Analyzed:	09/10/92	09/10/92					
Gasoline		610					
Kerosene							
Fuel Oil #2							
Fuel Oil #6							
as n-Dodecane	43						
Diesel Fuel							

Unless otherwise noted, analytical methodology has been obtained from references as cited in 40 CFR, parts #136 & #261.

NY ID# in Rochester: 10145
 NJ ID# in Rochester: 73331
 NJ ID# in Hackensack: 02317
 NY ID# in Hackensack: 10801

Laboratory Director

HSL VOLATILE ORGANICS - AQUEOUS SAMPLE

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: General Testing Corp.

Matrix Spike - Sample No. : R92/03834 -001

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENT. (ug/l)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	48	96	D-234
Trichloroethene	50	0.0	51	102	71-157
Benzene	50	0.0	50	100	37-151
Toluene	50	0.0	53	106	47-150
Chlorobenzene	50	0.0	51	102	37-160

COMPOUND	SPIKE ADDED (ug/l)	MSD CONCENT. (ug/l)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	50	47	94	2	30	D-234
Trichloroethene	50	48	96	6	30	71-157
Benzene	50	47	94	6	30	37-151
Toluene	50	52	104	2	30	47-150
Chlorobenzene	50	50	100	2	30	37-160

Columns to be used to flag recovery and RPD values with *.

* = Values outside of QC limits

MS QC Limits = EPA Acceptance Criteria

RPD Limits = Internal Acceptance Criteria

RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3A - WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: General Testing Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No. : R92/03834 -001

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/l)	MS CONCENT. (ug/L)	MS % REC #	QC LIMITS REC.
Fuel Oil #2	20 U	20 U	3100	31 *	62-140

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/l)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Fuel Oil #2	20 U	3200	32 *	3	.30	62-140

Columns to be used to flag recovery and RPD values with an asterik

* Values outside of QC limits

+* No Limits Currently Established

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____



A Full Service Environmental Laboratory

LABORATORY REPORT

Client:
Mr. Dennis Peck
Labella Associates
300 State Street
Rochester, NY 14614

Job No: R92/03834
Date: 15 SEPT, 1992

Petroleum Hydrocarbons, GC	REFERENCE CHECK		ACCEPTANCE LIMITS (%)
	TRUE VALUE	% RECOVERY	
Date Extracted: 09/03/92			**
Date Analyzed: 09/10/92			**
Gasoline			**
Kerosene			**
Fuel Oil #2	10000.00	98	62 - 140
as n-Dodecane			**

**Limits currently not established

Lab Director

GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD

710 Exchange Street 85 Trinity Place 435 Lawrence Bell Drive GTC Job No. _____
 Rochester, NY 14608 Hackensack, NJ 07601 Amherst, NY 14221-7077 Client Project No. _____

Sample Origination & Shipping Information

Collection Site Court St

Address _____

Collector Dennis Peck Street _____ City _____ State _____ Zip _____
 Print _____ Signature _____

Bottles Prepared by GTC-29 Rec'd by Client

Bottles Shipped to Client via _____ Seal/Shipping # _____

Samples Shipped via Client Seal/Shipping # _____

Sample(s) Relinquished by:		Received by:		Date/Time
1. Sign <u>Dennis M Peck</u>	1. Sign <u>Tom Hastings</u>	9/12/192		
for <u>La Bella</u>	for <u>GTC</u>	16:33		
2. Sign _____	2. Sign _____	1 1		
for _____	for _____			
3. Sign _____	3. Sign _____	1 1		
for _____	for _____			

Sample(s) Received in Laboratory by Tom Hastings 9/12/192 @ 15:30

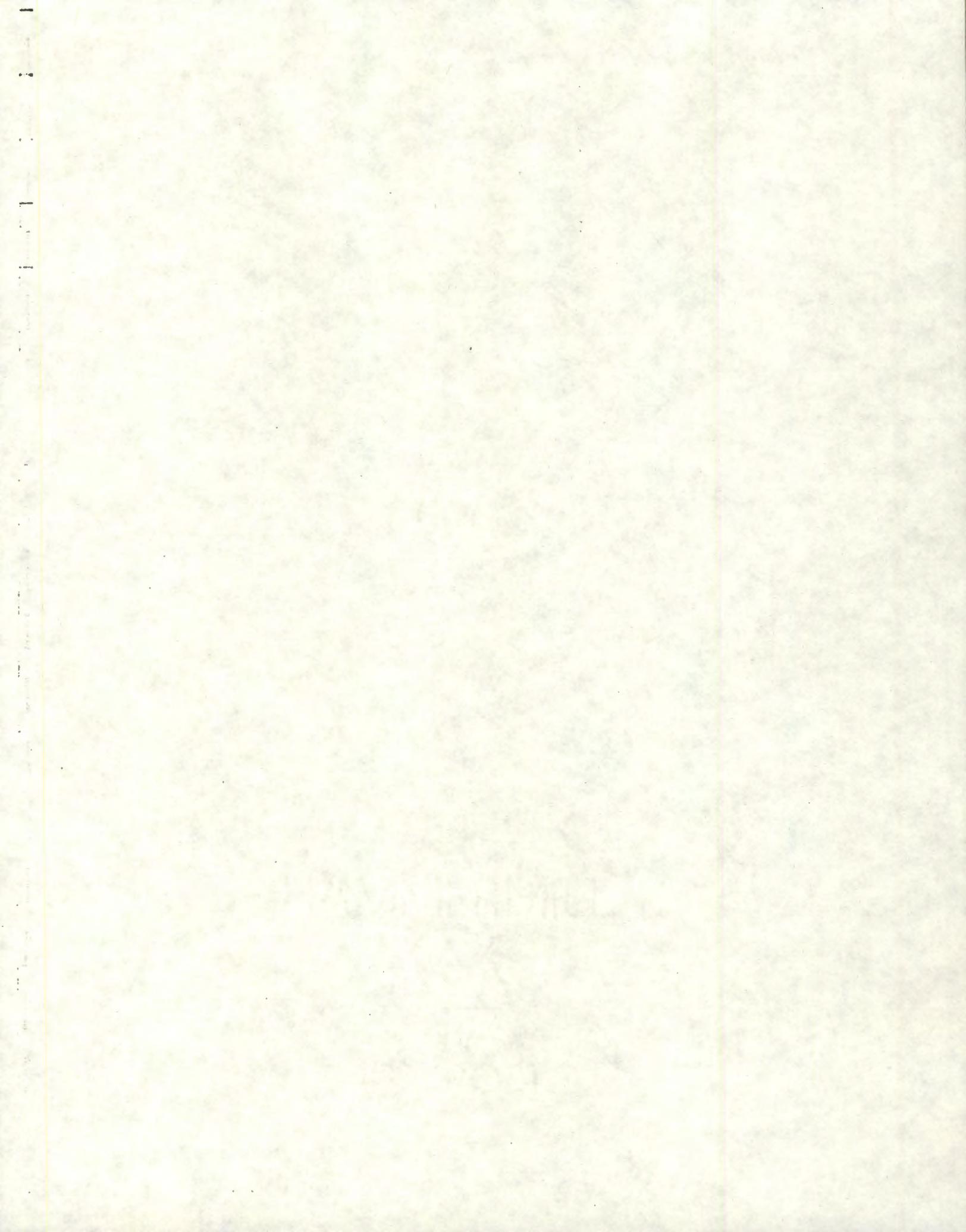
Client I.D.#	Sample Location	*	Analyte or Analyte Group(s) Required (see below for additional)	Sample Prep		Bottle Set(s) (see below)		
				Preserved	Filtered			
Lab#	Date/Time		(see below for additional)	Y	N	Y	N	
1 001 R92/3834 001	B-4 9/12/192 15:45	W	TPH by GC VOA - 8240					8, 3, 3
2 002 R92/3834 002	B-2 9/12/192 16:05	W	TPH by GC VOA - 8240					1, 3, 3
3	1 1 :							
4	1 - 1 :							
5	1 1 :							

Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type.

Bottle No.	1	2	3	4	5	6	7	8	9	10	11
Bottle Type	40 ml Vial	Pint Glass	Qt Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt Pl.	Gal. PL	Steril. Pl.		
# of each	2		1					1			

Additional Analytes _____

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.
 * Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H), River or Stream (R), Pond (P), Industrial Discharge (I), _____ (X), _____ (Y).



APPENDIX B

**Analytical Results
Sample B-507**

ALFRED TECHNICAL & ANALYTICAL LABORATORY SCIENCE & ENGINEERING TECHNOLOGY INTERNATIONAL

NYSDOH# 11299

PHONE#(607)587-8377/9444

FAX#(607)587-9652/9535

PO Box 848

200 N. Main St.

Alfred, NY 14802

REPORT ON 13277

Name: LaBella Associates
Address: 300 State Street
Rochester, NY 14614

Date SAMPLE RECEIVED: May 14, 1993 Date REPORTED: Jun 10, 1993

Sample Name: Court/Stone.....
Sampling address: Sta No. 001.....
Sampling POINT: B507 (14 - 16').....

Collected By: Dennis M. Peck
2:40 pm

ON: May 13, 1993

AT:

Sample Characteristics;

- A. PHASE LAYERS bilayered multilayered none.
- B. PHYSICAL STATE at 70°F solid liquid other.....
- C. pH RANGE >2 2-4 4-6 6-8 8-10 10-12 <12

TEST DESIRED: Volatile Organics
CONFIRMATORY:

<u>CAS#</u>	<u>analyte</u>	<u>method code</u>	<u>MDL</u>	<u>result</u>	<u>unit</u>
71-43-2	Benzene	EPA8260	10	46	ug/Kg
108-86-1	Bromobenzene	EPA8260	10	<10	ug/Kg
74-97-5	Bromochloromethane	EPA8260	10	<10	ug/Kg
75-27-4	Bromodichloromethane	EPA8260	10	<10	ug/Kg
75-25-2	Bromoform	EPA8260	10	<10	ug/Kg
74-83-9	Bromomethane	EPA8260	10	<10	ug/Kg
104-51-8	n-Butylbenzene	EPA8260	10	<10	ug/Kg
135-98-8	sec-Butylbenzene	EPA8260	10	<10	ug/Kg
98-06-6	tert-Butylbenzene	EPA8260	10	<10	ug/Kg
56-23-5	Carbon Tetrachloride	EPA8260	10	<10	ug/Kg
108-90-7	Chlorobenzene	EPA8260	10	<10	ug/Kg
75-00-3	Chloroethane	EPA8260	10	<10	ug/Kg
67-66-3	Chloroform	EPA8260	10	<10	ug/Kg
74-87-3	Chloromethane	EPA8260	10	<10	ug/Kg
95-49-8	2-Chlorotoluene	EPA8260	10	<10	ug/Kg
106-43-4	4-Chlorotoluene	EPA8260	10	<10	ug/Kg
124-48-1	Dibromochloromethane	EPA8260	10	<10	ug/Kg
96-12-8	1,2-Dibromo-3-chloro- propane	EPA8260	10	<10	ug/Kg
106-93-4	1,2-Dibromoethane	EPA8260	10	<10	ug/Kg
74-95-3	Dibromomethane	EPA8260	10	<10	ug/Kg
95-50-1	1,2-Dichlorobenzene	EPA8260	10	<10	ug/Kg
541-73-1	1,3-Dichlorobenzene	EPA8260	10	<10	ug/Kg
106-46-7	1,4-Dichlorobenzene	EPA8260	10	<10	ug/Kg

Continued on next page . . .

The provided results are for the exclusive use of the client to whom they are addressed. The provided results and the name of Alfred Technical and Analytical Laboratory in any form may not be used in any circumstance in advertising to the general public without the prior written approval from the laboratory director. The results apply specifically to the sample being tested and are not necessarily indicative of the qualities of apparently identical or similar products.

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Roland D. Hale
Laboratory Director

ALFRED TECHNICAL & ANALYTICAL LABORATORY SCIENCE & ENGINEERING TECHNOLOGY INTERNATIONAL

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PHONE#(607)587-8377/9444

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PO Box 848

200 N. Main St.
Alfred, NY 14802

.....Continuation of Sample #13277

75-71-8	Dichlorodifluoromethane	EPA8260	10	<10	ug/Kg
75-34-3	1,1-Dichloroethane	EPA8260	10	<10	ug/Kg
107-06-2	1,2-Dichloroethane	EPA8260	10	<10	ug/Kg
75-35-4	1,1-Dichloroethylene	EPA8260	10	<10	ug/Kg
156-59-2	cis-1,2-Dichloroethylene	EPA8260	10	<10	ug/Kg
156-60-5	trans-1,2-Dichloroethylene	EPA8260	10	<10	ug/Kg
78-87-5	1,2-Dichloropropane	EPA8260	10	<10	ug/Kg
142-28-9	1,3-Dichloropropane	EPA8260	10	<10	ug/Kg
594-20-7	2,2-Dichloropropane	EPA8260	10	<10	ug/Kg
563-58-6	1,1-Dichloropropene	EPA8260	10	<10	ug/Kg
100-41-4	Ethylbenzene	EPA8260	10	<10	ug/Kg
87-68-3	Hexachlorobutadiene	EPA8260	10	<10	ug/Kg
98-82-8	Isopropylbenzene	EPA8260	10	<10	ug/Kg
99-87-6	p-Isopropyltolune	EPA8260	10	<10	ug/Kg
75-09-2	Methylene chloride	EPA8260	10	<10	ug/Kg
91-20-3	Naphthalene	EPA8260	10	<10	ug/Kg
103-65-1	n-Propylbenzene	EPA8260	10	80	ug/Kg
127-18-4	Tetrachloroethylene	EPA8260	10	<10	ug/Kg
100-42-5	Styrene	EPA8260	10	<10	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	EPA8260	10	<10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	EPA8260	10	<10	ug/Kg
108-88-3	Toluene	EPA8260	10	1670	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	EPA8260	10	<10	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	EPA8260	10	<10	ug/Kg
71-55-6	1,1,1-Trichloroethane	EPA8260	10	<10	ug/Kg
79-00-5	1,1,2-Trichloroethane	EPA8260	10	<10	ug/Kg
79-01-6	Trichloroethylene	EPA8260	10	<10	ug/Kg
75-69-4	Trichlorofluoromethane	EPA8260	10	<10	ug/Kg
96-18-4	1,2,3-Trichloropropane	EPA8260	10	<10	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	EPA8260	10	<10	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	EPA8260	10	164	ug/Kg
75-01-4	Vinyl chloride	EPA8260	10	<10	ug/Kg
	Xylene (total)	EPA8260	10	1409	ug/Kg

Date analyzed:

Remarks: USEPA methods

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Roland D. Hale
Laboratory Director 

APPENDIX C

**Monroe Monitoring and Analysis Report
on Limited Soil Gas Survey
2/12/93**

PHASE II ENVIRONMENTAL AUDIT REPORT

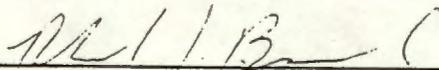
LIMITED SOIL GAS SURVEY

190 COURT STREET
ROCHESTER NEW YORK

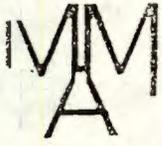
Prepared for

Mitchell T. Williams, Esq.

Prepared by



Richard J. Bianchi
Environmental Auditor



Monroe
Monitoring
& Analysis, Inc.

Monroe Monitoring & Analysis, Inc.
1425 Mt. Read Blvd.
Rochester, New York 14606

PHASE II ENVIRONMENTAL AUDIT REPORT

Client: Mitchell T. Williams, Esq.
Contact: Mr. Tom McEwen
Project: Soil Gas Survey - Speedy Dry Cleaners
Location: 190 Court Street
Date: February 12, 1993
Project No.: 932-20
Author: Richard J. Bianchi
Technicians: Richard J. Bianchi and John T. Yaeger

Purpose

This site, a parcel of land approximately 7,000 square feet in size, is under review for demolition by the City of Rochester. Currently, a dry cleaning facility occupies the site.

