SUPPLEMENTAL REMEDIAL INVESTIGATION (PHASE II) REPORT (REVISION III)

DAYTON SHOPPING PLAZA
86-15 ROCKAWAY BEACH BOULEVARD
QUEENS, NEW YORK
Voluntary Cleanup Site No. V006202

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1.0 INTRODUCTION

Langan Engineering and Environmental Services, Inc. (Langan), on behalf of Rockaway Commons, LLC, has completed this Supplemental Remedial Investigation (Phase II) Report (Revision III) regarding the Dayton Shopping Plaza site in Queens, New York. This investigation was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC) 23 July 2004, 18 January 2006 and 25 July 2006 comment letters and our 25 October 2004 response letter to these comments. The most recent NYSDEC comment letter was submitted in response to Langan's June 2006 Supplemental Remedial Investigation Report. The Supplemental Remedial Investigation (SRI) has been prepared in accordance with the NYSDEC Sampling Guidelines and Protocols (September 1992) and the Technical and Administrative Guidance Memorandum (TAGM) to assess current sub-slab soil vapor and indoor air conditions at the site. This SRI is submitted pursuant to a Voluntary Cleanup Agreement (No. V006202) between the NYSDEC and Rockaway Commons, LLC.

The Supplemental II RI Report (Revision III) detailed below documents additional sub-slab soil vapor and indoor air sampling and completion of an SVE influence assessment below the onsite building subslab. An assessment of the individual tenant space HVAC air intake and partitioning walls is also documented below. In addition, completion of an off-site Qualitative Human Health Exposure Assessment as required by the NYSDEC / NYSDOH is documented in Section 5.0.

2.0 PHYSICAL SITE SETTING

2.1 Site Description

The Dayton Shopping Plaza consists of a 4.6-acre site located at 85-15 through 88-07 Rockaway Beach Boulevard in Queens, New York (Figure 1). The site is currently occupied by a one-story shopping center building and adjoining asphalt paved parking areas. Dry cleaning operations are currently conducted near the central portion of the onsite building in retail space occupied by the London French Cleaners (LFC) (86-15 Rockaway Beach Boulevard). The retail space has been occupied by LFC for approximately nineteen years.

As shown on Figure 1, the site is located on a barrier island. The Atlantic Ocean is located approximately 1,000 feet to the south and the Beach Channel is located approximately 1,500 feet to the north.

2.2 Geology and Hydrogeology

The subject site is underlain by Barrier Island deposits consisting of sand and gravel.

Water table elevations measured in onsite monitoring wells range from 4 to 8 feet below grade (1 to 4 feet above mean sea level). Regional groundwater flow is toward the southwest. Based on aquifer testing (slug testing) conducted on onsite wells during a 1999 Supplemental Remedial Investigation, measured hydraulic conductivity values ranged from approximately 17 to 43 feet/day.

3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

The following is a chronology of the previous Remedial Investigation and Remedial Action activities and corresponding reports for the subject property:

- Phase I Environmental Site Assessment – RECON Environmental Corp. (RECON) (2/17/1995);
- Phase II Environmental Site Assessment – RECON Environmental Corp. (4/13/1996);
- Remedial Investigation - RECON Environmental Corp. (4/1/1996);
- Supplemental Remedial Investigation – Langan (1/5/1999);
- Phase II Remedial Investigation Report – Langan (2/29/2000);
- Start-up Report Soil Vapor Extraction/Air Sparging Remedial System – Langan (2/5/01);
- Air Sparging/Soil Vapor Extraction Remedial System Semi-Annual Status Report (October 200 to June 2001) – Langan (8/20/01);
- Supplemental Remedial Investigation Workplan – Langan (January 2004); and,
- Supplemental Remedial Investigation Report – Langan (April 2004).

Summary tables of historic sub-slab soil vapor and indoor air results from previous sampling events are provided in Tables 3A and 3B, respectively. The findings of previous reports/ activities have been summarized in previous Remedial Investigation Reports and, as such, are only briefly discussed below.

Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was completed by RECON in 1995. The Phase I ESA identified the London French Cleaners site as a Resource Conservation and Recovery Act (RCRA) Large Quantity Generator of tetrachloroethene (PCE). The

Phase I ESA recommended completion of a Phase II Remedial Investigation to determine if the observed site operations had impacted subsurface conditions.

Remedial Investigation

During the initial remedial investigation completed by RECON in 1995, soil and ground water samples were collected from four test boring/monitoring well locations (MW-1 through MW-4) to the north and south of the LFC building. The results revealed that no exceedences of NYSDEC Soil Cleanup Objectives were detected in soil samples collected from the 0 to 0.5 feet interval above the water table at any of the four test boring locations. Ground water analytical results revealed the presence of volatile organic compound above the NYSDEC GA Ground Water Quality Standards.

Phase II Remedial Investigation

During the Phase II Remedial Investigation completed by RECON in 1996, five additional shallow monitoring wells (MW-5 through MW-9) and one deep monitoring well (DW-1) were installed downgradient (south) of the LFC facility. Soil samples were collected from the 0 to 0.5-foot interval above the water table at all shallow monitoring well locations. The results revealed that detected soil volatile organic compounds concentrations did not exceed the NYSDEC Soil Cleanup Objectives. Groundwater sample results revealed the presence of volatile organic compounds at concentrations above the NYSDEC GA Groundwater Quality Standards at all monitoring well locations.

Supplemental Remedial Investigation

The Supplemental Remedial Investigation completed by Langan in March and April of 1998 included the collection of sub-slab soil vapor samples within the onsite building area and to the south of the LFC facility, installation of two additional monitoring wells to delineate the extent of impacted ground water, collection of groundwater samples from temporary well points located within the onsite building, collection of groundwater samples from nine of twelve onsite monitoring wells, and completion of aquifer testing (slug testing) and long-term ground water level monitoring. The purpose of the Supplemental Remedial Investigation was to complete delineation of groundwater contaminants and to provide an initial assessment of the potential for adverse environmental impacts resulting from contaminant migration to offsite receptors, and from migration of volatile organic compounds into the onsite building. The results of soil and groundwater sampling and aquifer testing conducted during the Supplemental RI revealed elevated concentrations of PCE were present in groundwater in the area of the trench drain located to the south of the LFC facility. Volatile organic compounds exceeding the NYSDEC Ground Water Standards were delineated onsite, with relatively low concentrations of PCE, trichloroethene (TCE) and dichloroethene (DCE) detected at MW-9 (the furthest downgradient well).

Phase II Remedial Investigation

The Phase II RI completed by Langan in September 1999 included the completion of a dye tracer test to determine the destination of the onsite trench drain and storm sewer systems and collection of soil samples in the area of the trench drain. The Phase II findings documented a connection between the trench drain and the storm sewer system and the presence of chlorinated volatile organic compounds in soil above NYSDEC Soil Cleanup Objectives in the area of the trench drain. The results revealed that PCE, TCE and/or DCE were detected above the NYSDEC Soil Cleanup Objectives in test borings LB-7 and LB-8, located adjacent to the trench drain. Horizontal delineation of the soil contamination was completed, as adjacent soil samples collected from monitoring well borings MW-3, MW-4, MW-8, MW-9 and DW-1 revealed no exceedences of Soil Cleanup Objectives. The vertical extent of the contamination in unsaturated soil was limited due to presence of groundwater at depths of 4 to 5 feet below grade.

Supplemental Remedial Investigation Workplan

Langan's January 2004 SRI Workplan proposed additional investigation in order to assess current soil, groundwater, sub-slab soil vapor and indoor air conditions and to completely characterize and delineate the extent of contamination in the site soil and groundwater resulting from past discharges from onsite dry cleaning operations.

Supplemental Remedial Investigation Report

Langan's April 2004 SRI Report summarized the findings of the soil, groundwater, sub-slab soil vapor, and indoor air sampling originally proposed in the January 2004 SRI Workplan. Results of the soil sampling revealed that impacted soil in the area of the onsite trench was limited to shallow contamination (0.5 to 1 foot below ground surface) and that vertical and horizontal delineation of impacted soil in this area was completed. Results of groundwater sampling revealed continued exceedances of NYSDEC Groundwater Standards for chlorinated Volatile Organic Compounds, including PCE, TCE, cis-DCE and vinyl chloride, with the highest detected concentrations in the vicinity of the trench drain. The sub-slab soil gas and indoor air sampling completed during the SRI revealed that elevated concentrations of chlorinated VOCs were detected in both sub-slab soil vapor and indoor air samples collected from within the London French Cleaner and adjoining tenant spaces.

4.0 SUPPLEMENTAL REMEDIAL INVESTIGATION (PHASE II)

4.1 Scope of Work

Langan conducted a sub-slab soil vapor and indoor air sampling investigation of the subject property on 16 and 17 December 2004 pursuant to the scope of work outlined in Langan's October 2004 response letter and in accordance with the July 2004 NYSDEC comment letter. The following scope of work was completed during the RI field activities:

- Installation and collection of four additional sub-slab soil vapor sampling points (SG-12 through SG-15) within additional tenant space areas at the Rockaway Commons Plaza for modified TO-15 VOC analysis;
- Collection of four additional indoor air sampling (AS-5 through AS-8 at the sub-slab soil vapor sampling locations) for modified TO-15 VOC analysis;
- Installation of four monitoring point locations (MP-1 through MP-4);
- Completion of an influence evaluation of the existing soil vapor extraction system by monitoring sub-slab soil vapor and monitoring point locations during operation of the SVE system; and,
- Completion of an assessment of the individual tenant space HVAC air-intake locations and tenant space fire wall partitions.

Monitoring point installation, sub-slab soil vapor sampling procedures and results, and indoor air sampling procedures and results are discussed in Sections 4.2, 4.3, and 4.4 respectively. Quality assurance procedures are documented in Section 4.5. Figure 2 shows all sub-slab soil vapor probe and indoor air sampling locations for the SRI in addition to historic sub-slab soil vapor and indoor air sampling location and results. Site photographs of SRI field activities are provided in Appendix A. The analytical program for the SRI sampling event is summarized on Table 1.

The SVE influence and HVAC intake assessment activities are discussed in Sections 5.0 and 6.0, respectively.

