

Soil Vapor Extraction System Effluent Sampling Report

NYSDEC Site No.: C241199

148-26 a/k/a 148-18 Hillside Avenue
Queens, New York

H2M Project No.: TTCI2401

Prepared for:

Hillside 168 Inc.
148-18 Hillside Avenue
Queens, New York 11435

and

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

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architects + engineers

TABLE OF CONTENTS

Section	Page
1.0 INTRODUCTION	1
2.0 SITE HISTORY	1
3.0 EFFLUENT SYSTEM SAMPLING	1
4.0 EFFLUENT AIR SAMPLING ANALYSIS	3
5.0 CONCLUSIONS AND RECOMMENDATION	3

APPENDICES

- A. Air Quality Impact Statements
- B. Laboratory Data for System Air Samples
- C. Data Usability Summary Reports (DUSRs)

1.0 INTRODUCTION

The following Soil Vapor Extraction (SVE) System Effluent Air Sampling Report (the Report) has been prepared by H2M architects + engineers (H2M) for subject property located at 148-26 Hillside Avenue, Queens, New York (the Property or Site) on behalf of Hillside 168, Inc. in accordance with the approved Site Management Plan (SMP) dated December 2025. This Report summarizes the effluent air sampling activities associated with the Soil Vapor Extraction (SVE) located at the Property. The goal of this Report is to make a formal request to the New York State Department of Environmental Conservation (NYSDEC) to either include or exclude carbon treatment on the effluent air stream associated with the SVE system based on the supporting data provided.

2.0 SITE HISTORY

Based on the results of the January 2024 off-site soil vapor sampling, an SVE system was installed at the Property to treat the remove the soil vapor below the western Property boundary at the Site. The SVE system was installed to protection against the potential for the infiltration of soil vapor into the neighboring property building.

Installation of the SVE system consists of a network of three, four-inch diameter, screened, schedule 40 PVC, SVE points (SVE-1 through SVE-3). These SVE points were installed vertically along the western wall of the Property beginning at basement grade (13 feet below surface grade) and extend another six feet below basement grade (19 feet below surface grade). The three SVE points were horizontally manifolded to each other in the basement using 4-inch, solid, galvanized steel piping. A single galvanized steel riser (located at SVE-2) travels vertically through the building to the roof. The galvanized steel riser pipe is finished 8 feet above the roofline, with a goose neck pipe to prevent rain infiltration, and is located at least 10 feet from any air intake, outdoor recreational space, or windows.

The SVE system includes a 3.5 horsepower Atlantic Blower Model #AB-500, vacuum relief valve, aluminum moisture separator tank with sight glass and high-level switch, and appropriate vacuum, pressure and temperature gauges. The SVE system is equipped with a warning device (a telemetry system) to indicate that the system is not operating properly. Additionally, the consultant will also be notified when there is blower failure, as well as when there is a high-water level in the moisture knock out drum. In the event that warning device is activated, applicable maintenance and repairs will be conducted, and the SVE system will be restarted.

In addition, five permanent vacuum monitoring points were installed throughout the basement (identified as VMP-1 through VMP-5).

3.0 EFFLUENT SYSTEM SAMPLING

In order to determine the need for carbon treatment on the effluent air, sampling of the effluent air sampling was performed on numerous occasions. On March 12, 2025, a blower (equivalent to the present-day blower installed) was manifolded to the center SVE point (SVE-2). The SVE system was turned on and operated for approximately one hour. The effluent system sample was obtained via the “grab” method from the combined effluent line with all three soil vapor extraction wells (SVE-1, SVE-2 and SVE-3) 100% open. The effluent sample was analyzed for Volatile Organic Compounds (VOCs) in accordance with USEPA Method TO-15.

Once the analytical data was prepared, it was sent to Proactive Environmental Solutions to review and provide an Air Quality Impact Assessment. According to the Air Quality Impact Assessment performed, based upon review of the data, and in accordance with analysis procedures described in NYSDEC DAR-1, it was concluded that the Site’s impact on air quality is minimal and acceptable. Therefore, it was concluded that no carbon treatment was necessary for the SVE system. A copy of the May 5, 2025, Air Quality Impact Statement is provided in Appendix A. Data from the March 12, 2025, sampling is provided in Appendix B.

This information was provided to NYSDEC in the draft SMP that was prepared for the Property.

On October 2, 2025, an email was sent to H2M from NYSDEC discussing that upon review of the draft SMP and the May 5, 2025 SVE System Air Quality Impact Assessment, the NYSDEC and New York State Department of Health (NYSDOH) were requesting the collection of additional effluent samples under the following conditions:

- Two additional effluent samples were to be collected from the SVE system—specifically from SVE Well 3 and SVE Well 2 once the system is confirmed to be fully operational and running under stable conditions.
- A Data Usability Summary Report (DUSR) will be required for the laboratory analytical results generated from these samples.
- The Guidance on Air Emissions of VOCs needs to be followed to determine whether treatment is required on a remedial system
- Upon receipt and review of the validated sampling results, NYSDEC and NYSDOH will determine whether the installation of a carbon treatment unit is warranted for the existing SVE system.

A phone call between H2M and NYSDEC occurred On October 6, 2025, to further discuss and confirm the sampling procedures for the upcoming sampling event.

On October 13, 2025, the SVE system was turned on. The valve for SVE-2 was then opened 100% and the other two valves (SVE-1 and SVE-3) were closed. Measurements were obtained from the SVE-2, the filter inlet, moisture knockout, and the blower. Additionally, readings were obtained from the five vacuum monitoring points. The SVE system remained on after readings were obtained.

On October 14, 2025, measurements were obtained to confirm the SVE system was stable over the past 24 hours. Once confirmed, the Summa canister was connected to SVE-2 and turned on to be sampled for a duration of 24 hours.

On October 15, 2025, the 24-hour sampling for SVE-2 was complete. The Summa canister was removed from SVE-2. SVE-2 was then closed (SVE-1 remained closed) and SVE-3 was then opened 100%. Measurements were obtained from SVE-3 (after waiting approximately one hour), the filter inlet, moisture knockout, and the blower. Additionally, measurements were obtained from the five vacuum monitoring points. The system was left on after readings were obtained.

On October 16, 2025, measurements were obtained to confirm the SVE system was stable over the past 24 hours. Once confirmed, the Summa canister was connected to SVE-3 and turned on to be sampled for a duration of 24 hours.

On October 17, 2025, the 24-hour sampling for SVE-3 was complete. The Summa canister was removed from SVE-3.

The two effluent samples were submitted to a certified lab to be analyzed for VOCs in accordance with USEPA Method TO-15. It is important to note that according to the lab, an equipment issue occurred with the SVE-3 sample. Based on this issue, SVE-3 would have to be resampled. NYSDEC was informed that SVE-3 would need to be resampled. This sampling was to be performed in the same manner as the previous sampling.

On October 24, 2025, the SVE system was turned on. The valve for SVE-3 was 100% opened and the other two valves (SVE-1 and SVE-2) were closed. Measurements were obtained from the opened vent (SVE-3), the filter inlet, moisture knockout, and the blower. Additionally, readings were obtained from the five vacuum monitoring points. The SVE system was left on after readings were obtained.

On October 27, 2025, measurements were obtained to confirm the SVE system was stable over the past 24 hours. Once confirmed, the Summa canister was connected to SVE-3 and turned on to be sampled for a duration of 24 hours.

On October 28, 2025, the 24-hour sampling for SVE-3 was complete. The Summa canister was removed from SVE-3 and was submitted to a certified lab to be analyzed for VOCs in accordance with USEPA Method TO-15.

Once the data was provided from the lab, it was submitted to a third-party validator and DUSRs for the two samples were generated. The DUSRs are provided in Appendix C. Additionally, the data was uploaded to the NYSDEC EQUIS Data Processor website.

