

# Results of Phase II Limited Subsurface Investigation

For:

Bright Cleaners Tenant Space Franklin Centre 7249 South 76<sup>th</sup> Street Franklin, Milwaukee County, Illinois

September 23, 2016

Apex Project No. PECO\_2016-78

Prepared for:

Phillips Edison & Company 11501 Northlake Drive Cincinnati, Ohio 45249



September 23, 2016

Mr. Dan Ward Phillips Edison & Company 11501 Northlake Drive Cincinnati, Ohio 45249

Re: Results of Phase II Limited Subsurface Investigation Bright Cleaners Tenant Space, Franklin Centre 7249 South 76th Street, Franklin, Milwaukee County, Wisconsin

Dear Mr. Ward:

As you know, Phillips Edison & Company (PECO) retained Apex Companies, LLC (Apex) to perform a Phase II Limited Subsurface investigation at a dry cleaner tenant space at the Franklin Centre commercial property located at 7249 South 76th Street in Franklin, Milwaukee County, Wisconsin.

The Phase II Limited Subsurface Investigation was conducted to investigate the risk of subsurface impacts due to the presence of the current Bright Cleaners, identified in a Phase I Environmental Site Assessment conducted on Franklin Centre in August 2016.

Based on the current dry cleaning operations and the ongoing use of chlorinated solvents, Apex conducted subsurface investigation in the vicinity of the tenant space in August 2016 to assess current environmental conditions. This work included a geophysical survey; and the collection/analysis of soil, groundwater and sub-slab soil gas samples.

Analysis of soil and groundwater samples did not detect compounds associated with dry cleaning operations at concentrations in excess of regulatory limits. However, soil gas analysis detected tetrachloroethylene at a concentration in excess of Wisconsin Vapor Action Levels. Based on the soil gas results, it appears that a new release has occurred, and reporting to Wisconsin Department of Natural Resources (WDNR) may be required. Apex recommends additional sub-slab soil gas sampling to delineate the impacted area and installation of a sub-slab depressurization system to control potential vapor intrusion.

If you have any questions regarding our findings, please contact Jane Allan at (513) 771-3617 x3801. Thank you for retaining Apex for this assessment.

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Respectfully Submitted,

**Apex Companies, LLC** 

Grugh P. Beclan

Joseph P. Becker, P.G. Project Hydrogeologist

Jane Allan Senior Project Manager

Attachments

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#### **EXECUTIVE SUMMARY**

Phillips Edison & Company (PECO) retained Apex Companies, LLC (Apex) to perform a Phase II Limited Subsurface Investigation (subsurface investigation) at a current dry cleaning tenant space at the Franklin Centre commercial property located at 7249 South 76<sup>th</sup> Street in Franklin, Milwaukee County, Wisconsin (the Site).

The Site is developed with a 120,000-square foot (SF) multi-tenant shopping center, asphalt-paved parking and landscaped areas located on a 14.6-acre parcel of land. The subsurface investigation was conducted to investigate the risk of subsurface impacts due to the presence of the current Bright Cleaners, identified in a Phase I Environmental Site Assessment (ESA) conducted on Franklin Centre in August 2016.

A Limited Phase II ESA conducted by others in May 2011 discovered 1,1,1-tetrachloroethane (1,1,1-TCA) at concentrations above Wisconsin Department of Natural Resources (WDNR) Regional Screening Levels (RSLs) in one shallow soil sample taken behind the Bright Cleaners tenant space. Approximately 58 tons of impacted soil were removed near the rear door of the tenant space in June 2011. The facility received closure from the WDNR in December 2013. During the Phase I ESA conducted in August 2016, Apex observed staining on the floor in the tenant space and the ongoing use of PCE for the dry cleaning operations.

Based on the current dry cleaning operations and the ongoing use of chlorinated solvents, Apex conducted subsurface investigation in the vicinity of the tenant space in August 2016 to assess current environmental conditions.

The subsurface assessment included a non-invasive geophysical survey to clear underground utilities; the advancement of three soil borings that were converted into temporary monitoring wells in the parking lot/driveway south of the dry cleaning tenant space; installation of three sub-slab soil gas probes within the tenant space; and collection/analysis of three soil samples, two groundwater samples and three sub-slab soil gas samples for volatile organic compounds (VOCs) including chlorinated solvents associated with dry cleaning operations.

The soil analysis detected methylene chloride in one soil sample at a concentration in excess of Wisconsin remediation objectives. However, it is Apex's opinion that methylene chloride is not associated with Site operations, but is more likely a result of laboratory contamination from the sample handling process. The soil analysis did not detect any additional compounds in excess of Wisconsin remediation objectives. Similarly, the groundwater analysis did not detect any compounds in excess of Wisconsin groundwater quality standards or vapor intrusion screening levels.

The soil gas analysis detected PCE at a concentration in excess of Wisconsin remediation objectives in two of the three sub-slab soil gas samples. The soil gas analysis did not detect any additional compounds at concentrations in excess of Wisconsin remediation objectives.

Based on the concentrations of PCE detected in soil gas, it is Apex's opinion that additional subslab soil gas sampling should be conducted to delineate the impacted area. Once the impacted area is defined, Apex recommends that a sub-slab depressurization system should be installed at the Site to control potential vapor intrusion.



# RESULTS OF PHASE II LIMITED SUBSURFACE INVESTIGATION BRIGHT CLEANERS TENANT SPACE, FRANKLIN CENTRE 7249 SOUTH 76<sup>TH</sup> STREET FRANKLIN, MILWAUKEE COUNTY, WISCONSIN

#### 1.0 INTRODUCTION

Phillips Edison & Company (PECO) retained Apex Companies, LLC (Apex) to conduct a Phase II Limited Subsurface Investigation (subsurface investigation) at a current dry cleaning tenant space at the Franklin Centre commercial property located at 7249 South 76<sup>th</sup> Street in Franklin, Milwaukee County, Wisconsin (the Site, **Figure 1**). The subsurface investigation was conducted to investigate the risk of subsurface impacts due to the presence of the current Bright Cleaners, identified in a Phase I Environmental Site Assessment (ESA) conducted on Franklin Centre in August 2016.

#### 1.1 Site Description

The Site consists of a 14.6-acre parcel of land developed with a 120,000-square foot (SF) multi-tenant shopping center, asphalt-paved parking and landscaped areas. The Site is bounded to the north by an outparcel bank, restaurant, and a multi-tenant commercial retail building followed by W Rawson Avenue; to the east by two outparcel banks and a restaurant followed by S 76th Street; to the south by undeveloped properties and condominium properties followed by Terrace Drive; and to the west by undeveloped properties followed by W Loomis Road/Wisconsin 36. The Site configuration and the adjoining properties are shown in the Site Plan provided as **Figure 2**. Photographs of the Site are included in **Appendix A**.

#### 1.2 Previous Reports

Previous reports, prepared by others, include the following:

Phase I Environmental Site Assessment, Weaver Boos Consultants North Central, LLC, dated May 27, 2011

Weaver Boos Consultants North Central, LLC (Weaver) conducted a Phase I ESA of the Site. Weaver did not find evidence of RECs at the property, except for the potential presence of subsurface impacts associated with an active drycleaner facility at the Site. Weaver referenced a previous Phase I and II ESA that they conducted at the Site in 2001. According to the 2001 Phase I ESA, Weaver observed staining on the floor in proximity of the dry cleaning machine and improperly stored hazardous materials. The 2001 Phase II ESA at the Site advanced three soil probes in the vicinity of the dry cleaning machine and outside of the tenant space. Soil samples were analyzed for Volatile Organic Compounds (VOCs). Analytical results were below laboratory detection limits.



Limited Phase II Environmental Site Assessment Report, Weaver Boos Consultants North Central, LLC, dated June 17, 2011

Weaver conducted a limited Phase II ESA at the Site in May 2011. Weaver submitted six soil samples from three soil probe locations for VOC analysis. Weaver compared the laboratory results to the Wisconsin Department of Natural Resources' Residual Contaminant Levels (WDNR RCLs). One soil sample located outside of the Bright Cleaners by the rear door (SP-1 / 2-4') was found to have concentrations of 1,1,1 trichloroethane (1,1,1-TCA) that exceed the WDNR RCLs. The deeper sample from SP-1 had 1,1,1 TCA concentrations below WDNR RCLs. Weaver did not encounter groundwater during the Limited Phase II ESA. Weaver concluded that VOC impacts appear to be limited to shallow subsurface soils near SP-1.

Supplemental Response Activities - Bright Cleaners, Weaver Boos Consultants North Central, LLC, dated June 28, 2011

Weaver conducted additional activities at the Site in response to the results of the Limited Phase II ESA in June 2011. Weaver collected six additional shallow soil samples that were analyzed for VOCs to delineated the extent of contamination beyond SP-1. VOCs were not detected from the soil samples. Weaver excavated approximately 58 tons of soil in the vicinity of SP-1. Five confirmatory soil samples were collected from the excavation and analyzed for VOCs. Concentrations of VOCs were not found above WDNR RCLs in the five confirmatory samples. Weaver concluded that mitigation of the VOC impacts at the Site was successful.

#### 1.3 Objectives and Scope of Work

To assess the risk of subsurface impacts due to the ongoing use of chlorinated VOCs at Bright Cleaners, Apex conducted subsurface assessment on August 31, 2016. The scope of work included a non-invasive geophysical survey to clear underground utilities; and soil, groundwater and soil gas sampling/analysis within and in the vicinity of the former dry cleaning tenant space.

The subsurface assessment activities are discussed in **Section 2.0**; soil and groundwater conditions are discussed in **Section 3.0**; the results of soil and groundwater analysis are discussed in **Section 4.0**; and a summary of the assessment and our conclusions are discussed in **Section 5.0**.



#### 2.0 LIMITED PHASE II SUBSURFACE ASSESSMENT

Subsurface assessment included a non-invasive geophysical survey to clear underground utilities; the advancement of three soil borings and the collection of one soil sample from each boring (three total); installation of three temporary monitoring wells and the collection of one groundwater sample from two temporary wells; and the installation/sampling of soil-gas from three sub-slab soil vapor extraction points.

The locations of the soil borings, temporary monitoring wells and vapor extraction points are shown in **Figure 2A**. Photographs taken at the time of fieldwork are included in **Appendix A**.

#### 2.1 Performance of a Geophysical Survey

Apex retained Ground Penetrating Radar Systems, Inc. (GPRS) to perform a non-invasive geophysical survey in an effort to clear the boring locations and avoid damaging underground utilities. The geophysical survey was performed using a combination of ground-penetrating radar (GPR) and radio detection (RD) techniques.

GPR transmits an electromagnetic pulse through the ground and displays the reflection on a screen for immediate interpretation. The depth of exploration for GPR is typically limited to 5-7± feet below ground surface (bgs), depending on soil conditions.

RD techniques (RD-7000 Locator, or similar) are used to gauge the location of the buried metallic piping or conduits such as drain pipes. Radio detection involves induction of an electrical signal on metal objects (such as the ends of the piping or conduits) and tracing this signal using a hand-held detector.

#### 2.2 Soil Sampling and Analytical Program

#### 2.2.1 Soil Sampling

Apex used a track-mounted hydraulic probe (Geoprobe™ rig) to collect soil samples from three borings (TW-1 through TW-3) to a depth of 20 feet bgs. Soil boring locations correspond to areas of previously documented soil contamination of dry cleaning solvents identified by others near the rear door of the tenant space. The locations of these borings are shown in **Figure 2A**.

Soil samples were collected continuously from ground surface to the bottom of each boring by pushing a 2-inch diameter by 5-foot long hollow-barreled sampler into/through the soil into dedicated, disposable plastic liners. An experienced geologist documented the subsurface conditions (soil type, photoionization detector [PID] measurements, the presence of staining, odors etc.). Soil samples were screened in the



field for chemical odors, evidence of staining and volatile organic emissions using a PID equipped with a 10.6 eV PID lamp. The PID was calibrated using isobutylene calibration gas in accordance with the manufacturer's protocols prior to the start of fieldwork. Soil collected from various depth intervals in each boring was broken apart, placed and sealed in plastic 'ziploc' bags and after a few minutes volatile emissions were measured in the headspace using the PID. The results of the field screening are shown in the boring logs included in **Appendix B**.

Three soil samples (one from each soil boring) were analyzed for volatile organic compounds (VOCs) by EPA Method 5035/8260. The samples were collected by pushing an Encore® sampler syringe into the soil to collect a 5 gram sample, the Encore® plunger was used to extrude the soil sample into clean, laboratory-supplied 40 milliliter (ml) VOA vials with sodium bisulfate or methanol preservative. The VOA was immediately capped, labeled and placed in a chilled cooler for transport to the analytical laboratory. Soil samples for additional parameters were placed in clean, 4-ounce laboratory-supplied jars. Chain-of-custody protocols were maintained throughout the sample handing process.

Field screening did not encounter indications of chemical release (staining, odors or volatile emissions). In the absence of such indications of chemical impacts, Apex selected one representative samples soil sample from each soil boring for laboratory analysis.

Boring logs are included in **Appendix B** and the soil and groundwater conditions are discussed in **Section 3.0**.

#### 2.2.2 Soil Analysis

One soil sample from each boring (three total) were analyzed for VOCs by EPA Method 5035/8260. The soil analysis was performed by STAT Analysis Corporation, a National Environmental Laboratory Accreditation Conference (NELAP) certified laboratory. The soil analysis was performed on a 5-day laboratory turnaround basis. The results of the soil analysis for VOCs are summarized in **Table 1** and discussed in **Section 4.1**.

#### 2.3 Groundwater Sampling and Analytical Program

#### 2.3.1 Temporary Monitoring Well Installation

Apex installed three temporary groundwater monitoring wells (TW-1 through TW-3) in the associated soil borings shown in **Figure 2A**. The temporary wells were constructed by lowering a clean, 10-foot long, 1-inch diameter polyvinyl chloride (PVC) well screen with blank riser into the open boreholes. Filter (sand) pack was not placed in the

annulus between the well screen and the borehole, due to caving conditions of native material into the borehole. Groundwater samples were collected from temporary wells on August 31, 2016, using clean, disposable bailers. Due to limited groundwater recharge, no groundwater sample could be obtained from TW-2.

Water samples for VOCs analysis were collected by filling 40-ml vials in a manner to minimize turbulence, air entrapment and overfilling. VOCs sample vials contained a hydrochloric acid preservative. The bottles were filled completely leaving a positive meniscus at the top of the vial. After capping, the vial was inverted and was tapped with a finger to check to confirm that air bubbles were not present. The sample vials were then labeled and placed in a chilled cooler for transport to the analytical laboratory. The water samples were generally clear and effervescence was not observed in the vials. Chain of custody documentation was maintained throughout the sample handling process.

Following collection of the water samples, the casing for each temporary well was removed and the borehole was filled with bentonite and completed at ground surface using asphalt patch/concrete to match the surrounding hard surface, except for TW-3 which was located in a landscaped area. Well construction diagrams are included in **Appendix B**.

#### 2.3.2 Groundwater Analysis

Two groundwater samples (samples from wells TW-1 and TW-3) were analyzed for VOCs by EPA Method 8260. The groundwater analysis was also performed by STAT Analysis Corporation on a 5-day laboratory turnaround basis. The results of the groundwater analysis are summarized in **Table 2** and discussed in Section 4.2.

#### 2.4 Soil Gas Sampling and Analytical Program

#### 2.4.1 Vapor Sampling Probe Extraction Point Installation

Apex installed three sub-slab soil gas probes through the concrete floor slab using a rotary hammer drill at the locations shown in **Figure 2A**. One soil gas probe was located north of the dry cleaning plant (SG-1), one probe was located next to the dry cleaning plant (SG-2), and one probe was located near the rear door of the tenant space south of the dry cleaning plant (SG-3).

The probes were installed by drilling a small diameter hole (5/8-inch) through the concrete slab into the underlying gravel-aggregate layer, approximately nine inches below the top of the concrete floor. A 1-inch diameter hole was drilled in the same location to approximately ½-inch below the top of the concrete floor for leak testing. The hole was then cleared of any debris prior to installing the soil gas probe. The soil gas probes

consisted of a brass MIP adapter/compression coupling, covered with a silicone tube, which was inserted and seated firmly into the 5/8-inch diameter hole drilled through the concrete slab.

Prior to sample collection, leak tests were performed on all the sample probes by mechanical means using the larger diameter hole as a water dam. The annulus of the 1-inch hole was filled with distilled water and monitored for fluctuations prior to and during sampling to verify that a leak had not occurred.

The laboratory-supplied regulator assembly was attached to the Summa canister and a 3-foot section of 0.25-inch Teflon-lined polyethylene tubing was attached to the regulator with Swagelock® fittings. A shut-in test was performed on the sample train by connecting the tubing to a syringe and plunger. With the Summa ® canister valve closed, a vacuum of approximately 20 inches of mercury was applied to the sample train and maintained for 30 seconds. The pressure was observed to remain stable for the duration of the test.

Additionally, the three sub-slab gas probes were purged a minimum of three probe volumes of air from the sampling media to ensure representative samples of sub-slab soil gas and field screened for volatile organic emissions using a PID equipped with a 10.6 eV PID lamp.

Upon successful leak test completion and probe purging/screening, sub-slab soil gas samples were collected using batch-certified 6-liter Summa® canisters (evacuated stainless steel canisters) with (30-minute) flow control valves with a flow rate of 200 milliliters per minute (mL/min). At each of the soil vapor probe location, the Summa canister was connected to the sample probe and the regulator valve was opened. The initial time and vacuum pressure were recorded and monitored throughout sample collection. Chain of custody documentation was maintained throughout the sample handling process. Results of the field screening, purge volumes, leak test observations, sampling intervals, initial and final vacuum pressures and laboratory-supplied equipment identification numbers are summarized in the sub-slab sampling logs included in **Appendix C.** 

Following collection of the soil gas samples, the soil gas probes were removed from the slab and the sampling areas were restored with concrete to match the surrounding hard surface. Site photographs of the soil gas sampling locations are included in in **Appendix A**. Soil gas sampling details (i.e., results of field screening and leak testing; sample duration, initial and final canister pressures; and laboratory identification numbers) are recorded in the soil gas sample logs included in **Appendix C**.