Based on an interview with Tom McEwen representing Speedy Cleaners, a potential environmental concern was expressed which required additional investigation beyond a Phase I study. The concern expressed during the preliminary investigation is the potential problem involving two storage tanks buried in the basement at the Northwest of the property. Hazardous materials (dry cleaning solvent and fuel oil) were historically stored in these tanks and may have spilled, overflowed or leaked over the period of use. Primary concerns for such a site would be the presence of petroleum based solvents and fuels. Mr. McEwen stated that the two tanks were used to hold fuel oil and dry cleaning solvent and were used until water was found in the stored materials. At this time, the tanks were drained and taken out of service.

Tanks were also observed holding dry cleaning solvent on the main floor in the washroom area of the facility and in the basement. These tanks present a potential concern due to spillage in the area of the tanks. In the event of spillage, these volatile materials could escape into the soil beneath the building, presenting a potential concern for demolition workers and the future occupants of the site and building. To address these concerns, a limited soil gas survey was

recommended to determine if in fact, volatile organics are present.

Methods

A limited soil gas survey of the site was conducted using a stainless steel soil gas probe and hammer attachment in conjunction with a Thermo-Environmental 580B Organic Vapor Meter. The 580B was calibrated by challenge to a calibration gas of known concentration prior to field use. An automatic Data Logger was used to store information which was later down loaded into the a personal computer and printed (see appendix for results).

The stainless steel soil gas probe was driven into the area of the buried tanks from the basement of the building to a depth of approximately 2' or until the probe tip made contact with a tank, utilizing a manual hammer attachment. Boreholes reaching a depth of approximately 1 foot were also made into the concrete slab in the washroom area. When the target depth was reached at each site, a Teflon tube was inserted into the probe and passed down to the probe tip. This tube was then attached to the Thermo-Environmental Organic Vapor Meter (OVM), and a sample of soil gas withdrawn by the OVM internal pump.

The survey was conducted on a day with significant precipitation in the form of snow with an outdoor air temperature of approximately 24 degrees Fahrenheit. Subsurface conditions were dry in all areas of soil gas testing. The survey was conducted by Mr. Richard Bianchi and Mr. John T. Yaeger, both environmental field technicians with Monroe Monitoring & Analysis, Inc.. Mr. Bianchi and Mr. Yaeger are experienced in the collection of environmental samples for analysis of trace concentrations of organic and inorganic chemicals, and the use of soil gas probes and direct reading instrumentation.

Sample Location Selection

Based on the size and shape of the areas, four sites were selected to adequately represent subsurface conditions in the area of the decommissioned tanks in the basement tank vault area. Two sampling points were selected in the area of the dry cleaning washroom where dry cleaning solvents are currently stored. A drill was used to penetrate through a cinder block wall in the tank vault area and through the concrete slab floor in the washroom area.

Project No. 932-20
Author: Richard J. Bianchi

Results

Of the six sites selected, the two sites on the main floor yielded greatly elevated levels of organic vapor (see data sheets). The remaining sites, all in the basement in the area of the buried tanks, yielded levels of organic vapors typical of background levels or less (see data sheet). Background levels in the basement area were typically in the range of 12 to 16 ppm. The sample readings typically reached a peak reading and dropped off slightly.

The two sites located above on the main floor (S-5 and S-6) produced a significant response from the OVM, indicating the presence of volatile organic vapors significantly above background levels. Background levels in this area were in the range of 65 to 80 ppm. Samples were collected about 1 foot into the concrete slab at locations S-5 and S-6 and indicated organic vapor levels of 175 ppm and 1585 ppm respectively. It should be noted that these readings were obtained in the concrete slab and do not necessarily represent conditions in the soil below the slab.

A site plan, indicating survey locations is attached.

In conjunction with the soil gas survey, a direct reading was collected in the Machine Pin Trap which is an open system. This area produced an average reading of about 2400 ppm. The results of this monitoring indicated significant quantities of organic vapor being released to the building air from this point.

Conclusions and Recommendations

Survey results indicate significant quantities of volatile organic solvents or petroleum hydrocarbons within sections of concrete slab floor at a depth of approximately 1 foot in the current solvent storage area of the dry cleaning washroom. The sample locations in the basement did not indicate environmental problems associated with the abandoned tanks, however subsurface conditions could vary.

In summary, our survey indicates that parts of the foundation slab are saturated with organic solvents used in the dry cleaning process. It is our conclusion that portions of the foundation and possibly the soil below may need to be removed and disposed of as contaminated material prior to any new construction on the property. Laboratory testing of the excavated material would be necessary to determine the disposition of this material.

Project No. 932-20
Author: Richard J. Bianchi

Additional investigation/sampling of the underlying soil and the surrounding areas may be warranted to determine the extent of the solvent migration beyond the confines of the building foundation. It is our recommendation however, that screening of soil and debris be considered during the demolition/excavation process.

Project No. 932-20
Author: Richard J. Bianchi

SOIL GAS SURVEY LOCATION MAP

44 1/2 MI
50
1000 Feet

N →

SPEEDY CLEANERS
190 Court Street

S-3

S-2

TANK
VAULT

S-1

2 Cinder block
Wall

S-4

BASEMENT

ELEVATOR

S-6

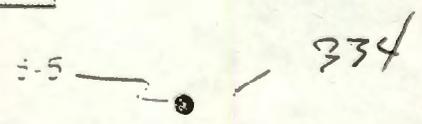
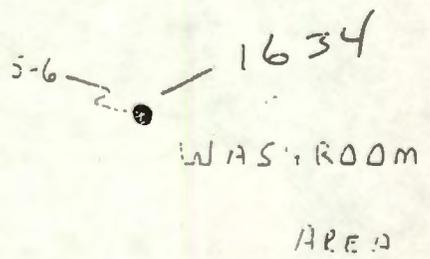
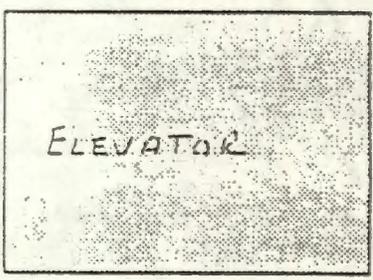
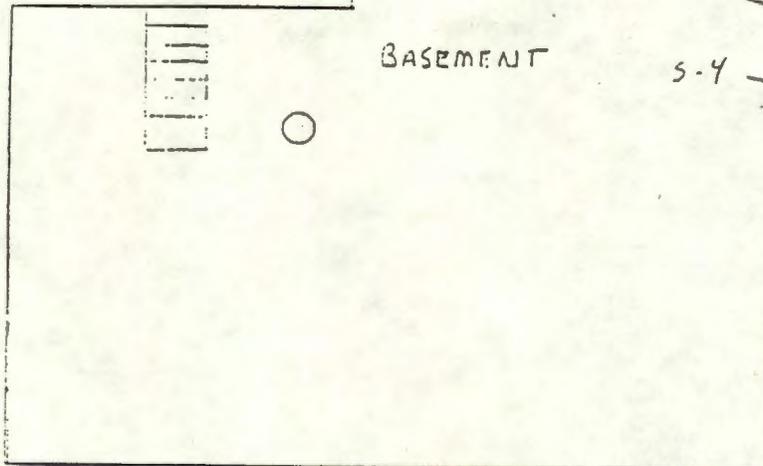
1634

WASH ROOM

AREA

S-5

334



Project No. 932-20
Author: Richard J. Bianchi

FIELD DATA SHEET



CLIENT: Speedy Cleaners
 LOCATION: 190 Court Street
 DATE: 2-12-93

TIME	LOCATION	HN	OV&M ppm	H2S	O2	LEL	DETECTOR TUBES	OTHER Peak
1154	S-1 NorthWall East		6.7					8.7
1202	S-2 NorthWall Center		12.6					
1210	S-3 NorthWall West		8.6					10.6
1217	S-4 NorthWall Far East		0-.9					2.9
1228	S-5 DryCleaning Washroom East		175					334
1235	S-6 DryCleaning Washroom West		1585					1635

8-12 ppm!

WEATHER A.M. 25° snowing 1-2" per hour
 P.M.

COMMENTS:

S-5 1228 → peak at 334 ppm (direct reading in hole)
 1st floor Ambient range from 65-80 ppm
 Machine Pin Trap Sample 2465 ppm

Project No. 932-20
Author: Richard J. Bianchi

DATALOGGER INFORMATION

580 VER. 1.5

02/12/93 1115

INSTRUMENT # 000000

SER I.D. # 000000000

OPERATING MODE: CONC. METER

	LOC.	PPM	STATUS
'12/93 1115	000003	08.7	
'12/93 1116	000004	06.7	
'12/93 1117	000005	10.6	
'12/93 1118	000006	06.7	
'12/93 1119	000007	26.1	ALARM
'12/93 1120	000008	32.0	ALARM
'12/93 1121	000009	06.7	
'12/93 1122	000010	08.7	
'12/93 1123	000011	04.8	
'12/93 1124	000012	02.9	
'12/93 1125	000013	02.9	
'12/93 1126	000014	02.9	
'12/93 1127	000015	02.9	
'12/93 1128	000016	00.9	
'12/93 1129	000017	02.9	
'12/93 1130	000018	00.9	
'12/93 1132	000019	02.9	
'12/93 1133	000020	02.9	
'12/93 1134	000021	02.9	
'12/93 1135	000022	02.9	
'12/93 1136	000023	02.9	
'12/93 1137	000024	02.9	
'12/93 1138	000025	02.9	
'12/93 1139	000026	02.9	
'12/93 1140	000027	02.9	
'12/93 1141	000028	02.9	
'12/93 1142	000029	04.8	
'12/93 1143	000030	06.7	
'12/93 1144	000031	12.6	
'12/93 1145	000032	12.6	
'12/93 1146	000033	20.3	
'12/93 1147	000034	14.5	
'12/93 1148	000035	10.6	
'12/93 1149	000036	22.3	
'12/93 1150	000037	20.3	
'12/93 1151	000038	10.6	
'12/93 1152	000039	14.5	
'12/93 1153	000040	10.6	
'12/93 1154	000041	04.8	
'12/93 1155	000042	12.6	
'12/93 1156	000043	10.6	
'12/93 1157	000044	12.6	
'12/93 1158	000045	12.6	
'12/93 1159	000046	02.9	
'12/93 1200	000047	18.4	
'12/93 1201	000048	18.4	
'12/93 1202	000049	12.6	
'12/93 1203	000050	14.5	
'12/93 1204	000051	08.7	
'12/93 1205	000052	08.7	
'12/93 1206	000053	10.6	
'12/93 1207	000054	08.7	
'12/93 1208	000055	06.7	
'12/93 1209	000056	10.6	

12/93	1210	000057	10.6	
12/93	1211	000058	08.7	
12/93	1212	000059	08.7	
12/93	1213	000060	08.7	
12/93	1214	000061	12.6	
12/93	1215	000062	12.6	
12/93	1216	000063	10.6	
12/93	1217	000064	00.9	
12/93	1218	000065	10.6	
12/93	1219	000066	06.7	
12/93	1220	000067	06.7	
12/93	1221	000068	04.8	
12/93	1222	000069	02.9	
12/93	1223	000070	12.6	
12/93	1224	000071	08.7	
12/93	1225	000072	12.6	
12/93	1226	000073	61.1	ALARM
12/93	1227	000074	63.0	ALARM
12/93	1228	000075	96.0	ALARM
12/93	1229	000076	0334	ALARM
12/93	1230	000077	84.4	ALARM
12/93	1231	000078	0152	ALARM
12/93	1232	000079	0158	ALARM
12/93	1233	000080	1236	ALARM
12/93	1234	000081	1652	ALARM
12/93	1235	000082	0119	ALARM
12/93	1236	000083	0982	ALARM
12/93	1237	000084	2098	OVER RANGE
12/93	1238	000085	82.4	OVER RANGE
12/93	1239	000086	43.6	OVER RANGE
12/93	1240	000087	24.2	OVER RANGE

**PHASE II SITE CHARACTERIZATION
SUPPLEMENTAL REPORT**

Location:

**SOUTH / STONE / COURT / CLINTON / BROAD STREETS
ROCHESTER, NEW YORK**

Prepared For:

CITY OF ROCHESTER

LaBella Project No. 92189

October, 1993

LABELLA

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

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TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
SCOPE OF WORK	1
FINDINGS	2
1. Geophysical Survey	2
2. Soil Boring Program	2
3. Climax Alley Soil Boring	3
4. Speedy's Building Samples Obtained by LaBella	3
5. Additional Speedy's Building Sampling by MMA	4
6. Water Level Measurements for Monitoring Wells	5
CONCLUSIONS	5
RECOMMENDATIONS	5
FIGURES	
APPENDICES	

INTRODUCTION

Prior to the current investigation, limited Phase I Environmental Site Assessments (ESA's) and Preliminary Site Characterizations were performed for the area bounded by South/Stone/Court/Clinton/Broad Streets. The findings of these investigations are discussed in a Draft Preliminary Site Characterization Report dated September, 1992 (included in APPENDIX A). Prior to the acquisition of the site by the City of Rochester, several phases of field work were completed in the public right of way. Access to the main portions of the site was not available at the time of the investigations. Several areas of potential environmental concern were identified including a long history of petroleum storage on and adjacent to the site, as well as the existence of an eighty year old dry cleaning facility known to have used solvents on the site. A site location map and a site sketch are included as Figures 1 and 2.

SCOPE OF WORK

The following tasks were completed during this investigation:

1. A surface geophysical survey (using a proton magnetometer) was performed in the parking lots on Court Street, between South Avenue and Stone Street. This survey was performed in an effort to locate potentially abandoned underground storage tanks (UST's).
2. Soil borings performed for geotechnical purposes by Huntingdon-Empire were observed by a LaBella Associates geologist. The geologist was present to observe the soil borings, to monitor the head space of the soil samples collected using a HNu photoionization detector (PID), and to collect samples for laboratory analysis if deemed appropriate. Soil boring locations are identified on Figure 3.
3. An additional boring was added to the Huntingdon-Empire drilling program in Climax Alley behind Speedy's and observed by a LaBella geologist.
4. Soil samples were collected from beneath the concrete floors inside the Speedy's building. Samples S-1 and S-2 were obtained from beneath the concrete slab on the main floor and sample BSMT-1 was obtained from beneath the floor in the basement. Sample BSMT-1 was analyzed for volatile organic compounds (VOC's) and total petroleum hydrocarbons (TPH). Sample locations are identified on a floor plan sketch of the Speedy's building included as Figure 4.
5. A sampling program was developed by Speedy's and their consultant, Monroe Monitoring and Analysis (MMA), in conjunction with LaBella Associates for additional sampling inside the Speedy's building.
6. Additional sampling of soils beneath the slab of the Speedy's building performed by Monroe Monitoring and Analysis (MMA) on behalf of Speedy's was observed by a LaBella Associates geologist. This sampling took place in August, 1993 after results of the initial sampling had been reviewed.
7. Analytical results of the MMA sampling were interpreted by LaBella and verbally reported to the City of Rochester.

8. A report produced by MMA relating to the additional sampling inside the Speedy's building was reviewed by LaBella Associates.
9. An Opinion of Probable Cost was prepared for the potential disposal costs associated with soil at the site.
10. Water levels for the existing monitoring wells at the site were measured and recorded on a regular basis.
11. A final report was prepared summarizing the findings of the investigation.