4.2 Monitoring Point and Sub-slab Soil Vapor Installation Procedure

A total of four (MP-1 to MP-4) dedicated ½-inch diameter stainless steel 6-inch screens were installed as monitoring points during the SRI on 16 December 2004. As shown on Figure 2, the monitoring points were installed within the area of the C-Town Supermarket (MP-1), London French Cleaners (MP-2 and

MP-3), and the 301 Restaurant (MP-4). A total of four sub-slab soil vapor points (SG-12 through SG-15) were installed within the C-Town Supermarket (SG-12), Dano's Pizza (SG-13), Visiting Services of New York (SG-14) and Popeye's Restaurant (SG-15). Each monitoring point or sub-slab soil vapor point was installed directly below the onsite building slab or asphalt paved surface via jackhammer method. Dedicated Teflon® tubing was attached to each monitoring point probe and the annular space between the screen and borehole wall was filled with No. 1 sized sand and then sealed to the surface with bentonite to prevent atmospheric breakthrough.

4.3 Sub Slab Soil Vapor Sampling Procedures

Sub-slab soil vapor sampling was conducted on 16 December 2004. Three borehole volumes were purged from each sub-slab soil vapor point (SG-12 through SG-15) prior to sampling. Subsequent to purging, each sub-slab soil vapor point was connected to a laboratory-calibrated regulator connected to a 6-liter Summa® Canister. Each flow regulator was equipped with a seven-micron particulate filter that controlled the rate of air flow into the canister. The Summa® Canisters had an initial vacuum of over 30-inches of mercury (Hg) and were each filled over an eight-hour period. Each canister was checked periodically over the eight-hour sampling event to ensure that tubing was adequately secure, that regulators were open, and that the Summa® Canister was maintaining a proper vacuum. After an eight-hour period, the pressure gauges indicated vacuums ranging from zero inches of Hg to 2 inches of Hg. The Summa® Canisters were then closed and regulators removed. The sub-slab soil vapor collection point screens were left in the ground to be used as monitoring points for subsequent testing of the AS/SVE system. All sub-slab soil vapor samples were analyzed for VOCs using the USEPA Modified TO-15 list by Accutest Laboratories, Inc. of Dayton, New Jersey.

Accutest calibrated the flow-controller at the Summa canisters. For the February 2004 indoor-air and sub-slab soil vapor sampling event, the flow controller was calibrated at 0.01 liters per minute. For the December 2004 indoor-air and sub-slab soil vapor sampling event, the flow controller was calibrated at 0.008 liters per minute. Both flowrates were below the 0.2 liters per minute threshold.

The analytical method used to analyze the sub-slab soil vapor samples was the USEPA Compendium Method TO-15 for the determination of volatile organic compounds (VOCs) in air, collected in specially prepared Summa canisters and analyzed by gas chromatography/mass spectrometry (GC/MS). This method applies to ambient concentrations of VOCs above 0.5 ppbv.

The atmosphere is sampled by introduction of air into specially prepared stainless steel Summa canisters. After the air sample is collected, the canister valve is closed and transported to the laboratory for analysis. Upon receipt at the laboratory, the canister is stored until analysis. Storage times of up to thirty days have been demonstrated for many of the VOCs.

A known volume of the sample is directed from the canister through a solid multi-sorbent concentrator for analysis. A portion of the water vapor in the sample breaks through the concentrator during sampling, to a degree depending on the multi-sorbent composition, duration of sampling, and other factors. Water content of the sample can be further reduced by dry purging the concentrator with helium, while retaining target compounds. After the concentration and drying steps are completed, the VOCs are thermally desorbed, entrained in a carrier gas stream, and then focused in a small volume by trapping on a reduced temperature trap or small volume multi-sorbent trap. The sample is then released by thermal desorption and carried onto a gas chromatographic column for separation.

As a simple alternative to the multi-sorbent/dry-purge water-management technique, the amount of water vapor in the sample can be reduced below any threshold for affecting the proper operation of the analytical system by reducing the sample size. The reduction in sample volume may require an enhancement of detector sensitivity. One of the alternative ways to dry the sample is to separate VOCs from condensate on a low temperature trap by heating and purging the trap.

The analytical strategy for Compendium Method TO-15 involves using a high-resolution gas chromatograph (GC) coupled to a mass spectrometer. Mass spectra for individual peaks in the total ion chromatogram are examined with respect to the fragmentation pattern of ions corresponding to various VOCs including the intensity of primary and secondary ions. The fragmentation pattern is compared with stored spectra taken under similar conditions, in order to identify the compound. For any given compound, the intensity of the primary fragment is compared with the system response to the primary fragment for

known amounts of the compound. This establishes the compound concentration that exists in the sample. Mass spectrometry is considered a more definitive identification technique than single specific detectors such as flame ionization detector (FID), electron capture detector (ECD), photoionization detector (PID), or a multidetector arrangement of these. The use of both gas chromatographic retention time and the generally unique mass fragmentation patterns reduce the chances for misidentification.

The information above, regarding the air analytical method, is adopted from a 1999 document prepared by the Center for Environmental Research Information, Office of Research and Development of the U.S. EPA

4.3.1 Analytical Results – Sub-slab Soil Vapor

Sub-slab soil vapor analytical results are summarized on Table 2. The complete laboratory data package is provided as Appendix C.

The sub-slab soil vapor analytical results reveal exceedences of NYSDOH 75th Percentile and USEPA 75th Percentile background concentrations for various VOCs including acetone (all locations), tetrachloroethene (PCE), chloroform (SG-13, SG-14, and SG-15), dichlorodifluoro-methane (SG-14 and SG-15 duplicate), freon 113 (all locations), and trichloroethene (SG-13 and SG-14). The highest sub-slab soil vapor concentrations were detected below Dano's Pizza, which is the location closest to the London French Cleaners. Volatile organic compounds including benzene, carbon disulfide, p-dichlorobenzene, ethanol, hexane, isopropyl alcohol, tertiary butyl alcohol (TBA), toluene, and xylene were also detected during the sampling event at several of the sample points. Concentrations of these compounds; however, did not exceed the USEPA Indoor Air 75th Percentile or the NYSDOH Indoor Air 75th Percentile limits.

The discrepancy in the analytical results of acetone in SG-15 and DUP SG-15 could be attributed to the dilution factor used by the laboratory. The dilution factor of air sample SG-15 was eight, whereas the dilution factor of air sample DUP SG-15 was one. The discrepancy is not only in the acetone analytical results but also in the analytical results of all detected VOCs in air sample SG-15, which is probably due to the difference in dilution factors.

Historic sub-slab soil vapor analytical results are summarized on Table 3A and historic sample locations shown on Figure 3.

4.4 Indoor Air Sampling Procedures

A total of four indoor air samples (AS-5 through AS-8) were collected during this Supplemental RI. The samples were collected on 16 and 17 December 2004, concurrent with collection of sub-slab soil vapor samples at locations corresponding to the sub-slab soil vapor sample locations (see Figure 2). The samples were collected in laboratory provided dedicated stainless steel 6-liter Summa® Canisters equipped with a laboratory-calibrated regulator with a seven-micron particulate filter. The Summa® Canisters had an initial vacuum of over 30-inches of mercury (Hg) and were each filled over an eight hour period. Each canister was checked periodically over the eight-hour sampling event to ensure that tubing was adequately secure, that regulators were open, and that the Summa® Canister was maintaining a proper vacuum. After an eight-hour period, the pressure gauges indicated vacuums ranging from 0-inches of Hg to 2-inches of Hg. The Summa® Canisters were then closed and regulators removed. All indoor air samples were then analyzed for volatile organic compounds using the USEPA Modified TO-15 list by Accutest Laboratories.

4.4.1 Analytical Results – Indoor Air Samples

Indoor air and ambient air sample analytical results are summarized on Table 2. The complete laboratory data package is provided as Appendix C. A NYSDOH Indoor Air Quality Questionnaire and Building Inventory Forms are provided as Appendix B.

The indoor air and ambient air analytical results reveal exceedences of NYSDOH 75th Percentile and USEPA 75th Percentile background concentrations for acetone (AS-6 and AS-7), tetrachloroethene (PCE), benzene (AS-6), dichlorodifluoromethane (all locations), freon 113 (all locations), and hexane (AS-6). The largest exceedance was detected at sample location AS-6, which is the closest location to the London French Cleaners. Additional volatile organic compounds were detected at the indoor air sample locations; however, none of these exceeded applicable USEPA and NYSDOH criteria.

Historic indoor air analytical results are summarized on Table 3B and historic sample locations shown on Figure 3.

4.5 Quality Assurance / Quality Control Procedures

Quality Assurance/Quality Control (QA/QC) measures conducted as part of the SRI included collection/analysis of one duplicate sub-slab soil vapor sample (SG-15) and a trip blank incorporated into the sampling program during the sub-slab soil gas sampling event.

Each sample was numbered and recorded in a field log book. Summa® Canister samples were stored at the ambient temperature. Samples were transferred to the laboratory immediately after field sampling was complete. Chain-of-custody forms were unitized to document custody for the acquisition, possession and analysis. Chain-of-custody documentation is provided in the laboratory reports (Appendix C).

5.0 Qualitative Human Health Exposure Assessment

In accordance with DER-10 Technical Guidance for Site Investigation and Remediation Appendix 3B, a Qualitative Human Health Exposure Assessment was completed. The exposure assessment is comprised of an evaluation of the following five elements:

- Contaminant Source;
- Contaminant release and transport mechanisms;
- Point of exposure;
- Route of exposure; and,
- Receptor population.

A detailed assessment of the five elements is provided below. As noted, none of the five elements reveal an onsite or off-site exposure of the contaminants of concern exists due to operation of the active remediation system (air sparge / soil vapor extraction) and as will be supplemented by the interim remedial measure (vapor collection pits).

5.1 Contaminant Source

The PCE contaminant source has been identified as historic onsite tenant (London-French Dry Cleaners) operations. The tenant installed a self-contained dry cleaning unit in the 1990's. It should be noted that in June 2006 the dry cleaning system was replaced and the use of PCE ceased at this time.