4.0 EFFLUENT AIR SAMPLING ANALYSIS

- March 12, 2025, one effluent air sample (designated Effluent Air 3/12/25) was obtained via the “grab” method from the combined effluent line with all three valves (SVE-1, SVE-2 and SVE-3) 100% open.
- October 15, 2025, one effluent air sample (designated SVE-2) was obtained over a 24-hour period with the SVE-2 valve 100% opened and the SVE-1 and SVE-3 valves closed.
- October 28, 2025, one effluent air sample (designated SVE-3) was obtained over a 24-hour period with the SVE-3 valve 100% opened and the SVE-1 and SVE-2 valves closed.

Sample results for VOCs in all three samples were similar in nature, with many compounds either not detected or at very low levels. The results were sent to Proactive Environmental Solutions to review and provide an Air Quality Impact Assessment. Data from the October 15th and 28th, 2025, sampling events are provided in Appendix B.

5.0 CONCLUSIONS AND RECOMMENDATION

- SVE samples were obtained from the SVE system on March 12, 2025, October 15, 2025, and October 28, 2025 (a total of three samples). The samples were sent to a certified lab and analyzed for VOCs via TO-15.
- A DUSR was prepared for the October 15, 2025, and October 28, 2025, samples. Additionally, sample results were uploaded to NYSDEC EQUIS website.
- The most recent (October 2025) sample results were sent to Proactive Environmental Solutions to be reviewed and compared to the Guidance on Air Emissions.
- According to the Air Quality Impact Assessment, based upon review of the data, and in accordance with analysis procedures described in NYSDEC DAR-1, it was concluded that the Site’s impact on air quality is minimal and acceptable and that no air cleaning (no air pollution controls) are needed. A copy of the November 25, 2025, Air Quality Impact Statement is provided in Appendix A
- Based on the SVE sample results, and the conclusion of the Air Quality Impact Assessments, H2M has determined that carbon treatment of the effluent air does not need to be added to the SVE system at this time.



If you have any questions or comments, please feel free to contact me immediately.

Yours sincerely,

H2M architects + engineers

A handwritten signature in black ink that reads "Jessica Proscia". The signature is written in a cursive style and is positioned above a horizontal line.

Jessica Proscia
Senior Project Scientist

APPENDIX A

Air Quality Impact Statements



November 25, 2025

Ms. Jessica Proscia
Senior Project Scientist
H2M architects + engineers
290 Broad Hollow Road, Suite 400E
Melville, NY 11747

Re: Soil Vapor Extraction System – Updated Air Quality Impact Assessment
148-18 Hillside Avenue, Jamaica, Queens, New York Site

Dear Ms. Proscia:

Proactive Environmental Solutions, LLC (Proactive) has prepared this Updated Air Quality Impact Assessment Summary Report for the Soil Vapor Extraction System, or “SVE System” located at 148-18 Hillside Avenue, Jamaica, Queens, New York (Site). Work was performed in accordance with Proactive’s proposal dated March 3, 2025. The updated assessment is based on results from three (3) soil vapor samples collected across the SVE System:

“Effluent Air” (sample collection date: March 12, 2025)

“SVE-2” (sample collection date: October 15, 2025)

“SVE-3” (sample collection date: October 28, 2025)

Methodology

Proactive conducted an Updated Air Quality Impact Assessment where we evaluated potential air quality impacts from operation of the proposed SVE System to be installed at the Site. We obtained source specific data including site and parcel boundary maps, laboratory analytical results (“Effluent Air”, “SVE-2”, “SVE-3”) for volatile organic compounds (VOC), based on EPA TO-15 full compendium list, SVE System design information, and assumed worst-case building dimensions. Table 1 summarizes source-specific information that were collected. Figure 1 shows the location of the SVE System exhaust stack and the nearest distance to the property line. Laboratory analytical results for containments reported at or above detection levels (for the three (3) samples referenced above) are presented in Attachment A. Results were converted from concentrations (i.e., micrograms per cubic meter) to mass emission rates (i.e., grams per second and pounds per hour) based on the maximum concentration for each contaminant reported across the three (3) samples, as shown in Attachment A.

Table 1. Air Quality Impact Assessment Source-Specific Information

Design Maximum Volumetric Flow Rate:	163 scfm
Design Maximum Volumetric Flow Rate:	175 acfm @ 116 °F
Stack Diameter:	3.75 inches
Stack Height (above grade):	118.5 feet
Exhaust Exit Temperature:	70 °F
Building Height:	110 feet
Nearest Distance to Property Line:	10 feet
Receptor Height:	118.5 feet

Maximum predicted 1-hour contaminant impacts from the SVE System exhaust stack discharge point were assessed using the USEPA preferred AERSCREEN model (Version 21112), the latest screening model based on AERMOD. The model estimates “worst-case” 1-hour concentrations for a single source (point, area, or volume) using source-specific data. AERSCREEN generates application-specific worst-case meteorology using representative minimum and maximum ambient air temperatures, and site-specific surface characteristics such as albedo ratio (reflectivity), Bowen ratio (atmospheric stability), and surface roughness (effects of surface friction on atmospheric dispersion). The model incorporates the PRIME downwash algorithms that are part of the AERMOD refined model and utilizes the PRIME plume rise model enhancements to the Building Profile Input Program (BPIPRIM) to provide a detailed analysis of downwash influences on a direction-specific basis. AERSCREEN also incorporates AERMOD’s complex terrain algorithms and utilizes the AERMAP terrain processor to account for the actual terrain in the vicinity of the source on a direction-specific basis.

AERSCREEN uses a conservative algorithm to predict maximum 1-hour pollutant impacts at user-defined sensitive receptor locations. From this, a predicted worst-case annual impact of the contaminant can be derived using a conservative persistence factor. AERSCREEN maximum predicted 1-hour and annual impacts are then compared to New York State Department of Environmental Conservation (NYSDEC) health-based guidance values (i.e., DAR-1 Short-term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs)).

All appropriate regulatory defaults (i.e., buoyancy induced dispersion, building downwash, gradual plume rise, urban dispersion coefficients, default conservative meteorology data) were utilized in the air modeling analysis. Stack parameters (i.e., location, exhaust exit temperature, stack height and diameter, and flue gas flow rate) were obtained from H2M. Contaminant emission rates were calculated using laboratory analytical data for compounds that were reported above detection limits based on a single soil vapor sample collected at the Site. Emission rate calculations for each of the contaminants reported above detection limits are provided in Attachment A.

Results and Discussion

To assess potential air quality impacts from SVE System air contaminants reported above detection levels, model predicted maximum 1-hour impacts were compared to respective NYSDEC SGCs and AGCs. To assess potential annual impacts, model scaling ratios were applied, in accordance with procedures provided in the AERSCREEN User's Guide. Attachment B provides a summary of the results from the air quality impact assessment, which shows that potential air quality impacts are acceptable (per NYSDEC DAR-1 procedures). AERSCREEN modeling output is provided in Attachment C.

Conclusion

Based upon review of relevant data, and in accordance with analysis procedures described in NYSDEC DAR-1, an air quality impact assessment has been completed for the proposed SVE System at 148-18 Hillside Avenue. It is concluded that the Site's impact on air quality is minimal and acceptable and that no air cleaning (no air pollution controls) are needed.

If you have any questions or would like to discuss this report in more detail, please do not hesitate to contact Paul Eisen at (516) 510-2878 or peisen@pro-enviro.com.