FINDINGS

1. Geophysical Survey

Grid systems were set up in the parking lots owned by All-Right Parking and Farash Corporation on Court Street between South Avenue and Stone Street. Results of the magnetometer survey for the All-Right lot were inconclusive, most likely due to the prevalence of buried electric cables and other utilities in close proximity to the site. There were no obvious signs of tanks at either location. A survey was not completed in the Farash Corporation lot due to the difficulty in coordinating the removal of all vehicles from the lot, the inconclusive results obtained at the adjacent lot, and the fact that Huntingdon-Empire had already drilled a boring at the location with the highest likelihood of encountering a buried tank.

2. Soil Boring Program

Evidence of fill material (bricks, concrete, etc.) was encountered at most locations. Soils with a black stain and petroleum type odor were observed at 15.5 feet below grade at boring B-507 in the Farash lot. PID readings of 3 parts per million (ppm) were noted. A sample of the soil was collected and analyzed for volatile organic compounds (VOC's). Compounds identified in the sample are noted below:

Analyte	Concentration
Benzene	46 ug/Kg
n-Propylbenzene	80 ug/Kg
Toluene	1,670 ug/Kg
1,3,5 Trimethylbenzene	164 ug/Kg
Xylene (total)	1,409 ug/Kg

All of the materials observed are petroleum hydrocarbons.

Boring B-507 was the only test boring location where positive PID responses, stained soils, and odors were encountered. A copy of the analytical results is included in APPENDIX B.

3. Climax Alley Soil Boring

Boring B-510 was drilled to a depth of 25 feet below grade in Climax Alley behind Speedy's Cleaners. No positive PID responses, stained soils, or odors were encountered. Because of the compact nature of the soils at this location, the drilling rate was very slow. Only minor amounts of ground water were noted at this boring. Due to the slow drilling rate and the fact that no evidence of contamination was encountered to a depth of 25 feet, the boring was terminated before bedrock was reached.

4. Speedy's Building Samples Obtained by LaBella

A site walk-through was conducted by Mr. Tom McEwen (representing Speedy's) prior to commencing sampling activities. At that time it was learned that there are several storage tanks in the building. Two tanks are located behind a wall in a crawl space in the northwest corner of the building. Fuel oil and dry cleaning solvent were historically stored in these tanks until the tanks were taken out of service. Four other solvent storage tanks are located in the basement and one solvent tank is located on the main floor in the washroom area. Puddles of cleaning solvent were observed adjacent to the dry cleaning machines in the main floor washroom area during the walk-through.

Mr. McEwen stated that a limited soil gas survey was performed on behalf of Speedy's by Monroe Monitoring and Analysis, Inc. in February, 1992. This study concluded that significant quantities of VOC's are present in the concrete slab on the main floor of the building. A copy of this report is included as APPENDIX C.

A total of three holes were cored through the concrete floor inside the Speedy's building by LaBella Associates (see Figure 4). Soil samples were collected using an AG penetrometer, and their head space monitored using a PID. Two holes (S-1 and S-2) were cored adjacent to the dry cleaning machines on the first floor at street grade. This portion of the building does not have a basement under it. The third hole (BSMT-1) was cored in the basement.

No elevated PID readings or odors were noted at the two borings on the first floor. For this reason these samples were not sent for chemical analysis. The sample recovered consisted of bits of brick, cinders, and dry soil.

Peak PID readings of 50 ppm, gray/black oily soil, and a petroleum type odor were noted at the third boring located in the basement. The soils under the basement floor were wet as compared to the ASTM Criteria for Describing Soils. A soil sample from this location was collected and analyzed for VOC's and total petroleum hydrocarbons. Compounds identified in the sample are noted below:

Analyte	Concentration
tert-Butylbenzene	1,822 ug/Kg
Ethylbenzene	279 ug/Kg
Isopropylbenzene	3,234 ug/Kg
Naphthalene	25 ug/Kg
1,2,4 Trimethylbenzene	3,880 ug/Kg
1,3,5 Trimethylbenzene	2,117 ug/Kg
Xylene (total)	12,466 ug/Kg

A copy of the analytical results is included in APPENDIX D.

All of these materials are petroleum hydrocarbons and/or distillates. Napthalene, 1,2,4 and 1,3,5 trimethylbenzene are common components of Stoddard solvent. Stoddard solvents are common degreasing compounds and have been used at the Speedy's facility.

5. Additional Speedy's Building Sampling by MMA

Samples were collected by MMA from several areas of the Speedy's building in an effort to more accurately determine the type and extent of contamination beneath the building. Sampling points and analytical methods were suggested by LaBella Associates.

All samples were analyzed for volatile organics by EPA method 8240. Selected samples were analyzed for TCLP (Toxicity Characteristic Leaching Procedure) for metals and volatiles. The samples were also tested for ignitability (40 CFR 261.21). Sample locations are identified on Figure 5. APPENDIX E contains a copy of the MMA report which includes analytical results.

Holes were cored through the concrete floor at six locations (see Figure 5). Samples were obtained using a stainless steel auger at depths ranging from 1' to 4' below the surface. Sample locations are identified in the table below:

Sample #	Location
BS-2B	Center of basement
BS-3	Southwest corner of basement
BS-4	Basement storage room (SE)
DC-1	Dry cleaning room (First Floor)
DC-2	Dry cleaning room (First Floor)
BR-1	Boiler Room

A PID was utilized during sampling activities to monitor the headspace of soil samples as well as soil gas exiting the borehole. A table of PID readings is included in the MMA report. PID readings were highest in the basement at locations BS-2 and BS-3. Peak readings of over 300 parts per million (ppm) were noted at location BS-2. Soil samples at these locations exhibited a distinct petroleum or solvent type odor. Positive analytical results are summarized in the table below:

Analyte	BS-2B(S)	BW-2B(w)	BS-3	BS-4	DC-1	DC-2	BR-1
Methylene chloride	9700		7800	3J	4J	5000	3J
Toluene	3200J						
Ethylbenzene	9200		8800				
Chloroform		950 ug/l					
m+p xylenes	15000	1300J ug/l	17000				
ortho-xylene	28000	2200J ug/l	28000				
Tetrachloroethene					23		

all units in ug/Kg unless otherwise noted
J denotes and estimated value

The majority of the materials observed are petroleum hydrocarbons.

Tetrachloroethene (also known as perchloroethene or "perc") is a commonly used dry cleaning solvent and is used by Speedy's in their process. This material has the potential to be classified as a hazardous waste.

The presence of methylene chloride in the samples would not be expected at the site based on the types of materials used at Speedy's. Methylene Chloride is a common laboratory contaminant and its presence may be due to error. However, the laboratory did not note any problem with the analysis.

The analytical library search run for the samples also indicated the presence of stoddard solvent

6. Water Level Measurements for Monitoring Wells

Water levels for the existing monitoring wells at the site were measured and recorded on a regular basis and are presented in APPENDIX F.

CONCLUSIONS

Based on the results of the investigation to date, the following conclusions can be made:

1. Petroleum hydrocarbons have been detected in ground water samples from monitoring wells GW-3, GW-5, and GW-6 at levels exceeding New York State Drinking Water Standards.
2. Fill material (bricks, concrete, etc.) ranging in thickness from 0 to 15 feet was encountered at most subsurface testing locations. Several of these areas may be basements of former buildings that were filled with demolition debris.
3. Soils with elevated levels of petroleum hydrocarbons were encountered at approximately 15 feet below grade at several locations (B-507, GW-3, GW-5, and GW-6).
4. It is unknown if petroleum storage tanks known to exist in the past at the All-Right parking lot and the Farash Corporation lot are still in place.
5. There are several petroleum and solvent storage tanks inside the Speedy's facility, at least two of which are inaccessible due to their location behind a wall in basement. The two inaccessible tanks were reported to have historically stored fuel oil and dry cleaning solvent.
6. Soils beneath the concrete slab floor of the basement at Speedy's contained significant concentrations of volatile organic compounds. It is likely that portions of the slab floor, building foundation, and underlying soils will need to be disposed of as special or hazardous waste.

RECOMMENDATIONS

1. Additional sampling and investigation is not recommended at this time as the building will be demolished and underlying soils will be excavated. During excavation soils should be monitored for elevated levels of VOC's and/or visual staining.

2. As the Site has historically had gasoline stations and a dry cleaning facility located within its boundaries and VOC's have been noted in ground water samples from the Site's boundaries, it is recommended that a contingency plan be prepared prior to on-site excavation. This plan should be reviewed by appropriate State and local agencies.

The contingency plan should include the following items:

- a. Procedures for identifying and handling materials with elevated volatile organic compound levels, which may be encountered during construction/excavation.
 - b. Procedures for removing underground storage tanks, which may be encountered during excavation.
 - c. A site specific health and safety plan.
 - d. Procedures for notifying the NYSDEC.
 - e. An environmental technician to be present during all on-site excavations.
3. During construction, engineering controls such as ventilation systems should be considered in order to minimize the potential for petroleum hydrocarbon vapors to enter future buildings.
 4. The ground water monitoring wells at the site should be properly decommissioned when it is deemed that they are no longer necessary.

This report is a professional opinion and judgment, dependent upon LaBella's knowledge, information and data supplied by governmental agencies, other environmental consultants, laboratories, and data generated in the field.

In addition, LaBella cannot provide guarantees, certification or warranties that the property is or is not free of environmental impairment. The subsurface investigation program, the data and samples from any given soil boring or monitoring well will indicate conditions that apply only at that particular location, and such conditions may not necessarily apply to the general site as a whole.

R3J05DP1

FIGURES

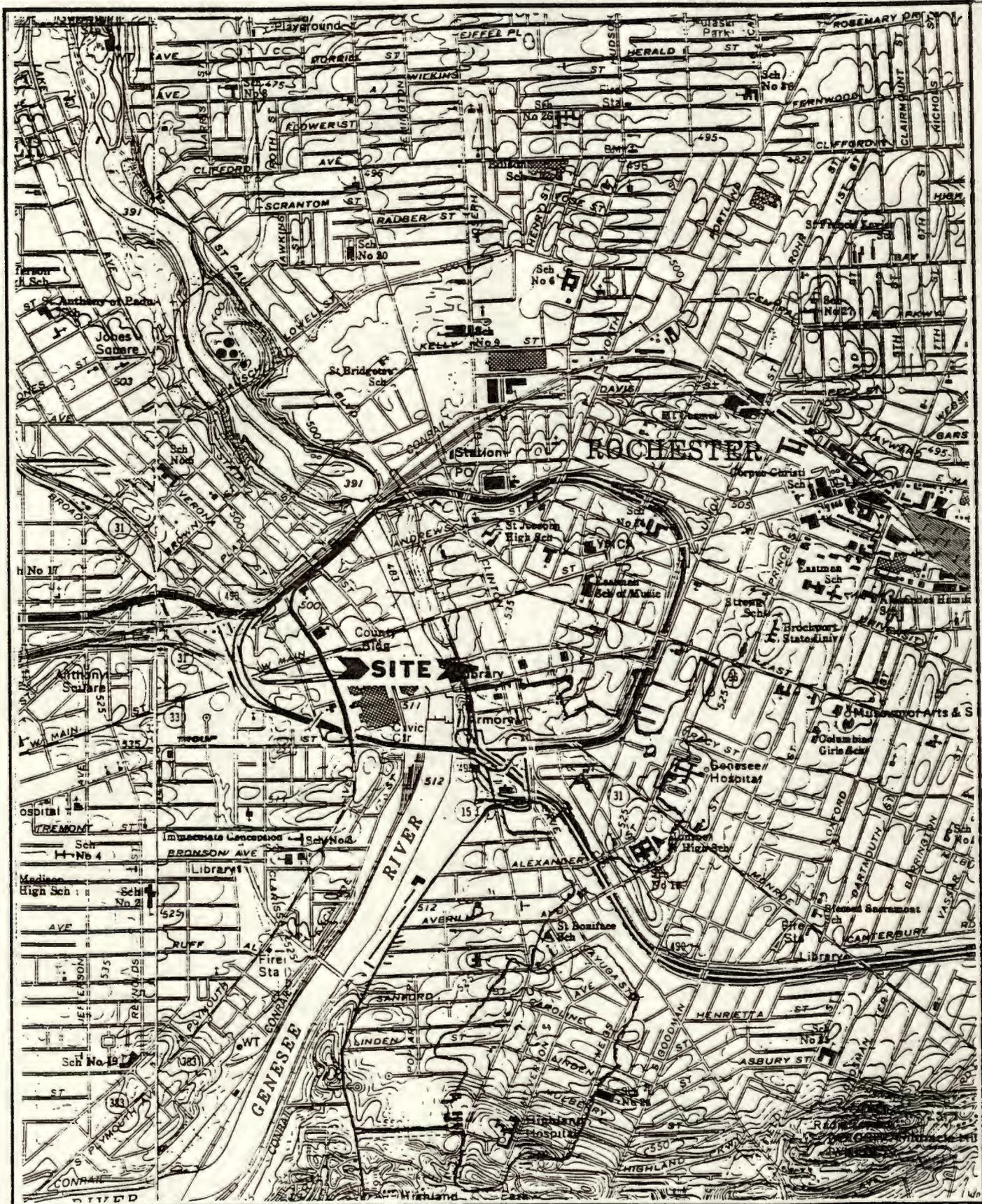


FIGURE 1

SITE LOCATION

DOWNTOWN

ROCHESTER.

NEW YORK

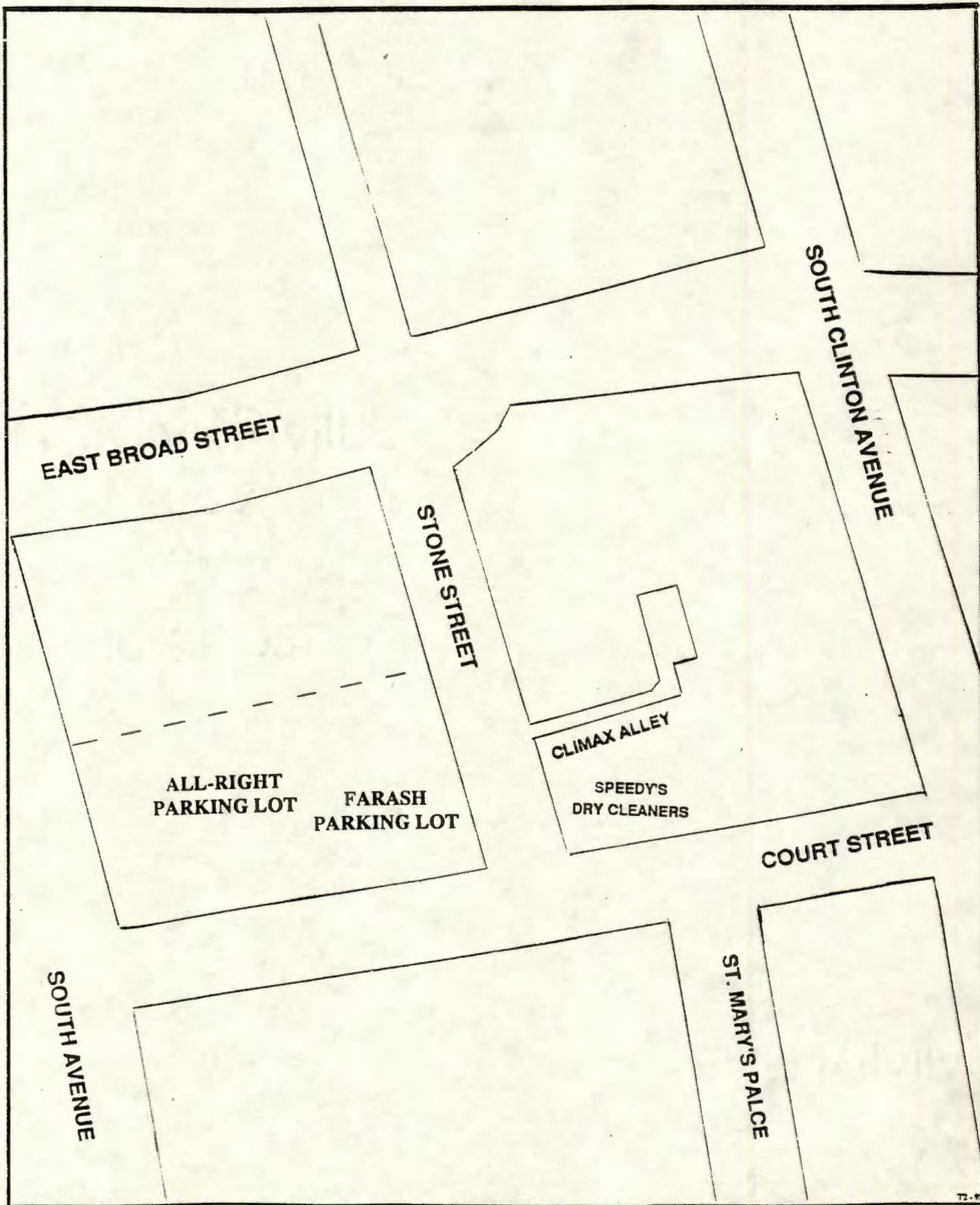


SCALE: 1" = 2000'

LABELLA

LaBella Associates, P.C.