The historic soil and groundwater sampling completed at the site, as documented in previous reports, has identified significant decreased in chlorinated VOC impacts over time. Specifically chlorinated VOCs were detected in the area of the trench drain in borings LB-7 and LB-8 in 1999 with PCE detected up to 77 ppm in boring LB-8 and then in borings completed in 2004 in the area of the trench drain with PCE detected up to 15 ppm. Groundwater in the area of the trench drain has also documented significant decreases with PCE detected in 1998 at 5,000 ppb and subsequently detected at a concentration of less than 100 ppb in 2004 in monitoring well MW-3.

Based on the above, there is no evidence that continued contaminant source discharge of PCE is occurring at the subject property. Based on the soil and groundwater analytical results, significant degradation of the impacts has occurred as a result of operation of the AS/SVE system.

5.2 Contaminant Release and Transport Mechanisms

The contaminant release and transport mechanisms included historic discharges from the onsite dry cleaning operations and/or discharges to the trench drain and migration in groundwater or soil-gas. Onsite perimeter monitoring wells have documented either non-detect results or continued reduction in contaminant concentration since initiation of the remedial measure (air sparge and soil vapor extraction system). In addition, the interim remedial measure (vapor collection pits) will supplement the SVE system in preventing volatilization of site contaminants into the on site buildings.

5.3 Point of Exposure

Based on the delineated extent of impacted soil and groundwater, the point of exposure is within the onsite building (dry cleaners and adjoining tenant spaces within the onsite strip mall) by customers and employees. As the documented site contaminants are below the building slab and/or below the trench drain and an active vapor collection sump system has been installed at the site, exposure within the onsite or adjacent buildings is not identified as a point of exposure.

5.4 Route of Exposure

Potential routes of exposure to human receptors are:

- Inhalation - Inhalation of VOCs entering soil gas via the documented soil and groundwater contamination into the onsite building. Operation of the

SVE system results in capture of VOCs below the floor slab in the area encompassing approximately twice the radius of the influence of the air sparge points. Operation of vapor collection pits will prevent volatilization of the site contaminants into other areas of the onsite building and subsequent inhalation of the contaminants of concern. As contamination has not been documented to migrate off the subject property, inhalation of the site contaminants in the adjoining buildings is not identified as a route of exposure.

- Ingestion – The onsite and adjoining buildings receive potable water from the City of New York. Small areas of identified impacted soil are present below building floor slabs and exterior paved areas. As such, exposure via ingestion of impacted groundwater or soil is not identified as a route of exposure.
- Absorption – The entire site is either covered with asphalt pavement or building slab, therefore no direct contact / absorption with underlying impacted soil is anticipated. There are no open onsite water sources (e.g. lakes or ponds) at the site; therefore, direct contact with the impacted groundwater is not anticipated.

Based on the above information, the only potential route of exposure was identified as inhalation. Implementation of the existing and proposed interim remedy will address this exposure pathway.

5.5 Receptor Population

The anticipated receptor population includes occupants (customers and employees) of the onsite building. The proposed interim remedial measure (vapor collection pits) will prevent volatilization of the site contaminants into the existing site buildings. The previous sampling has revealed the contaminants of concern have been delineated on the subject property. The adjoining properties are located across roads and there is no documentation that contamination has migrated off the subject property. Therefore, based on the above information, exposure to the receptor population from the site contamination requires no further assessment.

6.0 SVE INFLUENCE ASSESSMENT

Langan completed an assessment of the SVE influence below the building slab in January 2005. The assessment consisted of operating the existing SVE blower within the LA Furniture tenant space for ½-hour and then measuring the vacuum in the monitoring points and SG sampling points installed in December 2004. The vacuum in each of the monitoring points (MP-1 through MP-4) and Sub-slab soil vapor points (SG-12 through SG-15) was measured with a Dwyer magnehelic vacuum meter. At SVE-1 and SVE-2, vacuum was measured at 5 inches of water column and 4 inches of water column, respectively. Vacuum at the influent to the SVE blower was measured at 5 inches of water column. The blower was operating at a pressure of 6 pounds per square inch (psi).

Vacuum measurements were observed within both monitoring points MP-2 and MP-3 located in the London French Cleaners. A vacuum measurement was not observed in the sub-slab soil vapor or monitoring points located with the C-town (SG-12 or MP-1), Dano's Pizza (SG-13), Visiting Services of New York (SG-14), 301 Restaurant (MP-4) or Popeye's (SG-15).

7.0 ASSESSMENT OF TENANT SPACE HVAC INTAKE

Langan inspected the tenant spaces in January 2005 to assess the HVAC intake locations. All tenant spaces contain independent HVAC units in the rear of the tenant space. The tenant space furnaces vent to the roof of the tenant space. Fresh air is provided on the rear wall of the tenant spaces (i.e. not via roof intake).

As noted in our October response letter, the tenant spaces contain partitioning walls from the floor to the ceiling.

8.0 CONCLUSIONS / RECOMMENDATIONS

The sub-slab soil vapor and indoor air sampling results from the Supplemental RI reveal exceedances of applicable volatile organic compounds – tetrachloroethene and trichloroethene. Other exceedances of NYSDOH and USEPA criteria were detected but are not attributable to contaminants of concern at the site.

The sub-slab soil vapor and indoor air sampling completed during the SRI revealed that elevated concentrations of volatile organic compounds were detected in both sub-slab soil vapor and indoor air samples. High tetrachloroethene (PCE) (above either the

USEPA or the NYSDOH criteria) sub-slab soil vapor concentrations were detected within the following locations in decreasing order:

- London French Dry Cleaners (SG-6, with a PCE concentration of 16,500 ppbv or 112,000 □g/m^3);
- LA Furniture (SG-7, with a PCE concentration of 5,700 ppbv or 38,700 □g/m^3);
- Dano's Pizza (SG-13, with a PCE concentration of 285 ppbv or 1,930 □g/m^3);
- Sunny Gift (SG-8, with a PCE concentration of 44.6 ppbv or 302 □g/m^3);
- Beauty & More (SG-5B, with a PCE concentration of 32.7 ppb or 222 □g/m^3);
- The Visiting Services of New York (SG-14, with a PCE concentration of 16.3 ppbv or 111 □g/m^3);
- The parking lot (SG-11, with a PCE concentration of 6.7 ppbv or 45 □g/m^3);
- Popeye's (SG-15, with a PCE concentration of 4.3 ppbv or 29 □g/m^3);
- The paved area north of Popeye's (SG-10, with a PCE concentration of 3.7 ppbv or 25 □g/m^3); and,
- C-Town Supermarket (SG-12, with an estimated PCE concentration of 0.94 ppbv or 6.4 □g/m^3).

High tetrachloroethene (PCE) concentrations in indoor-air samples were detected within the following locations in decreasing order:

- The Visiting Services of New York (AS-7, with a PCE concentration of 20.9 ppbv or 142 □g/m^3);
- London French Dry Cleaners (AS-2, with a PCE concentration of 19.3 ppbv or 131 □g/m^3);
- Dano's Pizza (AS-6, with a PCE concentration of 12.2 ppbv or 83 □g/m^3);
- LA Furniture (AS-1, with a PCE concentration of 4.8 ppbv or 33 □g/m^3);
- Beauty & More (AS-3, with a PCE concentration of 3.9 ppb or 26 □g/m^3); and,
- Sunny Gift (AS-4, with a PCE concentration of 2.3 ppbv or 16 □g/m^3).

Sub-slab soil vapor sampling results reveal that concentrations of chlorinated VOCs were detected below the floor slab of the entire Shopping Plaza (with the exception of C-Town Supermarket in the western corner) and decrease in concentration with distance from the London French Dry Cleaners. Indoor air sampling results reveal similar trends with no exceedances of applicable NYSDOH or USEPA criteria detected at locations in the west (C-Town Supermarket) as well as the eastern (Popeye's) portions of the Plaza.

Based on the NYSDOH decision matrix guidance for PCE and TCE, mitigation is required for the source area at the London French Dry Cleaners extending to the west to Dano's Pizza and to the east to the Visiting Services of New York. However, it should be noted that the elevated concentrations detected are partially the result of the long-term shutdown of the AS/SVE system. In addition, although no direct connection between HVAC systems or intakes from individual tenant spaces is present, the concentrations of PCE detected in indoor air within tenant spaces adjoining the dry cleaners is not inconsistent with direct migration of vapors from the operating dry cleaners.

The results of the radius of influence assessment of the SVE system reveal that the system does not influence sub-slab conditions below the entire building, and only influences conditions below adjoining tenant spaces (London French Cleaners and Sunny Gift), in which the greatest level of chlorinated VOCs below the building slab were detected. The assessment is consistent with the design criteria documented in the 2003 Remedial Action Workplan (RAWP), in which the radius of influence of the AS/SVE system was expected not to exceed 50 feet.

Continued operation of the AS/SVE system and installation and operation of the subslab depressurization system as an Interim Remedial Measure is recommended. No further remedial investigation or action (other than the IRM) is proposed.