Sincerely,

PROACTIVE ENVIRONMENTAL SOLUTIONS, LLC



Paul Eisen, CCM
Principal Scientist



Chris Geraghty, CCM
Senior Scientist

PROJECT TITLE:

Figure 1. Site Location Map
148-18 Hillside Avenue, Jamaica, Queens, New York - SVE System Air Quality Impact Assessment



COMMENTS:

Modeling of Worst-Case Scenario based on the following assumptions:

- Height of nearest sensitive receptor equal to release height of SVE effluent/exhaust discharge point (118.5 ft above grade)
- Horizontal distance of nearest sensitive receptor assumed to equal 10 feet (approximate distance of nearest adjacent property boundary)

COMPANY NAME:

Proactive Environmental Solutions

MODELER:

Chris Geraghty, CCM

SCALE:

1:2,000

0  0.05 km

DATE:

5/2/2025



PROJECT NO.:

Soil Vapor Extraction System Emission Rate Calculations

148-18 Hillside Avenue, Jamaica, Queens, NY Site - Soil Vapor Sample Test Results - Emission Rate Calculation for Detected Contaminants

Soil Vapor Sample Contaminant Concentrations

Contaminant	Contaminant CAS #	Sample ID:	Effluent Air	SVE-2	SVE-3	Max C _{contaminant} (µg/m ³)
		Sample Date:	3/12/25	10/15/25	10/28/25	
		Molecular Weight (g/mol)	C _{contaminant} (µg/m ³)	C _{contaminant} (µg/m ³)	C _{contaminant} (µg/m ³)	
Dichlorodifluoromethane	75-71-8	120.91	1.79	2.8	2.2	2.8
Chloromethane	74-87-3	50.49	0.859	0.97	0.73	0.97
1,3-Butadiene	106-99-0	54.09	3.72	0.91 U	0.98 U	3.72
Ethanol	64-17-5	46.07	14.2	NR	NR	14.2
Acetone	67-64-1	58.08	14.1	46	18 U	46
Isopropanol	67-63-0	60.10	5.41	22	4.2	22
2-Butanone	78-93-3	72.11	2.86	20 U	22 U	22
Tetrahydrofuran	109-99-9	72.11	369	0.81 U	0.87 U	369
n-Hexane	110-54-3	86.18	6.27	3.6	0.52 U	6.27
Benzene	71-43-2	78.1118	19.1	0.79	0.47 U	19.1
Cyclohexane	110-82-7	84.16	1.84	0.47 U	0.51 U	1.84
2,2,4-Trimethylpentane	540-84-1	114.23	3.53	0.32 U	1.9	3.53
Heptane	142-82-5	100.20	2.02	0.56 U	0.61 U	2.02
Toluene	108-88-3	92.14	27.7	3.5	0.78	27.7
Tetrachloroethene	127-18-4	165.83	1.54	50	39	50
Ethylbenzene	100-41-4	106.17	2.64	0.60 U	0.64 U	2.64
p/m-Xylene	106-42-3, 108-38-3	106.17	12.3	1.8	1.4	12.3
o-Xylene	95-47-6	106.17	4.34	0.60	0.64 U	4.34
Total Xylenes	1330-20-7	106.17	16.64	2.4	1.90 U	16.64
Styrene	100-42-5	104.15	1.63	0.59 U	0.63 U	1.63
1,2,4-Trimethylbenzene	95-63-6	120.19	3.40	0.68 U	0.73 U	3.4
Chloroform	67-66-3	119.378	0.977 U	5.9	5.9	5.9
cis-1,2-Dichloroethene	156-59-2	96.94	0.793 U	0.98	0.65	0.98
Ethyl acetate	141-78-6	88.11	1.80 U	53	27 U	53
Trichloroethylene	79-01-6	131.388	1.07 U	0.81	0.20 U	1.07
Trichlorofluoromethane	75-69-4	137.36	1.12 U	1.7	1.1	1.7

U - Indicates that the compound was analyzed for but not detected to the Reporting Limit specified before the "U"

NR - Indicates compound not reported

Equation used to convert mass concentration to mass emission rate:

$$ER \left(\frac{\text{mg}}{\text{hr}} \right)_{\text{contaminant}} = c \left(\frac{\text{mg}_{\text{contaminant}}}{\text{m}^3 \text{ air}} \right) * Q \left(\frac{\text{m}^3 \text{ air}}{\text{hr}} \right) \quad (\text{Heinsohn, Jennings, Kabel, 1999})$$

148-18 Hillside Avenue, Jamaica, Queens, NY Site - Soil Vapor Sample Test Results - Emission Rate Calculation for Detected Contaminants

$$ER_{\text{contaminant}} = \frac{\left[\left(\frac{mg}{m^3} \right) * \left(\frac{ft^3}{min} \right) * \left(60 \frac{min}{hr} \right) \right]}{\left(3.28 \frac{ft}{m} \right)^3}$$

SVE System Effluent Volumetric Flow Rate = 175 acfm @ 116 °F

Unit Conversion: 1 mg = 2.20E-06 lbs

SVE System Effluent - Maximum Uncontrolled (Baseline) Emission Rates

Contaminant	Contaminant CAS #	Emission Rate (mg/hr)	Emission Rate (g/s)	Emission Rate (lb/hr)
Dichlorodifluoromethane	75-71-8	0.833	2.31E-07	1.84E-06
Chloromethane	74-87-3	0.289	8.02E-08	6.36E-07
1,3-Butadiene	106-99-0	1.107	3.07E-07	2.44E-06
Ethanol	64-17-5	4.225	1.17E-06	9.31E-06
Acetone	67-64-1	13.685	3.80E-06	3.02E-05
Isopropanol	67-63-0	6.545	1.82E-06	1.44E-05
2-Butanone	78-93-3	6.545	1.82E-06	1.44E-05
Tetrahydrofuran	109-99-9	109.781	3.05E-05	2.42E-04
n-Hexane	110-54-3	1.865	5.18E-07	4.11E-06
Benzene	71-43-2	5.682	1.58E-06	1.25E-05
Cyclohexane	110-82-7	0.547	1.52E-07	1.21E-06
2,2,4-Trimethylpentane	540-84-1	1.050	2.92E-07	2.32E-06
Heptane	142-82-5	0.601	1.67E-07	1.32E-06
Toluene	108-88-3	8.241	2.29E-06	1.82E-05
Tetrachloroethene	127-18-4	14.875	4.13E-06	3.28E-05
Ethylbenzene	100-41-4	0.785	2.18E-07	1.73E-06
p/m-Xylene	106-42-3, 108-38-3	3.659	1.02E-06	8.07E-06
o-Xylene	95-47-6	1.291	3.59E-07	2.85E-06
Total Xylenes	1330-20-7	4.951	1.38E-06	1.09E-05
Styrene	100-42-5	0.485	1.35E-07	1.07E-06
1,2,4-Trimethylbenzene	95-63-6	1.012	2.81E-07	2.23E-06
Chloroform	67-66-3	1.755	4.88E-07	3.87E-06
cis-1,2-Dichloroethene	156-59-2	0.292	8.10E-08	6.43E-07
Ethyl acetate	141-78-6	15.768	4.38E-06	3.48E-05
Trichloroethylene	79-01-6	0.318	8.84E-08	7.02E-07
Trichlorofluoromethane	75-69-4	0.506	1.40E-07	1.12E-06

Source:

Heinsohn, Robert Jennings, and Robert Lynn Kabel. Chapter 1, Section 1.6.3 Contaminant Concentration, Equation 1.16. "Sources and Control of Air Pollution". Upper Saddle River, NJ: Prentice-Hall, 1999. 669+.

Sub-Slab Depressurization System – Air Quality Impact Assessment
148-18 Hillside Avenue, Jamaica, Queens, New York Site

Attachment B

Summary of AERSCREEN Modeling Results
Comparison to Applicable NYSDEC DAR-1 SGCs/AGCs and 6
NYCRR Part 212 Requirements

148-18 Hillside Avenue, Jamaica, Queens, NY Site SVE System Effluent Air Quality Dispersion Modeling Results (AERSCREEN, Version 21112)

The maximum hourly concentrations calculated by AERSCREEN are based on a unit emission rate of 1 g/s, and then scaled based on each pollutant's actual emission rate. Hourly and annual maximum concentrations of each pollutant are calculated using the following equations:

$$C_{\text{hourly},i} = C_{\text{AERSCREEN}} * \frac{E_{h,i}}{E_u}$$

where: $C_{\text{hourly},i}$ = maximum hourly concentration of pollutant i ($\mu\text{g}/\text{m}^3$)

$C_{\text{AERSCREEN}}$ = maximum hourly concentration from AERSCREEN ($\mu\text{g}/\text{m}^3$)

$E_{h,i}$ = maximum hourly emission rate of pollutant i (g/s)

E_u = unit emission rate = 1 g/s

$$C_{\text{annual},i} = C_{\text{AERSCREEN}} * S * \frac{E_{a,i}}{E_u}$$

where: $C_{\text{annual},i}$ = average annual concentration of pollutant i ($\mu\text{g}/\text{m}^3$)