Engineering, Architecture
and Surveying



T2-92

FIGURE 2
SITE SKETCH

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614
716-454-6110

Project No.:	92189
Scale:	1"=100'
Drawn By:	DP
Date:	9/10/92

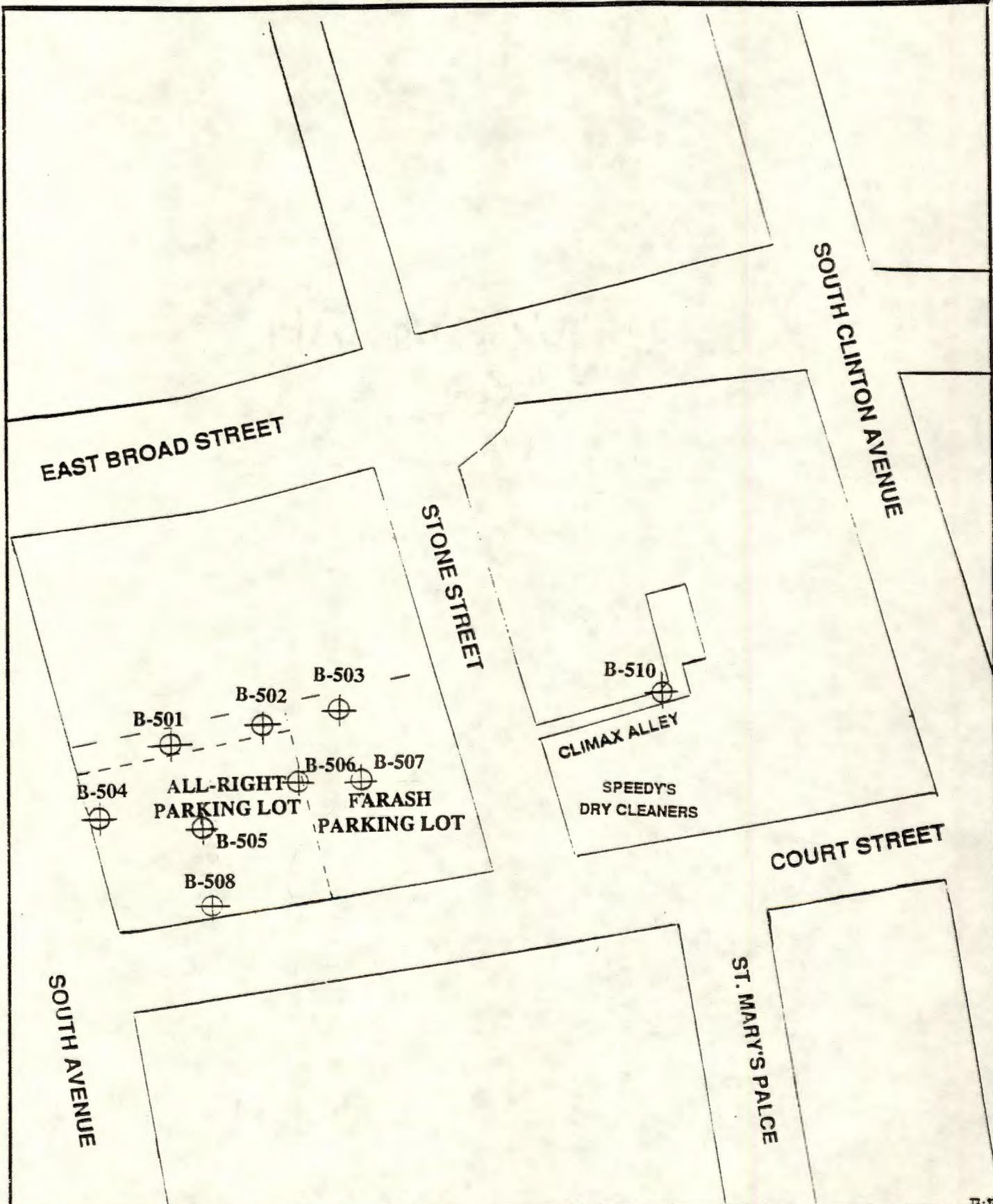


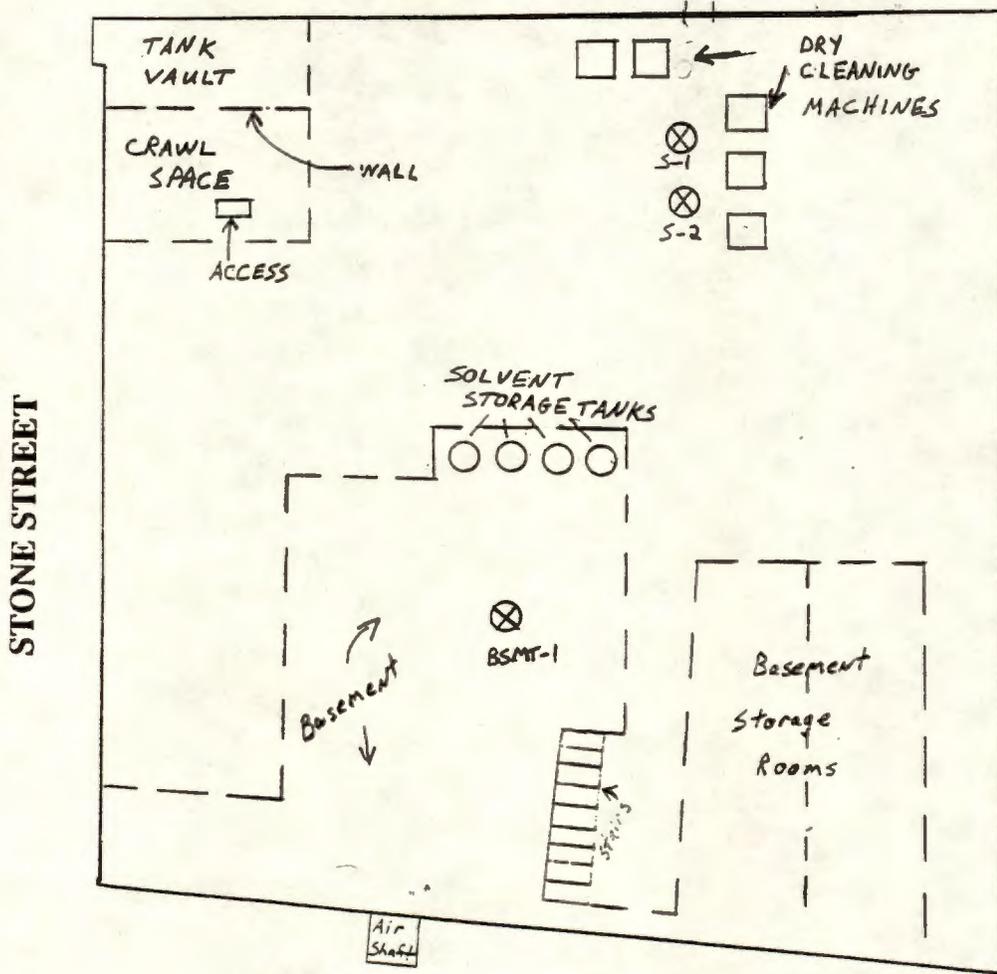
FIGURE 3

TEST BORING LOCATIONS

LaBella Associates, P.C.
 300 State Street
 Rochester, New York 14614
 716-454-6110

Project No.:	92189
Scale:	1"=100'
Drawn by:	DP
Date:	8/3/93

CLIMAX ALLEY



COURT STREET



FIGURE 4

FLOOR PLAN SKETCH
SPEEDY'S DRY CLEANERS

Project No.: 92189

Scale: 1"=20'

Drawn By: DMP

Date: 8/3/93

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614
716-454-6110

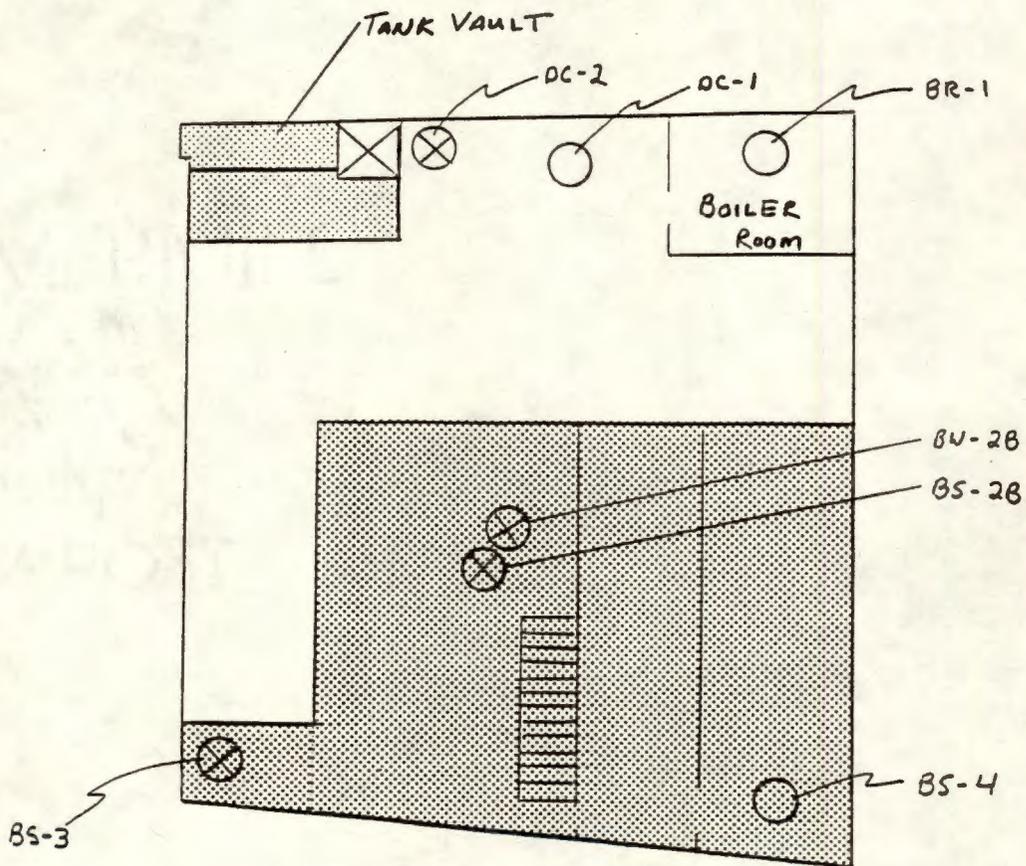
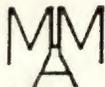


FIGURE 5

- GROUND LEVEL
- BASEMENT
- X HIGH CONCENTRATION RESULTS
- LOW CONCENTRATION RESULTS

MONROE MONITORING & ANALYSIS, INC.



1425 MT. READ BLVD., ROCHESTER, N.Y.

CLIENT: *SPEEDY CLEANERS*

PROJECT:

DRAWING:

DRAWN BY: *LTB*

CHECKED BY:

APPROVED BY:

PROJECT NO.:

DRAWING NO.:

SHEET NO

SCALE: DATE:

APPENDIX A

Draft Preliminary Site Characterization Report

APPENDIX D

**Analytical Results
Sample BS MT - 1**

ALFRED TECHNICAL & ANALYTICAL LABORATORY SCIENCE & ENGINEERING TECHNOLOGY INTERNATIONAL

NYSDOH# 11299

PHONE#(607)587-8377/9444

FAX#(607)587-9652/9535

PO Box 848
200 N. Main St.
Alfred, NY 14802

REPORT ON 13529

Client Name: LaBella Associates, P.C.
Address: 300 State Street

Phone: (716)454-6110
RochesterNY 14614

Date SAMPLE RECEIVED: Jun 11, 1993

Date REPORTED: Jul 7, 1993

Sample Information; Name: Speedy
Address: BSMT-1

Collection Point: Basement at Speedy's

Collected By: Dennis Peck ON: Jun 10, 1993 AT: 3:30 pm

Sample Characteristics;

A. PHASE LAYERS bilayered multilayered none

B. PHYSICAL STATE at 70F solid liquid other.....

C. pH RANGE <2 2-4 4-6 6-8 8-10 10-12 >12

TEST DESIRED: Metals Inorganics Organics

CONFIRMATORY:

CAS#	analyte	method code	method detection limit	result	unit
	TCL VOA	EPA8260		s.a.s.	
	T.Petroleum H.	EPA418.1	5	<5	mg/Kg

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Roland D. Hale
Laboratory Director

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REPORT ON 13529

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Address: 300 State Street
Rochester, NY 14614

Date SAMPLE RECEIVED: Jun 11, 1993 **Date REPORTED:** Jul 7, 1993

Sample Name: Speedy.....
Sampling address: BSMT-1.....
Sampling POINT: Basement at Speedy's.....
Collected By: Dennis Peck **ON:** Jun 10, 1993 **AT:** 3:30 pm

Sample Characteristics;

- A. PHASE LAYERS bilayered multilayered none.
- B. PHYSICAL STATE at 70°F solid liquid other.....
- C. pH RANGE >2 2-4 4-6 6-8 8-10 10-12 <12

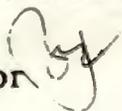
TEST DESIRED: Volatile Organics
CONFIRMATORY:

<u>CAS#</u>	<u>analyte</u>	<u>method code</u>	<u>MDL</u>	<u>result</u>	<u>unit</u>
71-43-2	Benzene	EPA8260	10	<10	ug/Kg
108-86-1	Bromobenzene	EPA8260	10	<10	ug/Kg
74-97-5	Bromochloromethane	EPA8260	10	<10	ug/Kg
75-27-4	Bromodichloromethane	EPA8260	10	<10	ug/Kg
75-25-2	Bromoform	EPA8260	10	<10	ug/Kg
74-83-9	Bromomethane	EPA8260	10	<10	ug/Kg
104-51-8	n-Butylbenzene	EPA8260	10	<10	ug/Kg
135-98-8	sec-Butylbenzene	EPA8260	10	<10	ug/Kg
98-06-6	tert-Butylbenzene	EPA8260	10	1822	ug/Kg
56-23-5	Carbon Tetrachloride	EPA8260	10	<10	ug/Kg
108-90-7	Chlorobenzene	EPA8260	10	<10	ug/Kg
75-00-3	Chloroethane	EPA8260	10	<10	ug/Kg
67-66-3	Chloroform	EPA8260	10	<10	ug/Kg
74-87-3	Chloromethane	EPA8260	10	<10	ug/Kg
95-49-8	2-Chlorotoluene	EPA8260	10	<10	ug/Kg
106-43-4	4-Chlorotoluene	EPA8260	10	<10	ug/Kg
124-48-1	Dibromochloromethane	EPA8260	10	<10	ug/Kg
96-12-8	1,2-Dibromo-3-chloro- propane	EPA8260	10	<10	ug/Kg
106-93-4	1,2-Dibromoethane	EPA8260	10	<10	ug/Kg
74-95-3	Dibromomethane	EPA8260	10	<10	ug/Kg
95-50-1	1,2-Dichlorobenzene	EPA8260	10	<10	ug/Kg
541-73-1	1,3-Dichlorobenzene	EPA8260	10	<10	ug/Kg
106-46-7	1,4-Dichlorobenzene	EPA8260	10	<10	ug/Kg

Continued on next page . . .