TABLES

TABLE 1
ANALYTICAL PROGRAM
SUPPLEMENTAL REMEDIAL INVESTIGATION PHASE II (Revision II)
DAYTON SHOPPING PLAZA
FAR ROCKAWAY, NEW YORK

Sample Number	Sample Location	Sample Date	Sample Depth	Sample Rational	Matrix	Analytical Method	Parameter
086	SG-12	12/16/2004	---	Sub-Slab Soil Vapor: C-Town Supermarket	Air	TO-15	VOCs
084	SG-13	12/16/2004	---	Sub-Slab Soil Vapor: Dano's Pizza	Air	TO-15	VOCs
088	SG-14	12/16/2004	---	Sub-Slab Soil Vapor: Visiting Nursing Services of NY	Air	TO-15	VOCs
090	SG-15	12/16/2004	---	Sub-Slab Soil Vapor: Popeye's Chicken	Air	TO-15	VOCs
091	DUP (SG-15)	12/16/2004	---	Sub-Slab Soil Vapor: QA-Popeye's Chicken	Air	TO-15	VOCs
087	AS-5	12/16/2004	---	Indoor Air: C-Town Supermarket	Air	TO-15	VOCs
085	AS-6	12/16/2004	---	Indoor Air: Dano's Pizza	Air	TO-15	VOCs
089	AS-7	12/16/2004	---	Indoor Air: Visiting Nursing Services of NY	Air	TO-15	VOCs
092	AS-8	12/16/2004	---	Indoor Air: Popeye's Chicken	Air	TO-15	VOCs
093	TB	12/16/2004	---	QC	Air	TO-15	VOCs

VOC - Volatile Organic Compounds

TABLE 2
SUMMARY OF SUB-SLAB SOIL VAPOR and INDOOR AIR ANALYTICAL RESULTS
PHASE II SUPPLEMENTAL (Version II)
DAYTON SHOPPING CENTER, QUEENS NY

Sample ID		Environmental Protection Agency (EPA)		New York State Department of Health (NYSDOH)		SG-12		SG-13		SG-14		SG-15		DUP (SG-15)		AS-6		AS-5		AS-7		AS-8		TB	
Langan Sample Number						086		084		088		090		091		085		087		089		092		093	
Lab Sample Number						N86573-3		N86573-1		N86573-5		N86573-7		N86573-8		N86573-2		N86573-4		N86573-6		N86573-9		N86573-10	
Sampling Date		Indoor Air		Indoor Air		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004	
Sample Depth (feet bgs)		75th Percentile		75th Percentile		0.5'-1.0'		0.5'-1.0'		0.5'-1.0'		0.5'-1.0'		0.5'-1.0'		---		---		---		---		---	
Matrix						Air		Air		Air		Air		Air		Air		Air		Air		Air		Air	
Units	CAS Number	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³
Acetone	67-64-1	11	27	NA	46	14.2	33.7	35.2	83.6	19.5	46.3	20.3	48.2	5.4	13	76.4	181	ND	ND	17.8	42.3	ND	ND	ND	ND
Benzene	71-43-2	6.6	21	1.6	5.7	ND	ND	0.85 J	2.7 J	ND	ND	ND	ND	0.15 J	0.48 J	2.3	7.3	0.41	1.3	0.43	1.4	0.46	1.5	ND	ND
Carbon disulfide	75-15-0	NA	NA	NA	NA	1.4 J	4.4 J	1.1 J	3.4 J	ND	ND	2.7	8.4	0.82	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	108-90-7	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	0.35	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	67-66-3	0.69	3.4	0.88	0.5	ND	ND	2.7	13	2.5	12	0.77 J	3.8 J	0.67	3.3	ND	ND	0.22 J	1.1 J	0.22	1.1	0.19 J	0.93 J	ND	ND
Chloromethane	74-87-3	NA	NA	<1.0	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32	0.66	0.39 J	0.81 J	ND	ND	0.53	1.1	ND	ND
Dichlorodifluoromethane	75-71-8	NA	NA	<0.2	NA	ND	ND	ND	ND	0.97 J	4.8 J	ND	ND	0.4	2	0.46	2.3	0.55	2.7	0.44	2.2	0.42	2.1	ND	ND
m-Dichlorobenzene	541-73-1	NA	5.6	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.76	4.6	ND	ND	ND	ND	ND	ND
o-Dichlorobenzene	95-50-1	NA	ND	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.67	4	ND	ND	ND	ND	ND	ND
p-Dichlorobenzene	106-46-7	0.93	NA	<0.8	NA	9.8	59	ND	ND	2.8	17	ND	ND	0.17 J	1.0 J	0.14	0.84 J	115	691	0.25	1.5	ND	ND	ND	ND
Ethanol	64-17-5	NA	NA	NA	NA	145	273	57.2	108	27	50.8	19.6	36.9	5.5	10	111 E	209 E	868 E	1630 E	74.4 E	140 E	40.4 E	76.0 E	ND	ND
Ethylbenzene	100-41-4	2.2	9.6	1.1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	0.4	1.7	0.22	0.96	ND	ND	0.12 J	0.52 J	0.25	1.1	ND	ND
Ethyl Acetate	141-78-6	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2	19	1.8	6.5	1.2	4.3	ND	ND	ND	ND
4-Ethyltoluene	622-96-8	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11 J	0.54 J	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	76-13-1	NA	NA	<0.1	NA	0.81 J	6.2 J	3.2	25	1.8	14	0.93 J	7.1 J	0.34	2.6	0.91	7	0.52	4	0.36	2.8	0.41	3.1	0.28	2.1
Heptane	142-82-5	1.5	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.55	2.3	ND	ND	0.57	2.3	0.31	1.3	ND	ND
Hexane	110-54-3	1.1	NA	1	6.5	ND	ND	0.91 J	3.2 J	ND	ND	ND	ND	0.18 J	0.63 J	1.7	6.0	0.42	1.5	0.29	1.0	0.6	2.1	0.25	0.9
Isopropyl Alcohol	67-63-0	NA	NA	NA	NA	2.7	6.6	2.4	5.9	82.5	202.0	ND	ND	ND	ND	11.1	27.2	15.7	38.5	271 E	665 E	1.7	4.2	ND	ND
Methylene chloride	75-09-2	NA	NA	1.6	6.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15 J	0.52 J	ND	ND	0.13 J	0.45 J	0.13 J	0.45 J	ND	ND
Methyl Ethyl Ketone	78-93-3	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.42	1.2	0.38	1.1	ND	ND	ND	ND	0.19 J	0.56 J	ND	ND
Methyl Isobutyl Ketone	108-10-1	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16 J	0.66 J	ND	ND	ND	ND
Methyl Tert Butyl Ether	1634-04-4	NA	NA	NA	6.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	0.7	0.17 J	0.61 J	0.19 J	0.69 J	0.23	0.8	ND	ND
Styrene	100-42-5	0.66	2.8	<2.4	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19 J	0.81 J	0.11 J	0.47 J	ND	ND	ND	ND
1,1,1-Trichloroethane	71-55-6	5.5	30	1.2	1.4	ND	ND	ND	ND	ND	ND	ND	ND	0.11 J	0.60 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	95-63-6	0.81	4	1.4	4.4	ND	ND	ND	ND	ND	ND	ND	ND	0.26	1.3	0.37	1.8	ND	ND	0.31	1.5	0.57	2.8	ND	ND
1,3,5-Trimethylbenzene	108-67-8	1.1	5.4	<2.0	1.7	ND	ND	ND	ND	ND	ND	ND	ND	0.13 J	0.64 J	0.12 J	0.59 J	ND	ND	ND	ND	0.18 J	0.88 J	ND	ND
2,2,4-Trimethylpentane	540-84-1	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48	2.2	ND	ND	0.13 J	0.61 J	0.36	1.7	ND	ND
Tertiary Butyl Alcohol	75-65-0	NA	NA	NA	NA	ND	ND	ND	ND	2.5	7.6	4.7	14	0.55	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	127-18-4	1.6	11	<1.5	1.2	0.94 J	6.4 J	285	1,930	16.3	111	4.3	29	3.6	24	12.2	83	ND	ND	20.9	142	0.099 J	0.67 J	ND	ND
Toluene	108-88-3	NA	NA	6.7	25	ND	ND	1.8	6.8	1.2 J	4.5 J	ND	ND	0.39	1.5	3.1	12	1.6	6	1.2	4.5	1.1	4.1	ND	ND
Trichloroethene	79-01-6	0.84	4.5	<1.0	<0.25	ND	ND	8	43	1.1 J	5.9 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	75-69-4	NA	NA	0.68	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.2	0.22	1.2	0.34 J	1.9 J	0.25	1.4	0.3	1.7	ND	ND
m,p-Xylene	---	NA	18	2.2	4.7	ND	ND	ND	ND	ND	ND	ND	ND	1.1	4.8	0.74	3.2	0.4	1.7	0.37	1.6	0.95	4.1	ND	ND
o-Xylene	95-47-6	2.1	9.3	1.2	3.1	ND	ND	ND	ND	ND	ND	ND	ND	0.25	1.1	0.24	1	ND	ND	0.13 J	0.56 J	0.36	1.6	ND	ND
Xylenes (Total)	1330-20-7	NA	NA	NA	NA	ND	ND	1.0 J	4.3 J	ND	ND	ND	ND	1.3	5.6	0.99	4.3	0.55	2.4	0.51	2.2	1.3	5.6	ND	ND

NOTES

ppbv - parts per billion volume

J -Indicates an estimated value.

NA- Not Available

µg/m³ - micro-gram per cubic meter

ND- Not Detected

NA- Not Available

DUP- Duplicate

: Indicates compound exceeds either NYSDOH or EPA criteria for Indoor Air

TABLE 3A
HISTORIC SUMMARY OF SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
PHASE II SUPPLEMENTAL (Version II)
DAYTON SHOPPING CENTER, QUEENS NY

Sample ID	Environmental		New York State		SG-1	SG-2	SG-3	SG-4	SG-5	SG-5B		SG-6		SG-7		SG-8		SG-9		SG-9 (Dup)	
Langan Sample Number	Protection Agency		Department of							062		063		064		065		066		061	
Lab Sample Number	(EPA)		Health							N58688-2		N58688-3		N58688-4		N58688-5		N58688-6		N58688-1	
Sampling Date	Indoor Air		(NYSDOH)		3/24/1998	3/24/1998	3/24/1998	3/24/1998	3/24/1998	2/2/2004		2/2/2004		2/2/2004		2/2/2004		2/2/2004		2/2/2004	
Sample Depth (feet bgs)	75th Percentile		Indoor Air		Beauty & More	LA Furniture	LA Furniture	Exterior - Southwest	Exterior - Southeast	0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'	
Matrix			75th Percentile		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Air		Air		Air		Air		Air		Air	
Units	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3
Acetone	11	27	NA	46	NA	NA	NA	NA	NA	95.9	228	119	283	69.8	166	139	330	47.3	112	40.9	97.2
1,3-Butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	6.6	21	1.6	5.7	NA	NA	NA	NA	NA	14.1	45	6.8	22	13.8	44.1	1.5	4.8	0.55	1.8	0.5	1.6
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NA	NA	NA	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl Chloride	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	1.0	5.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.1	19	3.6	11	2.2 J	6.9 J	1.4	4.4	ND	ND	ND	ND
Chlorobenzene	NA	NA	NA	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.69	3.4	0.88	0.54	NA	NA	NA	NA	NA	8.2	40	11.1	54.2	4.6	22	2.1	10	ND	ND	ND	ND
Chloromethane	NA	NA	<1.0	2.0	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.63	1.3	0.55	1.1
3-Chloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.13	0.8	<1.0	0.68	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10	0.63
Cyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.7	88.5	ND	ND	ND	ND	ND	93.6	15.2	52.3	17.2	59.2
1,1-Dichloroethane	NA	NA	<0.2	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	0	ND	<0.3	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NA	ND	NA	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0	ND	<0.2	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NA	NA	NA	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	3.1	15	ND	ND	4.3	21	1.8	8.9	0.4	2	0.64	3.2
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	5.2	21	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	11.6	46	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Dichlorobenzene	NA	5.6	NA	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Dichlorobenzene	NA	ND	NA	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Dichlorobenzene	0.93	NA	<0.8	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.3	45.7	43.7	82.2	23.7	44.6	72.8	137	6.4	12	6.8	13
Ethylbenzene	2.2	9.6	1.1	2.8	NA	NA	NA	NA	NA	2.2	9.6	3.5	15	16.3	70.8	0.77 J	3.3 J	0.28 J	1.2 J	0.4	1.7
Ethyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31 J	1.5 J	ND	ND	ND	ND	ND	ND	ND	ND	0.12 J	0.59 J
Freon 113	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.099 J	0.76 J
Freon 114	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES

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J -Indicates an estimated value.
NA- Not Available

ND- Not Detected
DUP- Duplicate
: Indicates compound exceeds either NYSDOH or EPA criteria for Indoor Air

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Langan Sample Number	Protection Agency		Department of							062		063		064		065		066		061	
Lab Sample Number	(EPA)		Health							N58688-2		N58688-3		N58688-4		N58688-5		N58688-6		N58688-1	
Sampling Date	Indoor Air		(NYSDOH)		3/24/1998	3/24/1998	3/24/1998	3/24/1998	3/24/1998	2/2/2004		2/2/2004		2/2/2004		2/2/2004		2/2/2004		2/2/2004	
Sample Depth (feet bgs)	75th Percentile		Indoor Air		Beauty & More	LA Furniture	LA Furniture	Exterior - Southwest	Exterior - Southeast	0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'	
Matrix			75th Percentile		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Air		Air		Air		Air		Air		Air	
Units	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3
Heptane	1.5	NA	NA	NA	NA	NA	NA	NA	NA	35.8	147	42.9	176	23.4	95.9	29.6	121	12.7	52	20.9	85.7
Hexachlorobutadiene	NA	NA	NA	NA						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	1.1	NA	1.0	6.5	NA	NA	NA	NA	NA	2.2	7.8	ND	ND	ND	ND	ND	ND	ND	ND	0.36	1.3
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.95	3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.3	23	ND	ND	9.9	24	21.8	53.5	ND	ND	ND	ND
Methylene chloride	NA	NA	1.6	6.3	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17 J	0.59 J
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.4	33.6	8.3	24	ND	ND	2.6	7.7	1.1	3.2	1	2.9
Methyl Isobutyl Ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether	NA	NA	NA	6.7	NA	NA	NA	NA	NA	10.3	37.1	29.4	106	6.6	24	1.5	5.4	ND	ND	0.2	0.72
Propylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.4	17.9	ND	ND	ND	ND	ND	ND	1.6	2.7	1.6	2.7
Styrene	0.66	2.8	<2.4	0.68	NA	NA	NA	NA	NA	1.6	6.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.5	30	1.2	1.4	ND	12.9	ND	3.7	ND	0.74	4.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0	ND	<1.3	<0.25						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NA	NA	<1.6	<0.25	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NA	NA	NA	NA						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.81	4.0	1.4	4.4	NA	NA	NA	NA	NA	0.65	3.2	ND	ND	ND	ND	ND	ND	ND	ND	0.14 J	0.69 J
1,3,5-Trimethylbenzene	1.1	5.4	<2.0	1.7	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-Trimethylpentane	NA	NA	NA	NA						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary Butyl Alcohol	NA	NA	NA	NA						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1.6	11	<1.5	1.2	2,585,000	40,800	1,292,500	278,900	68	32.7	222	16,500	112,000	5,710	38,700	44.6	302	0.78	5.3	0.8	5.4
Tetrahydrofuran	NA	NA	NA	NA						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	NA	NA	6.7	25						20.7	78	29.7	112	20.5	77.3	7	26	2.8	11	3.7	14
Trichloroethylene	0.84	4.5	<1.0	<0.25	570	9.5	570	380	ND	3.8	20	156	838	46.5	250	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NA	NA	0.68	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31	1.7
Vinyl chloride	NA	NA	<0.4	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	NA	NA	NA	NA						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	NA	18	2.2	4.7	NA	NA	NA	NA	NA	5.2	23	10.0	43	51.4	223	2.8	12	1	4.3	1.3	5.6
o-Xylene	2.1	9.3	1.2	3.1	NA	NA	NA	NA	NA	1.6	6.9	2.2 J	9.6 J	23.5	102	0.61 J	2.6 J	ND	ND	0.24	1
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.8	30	12.1	52.6	74.9	325	3.5	15	1	4.3	1.6	6.9

NOTES

ppbv - parts per billion volume
J -Indicates an estimated value.
NA- Not Available
ND- Not Detected
DUP- Duplicate
: Indicates compound exceeds either NYSDOH or EPA criteria for Indoor Air

TABLE 3A
HISTORIC SUMMARY OF SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
PHASE II SUPPLEMENTAL (Version II)
DAYTON SHOPPING CENTER, QUEENS NY

Sample ID	Environmental		New York State		SG-10		SG-11		SG-12		SG-13		SG-14		SG-15		DUP (SG-15)	
Langan Sample Number	Protection Agency		Department of		067		068		086		084		088		090		091	
Lab Sample Number	(EPA)		Health		N58688-7		N58688-8		N86573-3		N86573-1		N86573-5		N86573-7		N86573-8	
Sampling Date	Indoor Air		(NYSDOH)		2/2/2004		2/2/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004	
Sample Depth (feet bgs)	75th Percentile		Indoor Air		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'	
Matrix			75th Percentile		Air		Air		Air		Air		Air		Air		Air	
Units	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3
Acetone	11	27	NA	46	74.8	178	149	354	14.2	33.7	35.2	83.6	19.5	46.3	20.3	48.2	5.4	13
1,3-Butadiene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	6.6	21	1.6	5.7	2.1	6.7	24.4	78	ND	ND	0.85 J	2.7 J	ND	ND	ND	ND	0.15 J	0.48 J
Bromodichloromethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl Chloride	NA	NA	<0.2	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	NA	NA	NA	NA	0.7	2.2	1.6	5	1.4 J	4.4 J	1.1 J	3.4 J	ND	ND	2.7	8.4	0.82	2.6
Chlorobenzene	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.35	1.6
Chloroethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.69	3.4	0.88	0.54	0.86	4.2	4.9	24	ND	ND	2.7	13	2.5	12	0.77 J	3.8 J	0.67	3.3
Chloromethane	NA	NA	<1.0	2	0.62	1.3	2.7	5.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Chloropropene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.13	0.8	<1.0	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NA	NA	NA	NA	15.7	54	35	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	NA	NA	<0.2	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	0	ND	<0.3	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NA	ND	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0	ND	<0.2	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NA	NA	<0.2	NA	0.38 J	1.9 J	ND	ND	ND	ND	ND	ND	0.97 J	4.8 J	ND	ND	0.4	2
Dibromochloromethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Dichlorobenzene	NA	5.6	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Dichlorobenzene	NA	ND	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Dichlorobenzene	0.93	NA	<0.8	NA	ND	ND	ND	ND	9.8	59	ND	ND	2.8	17	ND	ND	0.17 J	1.0 J
trans-1,3-Dichloropropene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol	NA	NA	NA	NA	3	5.6	6.4	12	145	273	57.2	108	27	50.8	19.6	36.9	5.5	10
Ethylbenzene	2.2	9.6	1.1	2.8	0.43	1.9	2.1	9.1	ND	ND	ND	ND	ND	ND	ND	ND	0.4	1.7
Ethyl Acetate	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NA	NA	NA	NA	ND	ND	0.73 J	3.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	<0.1	NA	ND	ND	ND	ND	0.81 J	6.2 J	3.2	25	1.8	14	0.93 J	7.1 J	0.34	2.6
Freon 114	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES

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ND- Not Detected
DUP- Duplicate
: Indicates compound exceeds either NYSDOH or EPA criteria for Indoor Air

TABLE 3A
HISTORIC SUMMARY OF SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
PHASE II SUPPLEMENTAL (Version II)
DAYTON SHOPPING CENTER, QUEENS NY