$C_{\text{AERSCREEN}}$ = maximum hourly concentration from AERSCREEN ($\mu\text{g}/\text{m}^3$)

S = scaling factor = 0.10

$E_{a,i}$ = average annual emission rate of pollutant i (g/s)

E_u = unit emission rate = 1 g/s

AERSCREEN Predicted Air Quality Impacts for SVE System Effluent (Modeled Source ID: SVE STK)

Contaminant	Contaminant CAS #	Pollutant Averaging Time	Modeled Emission Rate (g/s)	Minimum Distance to Fence (ft)	Recept or Height (ft agl)	$C_{\text{AERSCREEN}}$ ($\mu\text{g}/\text{m}^3$)	Contaminant Emission Rate		Predicted Hourly Contaminant Impact ($\mu\text{g}/\text{m}^3$)	AERSCREEN Annual Scaling Ratio	Predicted Annual Contaminant Impact ($\mu\text{g}/\text{m}^3$)
							lb/hr	g/s			
Dichlorodifluoromethane	75-71-8	1-Hr	1	10	118.5	1.83E+05	1.84E-06	2.31E-07	4.24E-02	n/a	n/a
Chloromethane	74-87-3	1-Hr	1	10	118.5	1.83E+05	6.36E-07	8.02E-08	1.47E-02	n/a	n/a
1,3-Butadiene	106-99-0	1-Hr	1	10	118.5	1.83E+05	2.44E-06	3.07E-07	5.63E-02	n/a	n/a
Ethanol	64-17-5	1-Hr	1	10	118.5	1.83E+05	9.31E-06	1.17E-06	2.15E-01	n/a	n/a
Acetone	67-64-1	1-Hr	1	10	118.5	1.83E+05	3.02E-05	3.80E-06	6.96E-01	n/a	n/a
Isopropanol	67-63-0	1-Hr	1	10	118.5	1.83E+05	1.44E-05	1.82E-06	3.33E-01	n/a	n/a
2-Butanone	78-93-3	1-Hr	1	10	118.5	1.83E+05	1.44E-05	1.82E-06	3.33E-01	n/a	n/a
Tetrahydrofuran	109-99-9	1-Hr	1	10	118.5	1.83E+05	2.42E-04	3.05E-05	5.59E+00	n/a	n/a
n-Hexane	110-54-3	1-Hr	1	10	118.5	1.83E+05	4.11E-06	5.18E-07	9.49E-02	n/a	n/a
Benzene	71-43-2	1-Hr	1	10	118.5	1.83E+05	1.25E-05	1.58E-06	2.89E-01	n/a	n/a
Cyclohexane	110-82-7	1-Hr	1	10	118.5	1.83E+05	1.21E-06	1.52E-07	2.79E-02	n/a	n/a
2,2,4-Trimethylpentane	540-84-1	1-Hr	1	10	118.5	1.83E+05	2.32E-06	2.92E-07	5.34E-02	n/a	n/a
Heptane	142-82-5	1-Hr	1	10	118.5	1.83E+05	1.32E-06	1.67E-07	3.06E-02	n/a	n/a
Toluene	108-88-3	1-Hr	1	10	118.5	1.83E+05	1.82E-05	2.29E-06	4.19E-01	n/a	n/a
Tetrachloroethene	127-18-4	1-Hr	1	10	118.5	1.83E+05	3.28E-05	4.13E-06	7.57E-01	n/a	n/a

148-18 Hillside Avenue, Jamaica, Queens, NY Site SVE System Effluent Air Quality Dispersion Modeling Results (AERSCREEN, Version 21112)

AERSCREEN Predicted Air Quality Impacts for SVE System Effluent (Modeled Source ID: SVE STK)

Contaminant	Contaminant CAS #	Pollutant Averaging Time	Modeled Emission Rate (g/s)	Minimum Distance to Fence (ft)	Receptor or Height (ft agl)	C _{AERSCREEN} (µg/m ³)	Contaminant Emission Rate		Predicted Hourly Contaminant Impact (µg/m ³)	AERSCREEN Annual Scaling Ratio	Predicted Annual Contaminant Impact (µg/m ³)
							lb/hr	g/s			
Ethylbenzene	100-41-4	1-Hr	1	10	118.5	1.83E+05	1.73E-06	2.18E-07	4.00E-02	n/a	n/a
p/m-Xylene	06-42-3, 108-38-3	1-Hr	1	10	118.5	1.83E+05	8.07E-06	1.02E-06	1.86E-01	n/a	n/a
o-Xylene	95-47-6	1-Hr	1	10	118.5	1.83E+05	2.85E-06	3.59E-07	6.57E-02	n/a	n/a
Total Xylenes	1330-20-7	1-Hr	1	10	118.5	1.83E+05	1.09E-05	1.38E-06	2.52E-01	n/a	n/a
Styrene	100-42-5	1-Hr	1	10	118.5	1.83E+05	1.07E-06	1.35E-07	2.47E-02	n/a	n/a
1,2,4-Trimethylbenzene	95-63-6	1-Hr	1	10	118.5	1.83E+05	2.23E-06	2.81E-07	5.15E-02	n/a	n/a
Chloroform	67-66-3	1-Hr	1	10	118.5	1.83E+05	3.87E-06	4.88E-07	8.93E-02	n/a	n/a
cis-1,2-Dichloroethene	156-59-2	1-Hr	1	10	118.5	1.83E+05	6.43E-07	8.10E-08	1.48E-02	n/a	n/a
Ethyl acetate	141-78-6	1-Hr	1	10	118.5	1.83E+05	3.48E-05	4.38E-06	8.02E-01	n/a	n/a
Trichloroethylene	79-01-6	1-Hr	1	10	118.5	1.83E+05	7.02E-07	8.84E-08	1.62E-02	n/a	n/a
Trichlorofluoromethane	75-69-4	1-Hr	1	10	118.5	1.83E+05	1.12E-06	1.40E-07	2.57E-02	n/a	n/a
Dichlorodifluoromethane	75-71-8	Annual	1	10	118.5	1.83E+05	1.17E-06	1.48E-07	2.71E-02	0.10	2.71E-03
Chloromethane	74-87-3	Annual	1	10	118.5	1.83E+05	5.63E-07	7.10E-08	1.30E-02	0.10	1.30E-03
1,3-Butadiene	106-99-0	Annual	1	10	118.5	1.83E+05	2.44E-06	3.07E-07	5.63E-02	0.10	5.63E-03
Ethanol	64-17-5	Annual	1	10	118.5	1.83E+05	9.31E-06	1.17E-06	2.15E-01	0.10	2.15E-02
Acetone	67-64-1	Annual	1	10	118.5	1.83E+05	9.25E-06	1.17E-06	2.13E-01	0.10	2.13E-02
Isopropanol	67-63-0	Annual	1	10	118.5	1.83E+05	3.55E-06	4.47E-07	8.19E-02	0.10	8.19E-03
2-Butanone	78-93-3	Annual	1	10	118.5	1.83E+05	1.88E-06	2.36E-07	4.33E-02	0.10	4.33E-03
Tetrahydrofuran	109-99-9	Annual	1	10	118.5	1.83E+05	2.42E-04	3.05E-05	5.59E+00	0.10	5.59E-01
n-Hexane	110-54-3	Annual	1	10	118.5	1.83E+05	4.11E-06	5.18E-07	9.49E-02	0.10	9.49E-03
Benzene	71-43-2	Annual	1	10	118.5	1.83E+05	1.25E-05	1.58E-06	2.89E-01	0.10	2.89E-02
Cyclohexane	110-82-7	Annual	1	10	118.5	1.83E+05	1.21E-06	1.52E-07	2.79E-02	0.10	2.79E-03
2,2,4-Trimethylpentane	540-84-1	Annual	1	10	118.5	1.83E+05	2.32E-06	2.92E-07	5.34E-02	0.10	5.34E-03
Heptane	142-82-5	Annual	1	10	118.5	1.83E+05	1.32E-06	1.67E-07	3.06E-02	0.10	3.06E-03
Toluene	108-88-3	Annual	1	10	118.5	1.83E+05	1.82E-05	2.29E-06	4.19E-01	0.10	4.19E-02
Tetrachloroethene	127-18-4	Annual	1	10	118.5	1.83E+05	1.01E-06	1.27E-07	2.33E-02	0.10	2.33E-03
Ethylbenzene	100-41-4	Annual	1	10	118.5	1.83E+05	1.73E-06	2.18E-07	4.00E-02	0.10	4.00E-03