#### 2.4.2 Soil Gas Analysis

A total of three sub-slab soil gas samples (one sample from each vapor extraction point) were analyzed for VOCs by EPA Method TO-15. The soil gas analysis was also performed by STAT Analysis Corporation on a 5-day laboratory turnaround basis. The results of the soil gas analysis are summarized in **Table 3** and discussed in Section 4.3.



#### 3.0 SOIL AND GROUNDWATER CONDITIONS

#### 3.1 Soil Conditions

Apex advanced three borings to a maximum depth of 20 feet bgs. The soil borings encountered the following generalized lithologic sequence:

- Topsoil was encountered in the upper foot of the boring located in a landscaped area (TW-3). Asphalt approximately 3 inches thick was encountered at ground surface in the remaining two borings (TW-1 and TW-2). Topsoil and asphalt pavements were generally underlain by approximately 3 inches of crushed stone.
- Silty clay/clayey silt was encountered below the crushed stone/aggregate to a depth of 20 feet bgs, the maximum depth explored.
- A 1-foot lens of clayey sand/sandy clay was encountered at a depth ranging from 4 to 7 feet bgs in all three borings.
- A 6-inch lens of silty sand was encountered in two borings (TW2 and TW-3) at a depth of 11 feet and 7½ feet bgs, respectively.

Apex did not encounter significant volatile emissions measured using a PID, chemical odors or other indications of a potential chemical release. Refer to boring logs included in **Appendix B** for additional information regarding soil conditions in each boring.

#### 3.2 Groundwater Conditions

Groundwater at the Site occurs in an unconfined (water table) aquifer. Saturated conditions were observed in two soil borings at a depth of 16 feet bgs (TW-1) and 12 feet bgs (TW-3). Depth to groundwater was measured prior to groundwater sample collection and ranged from 13.4 feet bgs (TW-1) to 18.5 feet bgs (TW-3). Groundwater was not encountered in temporary well TW-2. Given that the monitoring wells were not permanent and groundwater was not given time to stabilize, the measured groundwater depths are not considered static levels.



#### 4.0 RESULTS OF SOIL, GROUNDWATER AND SOIL GAS ANALYSIS

To assess the soil, groundwater and soil gas conditions in the vicinity of the Bright Cleaners tenant space, Apex collected soil samples from three borings (TW-1 through TW-3); groundwater samples from two temporary wells (TW-1 and TW-3); and sub-slab soil gas samples from three vapor extraction points (SV-1 through SV-3). The results of the soil, groundwater and soil-vapor analysis are described in the following sections.

#### 4.1 Results of the Soil Analysis

One soil sample collected within the driveway south of the Bright Cleaners tenant space (TW-1 at a depth of 14 feet bgs); one soil sample collected near the rear door of the tenant space (TW-2 at a depth of 11 feet bgs); and one soil sample collected in a landscaped area southeast of the tenant space were analyzed for VOCs by EPA Method 5035/8260. The results of the soil analysis were compared to Non-Industrial and Industrial Residual Contaminant Levels (RCLs) for Direct Contact and the soil (leaching) component to groundwater cited in the U.S. Environmental Protection Agency's (USEPA) Regional Screening Level Web-Calculator (June 2016) in accordance with Wisconsin Administrative Code NR 720 (WAC 720).

The soil analysis detected one compound (methylene chloride) in one sample (TW-1 at a depth of 14 feet bgs) at a concentration in excess of the soil component to groundwater RCL per WAC 720. Methylene chloride has historically been used in paint removers, solvent degreasing, plastics processing, blowing agent in foams, solvent extraction, solvent for cellulose acetate, and as an aerosol propellant<sup>1</sup>. Additionally, methylene chloride is a common laboratory solvent that can result in random background concentrations from the sample handling process<sup>2</sup>, and was detected in the associated Method Blank. Therefore, it is Apex's opinion that methylene chloride detected in one soil sample is a laboratory artifact, and does not reflect contamination from historical Site operations.

The soil analysis did not detect any additional VOCs at concentrations in excess of RCLs for direct-contact (non-industrial and industrial) or the soil component to groundwater per WAC 720. The results of the soil analysis, RCLs and sample depths are summarized in **Table 1**. Copies of the laboratory reports, chain-of custody documents and NELAP certificate are included in **Appendix D**.



<sup>&</sup>lt;sup>1</sup> Hawley's Condensed Chemical Dictionary, Eleventh Edition, Revised by N. Irving Sax and Richard J. Lewis, Sr., 1987.

<sup>&</sup>lt;sup>2</sup> USEPA Method 8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry.

#### 4.2 Results of the Groundwater Analysis

A total of two groundwater samples (from temporary wells TW-1 and TW-3) were analyzed for VOCs by EPA Method 8260. The results of the groundwater analysis were compared to Groundwater Quality Standards (GQSs, Enforcement Standards and Preventative Action Limits) cited in Wisconsin Administrative Code NR 140.10 Table 1 (WAC 140) and Vapor Risk Screening Levels (VRSLs) for groundwater for a commercial property use based on the USEPA Vapor Intrusion Screening Level Calculator (VISLC, Version 3.5.1, May 2016) with an excess lifetime cancer risk of 1 x 10<sup>-5</sup> in accordance with Wisconsin Administrative Code NR 716 (WAC 716).

The groundwater analysis did not detect VOCs at concentrations in excess of the GQSs for both the Enforcement Standards and Preventative Action Limits cited in WAC 140, or the VRSLs per WAC 716. The results of the groundwater analysis, GQSs and VISLs are summarized in **Table**2. Copies of the laboratory reports, chain-of-custody documents and NELAP certificate are included in **Appendix D**.

#### 4.3 Results of the Soil Gas Analysis

One soil gas sample collected north of the dry cleaning plan (SV-1); one soil gas sample collected immediately adjacent to the dry cleaning plant (SV-2); and one soil gas sample collected near the rear door of the tenant space (SV-3) were analyzed for VOCs by EPA Method TO-15. The results of the soil gas analysis were compared to sub-slab Vapor Action Levels (VALs) for a commercial property use based on the USEPA VISL (Version 3.5.1, May 2016) with an excess lifetime cancer risk of 1 x 10<sup>-5</sup> in accordance with WAC 716.

The soil gas analysis detected tetrachloroethene (PCE) in two sub-slab soil gas samples (SV-1 and SV-2) at a concentration in excess of commercial VALs per WAC 716 as summarized below.

Compound	SV-1	SV-2	SV-3	Sub-Slab VALs
PCE	12,000	44,000	1,900	5,800

Notes: Concentrations are in micrograms per cubic meter ( $\mu g/m^3$ )

Detected concentrations are shown as **Bold** 

Concentrations in excess of the VAL are Highlighted

The soil gas analysis did not detect any additional VOCs at concentrations in excess of commercial VALs per WAC 716. The results of the soil gas analysis and VALs are summarized in **Table 3**. Copies of the laboratory reports, chain-of custody documents and NELAP certificate are included in **Appendix D**.



#### 5.0 SUMMARY AND CONCLUSIONS

PECO retained Apex to perform a Phase II Limited Subsurface Investigation at a current dry cleaning tenant space at the Franklin Centre commercial property located at 7249 South 76<sup>th</sup> Street in Franklin, Milwaukee County, Wisconsin (the Site).

The subsurface investigation was conducted to investigate the risk of subsurface impacts due to the presence of the current Bright Cleaners, identified in Apex's Phase I ESA conducted on Franklin Centre in August 2016. Based on the current dry cleaning operations and the ongoing use of chlorinated solvents, Apex conducted subsurface investigation in the vicinity of the tenant space in August 2016 to assess current environmental conditions.

The subsurface assessment included a non-invasive geophysical survey to clear underground utilities; the advancement of three soil borings that were converted into temporary monitoring wells in the parking lot/driveway south of the dry cleaning tenant space; installation of three sub-slab soil gas probes within the tenant space; and collection/analysis of three soil samples, two groundwater samples and three sub-slab soil gas samples for VOCs including chlorinated solvents associated with dry cleaning operations.

The soil analysis detected methylene chloride in one soil sample at a concentration in excess of Wisconsin remediation objectives. However, it is Apex's opinion that methylene chloride is not associated with Site operations, but is a result of laboratory contamination from the sample handling process. The soil analysis did not detect any additional compounds in excess of Wisconsin remediation objectives. Similarly, the groundwater analysis did not detect any compounds in excess of Wisconsin groundwater quality standards or vapor intrusion screening levels.

The soil gas analysis detected PCE at a concentration in excess of Wisconsin remediation objectives in two of the three sub-slab soil gas samples. The soil gas analysis did not detect any additional compounds at concentrations in excess of Wisconsin remediation objectives.

Based on the concentrations of PCE detected in soil gas, it is Apex's opinion that additional subslab soil gas sampling should be conducted to delineate the impacted area. Once the impacted area is defined, Apex recommends that a sub-slab depressurization system should be installed at the Site to control potential vapor intrusion.



# **TABLES**



#### Table 1

#### Summary of Soil Data for Volatile Organic Compounds (VOCs) EPA Method 5035/8260B Bright Cleaners - Franklin Centre

# 7249 South 76th Street, Franklin, Wisconsin

concentrations in milligrams per kilogram (mg/kg)

				Residual Contaminant Levels		
Boring Number	TW-1	TW-2	TW-2	Direct Contact		Soil to
Sample Depth (feet bgs)	14	11	12	Non-Industrial Industrial		Groundwater
Acetone	0.029	< 0.053	< 0.058	63,800	100,000	1.8383
Benzene	0.0018	0.00044	0.00045	1.49	7.41	0.0026
Bromodichloromethane	< 0.0049	< 0.0035	< 0.0039	0.39	1.96	0.0002
Bromoform	< 0.0049	< 0.0035	< 0.0039	23.6	115	0.0012
Bromomethane	< 0.0097	< 0.0070	< 0.0077	10.3	46	0.0025
2-Butanone	< 0.073	< 0.053	< 0.058	28,400	28,400	0.833
Carbon disulfide	0.00019	0.00051	< 0.039	738	738	0.2959
Carbon tetrachloride	< 0.0049	< 0.0035	< 0.0039	0.854	4.25	0.0019
Chlorobenzene	< 0.0049	< 0.0035	< 0.0039	392	761	0.0679
Chloroethane	< 0.0097	< 0.0070	< 0.0077	2,120	2,120	0.1133
Chloroform	< 0.0049	< 0.0035	< 0.0039	0.423	2.13	0.0017
Chloromethane	< 0.0097	< 0.0070	< 0.0077	171	720	0.0078
Dibromochloromethane	< 0.0049	< 0.0035	< 0.0039	7.6	34.1	0.016
1,1-Dichloroethane	< 0.0049	< 0.0035	< 0.0039	4.72	23.7	0.2417
1,2-Dichloroethane	< 0.0049	< 0.0035	< 0.0039	0.608	3.03	0.0014
1,1-Dichloroethene	< 0.0049	< 0.0035	< 0.0039	342	1,190	0.0025
cis-1,2-Dichloroethene	< 0.0049	< 0.0035	< 0.0039	156	2,040	0.0206
trans-1,2-Dichloroethene	< 0.0049	< 0.0035	< 0.0039	1,560	1,850	0.0313
1,2-Dichloropropane	< 0.0049	< 0.0035	< 0.0039	1.33	6.62	0.0017
cis-1,3-Dichloropropene	< 0.0019	< 0.0014	< 0.0015	1,210	1,210	0.0001
trans-1,3-Dichloropropene	< 0.0019	< 0.0014	< 0.0015	1,510	1,510	0.0001
Ethylbenzene	0.00026	< 0.0035	< 0.0039	7.47	37	0.785
2-Hexanone	< 0.019	< 0.014	< 0.015	244	1,770	NE
4-Methyl-2-pentanone	< 0.019	< 0.014	< 0.015	3,360	3,360	0.1126
Methylene Chloride	0.0019	< 0.0070	< 0.0077	60.7	1,070	0.0013
Methyl tertiary-butyl ether	< 0.0049	< 0.0035	< 0.0039	59.4	293	0.0135
Styrene	< 0.0049	< 0.0035	< 0.0039	867	867	0.11
1,1,2,2-Tetrachloroethane	< 0.0049	< 0.0035	< 0.0039	0.753	3.69	0.0000782
Tetrachloroethene	< 0.0049	< 0.0035	< 0.0039	30.7	153	0.0023
Toluene	0.0017	0.00046	0.00041	818	818	0.5536
1,1,1-Trichloroethane	< 0.0049	< 0.0035	< 0.0039	640	640	0.0701
1,1,2-Trichloroethane	< 0.0049	< 0.0035	< 0.0039	1.48	7.34	0.0016
Trichloroethene	< 0.0049	< 0.0035	< 0.0039	1.26	8.81	0.0018
Vinyl chloride	< 0.0049	< 0.0035	< 0.0039	0.067	2.03	0.000069
Xylenes (total)	< 0.015	< 0.011	< 0.012	260	260	1.98

#### Notes:

bgs = feet below ground surface

TW-2 = Soil boring

< = Not Detected: Concentration less than the indicated laboratory detection limit

Detected compounds are shown as **bold** 

NE = Remedial Objective not established

RCLs (Non-Industrial Direct-Contact) = Residual Contaminant Levels per the U.S. EPA's Regional Screening Level Web-Calculator (updated June 2016) in accordance with Wisconsin Administrative Code NR 720

RCLs (Industrial Direct-Contact) = Residual Contaminant Levels per the U.S. EPA's Regional Screening Level Web-Calculator (updated June 2016) in accordance with Wisconsin Administrative Code NR 720

RCLs (Soil to Groundwater ) = Soil to Groundwater Residual Contaminant Levels per the U.S. EPA Regional Screening Level Web-Calculator (updated June 2016) in accordance with Wisconsin Administrative Code NR 720

Concentrations in excess of RCLs are shaded yellow

Exceeded RCLs are shaded green

Blue font shows laboratory detection limits in excess of Remediation Objectives

#### Table 2

#### **Summary of Groundwater Data for**

#### Volatile Organic Compounds (VOCs) EPA Method 8260B Bright Cleaners - Franklin Centre 7249 South 76th Street, Franklin, Wisconsin

concentrations in milligrams per liter (µg/L)

			Groundwater Qu	Vapor Risk Screening Levels	
Well Number	TW-1	TW-3	Enforcement Standards	Preventative Action Limit	Commercial
Acetone	< 20	0.012	9,000	1,800	95,000,000
Benzene	< 0.50	0.00024	5	0.5	69
Bromodichloromethane	< 0.50	< 0.50	0.6	0.06	38
Bromoform	< 1.0	< 1.0	4.4	0.44	5,100
Bromomethane	< 5.0	< 5.0	10	1	73
2-Butanone	< 10	< 10	4,000	800	9,400,000
Carbon disulfide	< 5.0	0.00034	1,000	200	5,200
Carbon tetrachloride	< 0.50	< 0.50	5	0.5	18
Chlorobenzene	< 0.50	< 0.50	100	20	1,700
Chloroethane	< 5.0	< 5.0	400	80	97,000
Chloroform	< 0.50	< 0.50	6	0.6	36
Chloromethane	< 5.0	< 5.0	30	3	1,100
Dibromochloromethane	< 0.50	< 0.50	60	6	NE
1,1-Dichloroethane	< 0.50	< 0.50	850	85	330
1,2-Dichloroethane	< 1.0	< 1.0	5	0.5	98
1,1-Dichloroethene	< 1.0	< 1.0	7	0.7	820
cis-1,2-Dichloroethene	< 1.0	< 1.0	70	7	NE
trans-1,2-Dichloroethene	< 1.0	< 1.0	100	20	NE
1,2-Dichloropropane	< 1.0	< 1.0	5	0.5	110
cis-1,3-Dichloropropene	< 1.0	< 1.0	0.4	0.04	210
trans-1,3-Dichloropropene	< 1.0	< 1.0	0.4	0.04	210
Ethylbenzene	< 0.50	< 0.50	700	140	150
2-Hexanone	< 10	< 10	NE	NE	34,000
4-Methyl-2-pentanone	< 10	< 10	500	50	2,300,000
Methylene Chloride	< 5.0	< 5.0	5	0.5	20,000
Methyl tertiary-butyl ether	< 0.50	< 0.50	60	12	20,000
Styrene	< 1.0	< 1.0	100	10	39,000
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	0.2	0.02	140
Tetrachloroethene	< 1.0	< 1.0	5	0.5	240
Toluene	< 0.50	< 0.50	800	160	81,000
1,1,1-Trichloroethane	< 1.0	< 1.0	200	40	31,000
1,1,2-Trichloroethane	< 0.50	< 0.50	5	0.5	26
Trichloroethene	< 1.0	< 1.0	5	0.5	22
Vinyl chloride	< 1.0	< 1.0	0.2	0.02	25
Xylenes (total)	< 3.0	< 3.0	2,000	400	1,600

#### Notes:

TW-3 = Temporary monitoring well

< = Not Detected: Concentration less than the indicated laboratory detection limit.

Detected concentrations are shown in **bold**.

NE = Remedial Objective not established.