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Laboratory Director 

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NYSDOH# 11299

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FAX#(607)587-9652/9535

PO Box 848
200 N. Main St.
Alfred, NY 14802

.....Continuation of Sample #13529

75-71-8	Dichlorodifluoromethane	EPA8260	10	<10	ug/Kg
75-34-3	1,1-Dichloroethane	EPA8260	10	<10	ug/Kg
107-06-2	1,2-Dichloroethane	EPA8260	10	<10	ug/Kg
75-35-4	1,1-Dichloroethylene	EPA8260	10	<10	ug/Kg
156-59-2	cis-1,2-Dichloroethylene	EPA8260	10	<10	ug/Kg
156-60-5	trans-1,2-Dichloroethylene	EPA8260	10	<10	ug/Kg
78-87-5	1,2-Dichloropropane	EPA8260	10	<10	ug/Kg
142-28-9	1,3-Dichloropropane	EPA8260	10	<10	ug/Kg
594-20-7	2,2-Dichloropropane	EPA8260	10	<10	ug/Kg
563-58-6	1,1-Dichloropropene	EPA8260	10	<10	ug/Kg
100-41-4	Ethylbenzene	EPA8260	10	279	ug/Kg
87-68-3	Hexachlorobutadiene	EPA8260	10	<10	ug/Kg
98-82-8	Isopropylbenzene	EPA8260	10	3234	ug/Kg
99-87-6	p-Isopropyltolune	EPA8260	10	<10	ug/Kg
75-09-2	Methylene chloride	EPA8260	10	<10	ug/Kg
91-20-3	Naphthalene	EPA8260	10	25	ug/Kg
103-65-1	n-Propylbenzene	EPA8260	10	<10	ug/Kg
127-18-4	Tetrachloroethylene	EPA8260	10	<10	ug/Kg
100-42-5	Styrene	EPA8260	10	<10	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	EPA8260	10	<10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	EPA8260	10	<10	ug/Kg
108-88-3	Toluene	EPA8260	10	<10	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	EPA8260	10	<10	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	EPA8260	10	<10	ug/Kg
71-55-6	1,1,1-Trichloroethane	EPA8260	10	<10	ug/Kg
79-00-5	1,1,2-Trichloroethane	EPA8260	10	<10	ug/Kg
79-01-6	Trichloroethylene	EPA8260	10	<10	ug/Kg
75-69-4	Trichlorofluoromethane	EPA8260	10	<10	ug/Kg
96-18-4	1,2,3-Trichloropropane	EPA8260	10	<10	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	EPA8260	10	3880	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	EPA8260	10	2117	ug/Kg
75-01-4	Vinyl chloride	EPA8260	10	<10	ug/Kg
	Xylene (total)	EPA8260	10	12466	ug/Kg

Date analyzed: Jun 28, 1993

Remarks: USEPA methods

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Laboratory Director

ALFRED TECHNICAL & ANALYTICAL LABORATORY SCIENCE & ENGINEERING TE

NYSDOH# 11299

PHONE#(607)587-8377/9444

Post-It™ brand fax transmittal memo 7671		# of pages » 3
To <i>Steve Campbell</i>	From <i>Bickson</i>	
Co. <i>LaBella</i>	Co. <i>SET</i>	
Dept.	Phone # <i>607 587-8377</i>	
Fax # <i>716 454 3066</i>	Fax # <i>607 587 9652</i>	

REPORT ON 13529

Name: *LaBella Associates, P.*
Address: *300 State Street*
Rochester, NY 14614

Date SAMPLE RECEIVED: Jun 11, 1993 Date REPORTED: Jul 7, 1993

Sample Name: *Speedy.....*
Sampling address: *BSMT-1.....*
Sampling POINT: *Basement at Speedy's.....*
Collected By: *Dennis Peck* ON: *Jun 10, 1993* AT: *3:30 pm*

Sample Characteristics;

- A. PHASE LAYERS bilayered multilayered none.
B. PHYSICAL STATE at 70°F solid liquid other.....
C. pH RANGE >2 2-4 4-6 6-8 8-10 10-12 <12

TEST DESIRED: *Volatile Organics*
CONFIRMATORY:

CAS#	analyte	method code	MDL	result	unit
71-43-2	Benzene	EPA8260	10	<10	ug/Kg
108-86-1	Bromobenzene	EPA8260	10	<10	ug/Kg
74-97-5	Bromochloromethane	EPA8260	10	<10	ug/Kg
75-27-4	Bromodichloromethane	EPA8260	10	<10	ug/Kg
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SCIENCE & ENGINEERING TECHNOLOGY INTERNATIONAL

NYSDOH# 11299

PHONE#(607)587-8377/9444

FAX#(607)587-9652/9335

PO Box 848

200 N. Main St.
Alfred, NY 14802

.....Continuation of Sample #13529 *

75-71-8	Dichlorodifluoromethane	EPA8260	10	<10	ug/Kg
75-34-3	1,1-Dichloroethane	EPA8260	10	<10	ug/Kg
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75-35-4	1,1-Dichloroethylene	EPA8260	10	<10	ug/Kg
156-59-2	cis-1,2-Dichloroethylene	EPA8260	10	<10	ug/Kg
156-60-5	trans-1,2-Dichloroethylene	EPA8260	10	<10	ug/Kg
78-87-5	1,2-Dichloropropane	EPA8260	10	<10	ug/Kg
142-28-9	1,3-Dichloropropane	EPA8260	10	<10	ug/Kg
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98-82-8	Isopropylbenzene	EPA8260	10	3234	ug/Kg
99-87-6	p-Isopropyltoluene	EPA8260	10	<10	ug/Kg
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108-67-8	1,3,5-Trimethylbenzene	EPA8260	10	2117	ug/Kg
75-01-4	Vinyl chloride	EPA8260	10	<10	ug/Kg
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Alfred, NY 14802

REPORT ON 13529

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Address: 300 State Street

Phone: (716)454-6110
Rochester NY 14614

Date SAMPLE RECEIVED: Jun 11, 1993

Date REPORTED: Jul 7, 1993

Sample Information; Name: Speedy
Address: BSMT-1

Collection Point: Basement at Speedy's

Collected By: Dennis Peck

ON: Jun 10, 1993

AT: 3:30 pm

Sample Characteristics;

- A. PHASE LAYERS bilayered multilayered none
- B. PHYSICAL STATE at 70F solid liquid other.....
- C. pH RANGE <2 2-4 4-6 6-8 8-10 10-12 >12

TEST DESIRED: Metals

Inorganics Organics

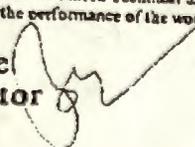
CONFIRMATORY:

CAS#	analyte	method code	method detection limit	result	unit
	TCL VOA T. Petroleum H.	EPA8260 EPA418.1	5	s.a.s. <5	mg/Kg

The provided results are for the exclusive use of the client to whom they are addressed. The provided results and the name of Alfred Technical and Analytical Laboratory in any form may not be used in any circumstance in advertising to the general public without the prior written approval from the laboratory director. The results apply specifically to the sample being tested and are not necessarily indicative of the qualities of apparently identical or similar products.

Limitations of Liability—Due diligence was used in approving the release of professional results, but in an instance where it should fail, the liability will be to the extent of that particular fee. By acceptance of this report, the client agrees to hold harmless and release the Alfred Technical and Analytical Laboratory from and against all liability, consequential damages, claims, and demands of any kind which have any relation with the performance of the work referred to herein.

Roland D. Hale
Laboratory Director



APPENDIX E

**Monroe Monitoring and Analysis
Phase II Environmental Investigation Report
8/5/1993**



Monroe
Monitoring
& Analysis, Inc.

PHASE II
ENVIRONMENTAL INVESTIGATION REPORT

SPEEDY'S CLEANERS

190 COURT STREET
ROCHESTER, NEW YORK

AUGUST 5, 1993

PREPARED BY

Monroe Monitoring & Analysis, Inc.
1425 Mt. Read Blvd.
Rochester, New York 14606

PHASE II
ENVIRONMENTAL INVESTIGATION REPORT

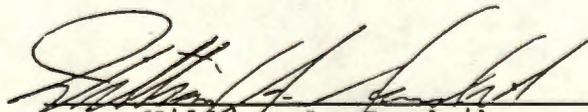
SPEEDY'S CLEANERS

190 COURT STREET
ROCHESTER, NEW YORK

MM&A PROJECT # 938-14

PREPARED
AUGUST 31, 1993

PREPARED BY



William A. Sandvik
Project Manager

Monroe Monitoring & Analysis, Inc.
1425 Mt. Read Blvd.
Rochester, New York 14606

Monroe Monitoring & Analysis, Inc.
1425 Mt. Read Blvd.
Rochester, New York 14606

PHASE II ENVIRONMENTAL AUDIT REPORT

Client: Speedy Cleaners
Contact: Mr. Tom McEwen
Project: Sampling of soil and water beneath concrete
slab floors
Location: 190 Court Street
Rochester, New York
Project Date: August 5, 1993
Report Date: August 31, 1993
Project No.: 938-14
Technician: Richard Bianchi
Author: William Sandvik

Purpose

This site, currently a dry cleaners, is in the process of being acquired by the City of Rochester for future redevelopment. As part of the acquisition process, environmental investigations were performed by LaBella Associates, (representing the City) ^{1,2,3,4,5,6}.

This current sampling program was implemented to more accurately define the extent, nature and source of any contamination.

Specific aspects of the sampling program were verbally requested by Steven Campbell of LaBella Associates, including minimum analysis as follows:

- o EPA 8240 Volatile Organics Analysis
- o Ignitability
- o TCLP (Toxicity Characteristic Leaching Procedure) analysis for Metals and Volatiles.

In addition, LaBella Associates identified the desired minimum number of sample locations and the specific minimum analytical parameters for each sample location, from those listed above. Beyond these minimum analyses, MM&A requested a library search for each 8240 analysis. A library search is an identification of all peaks found during the analysis. The search encompasses a library of approximately 40,000 organic compounds. This request was made to assure that the components of stoddard solvent and any other possible contaminants (either resulting from dry cleaning operations or other sources) would be identified.

Precise sample locations and sample depths were determined jointly by MM&A and LaBella's on-site representative (Dennis Peck) based on field conditions.

Sample locations are plotted on the attached floor plan of the site.

Methods

A concrete drill was used to drill 4" diameter holes through the concrete slab floor to soil. Care was taken at each site to prevent contamination of the bore hole with materials from the surface of the floor. Where brick and debris were encountered below the slab, the decision was made to move to an adjoining area and drill a new hole.

Sampling was conducted using a stainless steel soil auger to collect soil samples at a depth ranging from approximately 1' to 4' below the surface. Samples were collected and placed in glass sample bottles with teflon caps, provided by the Eagle-Pitcher company and certified as pre-cleaned according to EPA recommendations. All samples were labelled to represent sample location, date and time.

Immediately upon collection, samples were placed in a refrigerated cooler and maintained under refrigeration and Chain-of-Custody procedures until analysis. Analysis of samples was performed by Laboratory Resources, Inc. an independent laboratory, Certified by New York State to conduct the required analytical procedures.

Field cleaning of the soil auger was performed following each sample collection. The procedure for this cleaning was as follows:

- o Soap and water rinse to remove gross particulate matter.
- o Tap water rinse.
- o Dilute nitric acid rinse to remove trace metal contamination.
- o Distilled water rinse.
- o Methanol rinse to remove trace organics.
- o Final distilled water rinse.

All cleaning solutions were captured and properly disposed of.

Sampling was conducted by Mr. Richard Bianchi, an Environmental Field Supervisor with Monroe Monitoring & Analysis, Inc. Mr. Bianchi is experienced in the collection of environmental samples for analysis of trace concentrations of organic and inorganic chemicals, and has received 40 hours of health & safety training and 8 hours of supervisor training as required by OSHA for hazardous waste site workers and investigation personnel.

Sample locations were screened by a Photo-ionization detector during the sampling process. Results of screening are documented on the attached data sheets (Appendix A).

Results

The analytical report for the above soil samples is attached to this report and is found in Appendix B.

Trace levels (micrograms/kilogram) of organics were found in several samples, with significant levels (milligrams/kilogram) found in three samples. These three samples are roughly in a line, with the highest concentrations at the Southwest corner of the building and the lowest concentrations (of the three) at the North center of the building.

Matrix interference (interference resulting from other compounds) required the laboratory to perform dilutions of several samples prior to analysis. As a result, the detection limit (minimum detection level) for these samples is higher than would otherwise be possible.

Conclusions

1. Contamination detected was limited to the center foundation area (approximately 45'x40' area). The contaminants identified by this sampling program are consistent with the constituents of gasoline, with three exceptions, Methylene Chloride, Chloroform and Tetrachloroethene.

With the exception of Tetrachloroethene, these compounds are inconsistent with dry cleaning operations ^{1,7}.

Tetrachloroethene was found in only one sample, at a level of 23 μ g/Kg. This low level of Tetrachloroethene may be the result of airborne or equipment contamination during drilling and sample collection, since the odor of Tetrachloroethene is noticeable in the air within the building.

In addition to gasoline constituents, samples in the same areas contained significant amounts of Methylene Chloride, an industrial solvent, not known for use as a dry cleaning agent^{8,9,10}. This may be a result of laboratory contamination, however an alternate source is proposed in conclusion 3, below.

2. Groundwater sampling conducted by LaBella Associates upgradient (Southwest) of the site identified the same primary contaminants (Toluene, Xylenes and Ethylbenzene) as found in this study^{4,5}. LaBella concluded that the possible source of these contaminants was a former gasoline station near the corner of Court and Stone Streets⁴.

Based on this study, it appears likely that these same contaminants have been carried from the site of this gasoline station (South and West of Speedy's) to 190 Court Street by groundwater (determined by LaBella to flow to the Northeast in this area⁴), and/or the apparent abandoned sewer described in conclusion 4, below.

3. The corner of Stone and Court streets formerly housed the Sargent and Greenleaf Lock Factory^{1,2,3}. A manufacturing facility of this nature would undoubtedly use significant quantities of degreasing chemicals such as Methylene Chloride and Tetrachloroethene, both of which were found in the various samples collected by MM&A and LaBella.
4. During drilling in the center of the basement, what appeared to be an abandoned brick lined sanitary sewer was intercepted. Upon removing the drill bit, water rapidly filled the hole as quickly as it could be drawn off by a shop vac. It was noted by all present that the water had a distinct septic odor.

It is possible that this sewer has acted as a conduit to deliver contaminants to this area of the basement from a source beyond the property boundaries. It should be noted that this immediate area was found to contain significant levels of the full range of contaminants detected by LaBella and MM&A sampling. A water sample collected directly from this assumed sewer was found upon analysis to contain Chloroform and Xylenes, by the 8240 analysis and a range of gasoline components in significant concentrations which were found by the library search. No dry cleaning components were detected.

5. Results of soil sampling in Speedy's basement performed by LaBella, as reported in a letter report ⁶ to the City (dated 7/15/93) describe analytical results reported by the laboratory in micrograms per kilogram ($\mu\text{g}/\text{Kg}$) as parts per billion (PPB). While these terms can be loosely interchanged, % moisture must be taken into account. The laboratory report attached to the letter does not indicate % moisture found, therefore, PPB values cannot be accurately derived and may vary significantly from the PPB values reported.