148-18 Hillside Avenue, Jamaica, Queens, NY Site SVE System Effluent Air Quality Dispersion Modeling Results (AERSCREEN, Version 21112)

AERSCREEN Predicted Air Quality Impacts for SVE System Effluent (Modeled Source ID: SVE STK)

Contaminant	Contaminant CAS #	Pollutant Averaging Time	Modeled Emission Rate (g/s)	Minimum Distance to Fence (ft)	Receptor or Height (ft agl)	C _{AERSCREEN} (µg/m ³)	Contaminant Emission Rate		Predicted Hourly Contaminant Impact (µg/m ³)	AERSCREEN Annual Scaling Ratio	Predicted Annual Contaminant Impact (µg/m ³)
							lb/hr	g/s			
p/m-Xylene	06-42-3, 108-38-3	Annual	1	10	118.5	1.83E+05	8.07E-06	1.02E-06	1.86E-01	0.10	1.86E-02
o-Xylene	95-47-6	Annual	1	10	118.5	1.83E+05	2.85E-06	3.59E-07	6.57E-02	0.10	6.57E-03
Total Xylenes	1330-20-7	Annual	1	10	118.5	1.83E+05	1.09E-05	1.38E-06	2.52E-01	0.10	2.52E-02
Styrene	100-42-5	Annual	1	10	118.5	1.83E+05	1.07E-06	1.35E-07	2.47E-02	0.10	2.47E-03
1,2,4-Trimethylbenzene	95-63-6	Annual	1	10	118.5	1.83E+05	2.23E-06	2.81E-07	5.15E-02	0.10	5.15E-03
Chloroform	67-66-3	Annual	1	10	118.5	1.83E+05	3.87E-06	4.88E-07	8.93E-02	1.10	9.83E-02
cis-1,2-Dichloroethene	156-59-2	Annual	1	10	118.5	1.83E+05	6.43E-07	8.10E-08	1.48E-02	2.10	3.12E-02
Ethyl acetate	141-78-6	Annual	1	10	118.5	1.83E+05	3.48E-05	4.38E-06	8.02E-01	3.10	2.49E+00
Trichloroethylene	79-01-6	Annual	1	10	118.5	1.83E+05	7.02E-07	8.84E-08	1.62E-02	4.10	6.64E-02
Trichlorofluoromethane	75-69-4	Annual	1	10	118.5	1.83E+05	1.12E-06	1.40E-07	2.57E-02	5.10	1.31E-01

148-18 Hillside Avenue, Jamaica, Queens, NY Site SVE System Effluent - Potential Air Quality Impacts

Worst-Case Potential Impacts from System Effluent Beyond Property Line - Uncontrolled (Baseline) Emission Rates at 175 ACFM, 70 °F Exit Temperature and 118.5' Effluent Exhaust Release Height

Contaminant	Contaminant CAS #	Maximum Uncontrolled Emission Rate (lb/hr) ¹	Maximum Potential Annual Emissions (lb/yr) ¹	USEPA AERSCREEN Worst-Case Predicted Impacts ²			NYSDEC HTAC? ³	§212-2.2 Table 2 HTAC Mass Emission Limit (lb/yr) ³	NYSDEC DAR-1 Toxicity Level ^{4,5}	NYSDEC Contaminant Environmental Rating ⁴ (Proposed)	Air Cleaning Requirements of Table 4 of 212-2.3	NYSDEC DAR-1 Guideline Values		In Compliance w/ Part 212?
				Max 1-hr Conc. (µg/m ³)	Max Annual Conc. (µg/m ³)	Receptor Distance from Source (ft)						NYSDEC Short-term Guideline Conc (µg/m ³)	NYSDEC Annual Guideline Conc (µg/m ³)	
Dichlorodifluoromethane	75-71-8	1.84E-06	1.61E-02	0.042	0.003	10.00	N	--	(Moderate)	B	Meet Applicable SGC/AGC	(--)	12000.0	Y
Chloromethane	74-87-3	6.36E-07	5.57E-03	0.015	0.001	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	90.0	Y
1,3-Butadiene	106-99-0	2.44E-06	2.14E-02	0.056	0.006	10.00	Y	25	High	A	Meet HTAC Mass Emission Limit	(--)	3.3E-02	Y
Ethanol	64-17-5	9.31E-06	8.16E-02	0.215	0.021	10.00	N	--	Low	C	Meet Applicable SGC/AGC	(--)	45000.0	Y
Acetone	67-64-1	3.02E-05	2.64E-01	0.696	0.021	10.00	N	--	Low	C	Meet Applicable SGC/AGC	180000.0	30000.0	Y
Isopropanol	67-63-0	1.44E-05	1.26E-01	0.333	0.008	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	98000.0	7000.0	Y
2-Butanone	78-93-3	1.44E-05	1.26E-01	0.333	0.004	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	13000.0	5000.0	Y
Tetrahydrofuran	109-99-9	2.42E-04	2.12E+00	5.587	0.559	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	30000.0	350.0	Y
n-Hexane	110-54-3	4.11E-06	3.60E-02	0.095	0.009	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	700.0	Y
Benzene	71-43-2	1.25E-05	1.10E-01	0.289	0.029	10.00	Y	100	High	A	Meet HTAC Mass Emission Limit	27.0	1.3E-01	Y
Cyclohexane	110-82-7	1.21E-06	1.06E-02	0.028	0.003	10.00	N	--	Low	C	Meet Applicable SGC/AGC	(--)	6000.0	Y
2,2,4-Trimethylpentane	540-84-1	2.32E-06	2.03E-02	0.053	0.005	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	3300.0	Y
Heptane	142-82-5	1.32E-06	1.16E-02	0.031	0.003	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	210000.0	3900.0	Y
Toluene	108-88-3	1.82E-05	1.59E-01	0.419	0.042	10.00	N	--	Low	C	Meet Applicable SGC/AGC	37000.0	5000.0	Y
Tetrachloroethene	127-18-4	3.28E-05	2.87E-01	0.757	0.002	10.00	Y	1000	High	A	Meet HTAC Mass Emission Limit	300.0	3.8	Y
Ethylbenzene	100-41-4	1.73E-06	1.52E-02	0.040	0.004	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	1000.0	Y
p/m-Xylene	106-42-3, 108-38-3	8.07E-06	7.07E-02	0.186	0.019	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	100.0	Y
o-Xylene	95-47-6	2.85E-06	2.49E-02	0.066	0.007	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	100.0	Y
Total Xylenes	1330-20-7	1.09E-05	9.56E-02	0.252	0.025	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	100.0	Y
Styrene	100-42-5	1.07E-06	9.37E-03	0.025	0.002	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	17000.0	1000.0	Y
1,2,4-Trimethylbenzene	95-63-6	2.23E-06	1.95E-02	0.051	0.005	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	60.0	Y
Chloroform	67-66-3	3.87E-06	3.39E-02	0.089	0.098	10.00	N	--	High	A	Meet Applicable SGC/AGC	150.0	14.7	Y
cis-1,2-Dichloroethene	156-59-2	6.43E-07	5.63E-03	0.015	0.031	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	63.0	Y
Ethyl acetate	141-78-6	3.48E-05	3.05E-01	0.802	2.487	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	3400.0	Y
Trichloroethylene	79-01-6	7.02E-07	6.15E-03	0.016	0.066	10.00	Y	500	High	A	Meet HTAC Mass Emission Limit	20.0	2.1E-01	Y
Trichlorofluoromethane	75-69-4	1.12E-06	9.77E-03	0.026	0.131	10.00	N	--	Low	C	Meet Applicable SGC/AGC	9000.0	5000.0	Y