Groundwater Quality Standards cited in Wisconsin Administrative Code NR 140.10 Table 1

Vapor Risk Screening Levels for groundwater with a commercial property use based on the U.S. EPA Vapor Intrusion Screening Level Calculator (Version 3.5.1, May 2016) with an excess lifetime cancer risk of 1 x 10<sup>5</sup> in accordance with Wisconsin Administrative Code NR 716

Concentrations in excess of GQSs and/or VRSLs are shaded yellow (none detected)

Exceeded GQSs and/or VRSLs are shaded green

Blue font shows laboratory detection limits in excess of Remediation Objectives

#### Table 3

#### Summary of Soil Gas Data for

Volatile Organic Compounds (VOCs) EPA Method TO-15

#### Bright Cleaners - Franklin Centre 7249 South 76th Street, Franklin, Wisconsin

concentrations in micrograms per cubic meter (µg/m³)

				Sub-Slab Vapor
Sub-slab Sample Number	SV-1	SV-2	SV-3	Action Levels
				Commercial
Acetone	82	140	100	4,500,000
Benzene Benzyl chloride	<b>2.9</b> < 6.0	1.4 < 4.8	<b>3.4</b> < 6.6	520
Bromodichloromethane	< 3.1	< 4.8	< 3.4	83 110
Bromoform	< 12	< 9.6	< 13	3,700
Bromomethane	0.54	0.50	0.79	730
1,3-Butadiene	< 1.0	< 0.82	< 1.1	140
2-Butanone	6.7	7.7	12	730,000
Carbon disulfide	0.50	< 1.2	0.48	3,100
Carbon tetrachloride	< 2.9	< 2.3	< 3.2	680
Chlorobenzene Chloroethane	< 2.1 < 1.2	< 1.7 < 0.98	< 2.4 < 1.3	7,300 1,500,000
Chloroform	0.22	0.36	0.62	180
Chloromethane	< 2.4	< 1.9	< 2.6	13,000
Cyclohexane	2.5	1.3	4.6	880,000
Dibromochloromethane	< 3.9	< 3.2	< 4.3	NE
1,2-Dibromoethane	< 3.5	< 2.9	< 3.9	6.8
1,1-Dichloroethane	< 1.9	< 1.5	< 2.1	2,600
1,2-Dichlorobenzene	0.42	< 2.2	< 3.1	29,000
1,3-Dichlorobenzene 1,4-Dichlorobenzene	1.9 < 2.8	1.1 < 2.2	<b>4.9</b> < 3.1	NE 370
1,4-Dichloropenzene Dichlorodifluoromethane	< 2.8 2.3	< 2.2 2.3	< 3.1 <b>2.1</b>	15,000
1,2-Dichloroethane	< 1.9	< 1.5	< 2.1	160
1,1-Dichloroethene	< 1.8	< 1.5	< 2.0	29,000
cis-1,2-Dichloroethene	1.7	18	32	NE
trans-1,2-Dichloroethene	< 1.8	0.15	< 2.0	NE
1,2-Dichloropropane	< 2.1	< 1.7	< 2.4	410
cis-1,3-Dichloropropene	< 2.1	< 1.7	< 2.3	1,000
trans-1,3-Dichloropropene	< 2.1	< 1.7	< 2.3	1,000
1,4-Dioxane Ethyl acetate	< 4.1 < 4.1	<b>2.7</b> < 3.3	<b>2.4</b> < 4.6	820 10,000
Ethylbenzene	3.9	2.8	6.1	1,600
4-Ethyltoluene	1.4	0.91	1.6	NE
Freon-113	< 3.5	0.57	0.59	4,400,000
Freon-114	< 16	< 13	< 18	NE
Heptane	5.5	2.7	13	NE
Hexachlorobutadiene	0.74	< 4.0	< 5.4	190
Hexane	6.4	2.7	11	100,000
2-Hexanone Isopropyl alcohol	3.1 310	2.9 110	4.9 65	4,400
4-Methyl-2-pentanone	12	6.1	9.4	29,000 440,000
Methylene Chloride	0.96	< 13	< 18	88,000
Methyl tertiary-butyl ether	0.25	0.33	0.28	16,000
Naphthalene	2.8	1.8	4.1	120
Propene	6.3	3.6	5.5	440,000
Styrene	0.78	0.32	0.54	150,000
1,1,2,2-Tetrachloroethane	< 3.2	< 2.5	< 3.5	70
Tetrachloroethene Tetrahydrofuran	12,000 8.4	44,000 4.1	1,900 5.6	5,800 290,000
Toluene	81	46	47	730,000
1,2,4-Trichlorobenzene	1.9	0.96	1.1	290
1,1,1-Trichloroethane	< 2.5	< 2.0	< 2.8	730,000
1,1,2-Trichloroethane	< 2.5	< 2.0	< 2.8	29
Trichloroethene	22	41	26	290
Trichlorofluoromethane	1.6	1.6	1.3	NE
1,2,4-Trimethylbenzene	5.1	3.9	7.5	1,000
1,3,5-Trimethylbenzene	1.4	0.91	2.0	NE 20,000
Vinyl acetate	< 16	< 13	< 18	29,000 930
Vinyl chloride m,p-Xylene	< 1.2 8.8	< 0.95 <b>6.0</b>	< 1.3	15,000
o-Xylene	3.6	2.4	4.8	15,000
Xylenes (total)	12	8.5	17	15,000

#### Notes:

SV-2 = Sub-slab vapor sample

< = Not Detected: Concentration less than the indicated laboratory detecti</p>

Detected concentrations are shown in **bold**.

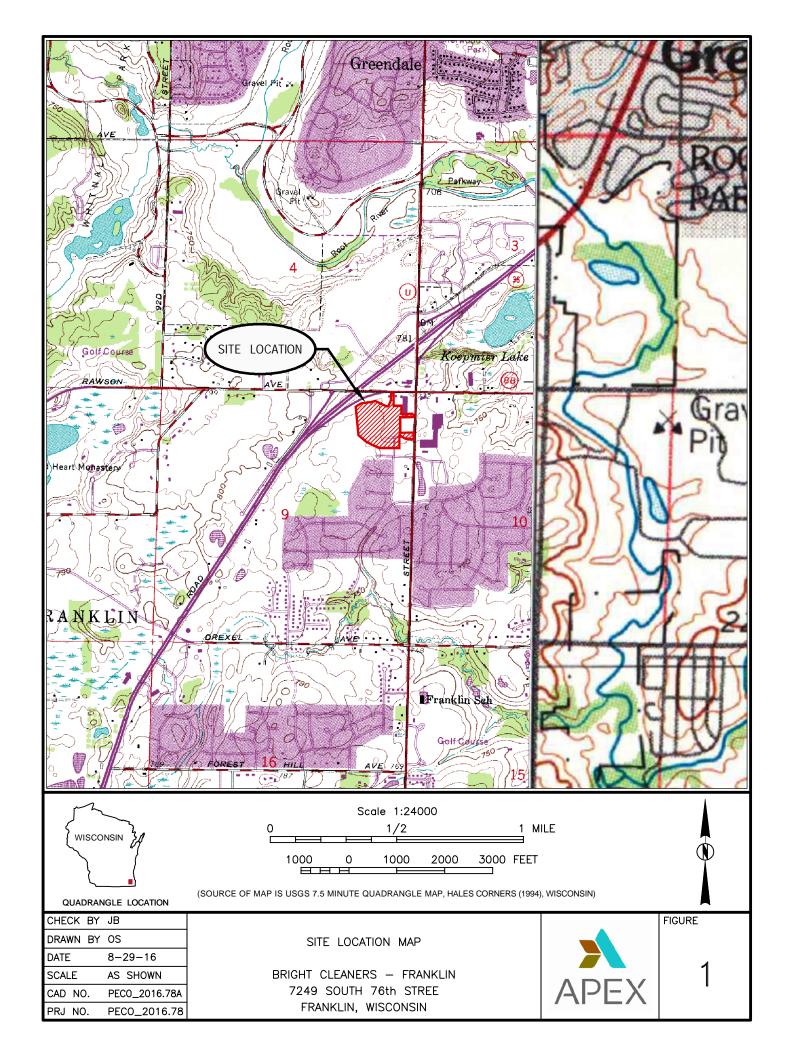
NE = Remedial Objective not established.

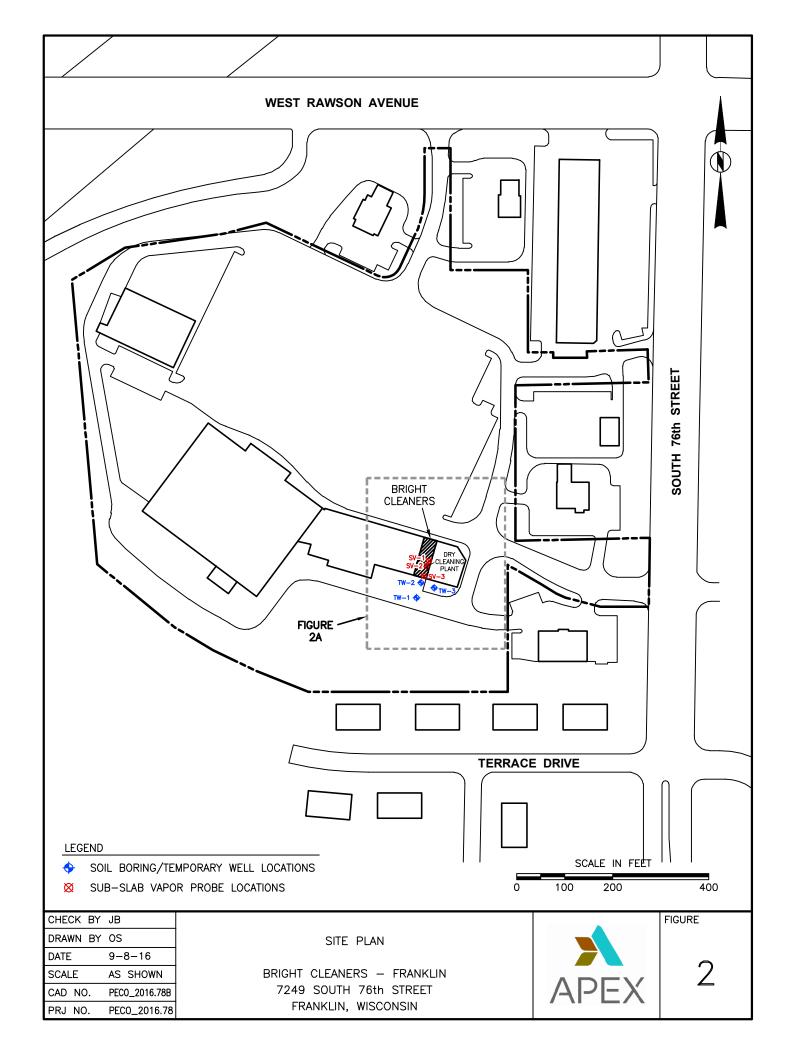
Sub-Slab Vapor Action Levels for a commercial property use based on the U.S. EPA Vapor Instrusion Screening Level Calculator (Version 3.5.1, May 2016) with an excess lifetime cancer risk of 1 x  $10^{-5}$  in accordance with Wisconsin Administrative Code NR 716

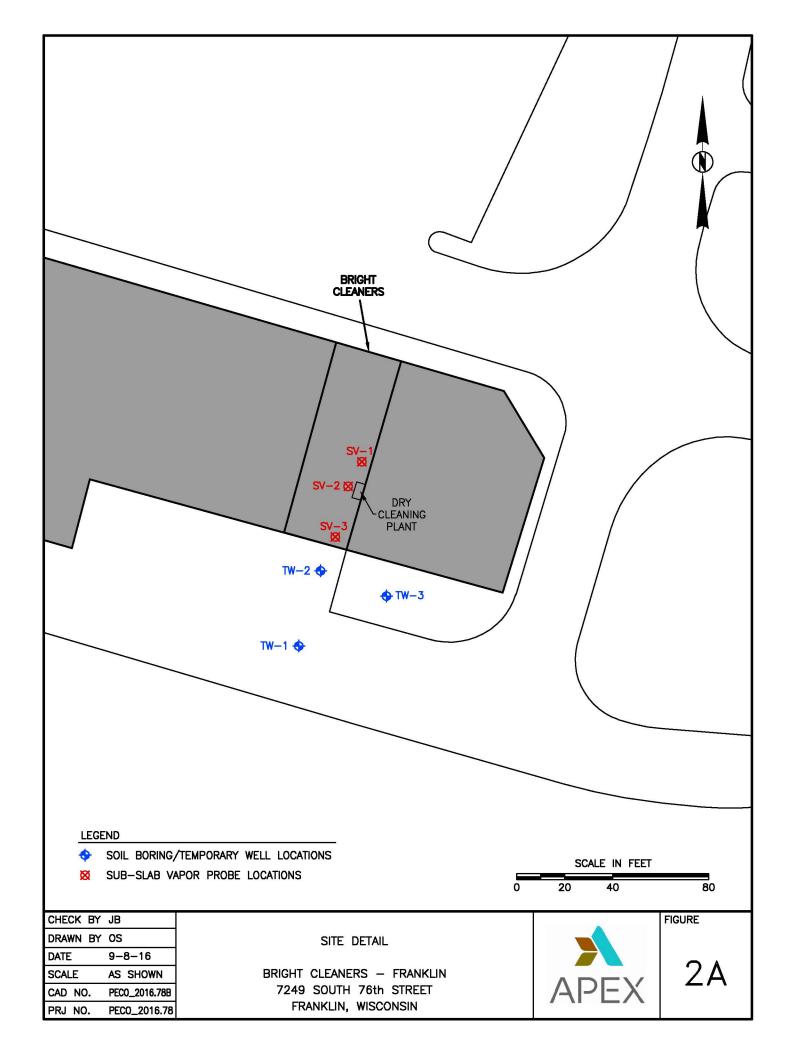
Concentrations in excess of Remediation Objectives are shaded yellow Exceeded Remedial Objectives are shaded green

# **FIGURES**









# **APPENDIX A**

**Site Photgraphs** 



Photo No. 1 showing front of the Bright Cleaners tenant space, view to the south.



Photo No. 2 showing the clearance of underground utilities in the rear of the Bright Cleaners tenant space using ground penetrating radar, view to the northeast.



Photo No. 3 showing the advancement of a boring (TW-1) in the driveway south of the Bright Cleaners tenant space, view to the east.





Photo No. 4 showing a temporary well (TW-1) in the driveway south of the Bright Cleaners tenant space in the foreground and the advancement of a boring (TW-3) in the background, view to the northeast.



Photo No. 5 showing a temporary well (TW-2) located near the rear door of the Bright Cleaners tenant space, view to the north.



Photo No. 6 showing the interior of the Bright Cleaners tenant space with the dry cleaning plant on the right, view to the north.





Photo No. 7 showing a sub-slab vapor probe (SV-2) installed next to the dry cleaning plant. Leak testing is being performed on the probe by mechanical means using the water dam method.



Photo No. 8 showing a Summa® canister sample train being leak tested with a shut-in test by applying a negative pressure using a syringe and plunger.



Photo No. 9 showing a vapor probe (SV-3) being purged and screened for volatile emissions using a photoionization detector prior to sample collection, view to the south.





Photo No. 10 showing a sub-slab vapor probe installed north of the dry cleaning plant (SV-1) in the foreground and a second installed next to the plan (SV-2), view to the south.



Photo No. 11 showing the collection of a sub-slab vapor sample (SV-1) north of the dry cleaning plant, view to the north.



Photo No. 12 showing the collection of a sub-slab vapor sample (SV-2) next to the dry cleaning plant, view to the north.





# **APPENDIX B**

**Boring Logs and Well Construction Diagrams** 





# SOIL BORING LOG / TEMPORARY MONITORING WELL CONSTRUCTION DIAGRAM

Apex Companies, LLC 1701 East Woodfield Road Suite 333 Schaumburg, IL 60173 (847) 956-8589

								(847) 956-8589	
PROJECT NAME: Bright Cleaners PROJECT NUMBER: PECO_2016-78 PROJECT LOCATION: 7249 South 76th Street Franklin, Wisconsin							SOIL BORING NUMBER: TW-1  LOGGED BY: Joe Becker  DATE: August 31, 2016		
1	DRILLIN	NG CON			mental Soil Probir	ng		TOTAL BORING DEPTH: 20 Feet	
			DRILLER: RIG TYPE:		nounted Geoprobe	€		BOREHOLE DIAMETER: 2 Inches - Rod WELL DEPTH: 19 Feet	
RIG TYPE: Track-mounted Geoprobe SAMPLING METHOD: Dual-core							WELL DIAMETER: 1 Inch		
Ι,			ELEV (FT):					DEPTH TO WATER: 16 Feet (Observed in sample) 13.4 Feet (Prior to sampling on 8/31/16)	
TOP OF CASING ELEV (FT):							13.4 Teet (Filot to sampling on 6/31/10)		
EET	PID (PPM) PID (PPM) LABORATORY I.D. WELL CONSTRUCTION GRAPHIC LOG WATER LEVEL						VEL		
₹ .	ÆRY	PID (ppm)	ATOF		WELL	皇	R LE	SAMPLE DESCRIPTION	
PT.	CO	PID	30R/		NS T	RAP	АТЕ		
ä	8		LA		8	٥	8		
								3" Asphalt, 4" Aggregate	
1 —					1" PVC well casing			(CL) Silty clay with gravel, brown, dry, no odor	
2		< 5							
1 -	3 1/2								
з —									
4									
	-   < 5							(SC) Clayey sand, brown, dry, no odor	
5 —								(ML) Clayey silt, brown, dry, no odor	
6 —									
-		< 5							
7 —	4 4/0								
8 —	4 1/2								
-								(GP) 1" Gravel, grayish brown, dry, no odor	
9 —		9.9						(CL) Silty clay, grayish brown, dry, no odor	
10 —		3.3			0.04" DVC wall				
-					0.01" PVC well screen				
11 —		9.2						Slightly damp	
12 —		"-							
-	5						13.4'		
13 —		12.6	TW-1 @				▼	44.20	
14			14'					(ML) Clayey silt, grayish brown, damp, no odor	
15 —									
" -									
16 —								Saturated	
17 —									
-	5								
18 —					PVC cap at bottom of well				
19 —					casing			Davis	
-								Damp	
20 —			<u>. '</u>		•			Bottom of Boring at 20 feet	



# SOIL BORING LOG / TEMPORARY MONITORING WELL CONSTRUCTION DIAGRAM

Apex Companies, LLC 1701 East Woodfield Road Suite 333 Schaumburg, IL 60173 (847) 956-8589