Sample ID	Environmental	Environmental	New York State	New York State	SG-10		SG-11		SG-12		SG-13		SG-14		SG-15		DUP (SG-15)	
Langan Sample Number	Protection Agency	Protection Agency	Department of	Department of	067		068		086		084		088		090		091	
Lab Sample Number	(EPA)	(EPA)	Health	Health	N58688-7		N58688-8		N86573-3		N86573-1		N86573-5		N86573-7		N86573-8	
Sampling Date	Indoor Air	Indoor Air	(NYSDOH)	(NYSDOH)	2/2/2004		2/2/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004	
Sample Depth (feet bgs)	75th Percentile	75th Percentile	Indoor Air	Indoor Air	0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'		0.5'-1'	
Matrix			75th Percentile	75th Percentile	Air		Air		Air		Air		Air		Air		Air	
Units	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3
Heptane	1.5	NA	NA	NA	16.9	69.3	37.9	155	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	1.1	NA	1.0	6.5	0.72	2.5	7.5	26	ND	ND	0.91 J	3.2 J	ND	ND	ND	ND	0.18 J	0.63 J
2-Hexanone	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropyl Alcohol	NA	NA	NA	NA	ND	ND	ND	ND	2.7	6.6	2.4	5.9	82.5	202	ND	ND	ND	ND
Methylene chloride	NA	NA	1.6	6.3	0.54	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	NA	NA	NA	NA	3.2	9.4	6.6	19	ND	ND	ND	ND	ND	ND	ND	ND	0.42	1.2
Methyl Isobutyl Ketone	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether	NA	NA	NA	6.7	4.7	17	27.7	99.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylene	NA	NA	NA	NA	58.3	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	0.66	2.8	<2.4	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.5	30	1.2	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11 J	0.60 J
1,1,2,2-Tetrachloroethane	0	ND	<1.3	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NA	NA	<1.6	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.81	4	1.4	4.4	ND	ND	2.6	13	ND	ND	ND	ND	ND	ND	ND	ND	0.26	1.3
1,3,5-Trimethylbenzene	1.1	5.4	<2.0	1.7	ND	ND	0.93 J	4.6 J	ND	ND	ND	ND	ND	ND	ND	ND	0.13 J	0.64 J
2,2,4-Trimethylpentane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary Butyl Alcohol	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	2.5	7.6	4.7	14	0.55	1.7
Tetrachloroethylene	1.6	11	<1.5	1.2	3.7	25	6.7	45	0.94 J	6.4 J	285	1930	16.3	111	4.3	29	3.6	24
Tetrahydrofuran	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	NA	NA	6.7	25	6.4	24	16.6	62.6	ND	ND	1.8	6.8	1.2 J	4.5 J	ND	ND	0.39	1.5
Trichloroethylene	0.84	4.5	<1.0	<0.25	ND	ND	ND	ND	ND	ND	8	43	1.1 J	5.9 J	ND	ND	ND	ND
Trichlorofluoromethane	NA	NA	0.68	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.2
Vinyl chloride	NA	NA	<0.4	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	NA	18	2.2	4.7	1.3	5.6	6	26	ND	ND	ND	ND	ND	ND	ND	ND	1.1	4.8
o-Xylene	2.1	9.3	1.2	3.1	0.3 J	1.3 J	2.1	9.1	ND	ND	ND	ND	ND	ND	ND	ND	0.25	1.1
Xylenes (total)	NA	NA	NA	NA	1.6	6.9	8.2	36	ND	ND	1.0 J	4.3 J	ND	ND	ND	ND	1.3	5.6

NOTES

ppbv - parts per billion volume
J -Indicates an estimated value.
NA- Not Available

ND- Not Detected
DUP- Duplicate
: Indicates compound exceeds either NYSDOH or EPA criteria for Indoor Air

TABLE 3B
HISTORIC SUMMARY OF INDOOR AIR SAMPLING RESULTS
DAYTON SHOPPING CENTER, QUEENS NY

Sample ID	Environmental		New York State		AS-1		AS-2		AS-DUP		AS-3		AS-4		AS-5		AS-6		AS-7		AS-8		AA-1		TB	TB
Langan Sample Number	Protection Agency		Department of		070		071		069		072		073		087		085		089		092		074		075	093
Lab Sample Number	(EPA)		Health		N58688-10		N58688-11		N58688-9		N58688-12		N58688-13		N86573-4		N86573-2		N86573-6		N86573-9		N58688-14		N58688-15	N86573-10
Sampling Date	Indoor Air		(NYSDOH)		2/2/2004		2/2/2004		2/2/2004		2/2/2004		2/2/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		2/2/2004		2/2/2004	12/16/2004
Sample Depth (feet bgs)	75th Percentile		Indoor Air		---		---		---		---		---		---		---		---		---		---		---	---
Matrix			75th Percentile		Air		Air		Air		Air		Air		Air		Air		Air		Air		Air		Air	Air
Units	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ppbv
Acetone	11	27	NA	46	17.9	42.5	2.9	6.9	2.6	6.2	3.6	8.6	42.4	101	ND	ND	76.4	181	17.8	42.3	ND	ND	ND	ND	ND	ND
1,3-Butadiene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	6.6	21	1.6	5.7	0.74 J	2.4 J	0.38 J	1.2 J	0.44	1.4	0.39	1.2	0.57	1.8	0.41	1.3	2.3	7.3	0.43	1.4	0.46	1.5	0.42	1.3	ND	ND
Bromodichloromethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl Chloride	NA	NA	<0.2	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.69	3.4	0.88	0.54	ND	ND	ND	ND	ND	ND	ND	ND	0.72	3.5	0.22 J	1.1 J	ND	ND	0.22	1.1	0.19 J	0.93 J	ND	ND	ND	ND
Chloromethane	NA	NA	<1.0	2.0	ND	ND	0.5	1	ND	ND	0.55	1.1	ND	ND	0.39 J	0.81 J	0.32	0.66	ND	ND	0.53	1.1	0.48	0.99	ND	ND
3-Chloropropene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.13	0.8	<1.0	0.68	ND	ND	ND	ND	0.072	0.45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.094	0.59	ND	ND
Cyclohexane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	NA	NA	<0.2	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	0	ND	<0.3	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NA	ND	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0	ND	<0.2	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NA	NA	<0.2	NA	0.52 J	ND	0.52	ND	0.49	ND	0.58	2.9	0.53	2.6	0.55	2.7	0.46	2.3	0.44	2.2	0.42	2.1	0.51	2.5	ND	ND
Dibromochloromethane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NA	NA	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Dichlorobenzene	NA	5.6	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.76	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Dichlorobenzene	NA	ND	NA	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.67	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Dichlorobenzene	0.93	NA	<0.8	NA	ND	ND	ND	ND	ND	0.78 J	ND	ND	ND	1.4	115	691	0.14 J	0.84 J	0.25	1.5	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol	NA	NA	NA	NA	342	643	65.4	123	77.1	145	29.7	55.9	63.7	120	868 E	1630	111 E	209 E	74.4 E	140 E	40.4 E	76 E	4.8	9	ND	ND
Ethylbenzene	2.2	9.6	1.1	2.8	ND	ND	ND	ND	0.12 J	0.52 J	0.14	0.61	0.27	1.2	ND	ND	0.22	0.96	0.12 J	0.52 J	0.25	1.1	0.1	0.43	ND	ND
Ethyl Acetate	NA	NA	NA	NA	7.8	28	ND	ND	0.3	1.1	ND	ND	ND	ND	1.8	6.5	5.2	19	1.2	4.3	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11 J	0.54 J	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	<0.1	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.52	4	0.91	7	0.36	2.8	0.41	3.1	ND	ND	ND	0.28
Freon 114	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptane	1.5	NA	NA	NA	ND	ND	ND	ND	0.17 J	0.7 J	ND	ND	0.31	1.3	ND	ND	0.55	2.3	0.57	2.3	0.31	1.3	ND	ND	ND	ND
Hexachlorobutadiene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES

ppbv - parts per billion volume
J -Indicates an estimated value.
NA- Not Available
ND- Not Detected
DUP- Duplicate
: Indicates compound exceeds either NYSDOH or EPA criteria.

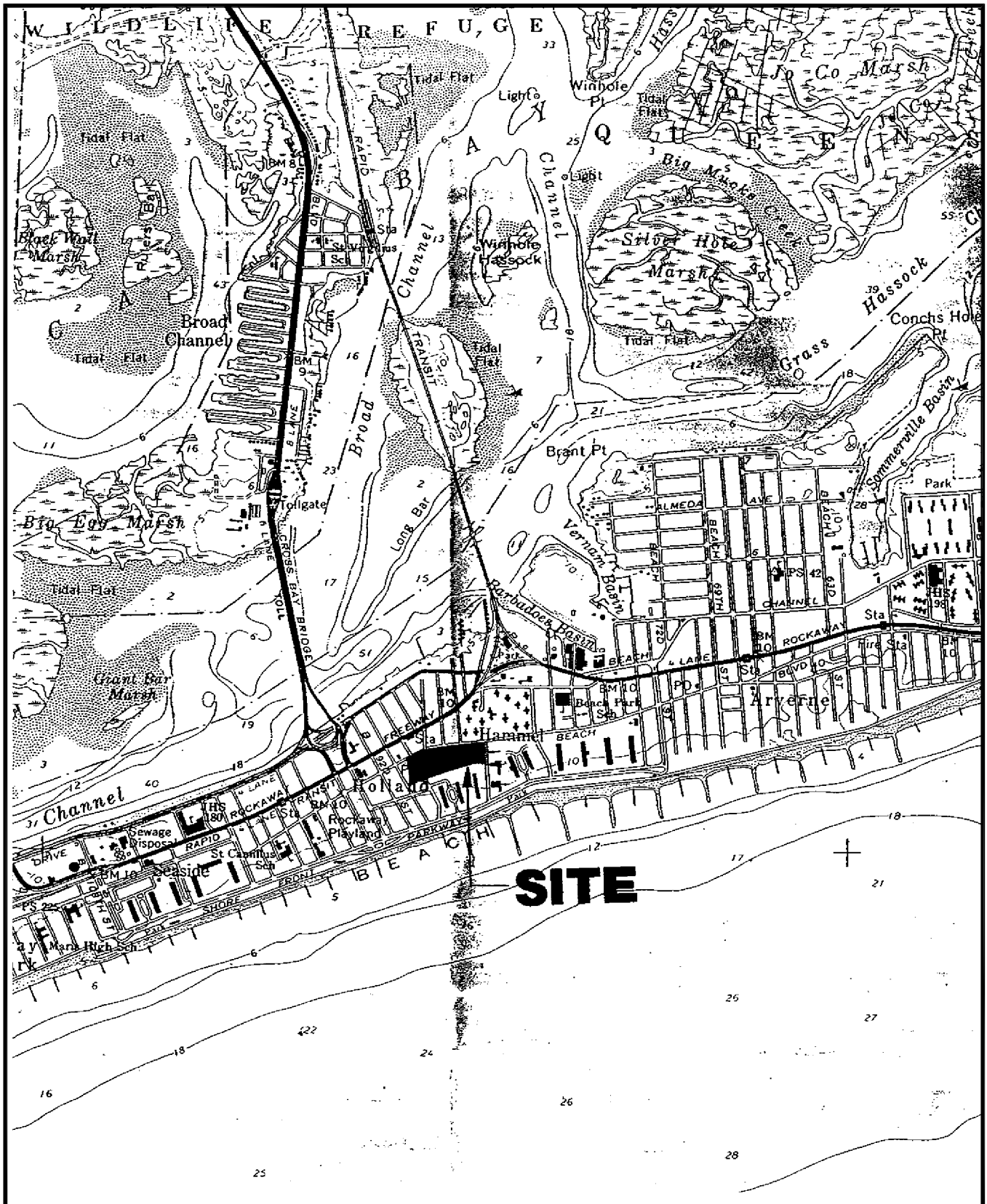
TABLE 3B
HISTORIC SUMMARY OF INDOOR AIR SAMPLING RESULTS
DAYTON SHOPPING CENTER, QUEENS NY