Table Notes:

- Hourly emission rates based on maximum concentrations detected in soil vapor samples at "Effluent Air", "SVE-2", and "SVE-3", and SVE System design maximum volumetric flow rate of 175 ACFM @ 116 °F. Maximum annual emissions calculated by multiplying hourly emission rate by 8,760 hours of operation per year.
- Worst-Case Scenario based upon following assumptions:
 - Height of nearest sensitive receptor equal to release height of SVE effluent/exhaust discharge point (118.5 ft above grade).
 - Horizontal distance of nearest sensitive receptor assumed to equal 10 feet (approximate distance of nearest adjacent property line).
- Per 6 NYCRR 212-2.2 Table 2 - highly toxic air contaminant list. For an air contaminant listed here, the facility owner or operator shall either limit the actual annual emissions from all process operations at the facility so as to not exceed the mass emission limit listed for the individual HTAC; or demonstrate compliance with the air cleaning requirements for the HTAC as specified in subdivision 212-2.3(b), Table 4 – degree of air cleaning required for non-criteria air contaminants, of Subpart 212-2.3 for the environmental rating assigned to the contaminant by NYSDEC.
- From DAR-1 AGC/SGC Tables: H = High, M = Moderate, L = Low. In accordance with DAR-1 procedures, when assigning an initial Environmental Rating (ER) for each contaminant, an ER of "A" should be assigned to high toxicity contaminants; an ER of "B" should be assigned to moderate toxicity contaminants; an ER of "C" should be assigned to low toxicity contaminants; and, an ER of "D" should only be initially assigned to contaminants identified as simple asphyxiants.

⁵ Per DAR-1 procedures, those air contaminants without a toxicity classification should be assigned a moderate toxicity classification. Thus, where a toxicity value has not been assigned in the AGC/SGC Tables, a moderate toxicity rating, denoted as "(moderate)", is shown. SGC and AGC which are not available are denoted as "--".

Sub-Slab Depressurization System – Air Quality Impact Assessment
148-18 Hillside Avenue, Jamaica, Queens, New York Site

Attachment C

AERSCREEN Model Output

TITLE: SCENARIO 1 - WORST CASE

***** POINTCAP PARAMETERS *****

SOURCE EMISSION RATE:	1.0000 g/s	7.937 lb/hr
STACK HEIGHT:	36.12 meters	118.50 feet
STACK INNER DIAMETER:	0.095 meters	3.75 inches
PLUME EXIT TEMPERATURE:	294.3 K	70.0 Deg F
PLUME EXIT VELOCITY:	11.591 m/s	38.03 ft/s
STACK AIR FLOW RATE:	175 ACFM	
STACK BASE LONGITUDE:	-73.8079 deg	600705. Easting
STACK BASE LATITUDE:	40.7059 deg	4506792. Northing
STACK BASE UTM ZONE:		18
REFERENCE DATUM (NADA):		4
STACK BASE ELEVATION:	20.01 meters	65.65 feet
RURAL OR URBAN:	URBAN	
POPULATION:	3940	
FLAGPOLE RECEPTOR HEIGHT:	36.12 meters	118.50 feet
DIGITAL ELEVATION MAP(S)	"USGS_NED_13_n41w074.tif"	
INITIAL PROBE DISTANCE =	450. meters	1476. feet

***** BUILDING DOWNWASH PARAMETERS *****

USER DEFINED BPIPPRM INPUT FILE: AERSCREEN.BPI

MAXIMUM BUILDING HEIGHT:	33.5 meters	110.0 feet
MAXIMUM BUILDING LENGTH:	56.5 meters	185.3 feet
MINIMUM BUILDING WIDTH:	39.2 meters	128.6 feet

 ***** FLOW SECTOR ANALYSIS *****
 25 meter receptor spacing: 1. meters - 450. meters

TEMPORAL FLOW SECTOR	BUILD WIDTH	BUILD LENGTH	XBADJ	YBADJ	MAXIMUM 1-HR CONC (ug/m3)	IMPACT DIST (m)	RECEPTOR HEIGHT (m)	PERIOD
10	54.36	55.22	-15.33	-13.01	0.1477E+07	1.0	0.01	ANN
20	56.27	56.39	-13.84	-10.71	0.1097E+07	1.0	0.00	ANN
30	56.47	55.85	-11.93	-8.08	0.7689E+06	1.0	0.00	ANN
40	54.95	53.61	-9.66	-5.21	0.5175E+06	1.0	0.00	ANN
50	51.77	49.74	-7.09	-2.18	0.3749E+06	1.0	0.00	ANN
60	47.01	44.36	-4.31	0.92	0.2883E+06	1.0	0.00	ANN
70	42.03	39.20	-2.29	4.13	0.2445E+06	1.0	-0.01	ANN
80	47.93	45.70	-6.49	7.09	0.3626E+06	1.0	-0.01	ANN
90	52.37	50.80	-10.49	9.84	0.6009E+06	1.0	-0.01	ANN
100	55.22	54.36	-14.18	12.28	0.1119E+07	1.0	-0.02	ANN
110	56.39	56.27	-17.43	14.36	0.1694E+07	1.0	-0.02	ANN
120	55.85	56.47	-20.15	15.99	0.4267E+07	1.0	-0.02	ANN
130	53.61	54.95	-22.27	17.15	0.4470E+07	1.0	-0.02	ANN
140	49.74	51.77	-23.70	17.78	0.4621E+07	1.0	-0.02	ANN
150	44.36	47.01	-24.42	17.87	0.4817E+07	1.0	-0.02	ANN
160	39.20	42.03	-25.14	17.32	0.5077E+07	1.0	-0.02	ANN
170	45.70	47.93	-31.05	16.36	0.5325E+07	1.0	-0.02	ANN
180	50.80	52.37	-36.02	14.91	0.5581E+07	1.0	-0.02	ANN
190	54.36	55.22	-39.89	13.01	0.5820E+07	1.0	-0.02	ANN
200	56.27	56.39	-42.55	10.71	0.6070E+07	1.0	-0.02	ANN
210	56.47	55.85	-43.92	8.08	0.6230E+07	1.0	-0.02	ANN
220	54.95	53.61	-43.95	5.21	0.6579E+07	1.0	-0.01	ANN
230	51.77	49.74	-42.65	2.18	0.6662E+07	1.0	-0.01	ANN
240	47.01	44.36	-40.05	-0.92	0.6660E+07	1.0	-0.01	ANN
250	42.03	39.20	-36.92	-4.13	0.6610E+07	1.0	-0.01	ANN
260*	47.93	45.70	-39.21	-7.09	0.6781E+07	1.0	0.00	ANN
270	52.37	50.80	-40.31	-9.84	0.6687E+07	1.0	0.00	ANN
280	55.22	54.36	-40.19	-12.28	0.6417E+07	1.0	0.00	ANN
290	56.39	56.27	-38.84	-14.36	0.6016E+07	1.0	0.00	ANN
300	55.85	56.47	-36.31	-15.99	0.5975E+07	1.0	0.01	ANN
310	53.61	54.95	-32.69	-17.15	0.5817E+07	1.0	0.01	ANN
320	49.74	51.77	-28.06	-17.78	0.5576E+07	1.0	0.01	ANN
330	44.36	47.01	-22.59	-17.87	0.5342E+07	1.0	0.01	ANN
340	39.20	42.03	-16.89	-17.32	0.3761E+07	1.0	0.01	ANN
350	45.70	47.93	-16.88	-16.36	0.2455E+07	1.0	0.01	ANN
360	50.80	52.37	-16.35	-14.91	0.1621E+07	1.0	0.01	ANN

* = worst case flow sector

 ***** MAKEMET METEOROLOGY PARAMETERS *****

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: USER ENTERED

ALBEDO: 0.21

BOWEN RATIO: 1.62

ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADJUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR MO DY JDY HR

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 10 01 09 9 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.36	0.043	-9.000	0.020	-999.	208.	17.3	1.000	1.62	0.21	0.50

HT	REF TA	HT
10.0	250.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR MO DY JDY HR