							(847) 956-8589	
PROJECT NAME: Bright Cleaners PROJECT NUMBER: PECO_2016-78 PROJECT LOCATION: 7249 South 76th Street Franklin, Wisconsin							SOIL BORING NUMBER: TW-2 LOGGED BY: Joe Becker DATE: August 31, 2016	
DRILL	ING CON	TRACTOR: DRILLER:		mental Soil Probir	ng		TOTAL BORING DEPTH: 20 Feet BOREHOLE DIAMETER: 2 Inches - Rod	
s		RIG TYPE: METHOD:		nounted Geoprobe ore	Э		WELL DEPTH: 17.5 Feet WELL DIAMETER: 1 Inch	
	GROUND	ELEV (FT):	-				DEPTH TO WATER: NE Feet (Observed in sample)	
TOP OF CASING ELEV (FT):								
DEPTH IN FEET	PID (ppm)	LABORATORY I.D.		WELL	GRAPHIC LOG	WATER LEVEL	SAMPLE DESCRIPTION	
							3" Asphalt, 4" Aggregate	
1 — 2 3 — 2 4 — 5	< 5			1" PVC well casing			(ML) Clayey silt with crushed stone, brown, dry, no odor	
5 ————————————————————————————————————	< 5						Damp, light brown  (SC) Clayey sand, light brown, damp, no odor	
8 —							(GW) 1" Gravel, grayish brown, dry, no odor	
9	< 5						(ML) Clayey silt, grayish brown, dry, no odor	
10 —	< 5	TW-2 @ 11'		0.01" PVC well screen			(SM) Silty sand, brown, damp, no odor	
12 —							(ML) Clayey silt, grayish brown, slightly damp, no odor	
13 — 3 1/2 14 —	< 5						(CL) Silty clay, grayish brown, slightly damp, no odor (ML) Clayey silt, grayish brown, dry, no odor	
15	-							
16 —	< 5			PVC cap at				
17 — 4				bottom of well casing				
18 —								
19 —								
20			_	•			Bottom of Boring at 20 feet	



# SOIL BORING LOG / TEMPORARY MONITORING WELL CONSTRUCTION DIAGRAM

Apex Companies, LLC 1701 East Woodfield Road Suite 333 Schaumburg, IL 60173 (847) 956-8589

PROJECT NAME: Bright Cleaners PROJECT NUMBER: PECO 2016-78 PROJECT LOCATION 7249 South 75th Street Franklin, Wisconsin  DRILLING CONTRACTOR: Environmental Soll Probing DRILLER: Darek Right YPE: Track-mounted Geoprobe SAMPLING METHOD: Dual-core GROWND ELEV (FT):- TOP OF CASING E	5000 State 1000 10		(847) 956-858
DRILLING CONTRACTOR: Environmental Soil Probing DRILLINE: Dereik RIG TYPE: Track-mounted Geoprobe SAMPLING METHOD: Deal-core GROUND ELEV (FT): - TOP OF CASING ELEV (FT): - TOP OF CASI	PROJECT NUMBI	R: PECO_2016-78 N: 7249 South 76th Street	LOGGED BY: Joe Becker
SAMPLE DESCRIPTION  SAMPLE DESCRIPTION  Topsoil  Aggregate (CL) Silty clay with gravel, brown, slightly damp, no odor  (ML) Clayey silt, light brown, slightly damp, no odor  (ML) Clayey silt, light brown, slightly damp, no odor  (ML) Clayey silt, brown, slightly damp, no odor	DRILLI RIG TYI SAMPLING METHO GROUND ELEV (F	R: Environmental Soil Probing R: Derek PE: Track-mounted Geoprobe DD: Dual-core T):	BOREHOLE DIAMETER: 2 Inches - Rod  WELL DEPTH: 20 Feet  WELL DIAMETER: 1 Inch  DEPTH TO WATER: 12 Feet (Observed in sample)
1 — Aggregate (CL) Silty clay with gravel, brown, slightly damp, no odor  (CL) Sandy clay, tan, dry, no odor (ML) Clayey silt, light brown, slightly damp, no odor (ML) Clayey silt, light brown, slightly damp, no odor (ML) Clayey silt, brown, slightly damp, no odor			
PVC cap at bottom of well	2 — 4 3 — 4 3 — 4 5 — 5 6 — 7 — 3 1/2 < 5 8 — 9 — < 5 10 — 7 11 — 7 — 7 — 7 — 7 — 7 — 7 — 7 — 7 — 7 —	@ PVC cap at bottom of well	Aggregate  (CL) Silty clay with gravel, brown, slightly damp, no odor  (CL) Sandy clay, tan, dry, no odor  (ML) Clayey silt, light brown, slightly damp, no odor  (SM) 1" Silty sand, light brown, slightly damp, no odor  (ML) Clayey silt, brown, slightly damp, no odor  Grayish brown Saturated  (CL) Silty clay, grayish brown, damp, no odor
20 Bottom of Boring at 20 feet	20	casing	Bottom of Boring at 20 feet



# **SOIL BORING LOG KEY**

Apex Companies, LLC 1701 East Woodfield Road Suite 333 Schaumburg, IL 60173 (847) 956-8589

FILL

GRAVEL

SAND AND GRAVEL

SAND

**CLAYEY SAND** 

**SILTY SAND** 

**SANDY SILT** 

SILT

**CLAYEY SILT** 

**SILTY CLAY** 

CLAY



LOAM / PEAT



**TOPSOIL** 



**ASPHALT** 



**SANDY CLAY** 



CONCRETE



ENGINEERED BACKFILL / CRUSHED DOLOSTONE



Clayey Fill



**Brick** 

# **APPENDIX C**

Sub-Slab Soil Gas Sample Logs





#### SUB-SLAB SOIL GAS SAMPLE LOG

Project Name:	ne: Bright Cleaners - Franklin Centre		Project Number: _	PECO_2016-78						
Vapor Point Installation Date:	:August 31, 2016		Project Address: _	7249 South 76th Street						
Sub-Slab Sample Date:	August 31, 2016		-	Franklin, Wisconsin						
	SAMPLING INFORMATION									
Soil Gas Implant Purge Air:	0 Stabilized PID Reading (PPM)	Volume (liters)	Sample Start Time: _	August 31, 2016 DATE	12:28 TIME					
Leak Test Method:	Shut-in Test Sample Train	Water Dam Soil Gas Implant	Sample End Time: _	August 31, 2016 DATE	12:58 TIME					
Shut-in Test:	-20 Max. Vacuum (inches Hg)	30 Test Duration (seconds)	Initial Canister Vacuum: _	-35 Inches Hg	12:28 TIME					
Leak Test Notes:	No loss Shut-in Test		Final Canister Vacuum: _	-15 Inches Hg	12:58 TIME					
	No loss		Sample Delivery: _	August 31, 2016	16:45					
Sample Container Details:	Water Dam		Delivery Method (FedEx, courier,	DATE	TIME					
Sample Container Details.	6 Volume (liters) Flo	ow Controler (minutes)	etc.):_	Delivered in person						
	MET	EOROLOGICAL CO	ONDITIONS FOR SAMPLING DA	Υ						
Ambient Temperature (°F):	64 Low	74 High	Sea Level Pressure (Inches)	30.08						
Average Wind:	North-northeast Direction	11 Velocity (mph)	Average Humidity (%): _	67						
		ADDIT	IONAL DETAILS							
Other details for tenant space	e (e.g. recent construction/renovat	ion, cleaning activities, c	hemical storage, slab/foundation cracks,	HVAC status etc.):						
	Sample was collected north of the dry cleaning plant.									
Problems or inconsistancies	encountered during sampling:									
	Not applicable									
* Include a site sketch on separate sheet noting sample locations (with measurements), chemical storage areas, former operations areas, etc.										
Sample Number:	SV-1		Analyses: _	VOCs by EPA Sample Metho	od TO-15					
SUMMA ID Number:	4723 (60319)		Requested Turnaround Time: _	1 Week TAT						
Regulator ID Number:	B-07		Sample Crew:	Joe Becker						



#### SUB-SLAB SOIL GAS SAMPLE LOG

Project Name:	Bright Cleaners - Franklin Cei	ntre	Project Number: _	PECO_2016-78				
Vapor Point Installation Date:	August 31, 2016		Project Address: _	7249 South 76th Street				
Sub-Slab Sample Date:	August 31, 2016		-	Franklin, Wisconsin				
		SAMPLI	NG INFORMATION					
Soil Gas Implant Purge Air:	0 Stabilized PID Reading (PPM)	3 Volume (liters)	Sample Start Time: _	August 31, 2016 DATE	12:32 TIME			
Leak Test Method:	Shut-in Test Sample Train	Water Dam Soil Gas Implant	Sample End Time: _	August 31, 2016 DATE	13:02 TIME			
Shut-in Test:	-18 Max. Vacuum (inches Hq)	30 Test Duration (seconds)	Initial Canister Vacuum: _	-30 Inches Hq	12:32 TIME			
Leak Test Notes:	No loss Shut-in Test		Final Canister Vacuum: _	-7 1/2 Inches Hq	13:02 TIME			
	No loss			August 31, 2016	16:45			
Comple Contains Dataile	Water Dam		Delivery Method (FedEx, courier,	DATE	TIME			
Sample Container Details:	6 Volume (liters) Flo	w Controler (minutes)	etc.):_	Delivered in person				
	MET	EOROLOGICAL CO	ONDITIONS FOR SAMPLING DA	Υ				
				-				
Ambient Temperature (°F):	64 Low	74 High	Sea Level Pressure (Inches)	30.08				
Average Wind:	North-northeast Direction	11 Velocity (mph)	Average Humidity (%): _	67				
		ADDIT	IONAL DETAILS					
Other details for tenant space	e (e.g. recent construction/renovat	ion, cleaning activities, c	hemical storage, slab/foundation cracks,	HVAC status etc.):				
	Sample was collected next to the	dry cleaning plant.						
Problems or inconsistancies	encountered during sampling:							
	Not applicable							
* Include a site sketch on separate sheet noting sample locations (with measurements), chemical storage areas, former operations areas, etc.								
Sample Number:	SV-2		Analyses: _	VOCs by EPA Sample Metho	od TO-15			
SUMMA ID Number:	6054 (60339)		Requested Turnaround Time: _	1 Week TAT				
Regulator ID Number:	B-03		Sample Crew:	Joe Becker				



#### SUB-SLAB SOIL GAS SAMPLE LOG

Project Name:	Bright Cleaners - Franklin (	Centre	Project Number:	PECO 2016-78		
1 Toject Name.	Bright Olcanors - Franklin	Schic	1 Toject Number.	1 200_2010-70		
Vaner Daint Installation Date	August 24, 2016		Drainet Addraga	7040 Courth 76th Ctroot		
Vapor Point Installation Date:	August 31, 2016		Project Address: _	7249 South 76th Street		
Sub-Slab Sample Date:	August 31, 2016			Franklin, Wisconsin		
		SAMPLI	NG INFORMATION			
Soil Gas Implant Purge Air:	0 Stabilized PID Reading (PPM)	3	Sample Start Time:	August 31, 2016  DATE	12:34	
	Stabilized PID Reading (PPM)	Volume (liters)	<u> </u>	DATE	TIME	
Leak Test Method:	Shut-in Test Sample Train	Water Dam	Sample End Time:	August 31, 2016 DATE	13:04 TIME	
	Sample Train	Soil Gas Implant		DATE	TIME	
Ob. A in Total	40	20	1-:4:-1 O:-t \/	20	40:04	
Snut-in Test:	-16 Max. Vacuum (inches Hg)	Test Duration (seconds)	Initial Canister vacuum:	-32 Inches Hg	12:34 TIME	
Leak Test Notes:	No los	SS	Final Canister Vacuum:	-14	13:04	
	No los Shut-in T	est	<u> </u>	-14 Inches Hg	13:04 TIME	
	No los		Sample Delivery: _	August 31, 2016 DATE	16:45	
	Water D	am		DATE	TIME	
			Delivery Method (FedEx, courier,			
Sample Container Details:	6 Volume (liters)	30	etc.):_	Delivered in person		
	MI	ETEOROLOGICAL CO	ONDITIONS FOR SAMPLING DA	Y		
Ambient Temperature (°F):	64 Low	74 High	Sea Level Pressure (Inches)	30.08		
	Low	High	· · · · · · ·			
Average Wind:	North-northeast	11 Velocity (mph)	Average Humidity (%):	67		
	Direction					
			IONAL DETAILS			
Other details for tenant space	e (e.g. recent construction/renov	vation, cleaning activities, o	chemical storage, slab/foundation cracks,	, HVAC status etc.):		
	Sample was collected south of	the dry cleaning plant near	r the rear door.			
•						
Drobleme er ingeneieteneies	anacustared during compling					
Problems or inconsistancies (	encountered during sampling:					
	Not applicable					
						,
* Include a site sketch on sep	arate sheet noting sample loca	tions (with measurements)	, chemical storage areas, former operation	ons areas, etc.		
	01/0					
Sample Number:	SV-3		Analyses: _	VOCs by EPA Sample Metho	od 1O-15	
SUMMA ID Number:	2469 (60268)		Requested Turnaround Time:	1 Week TAT		
Regulator ID Number:	B-23		Sample Crew:	Joe Becker		

#### **APPENDIX D**

**Laboratory Report** 



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

September 09, 2016

Apex Companies, LLC 1701 East Woodfield Rd, Suite 333 Schaumburg, IL 60173

Telephone: (847) 956-8589 Fax: (847) 956-8619

Analytical Report for STAT Work Order: 16081298 Revision 0

RE: PECO-216-78, Bright Cleaners-Franklin Centre, 7249 S. 76th St., Franklin

Dear Joseph Becker:

STAT Analysis received 8 samples for the referenced project on 8/31/2016 4:45:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements specifed in WAC DNR Chapter NR 149 (Certification Number 399099910). Analyses were performed in accordance with methods as referenced on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. A listing of accredited methods/parameters can also be provided.

For sample results requiring adjustment for dilutions, the detection and reporting limits are adjusted for the corresponding dilution factor. Analytical results expressed on a dry weight basis have units of mg/Kg-dry or µg/Kg-dry on the analytical report. Corresponding reporting limits are adjusted for dry weight.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Craig Chawla

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.



Date: September 09, 2016

Client: Apex Companies, LLC

Project: PECO-216-78, Bright Cleaners-Franklin Centre, 7249 Work Order Sample Summary

Work Order: 16081298 Revision 0

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	<b>Date Received</b>
16081298-001A	TW-1 @ 14'		8/31/2016 10:00:00 AM	8/31/2016
16081298-001B	TW-1 @ 14'		8/31/2016 10:00:00 AM	8/31/2016
16081298-002A	TW-2 @ 11'		8/31/2016 10:30:00 AM	8/31/2016
16081298-002B	TW-2 @ 11'		8/31/2016 10:30:00 AM	8/31/2016
16081298-003A	TW-3 @ 12'		8/31/2016 11:00:00 AM	8/31/2016
16081298-003B	TW-3 @ 12'		8/31/2016 11:00:00 AM	8/31/2016
16081298-004A	TW-1		8/31/2016 11:15:00 AM	8/31/2016
16081298-005A	TW-3		8/31/2016 12:40:00 PM	8/31/2016
16081298-006A	SV-1		8/31/2016 12:28:00 PM	8/31/2016
16081298-007A	SV-2		8/31/2016 12:32:00 PM	8/31/2016
16081298-008A	SV-3		8/31/2016 12:34:00 PM	8/31/2016

That yes corporation

Date: September 09, 2016

**CLIENT:** Apex Companies, LLC

Project: PECO-216-78, Bright Cleaners-Franklin Centre, 7249 S. 76t CASE NARRATIVE

Work Order: 16081298 Revision 0

TO-15 results that are reported in mg/m³ are calculated based on a temperature of 25°C, atmospheric pressure of 760 mm Hg, and the molecular weight of the analyte.