Sample ID	Environmental		New York State		AS-1		AS-2		AS-DUP		AS-3		AS-4		AS-5		AS-6		AS-7		AS-8		AA-1		TB	TB
Langan Sample Number	Protection Agency		Department of		070		071		069		072		073		087		085		089		092		074		075	093
Lab Sample Number	(EPA)		Health		N58688-10		N58688-11		N58688-9		N58688-12		N58688-13		N86573-4		N86573-2		N86573-6		N86573-9		N58688-14		N58688-15	N86573-10
Sampling Date	Indoor Air		(NYSDOH)		2/2/2004		2/2/2004		2/2/2004		2/2/2004		2/2/2004		12/16/2004		12/16/2004		12/16/2004		12/16/2004		2/2/2004		2/2/2004	12/16/2004
Sample Depth (feet bgs)	75th Percentile		Indoor Air		---		---		---		---		---		---		---		---		---		---		---	---
Matrix			75th Percentile		Air		Air		Air		Air		Air		Air		Air		Air		Air		Air		Air	Air
Units	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ppbv
Hexane	1.1	NA	1.0	6.5	ND	ND	ND	ND	0.24	0.85	ND	ND	ND	ND	0.42	1.5	1.7	6	0.29	1	0.6	2.1	ND	ND	ND	0.25
2-Hexanone	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropyl Alcohol	NA	NA	NA	NA	264	648	5	12	4.2	10	15.3	37.5	14.8	36.3	15.7	38.5	11.1	27.2	271 E	665 E	1.7	4.2	0.78	1.9	ND	ND
Methylene chloride	NA	NA	1.6	6.3	0.49 J	1.7 J	ND	ND	ND	ND	ND	ND	0.3	1	ND	ND	0.15 J	0.52 J	0.13 J	0.45 J	0.13 J	0.45 J	0.14	0.49	ND	ND
Methyl ethyl ketone	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.38	1.1	ND	ND	0.19 J	0.56 J	ND	ND	ND	ND
Methyl Isobutyl Ketone	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16 J	0.66 J	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether	NA	NA	NA	6.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17 J	0.61 J	0.2	0.72	0.19 J	0.69 J	0.23	0.83	ND	ND	ND	ND
Propylene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	0.66	2.8	<2.4	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19 J	0.81 J	ND	ND	0.11 J	0.47 J	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.5	30	1.2	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0	ND	<1.3	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NA	NA	<1.6	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.81	4	1.4	4.4	ND	ND	0.35 J	1.7 J	0.41	2	0.26	1.3	0.4	2	ND	ND	0.37	1.8	0.31	1.5	0.57	2.8	0.12	0.59	ND	ND
1,3,5-Trimethylbenzene	1.1	5.4	<2.0	1.7	ND	ND	ND	ND	0.12 J	0.59 J	ND	ND	ND	ND	ND	ND	0.12 J	0.59 J	ND	ND	0.18 J	0.88 J	ND	ND	ND	ND
2,2,4-Trimethylpentane	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48	2.2	0.13 J	0.61 J	0.36	1.7	ND	ND	ND	ND
Tertiary Butyl Alcohol	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1.6	11	<1.5	1.2	4.8	33	19.3	131	21.6	146	3.9	26	2.3	16	ND	ND	12.2	82.7	20.9	142	0.099 J	0.67 J	0.23	1.6	ND	ND
Tetrahydrofuran	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	NA	NA	6.7	25	3.8	14	0.76	2.9	0.85	3.2	0.81	3.1	3.6	14	1.6	6	3.1	12	1.2	4.5	1.1	4.1	0.61	2.3	ND	ND
Trichloroethylene	0.84	4.5	<1.0	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NA	NA	0.68	NA	ND	ND	0.24	1.3 J	0.2	1.1	0.28	1.6	ND	ND	0.34 J	1.9 J	0.22	1.2	0.25	1.4	0.3	1.7	0.25	1.4	ND	ND
Vinyl chloride	NA	NA	<0.4	<0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	NA	18	2.2	4.7	0.98 J	4.3 J	0.36 J	1.6 J	0.37	1.6	0.41	1.8	0.72	3.1	0.4	1.7	0.74	3.2	0.37	1.6	0.95	4.1	0.31	1.3	ND	ND
o-Xylene	2.1	9.3	1.2	3.1	ND	ND	ND	ND	0.15 J	0.65 J	ND	ND	0.29	1.3	ND	ND	0.24	1	0.13 J	0.56 J	0.36	1.6	0.095	0.41	ND	ND
Xylenes (total)	NA	NA	NA	NA	0.98 J	4.3 J	0.36 J	1.6 J	0.53	2.3	0.41	1.8	1.0	4.3	0.55	2.4	0.99	4.3	0.51	2.2	1.3	5.6	0.4	1.7	ND	ND

NOTES

ppbv - parts per billion volume
J -Indicates an estimated value.
NA- Not Available
ND- Not Detected
DUP- Duplicate
: Indicates compound exceeds either NYSDOH or EPA criteria.

FIGURES



MAP REFERENCE:FAR ROCKAWAY,N.Y. U.S.G.S. MAP (DATED 1969)

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NJ Certificate of Authorization No: 24GA27996400

Project

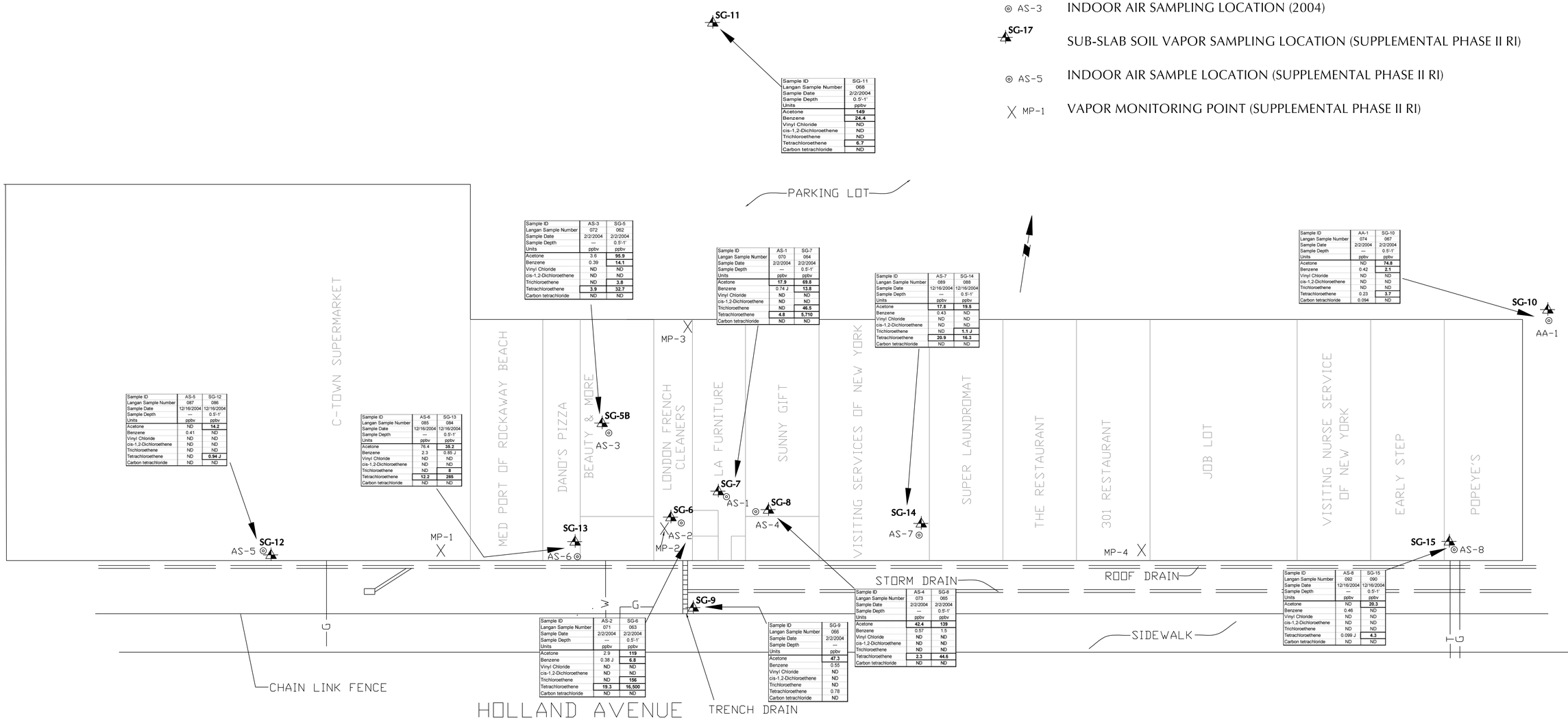
DAYTON PLAZA
SITE LOCATION MAP

QUEENS NEW YORK

Project No.	Date	Scale	Dwg. No.
1461905	01/18/05	1"=2000'	1

LEGEND

- SG-5B — SUB-SLAB SOIL VAPOR SAMPLING LOCATION (2004)
- AS-3 — INDOOR AIR SAMPLING LOCATION (2004)
- SG-17 — SUB-SLAB SOIL VAPOR SAMPLING LOCATION (SUPPLEMENTAL PHASE II RI)
- AS-5 — INDOOR AIR SAMPLE LOCATION (SUPPLEMENTAL PHASE II RI)
- MP-1 — VAPOR MONITORING POINT (SUPPLEMENTAL PHASE II RI)