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 10 01 09 9 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.36	0.043	-9.000	0.020	-999.	208.	17.3	1.000	1.62	0.21	0.50

HT	REF TA	HT
----	--------	----

10.0 250.0 2.0

***** AERSCREEN AUTOMATED DISTANCES *****
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	RECEPTOR HEIGHT (m)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	RECEPTOR HEIGHT (m)
1.00	0.6781E+07	0.00	225.00	244.7	-0.32
3.05	0.1832E+06	-0.04	250.00	216.9	-0.42
25.00	3063.	-0.02	275.00	195.5	-0.53
50.00	1990.	0.07	300.00	178.6	-0.59
75.00	1177.	0.03	325.00	169.6	-3.37
100.00	751.1	0.01	350.00	165.1	-5.12
125.00	533.8	0.09	375.00	163.0	-3.97
150.00	411.4	0.04	400.00	161.7	-4.14
175.00	334.4	-0.23	425.00	160.9	-5.03
200.00	282.6	-0.34	450.00	159.4	-5.15

***** AERSCREEN MAXIMUM IMPACT SUMMARY *****

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
ELEVATED TERRAIN	0.6781E+07	0.6781E+07	0.6103E+07	0.4068E+07	0.6781E+06

DISTANCE FROM SOURCE 1.00 meters directed toward 260 degrees
 RECEPTOR HEIGHT 0.00 meters

IMPACT AT THE
 AMBIENT BOUNDARY 0.6781E+07 0.6781E+07 0.6103E+07 0.4068E+07 0.6781E+06

DISTANCE FROM SOURCE 1.00 meters directed toward 260 degrees
 RECEPTOR HEIGHT 0.00 meters



May 5, 2025

Ms. Jessica Proscia
Senior Project Scientist
H2M architects + engineers
290 Broad Hollow Road, Suite 400E
Melville, NY 11747

Re: Soil Vapor Extraction System – Air Quality Impact Assessment
148-18 Hillside Avenue, Jamaica, Queens, New York Site

Dear Ms. Proscia:

Proactive Environmental Solutions, LLC (Proactive) has prepared this Air Quality Impact Assessment Summary Report for the Soil Vapor Extraction System¹, or “SVE System”) located at 148-18 Hillside Avenue, Jamaica, Queens, New York (Site). Work was performed in accordance with Proactive’s proposal dated March 3, 2025.

Methodology

Proactive conducted an Air Quality Impact Assessment where we evaluated potential air quality impacts from operation of the proposed SVE System to be installed at the Site. We obtained source specific data including site and parcel boundary maps, laboratory analytical results, SVE System design information, and assumed worst-case building dimensions. Table 1 summarizes source-specific information that were collected. Figure 1 shows the location of the SVE System exhaust stack and the nearest distance to the property line.

Table 1. Air Quality Impact Assessment Source-Specific Information

Design Maximum Volumetric Flow Rate:	163 scfm
Design Maximum Volumetric Flow Rate:	175 acfm @ 116 °F
Stack Diameter:	3.75 inches
Stack Height (above grade):	118.5 feet
Exhaust Exit Temperature:	70 °F
Building Height:	110 feet
Nearest Distance to Property Line:	10 feet
Receptor Height:	118.5 feet

¹ The site has both a Sub Slab Depressurization System (SSDS) and a Soil Vapor Extraction (SVE System). For simplicity, the term “SVE System” as used in this report is meant to reference both these Systems.

Maximum predicted 1-hour contaminant impacts from the SVE System exhaust stack discharge point were assessed using the USEPA preferred AERSCREEN model (Version 21112), the latest screening model based on AERMOD. The model estimates “worst-case” 1-hour concentrations for a single source (point, area, or volume) using source-specific data. AERSCREEN generates application-specific worst-case meteorology using representative minimum and maximum ambient air temperatures, and site-specific surface characteristics such as albedo ratio (reflectivity), Bowen ratio (atmospheric stability), and surface roughness (effects of surface friction on atmospheric dispersion). The model incorporates the PRIME downwash algorithms that are part of the AERMOD refined model and utilizes the PRIME plume rise model enhancements to the Building Profile Input Program (BPIPRIM) to provide a detailed analysis of downwash influences on a direction-specific basis. AERSCREEN also incorporates AERMOD’s complex terrain algorithms and utilizes the AERMAP terrain processor to account for the actual terrain in the vicinity of the source on a direction-specific basis.

AERSCREEN uses a conservative algorithm to predict maximum 1-hour pollutant impacts at user-defined sensitive receptor locations. From this, a predicted worst-case annual impact of the contaminant can be derived using a conservative persistence factor. AERSCREEN maximum predicted 1-hour and annual impacts are then compared to New York State Department of Environmental Conservation (NYSDEC) health-based guidance values (i.e., DAR-1 Short-term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs)).

All appropriate regulatory defaults (i.e., buoyancy induced dispersion, building downwash, gradual plume rise, urban dispersion coefficients, default conservative meteorology data) were utilized in the air modeling analysis. Stack parameters (i.e., location, exhaust exit temperature, stack height and diameter, and flue gas flow rate) were obtained from H2M. Contaminant emission rates were calculated using laboratory analytical data for compounds that were reported above detection limits based on a single soil vapor sample collected at the Site. Emission rate calculations for each of the contaminants reported above detection limits are provided in Attachment A².

Results and Discussion

To assess potential air quality impacts from SVE System air contaminants reported above detection levels, model predicted maximum 1-hour impacts were compared to respective NYSDEC SGCs and AGCs. To assess potential annual impacts, model scaling ratios were applied,

² Please note that the site analyses described in this letter report and its Attachments were completed prior to the site receiving an environmental easement, where the site address was changed from 148-26 Hillside Avenue to 148-18 Hillside Avenue. References to the site address in all Figures and Attachments to this report remain at 148-26 Hillside Avenue, since the analyses results as originally compiled cannot be revised without completely redoing all modeling with the new site address, which would have no impact on modeling results.

in accordance with procedures provided in the AERSCREEN User's Guide. Attachment B provides a summary of the results from the air quality impact assessment, which shows that potential air quality impacts are acceptable (per NYSDEC DAR-1 procedures). AERSCREEN modeling output is provided in Attachment C.

Results and Discussion

Based upon review of relevant data, and in accordance with analysis procedures described in NYSDEC DAR-1, an air quality impact assessment has been completed for the proposed SVE System at 148-18 Hillside Avenue. It is concluded that the Site's impact on air quality is minimal and acceptable.

If you have any questions or would like to discuss this report in more detail, please do not hesitate to contact Paul Eisen at (516) 510-2878 or peisen@pro-enviro.com.