The TO-15 LCS analyzed 09/06/2016 had the following outside of control limits:

1,2,4-Trimethylbenzene: 133.6% (LCS) recovery (QC Limits 70-130%) 1,3-Dichlorobenzene: 131.2% (LCS) recovery (QC Limits 70-130%)

Ethylbenzene: 134.8% (LCS) recovery (QC Limits 70-130%) Naphthalene: 138.8% (LCS) recovery (QC Limits 70-130%) Total Xylenes: 132.5% (LCS) recovery (QC Limits 70-130%)

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: September 09, 2016

**ANALYTICAL RESULTS** 

**Collection Date:** 8/31/2016 10:00:00 AM

Client Sample ID: TW-1 @ 14'

**Date Printed:** September 09, 2016

**CLIENT:** Apex Companies, LLC Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

Matrix: SOIL Lab ID: 16081298-001

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	N5035/826	0B	Prep	Date: 8/31/2	016	Analyst: <b>PS</b>
Acetone	0.029	0.073	0.0022	JB	mg/Kg-dry	1	9/2/2016
Benzene	0.0018	0.0049	0.00019	J	mg/Kg-dry	1	9/2/2016
Bromodichloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/2/2016
Bromoform	ND	0.0049	0.00039		mg/Kg-dry	1	9/2/2016
Bromomethane	ND	0.0097	0.00049		mg/Kg-dry	1	9/2/2016
2-Butanone	ND	0.073	0.0015		mg/Kg-dry	1	9/2/2016
Carbon disulfide	0.00019	0.049	0.00019	J	mg/Kg-dry	1	9/2/2016
Carbon tetrachloride	ND	0.0049	0.00029		mg/Kg-dry	1	9/2/2016
Chlorobenzene	ND	0.0049	0.00019		mg/Kg-dry	1	9/2/2016
Chloroethane	ND	0.0097	0.00039		mg/Kg-dry	1	9/2/2016
Chloroform	ND	0.0049	0.00019		mg/Kg-dry	1	9/2/2016
Chloromethane	ND	0.0097	0.00029		mg/Kg-dry	1	9/2/2016
Dibromochloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/2/2016
1,1-Dichloroethane	ND	0.0049	0.00029		mg/Kg-dry	1	9/2/2016
1,2-Dichloroethane	ND	0.0049	0.00058		mg/Kg-dry	1	9/2/2016
1,1-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/2/2016
cis-1,2-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/2/2016
trans-1,2-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/2/2016
1,2-Dichloropropane	ND	0.0049	0.00039		mg/Kg-dry	1	9/2/2016
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/2/2016
trans-1,3-Dichloropropene	ND	0.0019	0.00029		mg/Kg-dry	1	9/2/2016
Ethylbenzene	0.00026	0.0049	0.000097	J	mg/Kg-dry	1	9/2/2016
2-Hexanone	ND	0.019	0.00078		mg/Kg-dry	1	9/2/2016
4-Methyl-2-pentanone	ND	0.019	0.00029		mg/Kg-dry	1	9/2/2016
Methylene chloride	0.0019	0.0097	0.00078	JB	mg/Kg-dry	1	9/2/2016
Methyl tert-butyl ether	ND	0.0049	0.00019		mg/Kg-dry	1	9/2/2016
Styrene	ND	0.0049	0.00019		mg/Kg-dry	1	9/2/2016
1,1,2,2-Tetrachloroethane	ND	0.0049	0.00019		mg/Kg-dry	1	9/2/2016
Tetrachloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/2/2016
Toluene	0.0017	0.0049	0.00019	J	mg/Kg-dry	1	9/2/2016
1,1,1-Trichloroethane	ND	0.0049	0.00019		mg/Kg-dry	1	9/2/2016
1,1,2-Trichloroethane	ND	0.0049	0.00049		mg/Kg-dry	1	9/2/2016
Trichloroethene	ND	0.0049	0.00019		mg/Kg-dry	1	9/2/2016
Vinyl chloride	ND	0.0049	0.00039		mg/Kg-dry	1	9/2/2016
Xylenes, Total	ND	0.015	0.00039		mg/Kg-dry	1	9/2/2016
Percent Moisture	D2	2974		Prep	Date: 9/1/20	16	Analyst: <b>GH</b>
Percent Moisture	13.5	0.2	0.1	*	wt%	1	9/2/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: September 09, 2016

**ANALYTICAL RESULTS** 

**Collection Date:** 8/31/2016 10:30:00 AM

DF Date Analyzed

Client Sample ID: TW-2 @ 11'

Units

MDL Qualifier

**Date Printed:** September 09, 2016

**CLIENT:** Apex Companies, LLC Work Order: 16081298 Revision 0

Analyses

PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Project:** 

Matrix: SOIL Lab ID: 16081298-002

RI.

Result

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	N5035/8260	В	Prep	Date: 8/31/2	016	Analyst: <b>JNM</b>
Acetone	ND	0.053	0.0016	-1	mg/Kg-dry	1	9/6/2016
Benzene	0.00044	0.0035	0.00014	J	mg/Kg-dry	1	9/6/2016
Bromodichloromethane	ND	0.0035	0.00028		mg/Kg-dry	1	9/6/2016
Bromoform	ND	0.0035	0.00028		mg/Kg-dry	1	9/6/2016
Bromomethane	ND	0.0070	0.00035		mg/Kg-dry	1	9/6/2016
2-Butanone	ND	0.053	0.0011		mg/Kg-dry	1	9/6/2016
Carbon disulfide	0.00051	0.035	0.00014	J	mg/Kg-dry	1	9/6/2016
Carbon tetrachloride	ND	0.0035	0.00021		mg/Kg-dry	1	9/6/2016
Chlorobenzene	ND	0.0035	0.00014		mg/Kg-dry	1	9/6/2016
Chloroethane	ND	0.0070	0.00028		mg/Kg-dry	1	9/6/2016
Chloroform	ND	0.0035	0.00014		mg/Kg-dry	1	9/6/2016
Chloromethane	ND	0.0070	0.00021		mg/Kg-dry	1	9/6/2016
Dibromochloromethane	ND	0.0035	0.00028		mg/Kg-dry	1	9/6/2016
1,1-Dichloroethane	ND	0.0035	0.00021		mg/Kg-dry	1	9/6/2016
1,2-Dichloroethane	ND	0.0035	0.00042		mg/Kg-dry	1	9/6/2016
1,1-Dichloroethene	ND	0.0035	0.00021		mg/Kg-dry	1	9/6/2016
cis-1,2-Dichloroethene	ND	0.0035	0.00021		mg/Kg-dry	1	9/6/2016
trans-1,2-Dichloroethene	ND	0.0035	0.00021		mg/Kg-dry	1	9/6/2016
1,2-Dichloropropane	ND	0.0035	0.00028		mg/Kg-dry	1	9/6/2016
cis-1,3-Dichloropropene	ND	0.0014	0.00014		mg/Kg-dry	1	9/6/2016
trans-1,3-Dichloropropene	ND	0.0014	0.00021		mg/Kg-dry	1	9/6/2016
Ethylbenzene	ND	0.0035	0.00007		mg/Kg-dry	1	9/6/2016
2-Hexanone	ND	0.014	0.00056		mg/Kg-dry	1	9/6/2016
4-Methyl-2-pentanone	ND	0.014	0.00021		mg/Kg-dry	1	9/6/2016
Methylene chloride	ND	0.0070	0.00056		mg/Kg-dry	1	9/6/2016
Methyl tert-butyl ether	ND	0.0035	0.00014		mg/Kg-dry	1	9/6/2016
Styrene	ND	0.0035	0.00014		mg/Kg-dry	1	9/6/2016
1,1,2,2-Tetrachloroethane	ND	0.0035	0.00014		mg/Kg-dry	1	9/6/2016
Tetrachloroethene	ND	0.0035	0.00021		mg/Kg-dry	1	9/6/2016
Toluene	0.00046	0.0035	0.00014	J	mg/Kg-dry	1	9/6/2016
1,1,1-Trichloroethane	ND	0.0035	0.00014		mg/Kg-dry	1	9/6/2016
1,1,2-Trichloroethane	ND	0.0035	0.00035		mg/Kg-dry	1	9/6/2016
Trichloroethene	ND	0.0035	0.00014		mg/Kg-dry	1	9/6/2016
Vinyl chloride	ND	0.0035	0.00028		mg/Kg-dry	1	9/6/2016
Xylenes, Total	ND	0.011	0.00028		mg/Kg-dry	1	9/6/2016
Percent Moisture	D2	2974		Prep	Date: 9/1/20	16	Analyst: <b>GH</b>
Percent Moisture	6.7	0.2	0.1	*	wt%	1	9/2/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: September 09, 2016

**ANALYTICAL RESULTS** 

**Collection Date:** 8/31/2016 11:00:00 AM

Client Sample ID: TW-3 @ 12'

**Date Printed:** September 09, 2016

**CLIENT:** Apex Companies, LLC Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

Matrix: SOIL Lab ID: 16081298-003

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	N5035/826	 0B	Prep	Date: 8/31/2	016	Analyst: <b>JNM</b>
Acetone	ND	0.058	0.0018		mg/Kg-dry	1	9/6/2016
Benzene	0.00045	0.0039	0.00015	J	mg/Kg-dry	1	9/6/2016
Bromodichloromethane	ND	0.0039	0.00031		mg/Kg-dry	1	9/6/2016
Bromoform	ND	0.0039	0.00031		mg/Kg-dry	1	9/6/2016
Bromomethane	ND	0.0077	0.00039		mg/Kg-dry	1	9/6/2016
2-Butanone	ND	0.058	0.0012		mg/Kg-dry	1	9/6/2016
Carbon disulfide	ND	0.039	0.00015		mg/Kg-dry	1	9/6/2016
Carbon tetrachloride	ND	0.0039	0.00023		mg/Kg-dry	1	9/6/2016
Chlorobenzene	ND	0.0039	0.00015		mg/Kg-dry	1	9/6/2016
Chloroethane	ND	0.0077	0.00031		mg/Kg-dry	1	9/6/2016
Chloroform	ND	0.0039	0.00015		mg/Kg-dry	1	9/6/2016
Chloromethane	ND	0.0077	0.00023		mg/Kg-dry	1	9/6/2016
Dibromochloromethane	ND	0.0039	0.00031		mg/Kg-dry	1	9/6/2016
1,1-Dichloroethane	ND	0.0039	0.00023		mg/Kg-dry	1	9/6/2016
1,2-Dichloroethane	ND	0.0039	0.00046		mg/Kg-dry	1	9/6/2016
1,1-Dichloroethene	ND	0.0039	0.00023		mg/Kg-dry	1	9/6/2016
cis-1,2-Dichloroethene	ND	0.0039	0.00023		mg/Kg-dry	1	9/6/2016
trans-1,2-Dichloroethene	ND	0.0039	0.00023		mg/Kg-dry	1	9/6/2016
1,2-Dichloropropane	ND	0.0039	0.00031		mg/Kg-dry	1	9/6/2016
cis-1,3-Dichloropropene	ND	0.0015	0.00015		mg/Kg-dry	1	9/6/2016
trans-1,3-Dichloropropene	ND	0.0015	0.00023		mg/Kg-dry	1	9/6/2016
Ethylbenzene	ND	0.0039	0.000077		mg/Kg-dry	1	9/6/2016
2-Hexanone	ND	0.015	0.00062		mg/Kg-dry	1	9/6/2016
4-Methyl-2-pentanone	ND	0.015	0.00023		mg/Kg-dry	1	9/6/2016
Methylene chloride	ND	0.0077	0.00062		mg/Kg-dry	1	9/6/2016
Methyl tert-butyl ether	ND	0.0039	0.00015		mg/Kg-dry	1	9/6/2016
Styrene	ND	0.0039	0.00015		mg/Kg-dry	1	9/6/2016
1,1,2,2-Tetrachloroethane	ND	0.0039	0.00015		mg/Kg-dry	1	9/6/2016
Tetrachloroethene	ND	0.0039	0.00023		mg/Kg-dry	1	9/6/2016
Toluene	0.00041	0.0039	0.00015	J	mg/Kg-dry	1	9/6/2016
1,1,1-Trichloroethane	ND	0.0039	0.00015		mg/Kg-dry	1	9/6/2016
1,1,2-Trichloroethane	ND	0.0039	0.00039		mg/Kg-dry	1	9/6/2016
Trichloroethene	ND	0.0039	0.00015		mg/Kg-dry	1	9/6/2016
Vinyl chloride	ND	0.0039	0.00031		mg/Kg-dry	1	9/6/2016
Xylenes, Total	ND	0.012	0.00031		mg/Kg-dry	1	9/6/2016
Percent Moisture	D	2974		Prep	Date: 9/1/20	16	Analyst: <b>GH</b>
Percent Moisture	11.1	0.2	0.1	*	wt%	1	9/2/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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**Date Reported:** September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-004

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** TW-1

**Collection Date:** 8/31/2016 11:15:00 AM

Matrix: AQUEOUS

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	S	W8260B	(SW5030B)	Prep	Date:		Analyst: RRS
Acetone	ND	0.020	0.0031		mg/L	1	9/1/2016
Benzene	ND	0.00050	0.0002		mg/L	1	9/1/2016
Bromodichloromethane	ND	0.00050	0.0002		mg/L	1	9/1/2016
Bromoform	ND	0.0010	0.0003		mg/L	1	9/1/2016
Bromomethane	ND	0.0050	0.002		mg/L	1	9/1/2016
2-Butanone	ND	0.010	0.0016		mg/L	1	9/1/2016
Carbon disulfide	ND	0.0050	0.0003		mg/L	1	9/1/2016
Carbon tetrachloride	ND	0.00050	0.001		mg/L	1	9/1/2016
Chlorobenzene	ND	0.00050	0.0002		mg/L	1	9/1/2016
Chloroethane	ND	0.0050	0.0005		mg/L	1	9/1/2016
Chloroform	ND	0.00050	0.0001		mg/L	1	9/1/2016
Chloromethane	ND	0.0050	0.0003		mg/L	1	9/1/2016
Dibromochloromethane	ND	0.00050	0.0002		mg/L	1	9/1/2016
1,1-Dichloroethane	ND	0.00050	0.0002		mg/L	1	9/1/2016
1,2-Dichloroethane	ND	0.0010	0.0002		mg/L	1	9/1/2016
1,1-Dichloroethene	ND	0.0010	0.0004		mg/L	1	9/1/2016
cis-1,2-Dichloroethene	ND	0.0010	0.0002		mg/L	1	9/1/2016
trans-1,2-Dichloroethene	ND	0.0010	0.0005		mg/L	1	9/1/2016
1,2-Dichloropropane	ND	0.0010	0.0001		mg/L	1	9/1/2016
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/1/2016
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/1/2016
Ethylbenzene	ND	0.00050	0.0003		mg/L	1	9/1/2016
2-Hexanone	ND	0.010	0.0002		mg/L	1	9/1/2016
4-Methyl-2-pentanone	ND	0.010	0.0007		mg/L	1	9/1/2016
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/1/2016
Methyl tert-butyl ether	ND	0.00050	0.0003		mg/L	1	9/1/2016
Styrene	ND	0.0010	0.0003		mg/L	1	9/1/2016
1,1,2,2-Tetrachloroethane	ND	0.00050	0.0001		mg/L	1	9/1/2016
Tetrachloroethene	ND	0.0010	0.0003		mg/L	1	9/1/2016
Toluene	ND	0.00050	0.0004		mg/L	1	9/1/2016
1,1,1-Trichloroethane	ND	0.0010	0.0002		mg/L	1	9/1/2016
1,1,2-Trichloroethane	ND	0.00050	0.0001		mg/L	1	9/1/2016
Trichloroethene	ND	0.0010	0.0003		mg/L	1	9/1/2016
Vinyl chloride	ND	0.0010	0.0003		mg/L	1	9/1/2016
Xylenes, Total	ND	0.0030	0.001		mg/L	1	9/1/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

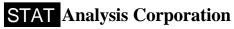
Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

September 09, 2016 **Date Reported:** 

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

16081298-005 Lab ID:

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** TW-3

**Collection Date:** 8/31/2016 12:40:00 PM

Matrix: AQUEOUS

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	S	W8260B (S	W5030B)	Prep l	Date:		Analyst: RRS
Acetone	0.012	0.020	0.0031	J	mg/L	1	9/1/2016
Benzene	0.00024	0.00050	0.0002	J	mg/L	1	9/1/2016
Bromodichloromethane	ND	0.00050	0.0002		mg/L	1	9/1/2016
Bromoform	ND	0.0010	0.0003		mg/L	1	9/1/2016
Bromomethane	ND	0.0050	0.002		mg/L	1	9/1/2016
2-Butanone	ND	0.010	0.0016		mg/L	1	9/1/2016
Carbon disulfide	0.00034	0.0050	0.0003	J	mg/L	1	9/1/2016
Carbon tetrachloride	ND	0.00050	0.001		mg/L	1	9/1/2016
Chlorobenzene	ND	0.00050	0.0002		mg/L	1	9/1/2016
Chloroethane	ND	0.0050	0.0005		mg/L	1	9/1/2016
Chloroform	ND	0.00050	0.0001		mg/L	1	9/1/2016
Chloromethane	ND	0.0050	0.0003		mg/L	1	9/1/2016
Dibromochloromethane	ND	0.00050	0.0002		mg/L	1	9/1/2016
1,1-Dichloroethane	ND	0.00050	0.0002		mg/L	1	9/1/2016
1,2-Dichloroethane	ND	0.0010	0.0002		mg/L	1	9/1/2016
1,1-Dichloroethene	ND	0.0010	0.0004		mg/L	1	9/1/2016
cis-1,2-Dichloroethene	ND	0.0010	0.0002		mg/L	1	9/1/2016
trans-1,2-Dichloroethene	ND	0.0010	0.0005		mg/L	1	9/1/2016
1,2-Dichloropropane	ND	0.0010	0.0001		mg/L	1	9/1/2016
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/1/2016
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/1/2016
Ethylbenzene	ND	0.00050	0.0003		mg/L	1	9/1/2016
2-Hexanone	ND	0.010	0.0002		mg/L	1	9/1/2016
4-Methyl-2-pentanone	ND	0.010	0.0007		mg/L	1	9/1/2016
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/1/2016
Methyl tert-butyl ether	ND	0.00050	0.0003		mg/L	1	9/1/2016
Styrene	ND	0.0010	0.0003		mg/L	1	9/1/2016
1,1,2,2-Tetrachloroethane	ND	0.00050	0.0001		mg/L	1	9/1/2016
Tetrachloroethene	ND	0.0010	0.0003		mg/L	1	9/1/2016
Toluene	ND	0.00050	0.0004		mg/L	1	9/1/2016
1,1,1-Trichloroethane	ND	0.0010	0.0002		mg/L	1	9/1/2016
1,1,2-Trichloroethane	ND	0.00050	0.0001		mg/L	1	9/1/2016
Trichloroethene	ND	0.0010	0.0003		mg/L	1	9/1/2016
Vinyl chloride	ND	0.0010	0.0003		mg/L	1	9/1/2016
Xylenes, Total	ND	0.0030	0.001		mg/L	1	9/1/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

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E - Value above quantitation range