This correction would not change the overall conclusion of the report, however, it is worth noting. It should also be noted that these stated guidelines are in fact guidance values which are subject to negotiation. As reported by LaBella ⁵, NYSDEC typically determines the need for remedial measures by the appearance of a visible sheen; a condition not observed by MM&A or reported by LaBella during any of the sampling episodes.

6. The contaminants identified by MM&A, included up to 9700 $\mu\text{g}/\text{Kg}$ of Methylene Chloride, 23 $\mu\text{g}/\text{Kg}$ of Tetrachloroethene (Perc) in soil samples and 950 $\mu\text{g}/\text{L}$ of Chloroform in one water sample. No other chlorinated compounds were detected. Along with these chlorinated compounds, numerous gasoline constituents were found in these same sample locations in ranges up to hundreds of mg/Kg . These contaminants are all highly volatile materials which should respond well to soil venting techniques.
7. Based on the TCLP data generated by this sampling program, excavated soil from this site would be characterized as non-hazardous, and therefore, excavation for the sole purpose of remediation is not recommended. The volatile nature of the materials found suggests that the process of demolition and excavation may enhance the release these materials (which are currently trapped beneath concrete slabs) from the soil, reducing levels further, possibly below established remedial guidelines.
8. Based on the results of this investigation and related work conducted by LaBella Associates, it is the contention of Monroe Monitoring & Analysis that the potentially responsible parties for the identified contamination are the current and past owners of the properties at 160-178 Court Street (former gasoline station, auto dealership and lock company), and/or 181 and 195 Court Street (gasoline stations), as identified by LaBella Associates and MM&A Phase I studies of the area ^{1,2}.

Recommendations

1. The off-site source(s) of the contamination detected by this sampling program should be fully determined and remediated.
2. A soil venting program should be implemented at 190 Court Street, once demolition of the current structures has been completed.

REFERENCES

1. Phase I Environmental Audit Report for 190 Court Street, prepared by Monroe Monitoring & Analysis, Inc. (March 1992)
2. Phase I Environmental Site Assessment for Broad/Court/Clinton/Stone Streets, prepared by LaBella Associates, P.C. (December 1990)
3. Facility Assessment & Documentation Review for Court Street between South Avenue and Stone Street, prepared by LaBella Associates, P.C. (July 1993)
4. Phase II Preliminary Site Characterization Report for Stone/Court/Clinton/Broad Streets, prepared by LaBella Associates, P.C. (April 1992)
5. Phase II Site Characterization Report for Court Street between South Avenue and Stone Street, prepared by LaBella Associates, P.C. (September 1992)
6. Letter report from Osterberg (LaBella) to Hubbard (City Of Rochester) dated July 15, 1993, RE: Site Characterization of Speedy's Cleaners.
7. Components of Stoddard Solvent - Personal communication with Tracy Hurtz of Laboratory Resources, Inc.
8. Hazardous Materials Toxicology, Sullivan and Krieger, 1992.
9. Hawley's Condensed Chemical Dictionary, Sax and Lewis, 1987.
10. Hazardous Substance Fact Sheet - Methylene Chloride, New Jersey Department of Health, 1987.

Project No. 938-14
Author: William Sandvik

APPENDIX A
PHOTO-IONIZATION DETECTOR
READINGS



CLIENT: Speedy Cleaners
 LOCATION: 190 Court Street, Roch., N.Y.
 DATE: 8-5-93

TIME	LOCATION	ppm	ppm	H2S	O2	LEL	DETECTOR TUBES	OTHER Peaks
		oVm	HNu					
0840	Outside - Ambient	1-1.5						-
0841	Main Entrance - Ambient	7-8						-
0843	1 ST Floor - Boiler Rm.	2.3-2.6						-
0846	Ground level - Boiler Rm.	3.7-4.6						-
0903	Soil Gas - BR-1-hole ¹	10.5						13.5
0912	" " - " " hole ²	Background						4.6
0940	Basement - Ambient	2.5						-
0956	Soil Screen - BS-2	25-40						63
0954	Soil Screen - BS-2	300						314
1045	Ambient - Basement	5-6						-
1100	soil gas screen BS-3		90-100					100
1103	" " " "		75					
1108	" " " "		190					
1116	Soil Gas screen BS-4		Background					

1' depth

WEATHER A.M. 63°F Partly Cloudy - low wind, hazy
 P.M.

COMMENTS:
 oVm malfunctioned - Began HNu monitoring at ≈ 1100



Monroe
Monitoring
& Analysis, Inc.

DIRECT READING INSTRUMENTS
DATA SHEETS

CLIENT: Speedy Cleaners
 LOCATION: 190 Court St., Patch., N.Y.
 DATE: 8-5-93

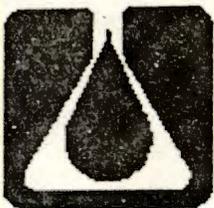
TIME	LOCATION	ppm		H2S	O2	LEL	DETECTOR TUBES	OTHER
			HNu					
1119	Soil Gas Screen BS-4		Background					
1135	soil Gas - B-2A area		50					- 1' depth
1200	" "		Background					2' depth
1325	Soil Gas - B-2B area		30					1' depth
1330	Soil Screen - B-2B area		12					2' depth

WEATHER A.M.
 P.M. 76°F mostly sunny - moderate humidity.

COMMENTS:

Project No. 938-14
Author: William Sandvik

APPENDIX B
ANALYTICAL DATA



Laboratory Resources, Inc.

New Jersey Division

100 Hollister Road

Telephone: 201-288-3700 Fax: 201-288-5311

ANALYTICAL DATA REPORT

Report Number: T308118

Project: Speedy Cleaners

prepared for:

Monroe Monitoring & Analysis,
1425 Mt Reid Blvd

Rochester, NY 14606

Attention: Mr William Sandvik

Receive Date: 08/06/93

Report Date: 08/31/93

Mohammad R. Amirsoleymani
Quality Assurance Manager

Paul Ioannides
General Manager

NJDEPE Certification No. 02046
PADER Certification No. 68-420
NYDOH/ASP Certification No. 11321

ORGANIC NON-CONFORMANCE SUMMARY

GC/MS VOLATILES

1. The quantitation limits are elevated due to matrix interference for samples (T308118-02 and 06).
2. The quantitation limits are elevated due to the dilution required for sample (T308118-01).

ORGANIC FLAGS USED IN RESULT SHEET

B = Found in Method blank and sample
J = Under Method Detection limit
E = Exceeds Calibration Range
D = Dilution performed
U = Analyzed for but not detected

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

BS-2B

Lab Sample ID: T308118-01

Matrix: [soil/water] SOIL

Lab File ID: >H1595

Sample wt/vol: 4.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] MED

Date Received: 08/06/93

% Moisture: 18.0

Date Analyzed : 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 10.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 10.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	-----Chloromethane	15000	U
74-83-9	-----Bromomethane	15000	U
75-01-4	-----Vinyl Chloride	15000	U
75-00-3	-----Chloroethane	15000	U
75-09-2	-----Methylene Chloride	9700	
67-64-1	-----Acetone	15000	U
75-15-0	-----Carbon Disulfide	7600	U
75-35-4	-----1,1-Dichloroethene	7600	U
75-34-3	-----1,1-Dichloroethane	7600	U
156-60-5	-----Trans-1,2-Dichloroethene	7600	U
67-66-3	-----Chloroform	7600	U
107-06-2	-----1,2-Dichloroethane	7600	U
78-93-3	-----2-Butanone	15000	U
71-55-6	-----1,1,1-Trichloroethane	7600	U
56-23-5	-----Carbon Tetrachloride	7600	U
108-05-4	-----Vinyl Acetate	15000	U
75-27-4	-----Bromodichloromethane	7600	U
78-87-5	-----1,2-Dichloropropane	7600	U
10061-01-5	-----Cis-1,3-Dichloropropene	7600	U
79-01-6	-----Trichloroethene	7600	U
124-48-1	-----Chlorodibromomethane	7600	U
110-75-8	-----2-Chloroethyl vinyl ether	7600	U
79-00-5	-----1,1,2-Trichloroethane	7600	U
71-43-2	-----Benzene	7600	U
10061-02-6	-----Trans-1,3-Dichloropropene	7600	U
75-25-2	-----Bromoform	7600	U
591-78-6	-----2-Hexanone	15000	U
108-10-1	-----4-Methyl-2-Pentanone	15000	U
127-18-4	-----Tetrachloroethene	7600	U
79-34-5	-----1,1,2,2-Tetrachloroethane	7600	U
108-88-3	-----Toluene	3200	J
108-90-7	-----Chlorobenzene	7600	U
100-41-4	-----Ethylbenzene	9200	
100-42-5	-----Styrene	7600	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Lab Name: LRI

Client Sample ID No.

Lab Sample ID: T308118-01

BS-2B

Matrix: [soil/water] SOIL

Lab File ID: >H1595

Sample wt/vol: 4.0 [g/mL] G

Run Type: UOA-8240

Level: [low/med] MED

Date Received: 08/06/93

% Moisture: 18.0

Date Analyzed : 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 10.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 10.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
108-38-3	meta + para-Xylenes	15000	
95-47-6	ortho-Xylene	28000	

LABORATORY
RESOURCES INC.

LAB JOB NO. T308118

ANALYTICAL RESULTS: TOXICITY CHARACTERISTIC LEACHATE PROCEDURE

Lab. Sample ID: T308118-01 TCLP

Client Designation: BS-2B

Data File: >E2589

Calculation Factor: 20.00

QC Blank Data File: >E2579

Sample Loaded (mL): .25

Total Hit(s): 4

=====

PARAMETER	Results (MG/L)	Regulatory Limits (MG/L)
Vinyl Chloride	< .200	0.20
1,1-Dichloroethene	< .100	0.70
Chloroform	< .100	6.00
1,2-Dichloroethane	< .100	0.50
Carbon Tetrachloride	< .100	0.50
1,1,1-Trichloroethene	< .100	0.50
Benzene	< .100	0.50
Acetone	< .200	200.00
1,1,2,2-Tetrachloroethene	< .100	0.70
Chlorobenzene	< .100	100.00
Ethylbenzene	.093 J	
meta + para-Xylenes	.390	
ortho-Xylene	.380	
Toluene	.120	

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

Lab Sample ID: T308118-2

IBW-28

Matrix: [soil/water] WATER

Lab File ID: >H1510

Sample wt/vol: 0.01 [g/mL] ML

Run Type: VOA-8240

Level: [low/med] LOW

Date Received: 08/06/93

% Moisture: NA

Date Analyzed : 08/13/93

GC Column : CAP. ID: 0.53 (mm)

Dilution Factor: 500.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/L	Q
74-87-3	-----Chloromethane	5000	U
74-83-9	-----Bromomethane	5000	U
75-01-4	-----Vinyl Chloride	5000	U
75-00-3	-----Chloroethane	5000	U
75-09-2	-----Methylene Chloride	2500	U
67-64-1	-----Acetone	5000	U
75-15-0	-----Carbon Disulfide	2500	U
75-35-4	-----1,1-Dichloroethene	2500	U
75-34-3	-----1,1-Dichloroethane	2500	U
156-60-5	-----Trans-1,2-Dichloroethene	2500	U
67-66-3	-----Chloroform	950	J
107-06-2	-----1,2-Dichloroethane	2500	U
78-93-3	-----2-Butanone	5000	U
71-55-6	-----1,1,1-Trichloroethane	2500	U
56-23-5	-----Carbon Tetrachloride	2500	U
108-05-4	-----Vinyl Acetate	5000	U
75-27-4	-----Bromodichloromethane	2500	U
78-87-5	-----1,2-Dichloropropane	2500	U
10061-01-5	-----Cis-1,3-Dichloropropene	2500	U
79-01-6	-----Trichloroethene	2500	U
124-48-1	-----Chlorodibromomethane	2500	U
110-75-8	-----2-Chloroethyl vinyl ether	2500	U
79-00-5	-----1,1,2-Trichloroethane	2500	U
71-43-2	-----Benzene	2500	U
10061-02-6	-----Trans-1,3-Dichloropropene	2500	U
75-25-2	-----Bromoform	2500	U
591-78-6	-----2-Hexanone	5000	U
108-10-1	-----4-Methyl-2-Pentanone	5000	U
127-18-4	-----Tetrachloroethene	2500	U
79-34-5	-----1,1,2,2-Tetrachloroethane	2500	U
108-88-3	-----Toluene	2500	U
108-90-7	-----Chlorobenzene	2500	U
100-41-4	-----Ethylbenzene	2500	U
100-42-5	-----Styrene	2500	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Lab Name: LRI

Client Sample ID No.

Lab Sample ID: T308118-2

BW-28

Matrix: [soil/water] WATER

Lab File ID: >H1510

Sample wt/vol: 0.01 [g/mL] ML

Run Type: UOA-8240

Level: [low/med] LOW

Date Received: 08/06/93

% Moisture: NA

Date Analyzed : 08/13/93

GC Column : CAP. ID: 0.53 (mm)

Dilution Factor: 500.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		UG/L	Q
108-38-3-----	meta + para-Xylenes	1300	J
95-47-6-----	ortho-Xylene	2200	J

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

BS-3

Lab Sample ID: T308118-03

Matrix: [soil/water] SOIL

Lab File ID: >H1601

Sample wt/vol: 4.0 [g/mL] G

Run Type: UOA-8240

Level: [low/med] MED

Date Received: 08/06/93

% Moisture: 13.0

Date Analyzed : 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 10.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 10.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	-----Chloromethane	14000	U
74-83-9	-----Bromomethane	14000	U
75-01-4	-----Vinyl Chloride	14000	U
75-00-3	-----Chloroethane	14000	U
75-09-2	-----Methylene Chloride	7800	
67-64-1	-----Acetone	14000	U
75-15-0	-----Carbon Disulfide	7200	U
75-35-4	-----1,1-Dichloroethene	7200	U
75-34-3	-----1,1-Dichloroethane	7200	U
156-60-5	-----Trans-1,2-Dichloroethene	7200	U
67-66-3	-----Chloroform	7200	U
107-06-2	-----1,2-Dichloroethane	7200	U
78-93-3	-----2-Butanone	14000	U
71-55-6	-----1,1,1-Trichloroethane	7200	U
56-23-5	-----Carbon Tetrachloride	7200	U
108-05-4	-----Vinyl Acetate	14000	U
75-27-4	-----Bromodichloromethane	7200	U
78-87-5	-----1,2-Dichloropropane	7200	U
10061-01-5	-----Cis-1,3-Dichloropropene	7200	U
79-01-6	-----Trichloroethene	7200	U
124-48-1	-----Chlorodibromomethane	7200	U
110-75-8	-----2-Chloroethyl vinyl ether	7200	U
79-00-5	-----1,1,2-Trichloroethane	7200	U
71-43-2	-----Benzene	7200	U
10061-02-6	-----Trans-1,3-Dichloropropene	7200	U
75-25-2	-----Bromoform	7200	U
591-78-6	-----2-Hexanone	14000	U
108-10-1	-----4-Methyl-2-Pentanone	14000	U
127-18-4	-----Tetrachloroethene	7200	U
79-34-5	-----1,1,2,2-Tetrachloroethane	7200	U
108-88-3	-----Toluene	7200	U
108-90-7	-----Chlorobenzene	7200	U
100-41-4	-----Ethylbenzene	8800	
100-42-5	-----Styrene	7200	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

BS-3

Lab Sample ID: T308118-03

Matrix: [soil/water] SOIL

Lab File ID: >H1601

Sample wt/vol: 4.0 [g/mL] G

Run Type: UOA-8240

Level: [low/med] MED

Date Received: 08/06/93

% Moisture: 13.0

Date Analyzed : 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 10.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 10.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
108-38-3	meta + para-Xylenes	17000	
95-47-6	ortho-Xylene	28000	