Sample ID	SG-11
Langan Sample Number	068
Sample Date	2/2/2004
Sample Depth	0.5'-1'
Units	ppbv
Acetone	**149**
Benzene	**24.4**
Vinyl Chloride	ND
cis-1,2-Dichloroethene	ND
Trichloroethene	ND
Tetrachloroethene	**6.7**
Carbon tetrachloride	ND

Sample ID	AS-3	SG-5
Langan Sample Number	072	062
Sample Date	2/2/2004	2/2/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	3.6	**95.9**
Benzene	0.39	**14.1**
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	**3.8**
Tetrachloroethene	**3.9**	**32.7**
Carbon tetrachloride	ND	ND

Sample ID	AS-1	SG-7
Langan Sample Number	070	064
Sample Date	2/2/2004	2/2/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	**17.9**	**69.8**
Benzene	0.74 J	**13.8**
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	**46.5**
Tetrachloroethene	**4.8**	**5,710**
Carbon tetrachloride	ND	ND

Sample ID	AS-7	SG-14
Langan Sample Number	089	085
Sample Date	12/16/2004	12/16/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	**17.8**	**19.5**
Benzene	0.43	ND
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	**1.1 J**
Tetrachloroethene	**20.3**	**16.3**
Carbon tetrachloride	ND	ND

Sample ID	AA-1	SG-10
Langan Sample Number	074	067
Sample Date	2/2/2004	2/2/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	ND	**74.8**
Benzene	0.42	**2.1**
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	ND
Tetrachloroethene	0.23	**3.7**
Carbon tetrachloride	0.094	ND

Sample ID	AS-5	SG-12
Langan Sample Number	087	086
Sample Date	12/16/2004	12/16/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	ND	**14.2**
Benzene	0.41	ND
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	ND
Tetrachloroethene	ND	**0.94 J**
Carbon tetrachloride	ND	ND

Sample ID	AS-6	SG-13
Langan Sample Number	085	084
Sample Date	12/16/2004	12/16/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	76.4	**35.2**
Benzene	2.3	0.85 J
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	**8**
Tetrachloroethene	**12.2**	**285**
Carbon tetrachloride	ND	ND

Sample ID	AS-2	SG-6
Langan Sample Number	071	063
Sample Date	2/2/2004	2/2/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	2.9	**119**
Benzene	0.38 J	**6.8**
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	**156**
Tetrachloroethene	**19.3**	**16,500**
Carbon tetrachloride	ND	ND

Sample ID	SG-9
Langan Sample Number	066
Sample Date	2/2/2004
Sample Depth	---
Units	ppbv
Acetone	**47.3**
Benzene	0.55
Vinyl Chloride	ND
cis-1,2-Dichloroethene	ND
Trichloroethene	ND
Tetrachloroethene	0.78
Carbon tetrachloride	ND

Sample ID	AS-4	SG-8
Langan Sample Number	073	065
Sample Date	2/2/2004	2/2/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	**42.4**	**139**
Benzene	0.57	1.5
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	ND
Tetrachloroethene	**2.3**	**44.6**
Carbon tetrachloride	ND	ND

Sample ID	AS-8	SG-15
Langan Sample Number	092	090
Sample Date	12/16/2004	12/16/2004
Sample Depth	---	0.5'-1'
Units	ppbv	ppbv
Acetone	ND	**20.3**
Benzene	0.46	ND
Vinyl Chloride	ND	ND
cis-1,2-Dichloroethene	ND	ND
Trichloroethene	ND	ND
Tetrachloroethene	0.099 J	**4.3**
Carbon tetrachloride	ND	ND

10/23/06	MODIFIED TITLE BLOCK SIZE AND CORRECTED SPELLING ERROR	1
Revisions		

CRAIG J. PETERSON 10/23/06
PROFESSIONAL ENGINEER N.Y. LIC. No. 083777

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Project
DAYTON SHOPPING PLAZA
QUEENS
NEW YORK NEW YORK

Drawing Title
HISTORICAL SUB-SLAB SOIL VAPOR AND INDOOR AIR EXCEEDENCE MAP

Project No. 1461905	Drawing No. 2
Date 9 JUNE 2006	
Scale 1"=20'	
Drn. By CJP	
Last Revised 23 OCT 2006	

Filename: G:\Data9\1461901\Cadd Data – 1461901\Dwg\SRI-Phasell(RevisionII)\Historic Sub-Slab Soil Vapor – Indoor Air Exceedence Map.dwg Date: 11/3/2006 Time: 8:33 User: cpeterson Style Table: Langan.stb Layout: D Size Sheet (Bottom)

APPENDIX A

Site Photographs

Looking to the west at the C-Town Supermarket.


Example of monitoring point after installation.

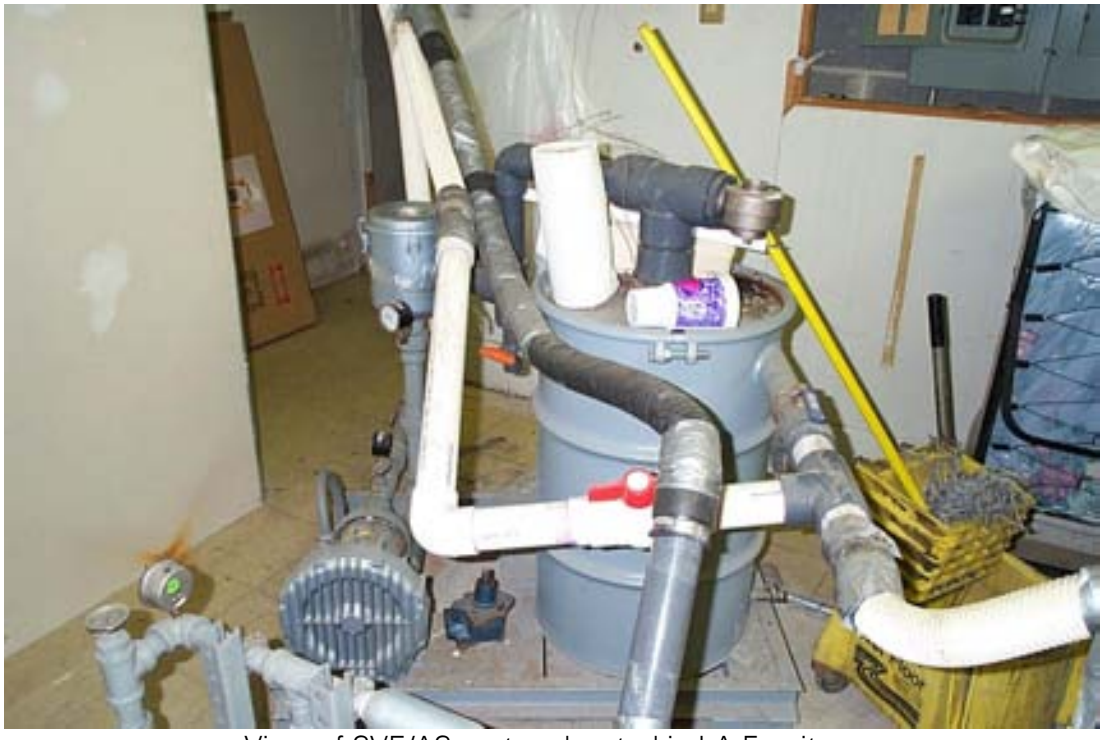
Outside of control box for the AS/SVE system (LA Furniture).

Inside of control box for the AS/SVE system (LA Furniture).

AS/SVE system (LA Furniture).

HVAC intake located in LA Furniture

Photograph of the other side of the HVAC system



View of SVE/AS system located in LA Furniture

Ceiling vent located in LA Furniture outside the room containing SVE/AS system

APPENDIX B

NYSDOH Indoor Air Quality Questionnaire and Building Inventory Forms

OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name NATHAN DELONG Date/Time Prepared 12/17/04

Preparer's Affiliation Langan Engineering Phone No. 201-794-6900

Purpose of Investigation On site Remedial Investigation

1. OCCUPANT:

Interviewed: Y (N)

Last Name: C-Town Supermarket / Dano's Pizza First Name: Visiting Nurse Services of New York / Popeye's Chicken

Address: 86-15 Rockaway Beach Blvd.

County: Queens

Home Phone: ——— Office Phone: ———

Number of Occupants/persons at this location ——— Age of Occupants ———

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y (N)

Last Name: Rockaway Commons LLC First Name: ———

Address: 48 East Old Country Road, Suite 203

County: Mineola, NY 11501

Home Phone: — Office Phone: 516-877-1677

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential School (Commercial/Multi-use)
Industrial Church Other: ———

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	~~Townhouses/Condos~~
Modular	Log Home	(Other: Strip Mall)

If multiple units, how many? 4

If the property is commercial, type?

Business Type(s) Office and Restaurant Space

Does it include residences (i.e., multi-use)? Y (N) If yes, how many? _____

Other characteristics:

Number of floors 1 (2 in supermarket) Building age >30 years

Is the building insulated? (Y) N How air tight? Tight / (Average) / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

N/A Most spaces only contain a single floor

Airflow near source

Airflow near source was average

Outdoor air infiltration

There were some low-holes observed in some of the side wall

Infiltration into air ducts

Infiltration into air ducts was average

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other N/A
c. Basement floor:	concrete	dirt	stone	other N/A
d. Basement floor:	uncovered	covered	covered with N/A	
e. Concrete floor:	unsealed	sealed	sealed with floor tile, carpet	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is: N/A	wet	damp	dry	moldy
i. The basement is: N/A	finished	unfinished	partially finished	
j. Sump present?	Y (N)			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: N/A (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Concrete slab in good shape where visible

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in: Basement (Outdoors) Main Floor Other Roof

Air conditioning: (Central Air) Window units Open Windows None

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N
C-Town	Shampoo	Various	UO	—	N/A	N
C-Town	Acetone	Various	UO	Acetone	N/A	N
C-Town	Soap	Various	UO	—	N/A	N
C-Town	Various foods	Various	UO	—	N/A	N
Dino's	None	—	—	—	N/A	N
Visiting Nurses	None	—	—	—	N/A	N
Popeye's	None	—	—	—	N/A	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.