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

**Date Reported:** September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-006

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** SV-1

**Collection Date:** 8/31/2016 12:28:00 PM

Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed	
Volatile Organic Compounds in	Air by GC/MS TO	-15		Prep	Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>	
1,1,1-Trichloroethane	ND	0.46	0.024	-	ppbv	1	9/6/2016	
1,1,2,2-Tetrachloroethane	ND	0.46	0.032		ppbv	1	9/6/2016	
1,1,2-Trichloroethane	ND	0.46	0.045		ppbv	1	9/6/2016	
1,1-Dichloroethane	ND	0.46	0.022		ppbv	1	9/6/2016	
1,1-Dichloroethene	ND	0.46	0.029		ppbv	1	9/6/2016	
1,2,4-Trichlorobenzene	0.25	0.46	0.1	J	ppbv	1	9/6/2016	
1,2,4-Trimethylbenzene	1.0	0.46	0.042		ppbv	1	9/6/2016	
1,2-Dibromoethane	ND	0.46	0.052		ppbv	1	9/6/2016	
1,2-Dichlorobenzene	0.069	0.46	0.038	J	ppbv	1	9/6/2016	
1,2-Dichloroethane	ND	0.46	0.053		ppbv	1	9/6/2016	
1,2-Dichloropropane	ND	0.46	0.032		ppbv	1	9/6/2016	
1,3,5-Trimethylbenzene	0.28	0.46	0.032	J	ppbv	1	9/6/2016	
1,3-Butadiene	ND	0.46	0.059		ppbv	1	9/6/2016	
1,3-Dichlorobenzene	0.32	0.46	0.039	J	ppbv	1	9/6/2016	
1,4-Dichlorobenzene	ND	0.46	0.049		ppbv	1	9/6/2016	
1,4-Dioxane	ND	1.2	0.13		ppbv	1	9/6/2016	
2-Butanone	2.3	1.2	0.11		ppbv	1	9/6/2016	
2-Hexanone	0.76	2.3	0.13	J	ppbv	1	9/6/2016	
4-Ethyltoluene	0.28	0.46	0.048	J	ppbv	1	9/6/2016	
4-Methyl-2-pentanone	3.0	2.3	0.069		ppbv	1	9/6/2016	
Acetone	34	4.6	0.16	*	ppbv	1	9/6/2016	
Benzene	0.92	0.46	0.033		ppbv	1	9/6/2016	
Benzyl chloride	ND	1.2	0.46		ppbv	1	9/6/2016	
Bromodichloromethane	ND	0.46	0.032		ppbv	1	9/6/2016	
Bromoform	ND	1.2	0.024		ppbv	1	9/6/2016	
Bromomethane	0.14	1.2	0.054	J	ppbv	1	9/6/2016	
Carbon disulfide	0.16	0.46	0.12	J	ppbv	1	9/6/2016	
Carbon tetrachloride	ND	0.46	0.064		ppbv	1	9/6/2016	
Chlorobenzene	ND	0.46	0.029		ppbv	1	9/6/2016	
Chloroethane	ND	0.46	0.46		ppbv	1	9/6/2016	
Chloroform	0.046	0.46	0.025	J	ppbv	1	9/6/2016	
Chloromethane	ND	1.2	0.11		ppbv	1	9/6/2016	
cis-1,2-Dichloroethene	0.44	0.46	0.034	J	ppbv	1	9/6/2016	
cis-1,3-Dichloropropene	ND	0.46	0.054		ppbv	1	9/6/2016	
Cyclohexane	0.71	0.46	0.098		ppbv	1	9/6/2016	
Dibromochloromethane	ND	0.46	0.037		ppbv	1	9/6/2016	
Dichlorodifluoromethane	0.46	0.46	0.015		ppbv	1	9/6/2016	
Ethyl acetate	ND	1.2	0.092		ppbv	1	9/6/2016	

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

Lab ID: 16081298-006

**Date Printed:** 

**ANALYTICAL RESULTS** 

Client Sample ID: SV-1

**Collection Date:** 8/31/2016 12:28:00 PM

Matrix: AIR

Analyses	Result	t RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in A	ir by GC/MS	TO-15		Pre	p Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>
Ethylbenzene	0.90	0.46	0.036		ppbv	1	9/6/2016
Freon-113	ND	0.46	0.017		ppbv	1	9/6/2016
Freon-114	ND	2.3	0.066		ppbv	1	9/6/2016
Heptane	1.3	0.46	0.045		ppbv	1	9/6/2016
Hexachlorobutadiene	0.069	0.46	0.052	J	ppbv	1	9/6/2016
Hexane	1.8	1.2	0.032		ppbv	1	9/6/2016
Isopropyl Alcohol	130	58	4.5		ppbv	25	9/7/2016
m,p-Xylene	2.0	0.92	0.068		ppbv	1	9/6/2016
Methyl tert-butyl ether	0.069	0.46	0.038	J	ppbv	1	9/6/2016
Methylene chloride	0.28	4.6	0.25	J	ppbv	1	9/6/2016
Naphthalene	0.53	0.46	0.13		ppbv	1	9/6/2016
o-Xylene	0.83	0.46	0.029		ppbv	1	9/6/2016
Propene	3.7	4.6	0.46	J	ppbv	1	9/6/2016
Styrene	0.18	0.46	0.049	J	ppbv	1	9/6/2016
Tetrachloroethene	1800	12	0.83		ppbv	25	9/7/2016
Tetrahydrofuran	2.8	1.2	0.1		ppbv	1	9/6/2016
Toluene	22	0.46	0.052		ppbv	1	9/6/2016
trans-1,2-Dichloroethene	ND	0.46	0.032		ppbv	1	9/6/2016
trans-1,3-Dichloropropene	ND	0.46	0.063		ppbv	1	9/6/2016
Trichloroethene	4.0	0.46	0.035		ppbv	1	9/6/2016
Trichlorofluoromethane	0.28	0.46	0.029	J	ppbv	1	9/6/2016
Vinyl acetate	ND	4.6	0.062		ppbv	1	9/6/2016
Vinyl chloride	ND	0.46	0.039		ppbv	1	9/6/2016
Xylenes, Total	2.9	1.4	0.096		ppbv	1	9/6/2016
Volatile Organic Compounds in A	•	TO-15		Pre	p Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>
1,1,1-Trichloroethane	ND	0.0025	0.00013		mg/m³	1	9/6/2016
1,1,2,2-Tetrachloroethane	ND	0.0032	0.00022		mg/m³	1	9/6/2016
1,1,2-Trichloroethane	ND	0.0025	0.00024		mg/m³	1	9/6/2016
1,1-Dichloroethane	ND	0.0019	0.00009		mg/m³	1	9/6/2016
1,1-Dichloroethene	ND	0.0018	0.00012		mg/m³	1	9/6/2016
1,2,4-Trichlorobenzene	0.0019	0.0034	0.00076	J	mg/m³	1	9/6/2016
1,2,4-Trimethylbenzene	0.0051	0.0023	0.00021		mg/m³	1	9/6/2016
1,2-Dibromoethane	ND	0.0035	0.0004		mg/m³	1	9/6/2016
1,2-Dichlorobenzene	0.00042	0.0028	0.00023	J	mg/m³	1	9/6/2016
1,2-Dichloroethane	ND	0.0019	0.00021		mg/m³	1	9/6/2016
1,2-Dichloropropane	ND	0.0021	0.00015		mg/m³	1	9/6/2016
1,3,5-Trimethylbenzene	0.0014	0.0023	0.00016	J	mg/m³	1	9/6/2016
1,3-Butadiene	ND	0.0010	0.00013		mg/m³	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

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E - Value above quantitation range

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

16081298-006 Lab ID:

**Date Printed:** 

**ANALYTICAL RESULTS** 

Client Sample ID: SV-1

**Collection Date:** 8/31/2016 12:28:00 PM

Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by	GC/MS TO	D-15		Prep	Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>
1,3-Dichlorobenzene	0.0019	0.0028	0.00023	J	mg/m³	1	9/6/2016
1,4-Dichlorobenzene	ND	0.0028	0.00029		mg/m³	1	9/6/2016
1,4-Dioxane	ND	0.0041	0.00048		mg/m³	1	9/6/2016
2-Butanone	0.0067	0.0034	0.00031		mg/m³	1	9/6/2016
2-Hexanone	0.0031	0.0094	0.00051	J	mg/m³	1	9/6/2016
4-Ethyltoluene	0.0014	0.0023	0.00024	J	mg/m³	1	9/6/2016
4-Methyl-2-pentanone	0.012	0.0094	0.00028		mg/m³	1	9/6/2016
Acetone	0.082	0.011	0.00039	*	mg/m³	1	9/6/2016
Benzene	0.0029	0.0015	0.00011		mg/m³	1	9/6/2016
Benzyl chloride	ND	0.0060	0.0024		mg/m³	1	9/6/2016
Bromodichloromethane	ND	0.0031	0.00021		mg/m³	1	9/6/2016
Bromoform	ND	0.012	0.00025		mg/m³	1	9/6/2016
Bromomethane	0.00054	0.0045	0.00021	J	mg/m³	1	9/6/2016
Carbon disulfide	0.00050	0.0014	0.00036	J	mg/m³	1	9/6/2016
Carbon tetrachloride	ND	0.0029	0.00041		mg/m³	1	9/6/2016
Chlorobenzene	ND	0.0021	0.00013		mg/m³	1	9/6/2016
Chloroethane	ND	0.0012	0.0012		mg/m³	1	9/6/2016
Chloroform	0.00022	0.0022	0.00012	J	mg/m³	1	9/6/2016
Chloromethane	ND	0.0024	0.00024		mg/m³	1	9/6/2016
cis-1,2-Dichloroethene	0.0017	0.0018	0.00013	J	mg/m³	1	9/6/2016
cis-1,3-Dichloropropene	ND	0.0021	0.00025		mg/m³	1	9/6/2016
Cyclohexane	0.0025	0.0016	0.00034		mg/m³	1	9/6/2016
Dibromochloromethane	ND	0.0039	0.00032		mg/m³	1	9/6/2016
Dichlorodifluoromethane	0.0023	0.0022	0.000074		mg/m³	1	9/6/2016
Ethyl acetate	ND	0.0041	0.00033		mg/m³	1	9/6/2016
Ethylbenzene	0.0039	0.0020	0.00016		mg/m³	1	9/6/2016
Freon-113	ND	0.0035	0.00013		mg/m³	1	9/6/2016
Freon-114	ND	0.016	0.00046		mg/m³	1	9/6/2016
Heptane	0.0055	0.0019	0.00019		mg/m³	1	9/6/2016
Hexachlorobutadiene	0.00074	0.0049	0.00055	J	mg/m³	1	9/6/2016
Hexane	0.0064	0.0041	0.00011		mg/m³	1	9/6/2016
Isopropyl Alcohol	0.31	0.14	0.011		mg/m³	25	9/7/2016
m,p-Xylene	0.0088	0.0040	0.00029		mg/m³	1	9/6/2016
Methyl tert-butyl ether	0.00025	0.0017	0.00014	J	mg/m³	1	9/6/2016
Methylene chloride	0.00096	0.016	0.00086	J	mg/m³	1	9/6/2016
Naphthalene	0.0028	0.0024	0.00069		mg/m³	1	9/6/2016
o-Xylene	0.0036	0.0020	0.00013		mg/m³	1	9/6/2016
Propene	0.0063	0.0079	0.00079	J	mg/m³	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

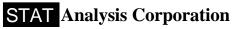
Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

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E - Value above quantitation range



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**Date Reported:** September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-006

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** SV-1

**Collection Date:** 8/31/2016 12:28:00 PM

Matrix: AIR

Analyses	Resul	lt RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in A	ir by GC/MS	TO-15		Prep	Date: 9/2/2	016	Analyst: <b>NLM</b>
Styrene	0.00078	0.0020	0.00021	J	mg/m³	1	9/6/2016
Tetrachloroethene	12	0.078	0.0056		mg/m³	25	9/7/2016
Tetrahydrofuran	0.0084	0.0034	0.00031		mg/m³	1	9/6/2016
Toluene	0.081	0.0017	0.0002		mg/m³	1	9/6/2016
trans-1,2-Dichloroethene	ND	0.0018	0.00013		mg/m³	1	9/6/2016
trans-1,3-Dichloropropene	ND	0.0021	0.00028		mg/m³	1	9/6/2016
Trichloroethene	0.022	0.0025	0.00019		mg/m³	1	9/6/2016
Trichlorofluoromethane	0.0016	0.0026	0.00016	J	mg/m³	1	9/6/2016
Vinyl acetate	ND	0.016	0.00022		mg/m³	1	9/6/2016
Vinyl chloride	ND	0.0012	0.000099		mg/m³	1	9/6/2016
Xylenes, Total	0.012	0.0060	0.00042		mg/m³	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

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HT - Sample received past holding time

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Qualifiers:

 $RL/\!MDL$  - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

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**Date Reported:** September 09, 2016

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**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-007

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** SV-2

**Collection Date:** 8/31/2016 12:32:00 PM

Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed	
/olatile Organic Compounds in	Air by GC/MS TO	-15		Prep	Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>	
1,1,1-Trichloroethane	ND	0.37	0.019	-	ppbv	1	9/6/2016	
1,1,2,2-Tetrachloroethane	ND	0.37	0.026		ppbv	1	9/6/2016	
1,1,2-Trichloroethane	ND	0.37	0.036		ppbv	1	9/6/2016	
1,1-Dichloroethane	ND	0.37	0.018		ppbv	1	9/6/2016	
1,1-Dichloroethene	ND	0.37	0.023		ppbv	1	9/6/2016	
1,2,4-Trichlorobenzene	0.13	0.37	0.082	J	ppbv	1	9/6/2016	
1,2,4-Trimethylbenzene	0.80	0.37	0.034		ppbv	1	9/6/2016	
1,2-Dibromoethane	ND	0.37	0.042		ppbv	1	9/6/2016	
1,2-Dichlorobenzene	ND	0.37	0.031		ppbv	1	9/6/2016	
1,2-Dichloroethane	ND	0.37	0.043		ppbv	1	9/6/2016	
1,2-Dichloropropane	ND	0.37	0.025		ppbv	1	9/6/2016	
1,3,5-Trimethylbenzene	0.19	0.37	0.026	J	ppbv	1	9/6/2016	
1,3-Butadiene	ND	0.37	0.048		ppbv	1	9/6/2016	
1,3-Dichlorobenzene	0.19	0.37	0.031	J	ppbv	1	9/6/2016	
1,4-Dichlorobenzene	ND	0.37	0.039		ppbv	1	9/6/2016	
1,4-Dioxane	0.74	0.93	0.11	J	ppbv	1	9/6/2016	
2-Butanone	2.6	0.93	0.085		ppbv	1	9/6/2016	
2-Hexanone	0.70	1.9	0.1	J	ppbv	1	9/6/2016	
4-Ethyltoluene	0.19	0.37	0.039	J	ppbv	1	9/6/2016	
4-Methyl-2-pentanone	1.5	1.9	0.056	J	ppbv	1	9/6/2016	
Acetone	61	3.7	0.13	*	ppbv	1	9/6/2016	
Benzene	0.45	0.37	0.027		ppbv	1	9/6/2016	
Benzyl chloride	ND	0.93	0.37		ppbv	1	9/6/2016	
Bromodichloromethane	ND	0.37	0.025		ppbv	1	9/6/2016	
Bromoform	ND	0.93	0.02		ppbv	1	9/6/2016	
Bromomethane	0.13	0.93	0.043	J	ppbv	1	9/6/2016	
Carbon disulfide	ND	0.37	0.093		ppbv	1	9/6/2016	
Carbon tetrachloride	ND	0.37	0.052		ppbv	1	9/6/2016	
Chlorobenzene	ND	0.37	0.023		ppbv	1	9/6/2016	
Chloroethane	ND	0.37	0.37		ppbv	1	9/6/2016	
Chloroform	0.074	0.37	0.02	J	ppbv	1	9/6/2016	
Chloromethane	ND	0.93	0.092		ppbv	1	9/6/2016	
cis-1,2-Dichloroethene	4.5	0.37	0.027		ppbv	1	9/6/2016	
cis-1,3-Dichloropropene	ND	0.37	0.044		ppbv	1	9/6/2016	
Cyclohexane	0.37	0.37	0.079		ppbv	1	9/6/2016	
Dibromochloromethane	ND	0.37	0.03		ppbv	1	9/6/2016	
Dichlorodifluoromethane	0.46	0.37	0.012		ppbv	1	9/6/2016	
Ethyl acetate	ND	0.93	0.074		ppbv	1	9/6/2016	

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

**Date Reported:** September 09, 2016

**ANALYTICAL RESULTS** 

**Date Printed:** September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-007

**Client Sample ID:** SV-2

**Collection Date:** 8/31/2016 12:32:00 PM

Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in	Air by GC/MS	TO-15		Prep	Date: 9/2/2	016	Analyst: <b>NLM</b>
Ethylbenzene	0.65	0.37	0.029		ppbv	1	9/6/2016
Freon-113	0.074	0.37	0.014	J	ppbv	1	9/6/2016
Freon-114	ND	1.9	0.053		ppbv	1	9/6/2016
Heptane	0.65	0.37	0.037		ppbv	1	9/6/2016
Hexachlorobutadiene	ND	0.37	0.042		ppbv	1	9/6/2016
Hexane	0.76	0.93	0.026	J	ppbv	1	9/6/2016
Isopropyl Alcohol	43	1.9	0.15		ppbv	1	9/6/2016
m,p-Xylene	1.4	0.74	0.055		ppbv	1	9/6/2016
Methyl tert-butyl ether	0.093	0.37	0.03	J	ppbv	1	9/6/2016
Methylene chloride	ND	3.7	0.2		ppbv	1	9/6/2016
Naphthalene	0.33	0.37	0.11	J	ppbv	1	9/6/2016
o-Xylene	0.56	0.37	0.024		ppbv	1	9/6/2016
Propene	2.1	3.7	0.37	J	ppbv	1	9/6/2016
Styrene	0.074	0.37	0.039	J	ppbv	1	9/6/2016
Tetrachloroethene	6500	190	13		ppbv	500	9/7/2016
Tetrahydrofuran	1.4	0.93	0.084		ppbv	1	9/6/2016
Toluene	12	0.37	0.042		ppbv	1	9/6/2016
trans-1,2-Dichloroethene	0.037	0.37	0.025	J	ppbv	1	9/6/2016
trans-1,3-Dichloropropene	ND	0.37	0.05		ppbv	1	9/6/2016
Trichloroethene	7.6	0.37	0.028		ppbv	1	9/6/2016
Trichlorofluoromethane	0.28	0.37	0.023	J	ppbv	1	9/6/2016
Vinyl acetate	ND	3.7	0.05		ppbv	1	9/6/2016
Vinyl chloride	ND	0.37	0.031		ppbv	1	9/6/2016
Xylenes, Total	1.9	1.1	0.078		ppbv	1	9/6/2016
/olatile Organic Compounds in	Air by GC/MS	TO-15		Prep	Date: 9/2/2	016	Analyst: <b>NLM</b>
1,1,1-Trichloroethane	ND	0.0020	0.00011		mg/m³	1	9/6/2016
1,1,2,2-Tetrachloroethane	ND	0.0025	0.00018		mg/m³	1	9/6/2016
1,1,2-Trichloroethane	ND	0.0020	0.0002		mg/m³	1	9/6/2016
1,1-Dichloroethane	ND	0.0015	0.000073		mg/m³	1	9/6/2016
1,1-Dichloroethene	ND	0.0015	0.000093		mg/m³	1	9/6/2016
1,2,4-Trichlorobenzene	0.00096	0.0028	0.00061	J	mg/m³	1	9/6/2016
1,2,4-Trimethylbenzene	0.0039	0.0018	0.00017		mg/m³	1	9/6/2016
1,2-Dibromoethane	ND	0.0029	0.00032		mg/m³	1	9/6/2016
1,2-Dichlorobenzene	ND	0.0022	0.00019		mg/m³	1	9/6/2016
1,2-Dichloroethane	ND	0.0015	0.00017		mg/m³	1	9/6/2016
1,2-Dichloropropane	ND	0.0017	0.00012		mg/m³	1	9/6/2016
1,3,5-Trimethylbenzene	0.00091	0.0018	0.00013	J	mg/m³	1	9/6/2016
1,3-Butadiene	ND	0.00082	0.00011		mg/m³	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