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Lab Name: LRI
 Lab Sample ID: T308118-4
 Matrix: [soil/water] SOIL
 Sample wt/vol: 5.0 [g/mL] G
 Level: [low/med] LOW
 % Moisture: 11.0
 GC Column: PACK ID: 2.0 (mm)

Client Sample ID No.

 |BS-4|

Lab File ID: >F6491
 Run Type: VOA-8240
 Date Received: 08/06/93
 Date Analyzed : 08/12/93
 Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	-----Chloromethane	11	U
74-83-9	-----Bromomethane	11	U
75-01-4	-----Vinyl Chloride	11	U
75-00-3	-----Chloroethane	11	U
75-09-2	-----Methylene Chloride	3	J
67-64-1	-----Acetone	11	U
75-15-0	-----Carbon Disulfide	6	U
75-35-4	-----1,1-Dichloroethene	6	U
75-34-3	-----1,1-Dichloroethane	6	U
540-59-0	-----1,2-Dichloroethene (total)	6	U
67-66-3	-----Chloroform	6	U
107-06-2	-----1,2-Dichloroethane	6	U
78-93-3	-----2-Butanone	11	U
71-55-6	-----1,1,1-Trichloroethane	6	U
56-23-5	-----Carbon Tetrachloride	6	U
108-05-4	-----Vinyl Acetate	11	U
75-27-4	-----Bromodichloromethane	6	U
78-87-5	-----1,2-Dichloropropane	6	U
10061-01-5	-----cis-1,3-Dichloropropene	6	U
79-01-6	-----Trichloroethene	6	U
124-48-1	-----Dibromochloromethane	6	U
110-75-8	-----2-Chloroethyl vinyl ether	6	U
79-00-5	-----1,1,2-Trichloroethane	6	U
71-43-2	-----Benzene	6	U
10061-02-6	-----trans-1,3-Dichloropropene	6	U
75-25-2	-----Bromoform	6	U
591-78-6	-----2-Hexanone	11	U
108-10-1	-----4-Methyl-2-Pentanone	11	U
127-18-4	-----Tetrachloroethene	6	U
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U
108-88-3	-----Toluene	6	U
108-90-7	-----Chlorobenzene	6	U
100-41-4	-----Ethylbenzene	6	U
100-42-5	-----Styrene	6	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Lab Name: LRI
 Lab Sample ID: T308118-4
 Matrix: [soil/water] SOIL
 Sample wt/vol: 5.0 [g/mL] G
 Level: [low/med] LOW
 % Moisture: 11.0
 GC Column: PACK ID: 2.0 (mm)

Client Sample ID No.

 |BS-4|

Lab File ID: >F6491
 Run Type: VOA-8240
 Date Received: 08/06/93
 Date Analyzed: 08/12/93
 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		UG/KG	Q
108-38-3	meta-Xylene	6	U
95-47-6	ortho- + para-Xylenes	6	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

Lab Sample ID: T308118-5

DC-1

Matrix: [soil/water] SOIL

Lab File ID: >F6492

Sample wt/vol: 5.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] LOW

Date Received: 08/06/93

% Moisture: 23.0

Date Analyzed : 08/12/93

GC Column: PACK ID: 2.0 (mm)

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	-----Chloromethane	131	U
74-83-9	-----Bromomethane	131	U
75-01-4	-----Vinyl Chloride	131	U
75-00-3	-----Chloroethane	131	U
75-09-2	-----Methylene Chloride	4	J
67-64-1	-----Acetone	131	U
75-15-0	-----Carbon Disulfide	71	U
75-35-4	-----1,1-Dichloroethene	71	U
75-34-3	-----1,1-Dichloroethane	71	U
540-59-0	-----1,2-Dichloroethene (total)	71	U
67-66-3	-----Chloroform	71	U
107-06-2	-----1,2-Dichloroethane	71	U
78-93-3	-----2-Butanone	131	U
71-55-6	-----1,1,1-Trichloroethane	71	U
56-23-5	-----Carbon Tetrachloride	71	U
108-05-4	-----Vinyl Acetate	131	U
75-27-4	-----Bromodichloromethane	71	U
78-87-5	-----1,2-Dichloropropane	71	U
10061-01-5	-----cis-1,3-Dichloropropene	71	U
79-01-6	-----Trichloroethene	71	U
124-48-1	-----Dibromochloromethane	71	U
110-75-8	-----2-Chloroethyl vinyl ether	71	U
79-00-5	-----1,1,2-Trichloroethane	71	U
71-43-2	-----Benzene	71	U
10061-02-6	-----trans-1,3-Dichloropropene	71	U
75-25-2	-----Bromoform	71	U
591-78-6	-----2-Hexanone	131	U
108-10-1	-----4-Methyl-2-Pentanone	131	U
127-18-4	-----Tetrachloroethene	23	
79-34-5	-----1,1,2,2-Tetrachloroethane	71	U
108-88-3	-----Toluene	71	U
108-90-7	-----Chlorobenzene	71	U
100-41-4	-----Ethylbenzene	71	U
100-42-5	-----Styrene	71	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

Lab Sample ID: T308118-5

DC-1

Matrix: [soil/water] SOIL

Lab File ID: >F6492

Sample wt/vol: 5.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] LOW

Date Received: 08/06/93

% Moisture: 23.0

Date Analyzed : 08/12/93

GC Column: PACK ID: 2.0 (mm)

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
108-38-3	meta-Xylene	71	U
95-47-6	ortho- + para-Xylenes	71	U

LABORATORY
RESOURCES INC.

LAB JOB NO. T308118

ANALYTICAL RESULTS: TOXICITY CHARACTERISTIC LEACHATE PROCEDURE

Lab. Sample ID: T308118-05 TCLP

Client Designation: DC-1

Data File: >E2590

Calculation Factor: 20.00

QC Blank Data File: >E2579

Sample Loaded (mL): .25

Total Hit(s): 0

=====

PARAMETER	Results (MG/L)	Regulatory Limits (MG/L)
Vinyl Chloride	< .200	0.20
1,1-Dichloroethene	< .100	0.70
Chloroform	< .100	6.00
1,2-Dichloroethane	< .100	0.50
Carbon Tetrachloride	< .100	0.50
Trichloroethene	< .100	0.50
Benzene	< .100	0.50
2-Butanone	< .200	200.00
Tetrachloroethene	< .100	0.70
Chlorobenzene	< .100	100.00
Ethylbenzene	< .100	
meta + para-Xylenes	< .100	
ortho-Xylene	< .100	
Toluene	< .100	

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

DC-2

Lab Sample ID: T308118-06

Matrix: [soil/water] SOIL

Lab File ID: >H1596

Sample wt/vol: 4.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] MED

Date Received: 08/06/93

% Moisture: 14.0

Date Analyzed: 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 4.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 25.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	-----Chloromethane	5800	U
74-83-9	-----Bromomethane	5800	U
75-01-4	-----Vinyl Chloride	5800	U
75-00-3	-----Chloroethane	5800	U
75-09-2	-----Methylene Chloride	5000	
67-64-1	-----Acetone	5800	U
75-15-0	-----Carbon Disulfide	2900	U
75-35-4	-----1,1-Dichloroethene	2900	U
75-34-3	-----1,1-Dichloroethane	2900	U
156-60-5	-----Trans-1,2-Dichloroethene	2900	U
67-66-3	-----Chloroform	2900	U
107-06-2	-----1,2-Dichloroethane	2900	U
78-93-3	-----2-Butanone	5800	U
71-55-6	-----1,1,1-Trichloroethane	2900	U
56-23-5	-----Carbon Tetrachloride	2900	U
108-05-4	-----Vinyl Acetate	5800	U
75-27-4	-----Bromodichloromethane	2900	U
78-87-5	-----1,2-Dichloropropane	2900	U
10061-01-5	-----Cis-1,3-Dichloropropene	2900	U
79-01-6	-----Trichloroethene	2900	U
124-48-1	-----Chlorodibromomethane	2900	U
110-75-8	-----2-Chloroethyl vinyl ether	2900	U
79-00-5	-----1,1,2-Trichloroethane	2900	U
71-43-2	-----Benzene	2900	U
10061-02-6	-----Trans-1,3-Dichloropropene	2900	U
75-25-2	-----Bromoform	2900	U
591-78-6	-----2-Hexanone	5800	U
108-10-1	-----4-Methyl-2-Pentanone	5800	U
127-18-4	-----Tetrachloroethene	2900	U
79-34-5	-----1,1,2,2-Tetrachloroethane	2900	U
108-88-3	-----Toluene	2900	U
108-90-7	-----Chlorobenzene	2900	U
100-41-4	-----Ethylbenzene	2900	U
100-42-5	-----Styrene	2900	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Lab Name: LRI

Client Sample ID No.

Lab Sample ID: T308118-06

DC-2

Matrix: [soil/water] SOIL

Lab File ID: >H1596

Sample wt/vol: 4.0 [g/mL] G

Run Type: UOA-8240

Level: [low/med] MED

Date Received: 08/06/93

% Moisture: 14.0

Date Analyzed : 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 4.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 25.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
108-38-3	meta + para-Xylenes	2900	U
95-47-6	ortho-Xylene	2900	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Client Sample ID No.

Lab Name: LRI

Lab Sample ID: T308118-7

BR-1

Matrix: [soil/water] SOIL

Lab File ID: >F6493

Sample wt/vol: 5.0 [g/mL] G

Run Type: UOA-8240

Level: [low/med] LOW

Date Received: 08/06/93

% Moisture: 20.0

Date Analyzed : 08/12/93

GC Column: PACK ID: 2.0 (mm)

Dilution Factor: 1.0

CONCENTRATION UNITS:

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	-----Chloromethane	131	U
74-83-9	-----Bromomethane	131	U
75-01-4	-----Vinyl Chloride	131	U
75-00-3	-----Chloroethane	131	U
75-09-2	-----Methylene Chloride	3	J
67-64-1	-----Acetone	131	U
75-15-0	-----Carbon Disulfide	61	U
75-35-4	-----1,1-Dichloroethene	61	U
75-34-3	-----1,1-Dichloroethane	61	U
540-59-0	-----1,2-Dichloroethene (total)	61	U
67-66-3	-----Chloroform	61	U
107-06-2	-----1,2-Dichloroethane	61	U
78-93-3	-----2-Butanone	131	U
71-55-6	-----1,1,1-Trichloroethane	61	U
56-23-5	-----Carbon Tetrachloride	61	U
108-05-4	-----Vinyl Acetate	131	U
75-27-4	-----Bromodichloromethane	61	U
78-87-5	-----1,2-Dichloropropane	61	U
10061-01-5	-----cis-1,3-Dichloropropene	61	U
79-01-6	-----Trichloroethene	61	U
124-48-1	-----Dibromochloromethane	61	U
110-75-8	-----2-Chloroethyl vinyl ether	61	U
79-00-5	-----1,1,2-Trichloroethane	61	U
71-43-2	-----Benzene	61	U
10061-02-6	-----trans-1,3-Dichloropropene	61	U
75-25-2	-----Bromoform	61	U
591-78-6	-----2-Hexanone	131	U
108-10-1	-----4-Methyl-2-Pentanone	131	U
127-18-4	-----Tetrachloroethene	61	U
79-34-5	-----1,1,2,2-Tetrachloroethane	61	U
108-88-3	-----Toluene	61	U
108-90-7	-----Chlorobenzene	61	U
100-41-4	-----Ethylbenzene	61	U
100-42-5	-----Styrene	61	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

Lab Name: LRI
 Lab Sample ID: T308118-7
 Matrix: [soil/water] SOIL
 Sample wt/vol: 5.0 [g/mL] G
 Level: [low/med] LOW
 % Moisture: 20.0
 GC Column: PACK ID: 2.0 (mm)

Client Sample ID No.

IBR-1

Lab File ID: >F6493
 Run Type: VOA-8240
 Date Received: 08/06/93
 Date Analyzed : 08/12/93
 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		UG/KG	Q
108-38-3	meta-Xylene	61	U
95-47-6	ortho- + para-Xylenes	61	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

METHOD BLANK

Lab Name: LRI

Lab Sample ID: VBLK-QF0812

VBLK-QF0812

Matrix: [soil/water] SOIL

Lab File ID: >F6487

Sample wt/vol: 5.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] LOW

Date Received:

% Moisture: NA

Date Analyzed : 08/12/93

GC Column: PACK ID: 2.0 (mm)

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	101	U
74-83-9	Bromomethane	101	U
75-01-4	Vinyl Chloride	101	U
75-00-3	Chloroethane	101	U
75-09-2	Methylene Chloride	51	U
67-64-1	Acetone	101	U
75-15-0	Carbon Disulfide	51	U
75-35-4	1,1-Dichloroethene	51	U
75-34-3	1,1-Dichloroethane	51	U
540-59-0	1,2-Dichloroethene (total)	51	U
67-66-3	Chloroform	51	U
107-06-2	1,2-Dichloroethane	51	U
78-93-3	2-Butanone	101	U
71-55-6	1,1,1-Trichloroethane	51	U
56-23-5	Carbon Tetrachloride	51	U
108-05-4	Vinyl Acetate	101	U
75-27-4	Bromodichloromethane	51	U
78-87-5	1,2-Dichloropropane	51	U
10061-01-5	cis-1,3-Dichloropropene	51	U
79-01-6	Trichloroethene	51	U
124-48-1	Dibromochloromethane	51	U
110-75-8	2-Chloroethyl vinyl ether	51	U
79-00-5	1,1,2-Trichloroethane	51	U
71-43-2	Benzene	51	U
10061-02-6	trans-1,3-Dichloropropene	51	U
75-25-2	Bromoform	51	U
591-78-6	2-Hexanone	101	U
108-10-1	4-Methyl-2-Pentanone	101	U
127-18-4	Tetrachloroethene	51	U
79-34-5	1,1,2,2-Tetrachloroethane	51	U
108-88-3	Toluene	51	U
108-90-7	Chlorobenzene	51	U
100-41-4	Ethylbenzene	51	U
100-42-5	Styrene	51	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

METHOD BLANK

Lab Name: LRI

Lab Sample ID: UBLK-QF0812

UBLK-QF0812

Matrix: [soil/water] SOIL

Lab File ID: >F6487

Sample wt/vol: 5.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] LOW

Date Received:

% Moisture: NA

Date Analyzed: 08/12/93

GC Column: PACK ID: 2.0 (mm)

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
108-38-3	meta-Xylene	51 U	
95-47-6	ortho- + para-Xylenes	51 U	

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

METHOD BLANK

Lab Name: LRI

Lab Sample ID: UBLK-QH0813

UBLK-QH0813

Matrix: [soil/water] WATER

Lab File ID: >H1506

Sample wt/vol: 5.0 [g/mL] ML

Run Type: UOA-8240

Level: [low/med] LOW

Date Received:

% Moisture: NA

Date Analyzed : 08/13/93

GC Column : CAP. ID: 0.53 (mm)

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND UG/L Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3	-----Chloromethane	101	U
74-83-9	-----Bromomethane	101	U
75-01-4	-----Vinyl Chloride	101	U
75-00-3	-----Chloroethane	101	U
75-09-2	-----Methylene Chloride	51	U
67-64-1	-----Acetone	8	J
75-15-0	-----Carbon Disulfide	51	U
75-35-4	-----1,1-Dichloroethene	51	U
75-34-3	-----1,1-Dichloroethane	51	U
156-60-5	-----Trans-1,2-Dichloroethene	51	U
67-66-3	-----Chloroform	51	U
107-06-2	-----1,2-Dichloroethane	51	U
78-93-3	-----2-Butanone	101	U
71-55-6	-----1,1,1-Trichloroethane	51	U
56-23-5	-----Carbon Tetrachloride	51	U
108-05-4	-----Vinyl Acetate	101	U
75-27-4	-----Bromodichloromethane	51	U
78-87-5	-----1,2-Dichloropropane	51	U
10061-01-5	-----Cis-1,3-Dichloropropene	51	U
79-01-6	-----Trichloroethene	51	U
124-48-1	-----Chlorodibromomethane	51	U
110-75-8	-----2-Chloroethyl vinyl ether	51	U
79-00-5	-----1,1,2-Trichloroethane	51	U
71-43-2	-----Benzene	51	U
10061-02-6	-----Trans-1,3-Dichloropropene	51	U
75-25-2	-----Bromoform	51	U
591-78-6	-----2-Hexanone	101	U
108-10-1	-----4-Methyl-2-Pentanone	101	U
127-18-4	-----Tetrachloroethene	51	U
79-34-5	-----1,1,2,2-Tetrachloroethane	51	U
108-88-3	-----Toluene	51	U
108-90-7	-----Chlorobenzene	51	U
100-41-4	-----Ethylbenzene	51	U
100-42-5	-----Styrene	51	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

METHOD BLANK

Lab Name: LRI

VBLK-QH0813

Lab Sample ID: VBLK-QH0813

Matrix: [soil/water] WATER

Lab File ID: >H1506

Sample wt/vol: 5.0 [g/mL] ML

Run Type: VOA-8240

Level: [low/med] LOW

Date Received:

% Moisture: NA

Date Analyzed : 08/13/93

GC Column : CAP. ID: 0.53 (mm)

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/L	Q
108-38-3	meta + para-Xylenes	51 U	1
95-47-6	ortho-Xylene	51 U	1

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

METHOD BLANK

Lab Name: LRI

Lab Sample ID: VBLK-QH0819

VBLK-QH0819

Matrix: [soil/water] SOIL

Lab File ID: >H1592

Sample wt/vol: 4.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] MED

Date Received:

% Moisture: NA

Date Analyzed : 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	-----Chloromethane	1300	U
74-83-9	-----Bromomethane	1300	U
75-01-4	-----Vinyl Chloride	1300	U
75-00-3	-----Chloroethane	1300	U
75-09-2	-----Methylene Chloride	630	U
67-64-1	-----Acetone	1300	U
75-15-0	-----Carbon Disulfide	630	U
75-35-4	-----1,1-Dichloroethene	630	U
75-34-3	-----1,1-Dichloroethane	630	U
156-60-5	-----Trans-1,2-Dichloroethene	630	U
67-66-3	-----Chloroform	630	U
107-06-2	-----1,2-Dichloroethane	630	U
78-93-3	-----2-Butanone	1300	U
71-55-6	-----1,1,1-Trichloroethane	630	U
56-23-5	-----Carbon Tetrachloride	630	U
108-05-4	-----Vinyl Acetate	1300	U
75-27-4	-----Bromodichloromethane	630	U
78-87-5	-----1,2-Dichloropropane	630	U
10061-01-5	-----Cis-1,3-Dichloropropene	630	U
79-01-6	-----Trichloroethene	630	U
124-48-1	-----Chlorodibromomethane	630	U
110-75-8	-----2-Chloroethyl vinyl ether	630	U
79-00-5	-----1,1,2-Trichloroethane	630	U
71-43-2	-----Benzene	630	U
10061-02-6	-----Trans-1,3-Dichloropropene	630	U
75-25-2	-----Bromoform	630	U
591-78-6	-----2-Hexanone	1300	U
108-10-1	-----4-Methyl-2-Pentanone	1300	U
127-18-4	-----Tetrachloroethene	630	U
79-34-5	-----1,1,2,2-Tetrachloroethane	630	U
108-88-3	-----Toluene	630	U
108-90-7	-----Chlorobenzene	630	U
100-41-4	-----Ethylbenzene	630	U
100-42-5	-----Styrene	630	U

ORGANICS ANALYSIS DATA SHEET-VOLATILE COMPOUNDS

METHOD BLANK

Lab Name: LRI

Lab Sample ID: UBLK-QH0819

UBLK-QH0819

Matrix: [soil/water] SOIL

Lab File ID: >H1592

Sample wt/vol: 4.0 [g/mL] G

Run Type: VOA-8240

Level: [low/med] MED

Date Received:

% Moisture: NA

Date Analyzed : 08/19/93

GC Column: CAPI ID: 0.5 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100.0(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/KG	Q
108-38-3	meta + para-Xylenes	630	U
95-47-6	ortho-Xylene	630	U

ANALYTICAL REPORT FOR BLANK

ANALYTICAL RESULTS: TOXICITY CHARACTERISTIC LEACHATE PROCEDURE

Sample ID : VBLK-QE0821
Data File : >E2579
Calculation Factor: 1.000000
Sample Loaded (mL): 5.000000

PARAMETER	RESULTS MG/ L	QUANTITATION LIMIT MG/ L
Ammonium Chloride	ND	.010
1,1-Dichloroethene	ND	.005
Chloroform	ND	.005
1,2-Dichloroethane	ND	.005
Carbon Tetrachloride	ND	.005
Trichloroethene	ND	.005
Benzene	ND	.005
Butanone	ND	.010
1,1,1-Trichloroethene	ND	.005
Chlorobenzene	ND	.005
Toluene	ND	.005
meta + para-Xylenes	ND	.005
ortho-Xylene	ND	.005
Styrene	ND	.005

METALS ANALYSIS DATA SHEET

Laboratory: Laboratory Resources, Inc.
 Division: New Jersey
 LRI Order No: T308118
 LRI Sample No: 1

Client: Monroe Monitoring & Analysis,
 Location: NJ
 Project: Speedy Cleaners
 Sample Description: BS-2B

Date Collected: 08/05/93
 Date Received: 08/06/93

Matrix: Soil
 Percent Moisture: 18.3%

Parameter	Result	QL	Units	Started		Completed		Dilution
				Date	By	Date	By	
<u>Mercury by Cold Vapor by 7470, TCLP</u>								
Mercury	0.0050 U	0.0050	mg/L	08/19/93	BD	08/20/93	BD	
<u>Metals by ICP by 6010, TCLP</u>								
Arsenic	1.0 U	1	mg/L	08/18/93	JB	08/19/93	MP	
Barium	1.0 U	1	mg/L	08/18/93	JB	08/19/93	MP	
Cadmium	0.050 U	.05	mg/L	08/18/93	JB	08/19/93	MP	
Chromium	0.10 U	.1	mg/L	08/18/93	JB	08/19/93	MP	
Lead	1.7	.3	mg/L	08/18/93	JB	08/19/93	MP	
Selenium	0.50 U	.5	mg/L	08/18/93	JB	08/19/93	MP	
Silver	0.050 U	.05	mg/L	08/18/93	JB	08/19/93	MP	

GENERAL CHEMISTRY ANALYSIS DATA SHEET

Laboratory: Laboratory Resources, Inc.
Division: New Jersey
LRI Report No: T308118
LRI Sample No: 1

Customer: Monroe Monitoring & Analysis,
Location: NJ
Project: Speedy Cleaners
Sample Description: BS-2B

Date Collected: 08/05/93
Date Received: 08/06/93

Matrix: Soil
Percent Moisture: 18.3%
Units in Dry Weight

<u>Parameter</u>	<u>Result</u>	<u>QL</u>	<u>Units</u>	<u>Started</u> <u>Date</u>	<u>By</u>	<u>Completed</u> <u>Date</u>	<u>By</u>	<u>Dilution</u>
<u>Ignitability by SW-846 1010</u>								
Ignitability (Flashpoint)	145	70	°F			08/23/93	JC	

GENERAL CHEMISTRY ANALYSIS DATA SHEET

Laboratory: Laboratory Resources, Inc.
Division: New Jersey
LRI Report No: T308118
LRI Sample No: 3

Customer: Monroe Monitoring & Analysis,
Location: NJ
Project: Speedy Cleaners
Sample Description: BS-3

Date Collected: 08/05/93
Date Received: 08/06/93

Matrix: Soil
Percent Moisture: 11.4%
Units in Dry Weight

Parameter	Result	QL	Units	Started		Completed		Dilution
				Date	By	Date	By	
<u>Ignitability by SW-846 1010</u>								
Ignitability (Flashpoint)	115	70	°F			08/23/93	JC	

GENERAL CHEMISTRY ANALYSIS DATA SHEET

Laboratory: Laboratory Resources, Inc.
Division: New Jersey
LRI Report No: T308118
LRI Sample No: 4

Customer: Monroe Monitoring & Analysis,
Location: NJ
Project: Speedy Cleaners
Sample Description: BS-4

Date Collected: 08/05/93
Date Received: 08/06/93

Matrix: Soil
Percent Moisture: 11.3%
Units in Dry Weight

<u>Parameter</u>	<u>Result</u>	<u>QL</u>	<u>Units</u>	<u>Started</u> <u>Date</u>	<u>By</u>	<u>Completed</u> <u>Date</u>	<u>By</u>	<u>Dilution</u>
<u>Ignitability by SW-846 1010</u>								
Ignitability (Flashpoint)	>160	70	°F			08/23/93	JC	

PROJECT NAME: SPEEDY CLEANERS

JOB CODE: 938-14

SAMPLER'S SIGNATURE: [Signature]

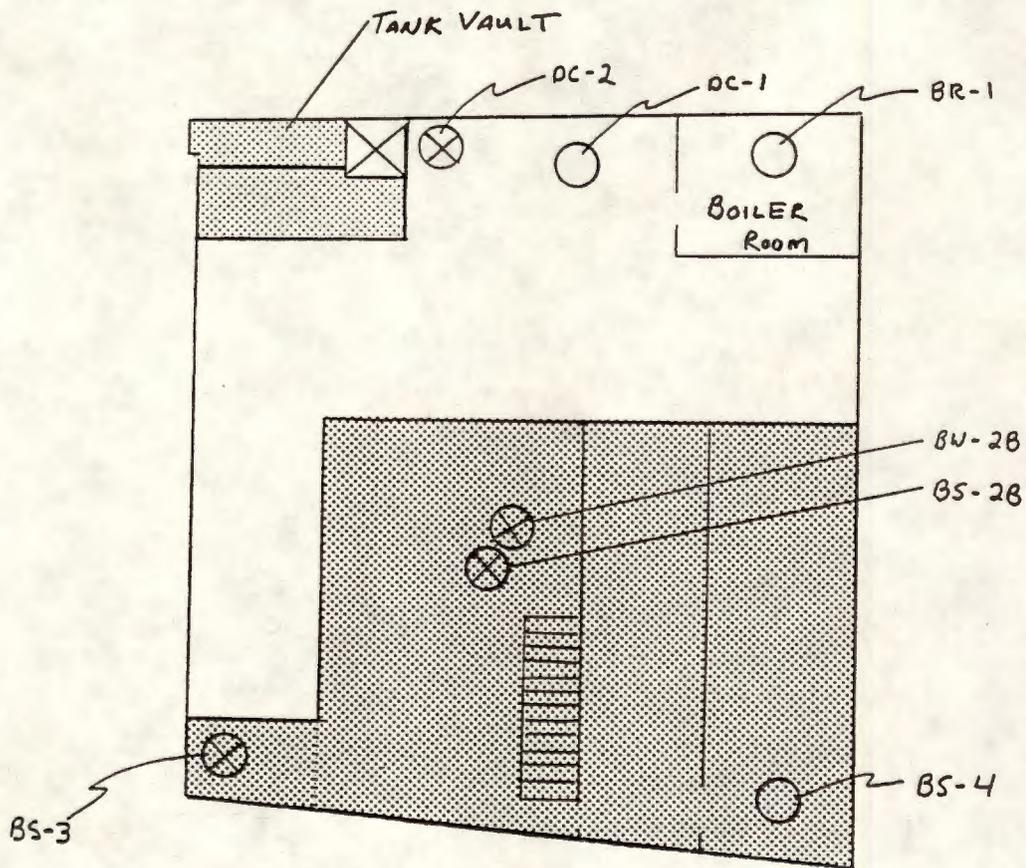
CONTAINER CLASSIFICATION						
UNPRESERVED	HNO ₃	H ₂ SO ₄	HCL	NAOH	VIAL (PRES.)	VIAL (UNPRES.)
						TOTAL

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	UNPRESERVED	HNO ₃	H ₂ SO ₄	HCL	NAOH	VIAL (PRES.)	VIAL (UNPRES.)	TOTAL	PARAMETERS/REMARKS
8/5/93	14:00	BS-2B	X		SOIL	X							1	EPA 8240-LIBRARY SCAN
	14:05	BS-2B	X		SOIL								1	EPA TCLP-VOLATILES METALS
	14:10	BS-2B	X		SOIL								1	IGNITABILITY
	14:12	BW-2B	X		WATER							2	2	EPA 8240-LIBRARY SCAN
	14:14	BS-3	X		SOIL								1	EPA 8240-LIBRARY SCAN
	14:18	BS-3	X		SOIL								1	DUPLICATE (IF NEEDED)
	14:20	BS-3	X		SOIL								1	IGNITABILITY
	14:25	BS-4	X		SOIL								1	EPA 8240-LIBRARY SCAN
	14:27	BS-4	X		SOIL								1	DUPLICATE (IF NEEDED)
	14:36	BS-4	X		SOIL								1	IGNITABILITY
	15:00	DC-1	X		SOIL								1	EPA 8240-LIBRARY SCAN
	15:05	DC-1	X		SOIL								1	EPA TCLP-VOLATILES ONLY
	15:30	DC-2	X		SOIL								1	EPA 8240-LIBRARY SCAN
	15:33	DC-2	X		SOIL								1	DUPLICATE (IF NEEDED)
	16:32	BR-1	X		SOIL								1	EPA 8240-LIBRARY SCAN
TOTAL NUMBER OF CONTAINERS													16	

1. RELINQUISHED BY: <u>[Signature]</u>	DATE 8/5/93	TIME 17:45	RECEIVED BY: <u>[Signature]</u>
2. RELINQUISHED BY: _____	DATE	TIME	RECEIVED BY: _____
3. RELINQUISHED BY: _____	DATE	TIME	RECEIVED BY: _____

Project No. 938-14
Author: William Sandvik

APPENDIX C
SAMPLE LOCATION MAP



- GROUND LEVEL
- BASEMENT
- HIGH CONCENTRATION RESULTS
- LOW CONCENTRATION RESULTS

MONROE MONITORING & ANALYSIS, INC.



1425 MT. READ BLVD., ROCHESTER, N.Y.

CLIENT: SPEEDY CLEANERS

PROJECT:

DRAWING:

DRAWN BY: RYB

CHECKED BY:

APPROVED BY:

PROJECT NO.:

DRAWING NO.:

SHEET NO.:

SCALE: DATE:

APPENDIX F

Water Level Data

WATER LEVEL DATA

<u>WELL #</u>	<u>2/12/92</u>	<u>4/7/92</u>	<u>9/4/92</u>	<u>11/19/92</u>	<u>12/29/92</u>	<u>1/22/93</u>	<u>4/20/93</u>	<u>5/26/93</u>	<u>8/30/93</u>
GW-1 (TC=534.29')	515.13	515.81	515.91	514.03	514.65	514.83	516.75	515.62	514.17
GW-2 (TC=530.75')	518.23	520.22	519.29	518.30	518.96		519.77	518.51	517.37
GW-3 (TC=531.36')		520.83	520.62	519.67	520.56	520.81	521.61	520.78	518.94
GW-4 (TC=530.74')		512.84	512.33	509.57	512.06	511.98	513.82	512.94	509.24
GW-5 (TC=529.9')				519.14	519.30	519.70	519.73	518.64	517.61
GW-6 (TC=527.3')				514.99	515.00	514.90	515.13	514.87	513.90

WATER LEVEL DATA