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HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

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E - Value above quantitation range

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**Date Reported:** September 09, 2016

**Date Printed:** September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-007

**ANALYTICAL RESULTS** 

Client Sample ID: SV-2

**Collection Date:** 8/31/2016 12:32:00 PM

Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed		
Volatile Organic Compounds i	in Air by GC/MS T	O-15		Prep	Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>		
1,3-Dichlorobenzene	0.0011	0.0022	0.00019	J	mg/m³	1	9/6/2016		
1,4-Dichlorobenzene	ND	0.0022	0.00024		mg/m³	1	9/6/2016		
1,4-Dioxane	0.0027	0.0033	0.00039	J	mg/m³	1	9/6/2016		
2-Butanone	0.0077	0.0027	0.00025		mg/m³	1	9/6/2016		
2-Hexanone	0.0029	0.0076	0.00041	J	mg/m³	1	9/6/2016		
4-Ethyltoluene	0.00091	0.0018	0.00019	J	mg/m³	1	9/6/2016		
4-Methyl-2-pentanone	0.0061	0.0076	0.00023	J	mg/m³	1	9/6/2016		
Acetone	0.14	0.0088	0.00031	*	mg/m³	1	9/6/2016		
Benzene	0.0014	0.0012	0.000085		mg/m³	1	9/6/2016		
Benzyl chloride	ND	0.0048	0.0019		mg/m³	1	9/6/2016		
Bromodichloromethane	ND	0.0025	0.00017		mg/m³	1	9/6/2016		
Bromoform	ND	0.0096	0.0002		mg/m³	1	9/6/2016		
Bromomethane	0.00050	0.0036	0.00017	J	mg/m³	1	9/6/2016		
Carbon disulfide	ND	0.0012	0.00029		mg/m³	1	9/6/2016		
Carbon tetrachloride	ND	0.0023	0.00033		mg/m³	1	9/6/2016		
Chlorobenzene	ND	0.0017	0.00011		mg/m³	1	9/6/2016		
Chloroethane	ND	0.00098	0.00098		mg/m³	1	9/6/2016		
Chloroform	0.00036	0.0018	0.000099	J	mg/m³	1	9/6/2016		
Chloromethane	ND	0.0019	0.00019		mg/m³	1	9/6/2016		
cis-1,2-Dichloroethene	0.018	0.0015	0.00011		mg/m³	1	9/6/2016		
cis-1,3-Dichloropropene	ND	0.0017	0.0002		mg/m³	1	9/6/2016		
Cyclohexane	0.0013	0.0012	0.00027		mg/m³	1	9/6/2016		
Dibromochloromethane	ND	0.0032	0.00025		mg/m³	1	9/6/2016		
Dichlorodifluoromethane	0.0023	0.0018	0.00006		mg/m³	1	9/6/2016		
Ethyl acetate	ND	0.0033	0.00027		mg/m³	1	9/6/2016		
Ethylbenzene	0.0028	0.0016	0.00013		mg/m³	1	9/6/2016		
Freon-113	0.00057	0.0028	0.00011	J	mg/m³	1	9/6/2016		
Freon-114	ND	0.013	0.00037		mg/m³	1	9/6/2016		
Heptane	0.0027	0.0015	0.00015		mg/m³	1	9/6/2016		
Hexachlorobutadiene	ND	0.0040	0.00045		mg/m³	1	9/6/2016		
Hexane	0.0027	0.0033	0.000092	J	mg/m³	1	9/6/2016		
Isopropyl Alcohol	0.11	0.0046	0.00036		mg/m³	1	9/6/2016		
m,p-Xylene	0.0060	0.0032	0.00024		mg/m³	1	9/6/2016		
Methyl tert-butyl ether	0.00033	0.0013	0.00011	J	mg/m³	1	9/6/2016		
Methylene chloride	ND	0.013	0.00069		mg/m³	1	9/6/2016		
Naphthalene	0.0018	0.0019	0.00056	J	mg/m³	1	9/6/2016		
o-Xylene	0.0024	0.0016	0.0001		mg/m³	1	9/6/2016		
Propene	0.0036	0.0064	0.00064	J	mg/m³	1	9/6/2016		

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

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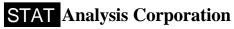
Qualifiers:

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**Date Reported:** September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-007

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** SV-2

**Collection Date:** 8/31/2016 12:32:00 PM

Matrix: AIR

Analyses	Resul	t RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in A	Air by GC/MS	TO-15		Prep	Date: 9/2/2	2016	Analyst: <b>NLM</b>
Styrene	0.00032	0.0016	0.00017	J	mg/m³	1	9/6/2016
Tetrachloroethene	44	1.3	0.091		mg/m³	500	9/7/2016
Tetrahydrofuran	0.0041	0.0027	0.00025		mg/m³	1	9/6/2016
Toluene	0.046	0.0014	0.00016		mg/m³	1	9/6/2016
trans-1,2-Dichloroethene	0.00015	0.0015	0.0001	J	mg/m³	1	9/6/2016
trans-1,3-Dichloropropene	ND	0.0017	0.00023		mg/m³	1	9/6/2016
Trichloroethene	0.041	0.0020	0.00015		mg/m³	1	9/6/2016
Trichlorofluoromethane	0.0016	0.0021	0.00013	J	mg/m³	1	9/6/2016
Vinyl acetate	ND	0.013	0.00018		mg/m³	1	9/6/2016
Vinyl chloride	ND	0.00095	0.00008		mg/m³	1	9/6/2016
Xylenes, Total	0.0085	0.0048	0.00034		mg/m³	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

 $RL/\!MDL$  - Reporting Limit / Method Detection Limit for the analysis

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Date Reported: September 09, 2016

**ANALYTICAL RESULTS** 

**Date Printed:** September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

Lab ID: 16081298-008 **Client Sample ID:** SV-3

**Collection Date:** 8/31/2016 12:34:00 PM

Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in	Air by GC/MS TO	-15		Prep	Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>
1,1,1-Trichloroethane	ND	0.51	0.027		ppbv	1	9/6/2016
1,1,2,2-Tetrachloroethane	ND	0.51	0.035		ppbv	1	9/6/2016
1,1,2-Trichloroethane	ND	0.51	0.049		ppbv	1	9/6/2016
1,1-Dichloroethane	ND	0.51	0.025		ppbv	1	9/6/2016
1,1-Dichloroethene	ND	0.51	0.032		ppbv	1	9/6/2016
1,2,4-Trichlorobenzene	0.15	0.51	0.11	J	ppbv	1	9/6/2016
1,2,4-Trimethylbenzene	1.5	0.51	0.046		ppbv	1	9/6/2016
1,2-Dibromoethane	ND	0.51	0.057		ppbv	1	9/6/2016
1,2-Dichlorobenzene	ND	0.51	0.042		ppbv	1	9/6/2016
1,2-Dichloroethane	ND	0.51	0.059		ppbv	1	9/6/2016
1,2-Dichloropropane	ND	0.51	0.035		ppbv	1	9/6/2016
1,3,5-Trimethylbenzene	0.41	0.51	0.035	J	ppbv	1	9/6/2016
1,3-Butadiene	ND	0.51	0.065		ppbv	1	9/6/2016
1,3-Dichlorobenzene	0.82	0.51	0.043		ppbv	1	9/6/2016
1,4-Dichlorobenzene	ND	0.51	0.054		ppbv	1	9/6/2016
1,4-Dioxane	0.66	1.3	0.15	J	ppbv	1	9/6/2016
2-Butanone	4.1	1.3	0.12		ppbv	1	9/6/2016
2-Hexanone	1.2	2.6	0.14	J	ppbv	1	9/6/2016
4-Ethyltoluene	0.33	0.51	0.053	J	ppbv	1	9/6/2016
4-Methyl-2-pentanone	2.3	2.6	0.077	J	ppbv	1	9/6/2016
Acetone	44	5.1	0.18	*	ppbv	1	9/6/2016
Benzene	1.1	0.51	0.037		ppbv	1	9/6/2016
Benzyl chloride	ND	1.3	0.51		ppbv	1	9/6/2016
Bromodichloromethane	ND	0.51	0.035		ppbv	1	9/6/2016
Bromoform	ND	1.3	0.027		ppbv	1	9/6/2016
Bromomethane	0.20	1.3	0.06	J	ppbv	1	9/6/2016
Carbon disulfide	0.15	0.51	0.13	J	ppbv	1	9/6/2016
Carbon tetrachloride	ND	0.51	0.071		ppbv	1	9/6/2016
Chlorobenzene	ND	0.51	0.032		ppbv	1	9/6/2016
Chloroethane	ND	0.51	0.51		ppbv	1	9/6/2016
Chloroform	0.13	0.51	0.028	J	ppbv	1	9/6/2016
Chloromethane	ND	1.3	0.13		ppbv	1	9/6/2016
cis-1,2-Dichloroethene	8.1	0.51	0.038		ppbv	1	9/6/2016
cis-1,3-Dichloropropene	ND	0.51	0.06		ppbv	1	9/6/2016
Cyclohexane	1.3	0.51	0.11		ppbv	1	9/6/2016
Dibromochloromethane	ND	0.51	0.041		ppbv	1	9/6/2016
Dichlorodifluoromethane	0.43	0.51	0.017	J	ppbv	1	9/6/2016
Ethyl acetate	ND	1.3	0.1		ppbv	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

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**Date Reported:** September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-008

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** SV-3

**Collection Date:** 8/31/2016 12:34:00 PM

Matrix: AIR

Analyses	Resul	Result RL			Units D		F Date Analyzed		
Volatile Organic Compounds in	Air by GC/MS	TO-15		Prep	Date: 9/2/2	2016	Analyst: <b>NLM</b>		
Ethylbenzene	1.4	0.51	0.04		ppbv	1	9/6/2016		
Freon-113	0.077	0.51	0.019	J	ppbv	1	9/6/2016		
Freon-114	ND	2.6	0.073		ppbv	1	9/6/2016		
Heptane	3.1	0.51	0.05		ppbv	1	9/6/2016		
Hexachlorobutadiene	ND	0.51	0.058		ppbv	1	9/6/2016		
Hexane	3.2	1.3	0.036		ppbv	1	9/6/2016		
Isopropyl Alcohol	26	2.6	0.2		ppbv	1	9/6/2016		
m,p-Xylene	2.7	1.0	0.075		ppbv	1	9/6/2016		
Methyl tert-butyl ether	0.077	0.51	0.042	J	ppbv	1	9/6/2016		
Methylene chloride	ND	5.1	0.27		ppbv	1	9/6/2016		
Naphthalene	0.79	0.51	0.15		ppbv	1	9/6/2016		
o-Xylene	1.1	0.51	0.033		ppbv	1	9/6/2016		
Propene	3.2	5.1	0.51	J	ppbv	1	9/6/2016		
Styrene	0.13	0.51	0.054	J	ppbv	1	9/6/2016		
Tetrachloroethene	280	260	18		ppbv	500	9/7/2016		
Tetrahydrofuran	1.9	1.3	0.12		ppbv	1	9/6/2016		
Toluene	13	0.51	0.058		ppbv	1	9/6/2016		
trans-1,2-Dichloroethene	ND	0.51	0.035		ppbv	1	9/6/2016		
trans-1,3-Dichloropropene	ND	0.51	0.069		ppbv	1	9/6/2016		
Trichloroethene	4.7	0.51	0.039		ppbv	1	9/6/2016		
Trichlorofluoromethane	0.23	0.51	0.032	J	ppbv	1	9/6/2016		
Vinyl acetate	ND	5.1	0.069		ppbv	1	9/6/2016		
Vinyl chloride	ND	0.51	0.043		ppbv	1	9/6/2016		
Xylenes, Total	3.8	1.5	0.11		ppbv	1	9/6/2016		
olatile Organic Compounds in	Air by GC/MS	TO-15		Prep	Date: 9/2/2	2016	Analyst: <b>NLM</b>		
1,1,1-Trichloroethane	ND	0.0028	0.00015		mg/m³	1	9/6/2016		
1,1,2,2-Tetrachloroethane	ND	0.0035	0.00024		mg/m³	1	9/6/2016		
1,1,2-Trichloroethane	ND	0.0028	0.00027		mg/m³	1	9/6/2016		
1,1-Dichloroethane	ND	0.0021	0.0001		mg/m³	1	9/6/2016		
1,1-Dichloroethene	ND	0.0020	0.00013		mg/m³	1	9/6/2016		
1,2,4-Trichlorobenzene	0.0011	0.0038	0.00084	J	mg/m³	1	9/6/2016		
1,2,4-Trimethylbenzene	0.0075	0.0025	0.00023		mg/m³	1	9/6/2016		
1,2-Dibromoethane	ND	0.0039	0.00044		mg/m³	1	9/6/2016		
1,2-Dichlorobenzene	ND	0.0031	0.00026		mg/m³	1	9/6/2016		
1,2-Dichloroethane	ND	0.0021	0.00024		mg/m³	1	9/6/2016		
1,2-Dichloropropane	ND	0.0024	0.00016		mg/m³	1	9/6/2016		
1,3,5-Trimethylbenzene	0.0020	0.0025	0.00017	J	mg/m³	1	9/6/2016		
1,3-Butadiene	ND	0.0011	0.00014		mg/m³	1	9/6/2016		

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

 $RL/\!MDL$  - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: September 09, 2016

**Date Printed:** September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

16081298-008 Lab ID:

**ANALYTICAL RESULTS** 

**Client Sample ID:** SV-3

**Collection Date:** 8/31/2016 12:34:00 PM

Matrix: AIR

Volatile Organic Compounds in Air by GC/MS         TO-15         Prep Date: 9/2/2016         Analyst: NLM           1,3-Dichlorobenzene         0.0049         0.0031         0.00026         mg/m³         1         9/6/2016           1,4-Dicklorobenzene         ND         0.0031         0.00032         mg/m³         1         9/6/2016           1,4-Dicklorobenzene         0.0024         0.0046         J         mg/m³         1         9/6/2016           2-Butanone         0.012         0.0038         0.00034         mg/m³         1         9/6/2016           2-Hexanone         0.0049         0.010         0.00025         J         mg/m³         1         9/6/2016           4-Ethytlouene         0.0016         0.0025         0.00026         J         mg/m³         1         9/6/2016           4-Ethytlouene         0.0044         0.010         0.00031         J         mg/m³         1         9/6/2016           4-Methyl-2-pentanone         0.0049         0.010         0.00024         "         mg/m³         1         9/6/2016           Benzene         0.014         0.0016         0.00024         "         mg/m³         1         9/6/2016           Bernzene         ND	Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
1.3-Dichlorobenzene         0.0049         0.0031         0.00026         mg/m³         1         9/6/2016           1,4-Dichlorobenzene         ND         0.0031         0.00032         mg/m³         1         9/6/2016           1,4-Dioxane         0.0024         0.0046         0.00054         J         mg/m³         1         9/6/2016           2-Butanone         0.012         0.0038         0.00034         mg/m³         1         9/6/2016           4-Ethyltoluene         0.0041         0.0002         0.00026         J         mg/m³         1         9/6/2016           4-Methyl-2-pentanone         0.0094         0.010         0.00031         J         mg/m³         1         9/6/2016           4-Methyl-2-pentanone         0.0034         0.0016         0.00012         mg/m³         1         9/6/2016           Benzene         0.0034         0.0016         0.00012         mg/m³         1         9/6/2016           Benzene         0.0034         0.0016         0.00022         mg/m³         1         9/6/2016           Bernodichioromethane         ND         0.0034         0.00028         mg/m³         1         9/6/2016           Bromodichioromethane         ND	Volatile Organic Compounds in Air by	GC/MS TO	 D-15		Prep	Date: <b>9/2/2</b>	016	Analyst: <b>NLM</b>
1,4-Dioxane			0.0031	0.00026	•			•
2-Butanone         0.012         0.0038         0.00034         mg/m³         1         9/6/2016           2-Hexanone         0.0049         0.010         0.00067         J         mg/m³         1         9/6/2016           4-Ethytlouene         0.0016         0.0026         0.00026         J         mg/m³         1         9/6/2016           4-Methyl-2-pentanone         0.0094         0.010         0.00031         J         mg/m³         1         9/6/2016           Acetone         0.10         0.012         0.00043         "         mg/m³         1         9/6/2016           Benzene         0.0034         0.0016         0.00026         mg/m³         1         9/6/2016           Benzyl chloride         ND         0.0034         0.00023         mg/m³         1         9/6/2016           Bromoform         ND         0.0034         0.00023         mg/m³         1         9/6/2016           Bromoform         ND         0.0013         0.00023         J         mg/m³         1         9/6/2016           Bromoform         ND         0.00043         0.00023         J         mg/m³         1         9/6/2016           Carbon tetrachloide         ND </td <td>1,4-Dichlorobenzene</td> <td>ND</td> <td>0.0031</td> <td>0.00032</td> <td></td> <td>mg/m³</td> <td>1</td> <td>9/6/2016</td>	1,4-Dichlorobenzene	ND	0.0031	0.00032		mg/m³	1	9/6/2016
2-Hexanone   0.0049   0.010   0.00057   J   mg/m³   1 9/6/2016	1,4-Dioxane	0.0024	0.0046	0.00054	J	mg/m³	1	9/6/2016
4-Eirhyltoluene         0.0016         0.0025         0.00026         J         mg/m³         1         9/6/2016           4-Methyl-2-pentanone         0.0094         0.010         0.00031         J         mg/m³         1         9/6/2016           Acetone         0.10         0.0012         0.00043         *         mg/m³         1         9/6/2016           Benzene         0.0034         0.0016         0.00026         mg/m³         1         9/6/2016           Berzyl chloride         ND         0.0066         0.0026         mg/m³         1         9/6/2016           Bromoform         ND         0.013         0.00028         mg/m³         1         9/6/2016           Bromoform         ND         0.013         0.00028         mg/m³         1         9/6/2016           Bromotorhane         0.00079         0.0050         0.00023         J         mg/m³         1         9/6/2016           Carbon disulfide         0.00048         0.0016         0.00043         J         mg/m³         1         9/6/2016           Carbon disulfide         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chlorobetane         ND	2-Butanone	0.012	0.0038	0.00034		mg/m³	1	9/6/2016
A-Methyl-2-pentanone   0.0094   0.010   0.00031   J   mg/m³   1 9/6/2016	2-Hexanone	0.0049	0.010	0.00057	J	mg/m³	1	9/6/2016
Acetone         0.10         0.012         0.00043         " mg/m³         1         9/6/2016           Benzene         0.0034         0.0016         0.00012         mg/m³         1         9/6/2016           Benzyl chloride         ND         0.0066         0.0023         mg/m³         1         9/6/2016           Bromoform         ND         0.0034         0.00023         mg/m³         1         9/6/2016           Bromomethane         0.00079         0.0050         0.00023         J         mg/m³         1         9/6/2016           Carbon disulfide         0.00048         0.0016         0.0004         J         mg/m³         1         9/6/2016           Carbon tetrachloride         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00013         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0025         0.00014 <td>4-Ethyltoluene</td> <td>0.0016</td> <td>0.0025</td> <td>0.00026</td> <td>J</td> <td>mg/m³</td> <td>1</td> <td>9/6/2016</td>	4-Ethyltoluene	0.0016	0.0025	0.00026	J	mg/m³	1	9/6/2016
Renzene         0.0044         0.016         0.00012         mg/m³         1         9/6/2016           Benzyl chloride         ND         0.0066         0.0026         mg/m³         1         9/6/2016           Bromodichloromethane         ND         0.0034         0.00023         mg/m³         1         9/6/2016           Bromodichloromethane         ND         0.0050         0.00023         mg/m³         1         9/6/2016           Bromomethane         0.00079         0.0050         0.00023         J         mg/m³         1         9/6/2016           Carbon disulfide         0.00048         0.0016         0.0004         J         mg/m³         1         9/6/2016           Carbon disulfide         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Carbon tetrachloride         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Chlorotehane         ND         0.0013         0.0013         mg/m³         1         9/6/2016           Chlorotehtane         ND         0.0026         0.00014         J         mg/m³         1         9/6/2016           Chlorotehtane         ND         0.0022	4-Methyl-2-pentanone	0.0094	0.010	0.00031	J	mg/m³	1	9/6/2016
Benzyl chloride         ND         0.0066         0.0026         mg/m³         1         9/6/2016           Bromodichloromethane         ND         0.0034         0.00023         mg/m³         1         9/6/2016           Bromoform         ND         0.013         0.00028         mg/m³         1         9/6/2016           Bromomethane         0.00079         0.0050         0.00023         J         mg/m³         1         9/6/2016           Carbon disulfide         0.00048         0.0016         0.0004         J         mg/m³         1         9/6/2016           Carbon tetrachloride         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chloroform         0.00062         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chloroform         0.00062         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND	Acetone	0.10	0.012	0.00043	*	mg/m³	1	9/6/2016
Bromodichloromethane         ND         0.0034         0.00023         mg/m³         1         9/6/2016           Bromoform         ND         0.013         0.00028         mg/m³         1         9/6/2016           Bromomethane         0.00079         0.0050         0.00023         J         mg/m³         1         9/6/2016           Carbon disulfide         0.00048         0.0016         0.00044         J         mg/m³         1         9/6/2016           Carbon tetrachloride         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00013         mg/m³         1         9/6/2016           Chloromethane         ND         0.0024         0.00013         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           cis-1,2-Dichloroethene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           cis-1,2-Dichloroethene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           Cyclohexane         ND         0.0023         <	Benzene	0.0034	0.0016	0.00012		mg/m³	1	9/6/2016
Bromoform         ND         0.013         0.00028         mg/m³         1         9/6/2016           Bromomethane         0.00079         0.0050         0.00023         J         mg/m³         1         9/6/2016           Carbon disulfide         0.00048         0.0016         0.0004         J         mg/m³         1         9/6/2016           Carbon tetrachloride         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chlororethane         ND         0.0013         0.0013         mg/m³         1         9/6/2016           Chlororethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00014         J         mg/m³         1         9/6/2016           cis-1,2-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00037         mg/m³         1         9/6/2016           Cyclohexane         ND         0.0043	Benzyl chloride	ND	0.0066	0.0026		mg/m³	1	9/6/2016
Bromomethane         0.00079         0.0050         0.00023         J         mg/m³         1         9/6/2016           Carbon disulfide         0.00048         0.0016         0.0004         J         mg/m³         1         9/6/2016           Carbon tetrachloride         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00013         mg/m³         1         9/6/2016           Chloroform         0.00062         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00015         mg/m³         1         9/6/2016           Cis-1,2-Dichloroperhene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           Cis-1,2-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND	Bromodichloromethane	ND	0.0034	0.00023		mg/m³	1	9/6/2016
Carbon disulfide         0.00048         0.0016         0.0004         J         mg/m³         1         9/6/2016           Carbon tetrachloride         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chloroethane         ND         0.0013         0.0013         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           cis-1,2-Dichloroethene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037	Bromoform	ND	0.013	0.00028		mg/m³	1	9/6/2016
Carbon tetrachloride         ND         0.0032         0.00045         mg/m³         1         9/6/2016           Chlorobenzene         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chloroethane         ND         0.0013         0.0013         mg/m³         1         9/6/2016           Chloroform         0.00062         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           cis-1,2-Dichloroethene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00037         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzene         0.0061         0.0022         0.00017	Bromomethane	0.00079	0.0050	0.00023	J	mg/m³	1	9/6/2016
Chlorobenzene         ND         0.0024         0.00015         mg/m³         1         9/6/2016           Chloroethane         ND         0.0013         0.0013         mg/m³         1         9/6/2016           Chloroform         0.00062         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           Cis-1,2-Dichloroethene         0.032         0.0002         0.00015         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Eithyla cetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Freon-113         0.0059         0.0039         0.00015 <th< td=""><td>Carbon disulfide</td><td>0.00048</td><td>0.0016</td><td>0.0004</td><td>J</td><td>mg/m³</td><td>1</td><td>9/6/2016</td></th<>	Carbon disulfide	0.00048	0.0016	0.0004	J	mg/m³	1	9/6/2016
Chloroethane         ND         0.0013         0.0013         mg/m³         1         9/6/2016           Chloroform         0.00062         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           Cis-1,2-Dichloroptehene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00037         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00037         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0045         0.00082         J         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzehe         0.0061         0.0022         0.000	Carbon tetrachloride	ND	0.0032	0.00045		mg/m³	1	9/6/2016
Chloroform         0.00062         0.0025         0.00014         J         mg/m³         1         9/6/2016           Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           cis-1,2-Dichloroethene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibriomochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0025         0.000082         J         mg/m³         1         9/6/2016           Ethyl benzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Ethyl persene         0.0061         0.0022         0.00015         J         mg/m³         1         9/6/2016           Freon-113         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021 <td>Chlorobenzene</td> <td>ND</td> <td>0.0024</td> <td>0.00015</td> <td></td> <td>mg/m³</td> <td>1</td> <td>9/6/2016</td>	Chlorobenzene	ND	0.0024	0.00015		mg/m³	1	9/6/2016
Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           cis-1,2-Dichloroethene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Dichlorodifluoromethane         0.0021         0.0025         0.000082         J         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0061         0.00021         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0061         0.00017         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.018         0.00051	Chloroethane	ND	0.0013	0.0013		mg/m³	1	9/6/2016
Chloromethane         ND         0.0026         0.00026         mg/m³         1         9/6/2016           cis-1,2-Dichloroethene         0.032         0.0020         0.00015         mg/m³         1         9/6/2016           cis-1,3-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Dichlorodifluoromethane         0.0021         0.0025         0.000082         J         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0061         0.00021         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0061         0.00017         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.018         0.00051	Chloroform	0.00062	0.0025	0.00014	J	mg/m³	1	9/6/2016
cis-1,3-Dichloropropene         ND         0.0023         0.00027         mg/m³         1         9/6/2016           Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Dichlorodifluoromethane         0.0021         0.0025         0.000082         J         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Freon-113         0.00059         0.0039         0.00015         J         mg/m³         1         9/6/2016           Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013<	Chloromethane	ND	0.0026	0.00026			1	9/6/2016
Cyclohexane         0.0046         0.0018         0.00037         mg/m³         1         9/6/2016           Dibromochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Dichlorodifluoromethane         0.0021         0.0025         0.000082         J         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Freon-113         0.00059         0.0039         0.00015         J         mg/m³         1         9/6/2016           Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.0021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049	cis-1,2-Dichloroethene	0.032	0.0020	0.00015		mg/m³	1	9/6/2016
Dibromochloromethane         ND         0.0043         0.00035         mg/m³         1         9/6/2016           Dichlorodifluoromethane         0.0021         0.0025         0.000082         J         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Freon-113         0.00059         0.0039         0.00015         J         mg/m³         1         9/6/2016           Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.0012         0.0044 <td< td=""><td>cis-1,3-Dichloropropene</td><td>ND</td><td>0.0023</td><td>0.00027</td><td></td><td>mg/m³</td><td>1</td><td>9/6/2016</td></td<>	cis-1,3-Dichloropropene	ND	0.0023	0.00027		mg/m³	1	9/6/2016
Dichlorodifluoromethane         0.0021         0.0025         0.000082         J         mg/m³         1         9/6/2016           Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Freon-113         0.00059         0.0039         0.00015         J         mg/m³         1         9/6/2016           Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.0012         0.0044         0.00033         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.	Cyclohexane	0.0046	0.0018	0.00037		mg/m³	1	9/6/2016
Ethyl acetate         ND         0.0046         0.00037         mg/m³         1         9/6/2016           Ethylbenzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Freon-113         0.00059         0.0039         0.00015         J         mg/m³         1         9/6/2016           Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³	Dibromochloromethane	ND	0.0043	0.00035		mg/m³	1	9/6/2016
Ethylbenzene         0.0061         0.0022         0.00017         mg/m³         1         9/6/2016           Freon-113         0.00059         0.0039         0.00015         J         mg/m³         1         9/6/2016           Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           m,p-Xylene         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           0-Xylene         0.0048         0.0022         0.00014	Dichlorodifluoromethane	0.0021	0.0025	0.000082	J	mg/m³	1	9/6/2016
Freon-113         0.00059         0.0039         0.00015         J         mg/m³         1         9/6/2016           Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           m,p-Xylene         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014	Ethyl acetate	ND	0.0046	0.00037		mg/m³	1	9/6/2016
Freon-114         ND         0.018         0.00051         mg/m³         1         9/6/2016           Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           m,p-Xylene         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	Ethylbenzene	0.0061	0.0022	0.00017		mg/m³	1	9/6/2016
Heptane         0.013         0.0021         0.00021         mg/m³         1         9/6/2016           Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           m,p-Xylene         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	Freon-113	0.00059	0.0039	0.00015	J	mg/m³	1	9/6/2016
Hexachlorobutadiene         ND         0.0054         0.00061         mg/m³         1         9/6/2016           Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           m,p-Xylene         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	Freon-114	ND	0.018	0.00051		mg/m³	1	9/6/2016
Hexane         0.011         0.0045         0.00013         mg/m³         1         9/6/2016           Isopropyl Alcohol         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           m,p-Xylene         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	Heptane	0.013	0.0021	0.00021		mg/m³	1	9/6/2016
Isopropyl Alcohol         0.065         0.065         0.0063         0.00049         mg/m³         1         9/6/2016           m,p-Xylene         0.012         0.0044         0.00033         mg/m³         1         9/6/2016           Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	Hexachlorobutadiene	ND	0.0054	0.00061		mg/m³	1	9/6/2016
m,p-Xylene       0.012       0.0044       0.00033       mg/m³       1       9/6/2016         Methyl tert-butyl ether       0.00028       0.0018       0.00015       J       mg/m³       1       9/6/2016         Methylene chloride       ND       0.018       0.00095       mg/m³       1       9/6/2016         Naphthalene       0.0041       0.0027       0.00076       mg/m³       1       9/6/2016         o-Xylene       0.0048       0.0022       0.00014       mg/m³       1       9/6/2016	Hexane	0.011	0.0045	0.00013		mg/m³	1	9/6/2016
Methyl tert-butyl ether         0.00028         0.0018         0.00015         J         mg/m³         1         9/6/2016           Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	Isopropyl Alcohol	0.065	0.0063	0.00049		mg/m³	1	9/6/2016
Methylene chloride         ND         0.018         0.00095         mg/m³         1         9/6/2016           Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	m,p-Xylene	0.012	0.0044	0.00033		mg/m³	1	9/6/2016
Naphthalene         0.0041         0.0027         0.00076         mg/m³         1         9/6/2016           o-Xylene         0.0048         0.0022         0.00014         mg/m³         1         9/6/2016	Methyl tert-butyl ether	0.00028	0.0018	0.00015	J	mg/m³	1	9/6/2016
o-Xylene 0.0048 0.0022 0.00014 mg/m³ 1 9/6/2016	Methylene chloride	ND	0.018	0.00095		mg/m³	1	9/6/2016
	Naphthalene	0.0041	0.0027	0.00076		mg/m³	1	9/6/2016
	o-Xylene	0.0048	0.0022	0.00014		mg/m³	1	9/6/2016
Propene 0.0055 0.0088 0.00088 J mg/m³ 1 9/6/2016	-	0.0055	0.0088	0.00088	J	mg/m³	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

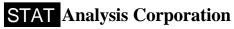
Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

**Date Reported:** September 09, 2016

September 09, 2016

**CLIENT:** Apex Companies, LLC

Work Order: 16081298 Revision 0

**Project:** PECO-216-78, Bright Cleaners-Franklin Centre, 7249

**Lab ID:** 16081298-008

**Date Printed:** 

**ANALYTICAL RESULTS** 

**Client Sample ID:** SV-3

**Collection Date:** 8/31/2016 12:34:00 PM

Matrix: AIR

Analyses	Resul	t RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in A	ir by GC/MS	TO-15		Prep	Date: <b>9/2/2</b>	2016	Analyst: <b>NLM</b>
Styrene	0.00054	0.0022	0.00023	J	mg/m³	1	9/6/2016
Tetrachloroethene	1.9	1.7	0.13		mg/m³	500	9/7/2016
Tetrahydrofuran	0.0056	0.0038	0.00034		mg/m³	1	9/6/2016
Toluene	0.047	0.0019	0.00022		mg/m³	1	9/6/2016
trans-1,2-Dichloroethene	ND	0.0020	0.00014		mg/m³	1	9/6/2016
trans-1,3-Dichloropropene	ND	0.0023	0.00032		mg/m³	1	9/6/2016
Trichloroethene	0.026	0.0027	0.00021		mg/m³	1	9/6/2016
Trichlorofluoromethane	0.0013	0.0029	0.00018	J	mg/m³	1	9/6/2016
Vinyl acetate	ND	0.018	0.00024		mg/m³	1	9/6/2016
Vinyl chloride	ND	0.0013	0.00011		mg/m³	1	9/6/2016
Xylenes, Total	0.017	0.0066	0.00046		mg/m³	1	9/6/2016

ND - Not Detected at the Reporting Limit

J - Analyte detected below reporting limit

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL/MDL - Reporting Limit / Method Detection Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 W. Harrison Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386 e-mail address: STATinfo@STATAnalysis.com CHAIN OF CUCTODY DECORD

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#### Sample Receipt Checklist

Client Name APEX		Date and Tim	e Received:	8/31/2016 4:45:00 PM
Work Order Number 16081298	į.	Received by:	JDR	
	8/31/16	Reviewed by:	Jok	7/1/16
Signature Signature	D <sup>i</sup> ate		Initials	Date
Matrix: Carrier n	ame <u>Client Delivered</u>			
Shipping container/cooler in good condition?	Yes 🗸	No 🗌	Not Present	
Custody seals intact on shippping container/cooler?	Yes	No 🗌	Not Present 🗹	
Custody seals intact on sample bottles?	Yes	No 🗌	Not Present 🗸	
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗆		
Chain of custody agrees with sample labels/containers?	Yes 🗹	No 🗌		
Samples in proper container/bottle?	Yes 🗹	No 🗌		
Sample containers intact?	Yes 🗹	No 🗆		
Sufficient sample volume for indicated test?	Yes 🗸	No 🗌		
All samples received within holding time?	Yes 🗸	No 🗌		
Container or Temp Blank temperature in compliance?	Yes 🗸	No 🗌	Temperature	4.7 °C 🔏
Water - VOA vials have zero headspace?  No VOA vials	s submitted	Yes 🗸	No 🗌	<i>F</i>
Water - Samples pH checked?	Yes	No 🔳	Checked by:	
Water - Samples properly preserved?	Yes 🗑	No 💹	pH Adjusted?	
Any No response must be detailed in the comments section belong	ow.			
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