Sincerely,

PROACTIVE ENVIRONMENTAL SOLUTIONS, LLC



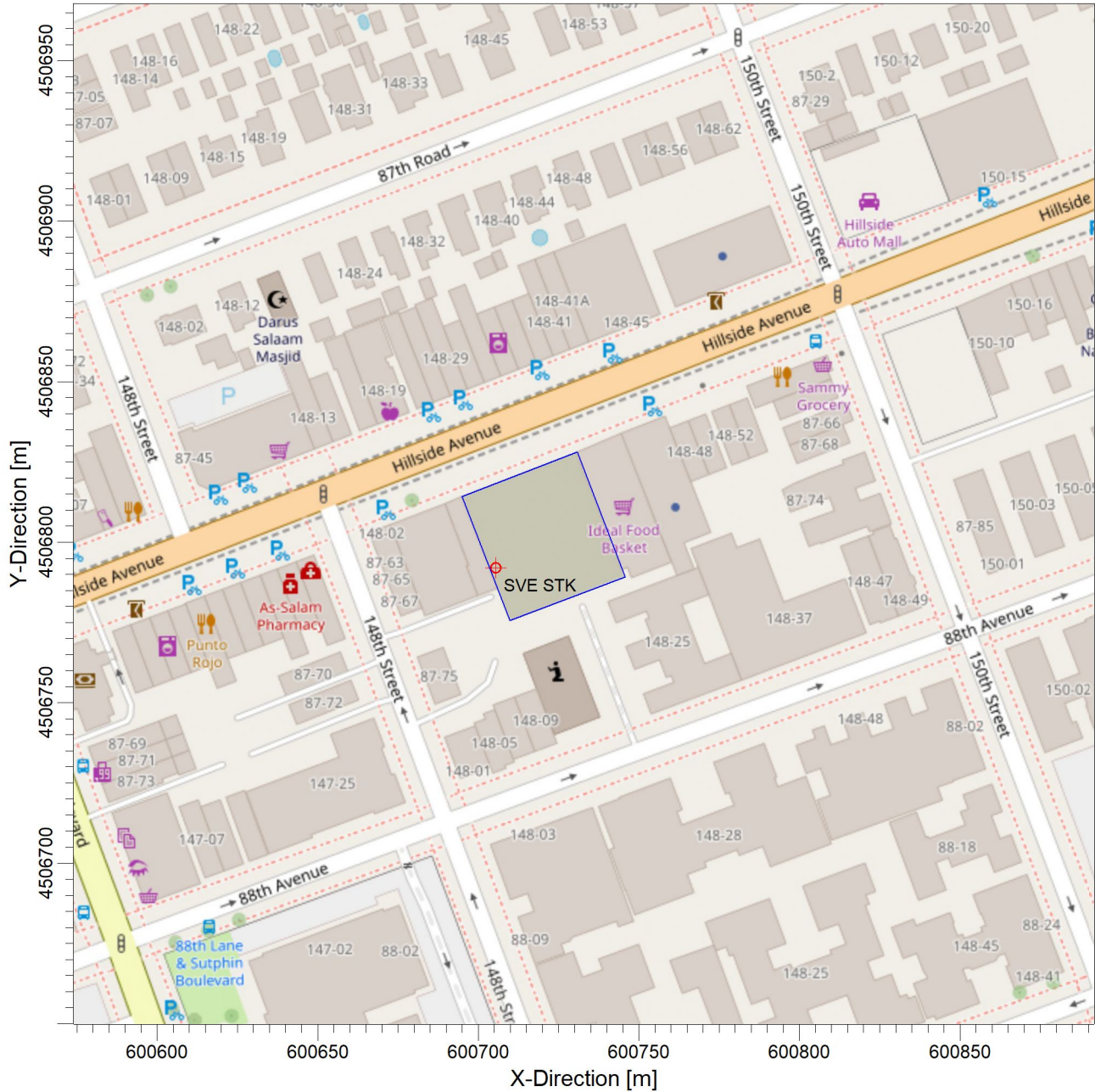
Paul Eisen, CCM, Principal Scientist



Chris Geraghty, CCM, Senior Scientist

PROJECT TITLE:

Figure 1. Site Location Map
148-26 Hillside Avenue, Jamaica, Queens, New York - SVE System Air Quality Impact Assessment



COMMENTS:

Modeling of Worst-Case Scenario based on the following assumptions:

- Height of nearest sensitive receptor equal to release height of SVE effluent/exhaust discharge point (118.5 ft above grade)
- Horizontal distance of nearest sensitive receptor assumed to equal 10 feet (approximate distance of nearest adjacent property boundary)

COMPANY NAME:

Proactive Environmental Solutions

MODELER:

Chris Geraghty, CCM

SCALE:

1:2,000

0 0.05 km

DATE:

5/2/2025



PROJECT NO.:

Sub-Slab Depressurization System – Air Quality Impact Assessment
148-26 Hillside Avenue, Jamaica, Queens, New York Site

Attachment A

Sub-Slab Depressurization System Emission Rate Calculations

148-26 Hillside Avenue, Jamaica, Queens, NY Site - Soil Vapor Sample Test Results - Emission Rate Calculation for Detected Contaminants

Soil Vapor Sample Contaminant Concentrations (from Pace Analytical Report dated April 2, 2025)

Contaminant	Contaminant CAS #	Contaminant Molecular Weight (g/mol)	C _{contaminant} (ppbv)	C _{contaminant} (ppmv)	C _{contaminant} (µg/m ³)	C _{contaminant} (mg/m ³)
Dichlorodifluoromethane	75-71-8	120.91	0.361	0.000361	1.79	0.002
Chloromethane	74-87-3	50.49	0.416	0.000416	0.859	0.001
1,3-Butadiene	106-99-0	54.09	1.68	0.00168	3.72	0.004
Ethanol	64-17-5	46.07	7.51	0.00751	14.2	0.014
Acetone	67-64-1	58.08	5.95	0.00595	14.1	0.014
Isopropanol	67-63-0	60.10	2.20	0.0022	5.41	0.005
2-Butanone	78-93-3	72.11	0.969	0.000969	2.86	0.003
Tetrahydrofuran	109-99-9	72.11	125	0.125	369	0.369
n-Hexane	110-54-3	86.18	1.78	0.00178	6.27	0.006
Benzene	71-43-2	78.1118	5.97	0.00597	19.1	0.019
Cyclohexane	110-82-7	84.16	0.535	0.000535	1.84	0.002
2,2,4-Trimethylpentane	540-84-1	114.23	0.756	0.000756	3.53	0.004
Heptane	142-82-5	100.20	0.493	0.000493	2.02	0.002
Toluene	108-88-3	92.14	7.36	0.00736	27.7	0.028
Tetrachloroethene	127-18-4	165.83	0.227	0.000227	1.54	0.002
Ethylbenzene	100-41-4	106.17	0.607	0.000607	2.64	0.003
p/m-Xylene	106-42-3, 108-	106.17	2.84	0.00284	12.3	0.012
o-Xylene	95-47-6	106.17	0.999	0.000999	4.34	0.004
Total Xylenes	1330-20-7	106.17	3.839	0.003839	16.64	0.017
Styrene	100-42-5	104.15	0.383	0.000383	1.63	0.002
1,2,4-Trimethylbenzene	95-63-6	120.19	0.691	0.000691	3.40	0.003

Equation used to convert mass concentration to mass emission rate:

$$ER \left(\frac{\text{mg}}{\text{hr}} \right)_{\text{contaminant}} = c \left(\frac{\text{mg}_{\text{contaminant}}}{\text{m}^3 \text{ air}} \right) * Q \left(\frac{\text{m}^3 \text{ air}}{\text{hr}} \right) \quad (\text{Heinsohn, Jennings, Kabel, 1999})$$

$$ER_{\text{contaminant}} = \frac{\left[\left(\frac{\text{mg}}{\text{m}^3} \right) * \left(\frac{\text{ft}^3}{\text{min}} \right) * \left(60 \frac{\text{min}}{\text{hr}} \right) \right]}{\left(3.28 \frac{\text{ft}}{\text{m}} \right)^3}$$

SVE System Effluent Volumetric Flow Rate = 175 acfm @ 116 °F

Unit Conversion: 1 mg = 2.20E-06 lbs

SVE System Effluent - Uncontrolled (Baseline) Emission Rates

Contaminant	Contaminant CAS #	Emission Rate (mg/hr)	Emission Rate (g/s)	Emission Rate (lb/hr)
Dichlorodifluoromethane	75-71-8	0.533	1.48E-07	1.17E-06
Chloromethane	74-87-3	0.256	7.10E-08	5.63E-07
1,3-Butadiene	106-99-0	1.107	3.07E-07	2.44E-06
Ethanol	64-17-5	4.225	1.17E-06	9.31E-06
Acetone	67-64-1	4.195	1.17E-06	9.25E-06
Isopropanol	67-63-0	1.610	4.47E-07	3.55E-06
2-Butanone	78-93-3	0.851	2.36E-07	1.88E-06
Tetrahydrofuran	109-99-9	109.781	3.05E-05	2.42E-04
n-Hexane	110-54-3	1.865	5.18E-07	4.11E-06
Benzene	71-43-2	5.682	1.58E-06	1.25E-05
Cyclohexane	110-82-7	0.547	1.52E-07	1.21E-06

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148-26 Hillside Avenue, Jamaica, Queens, NY Site - Soil Vapor Sample Test Results - Emission Rate Calculation for Detected Contaminants

2,2,4-Trimethylpentane	540-84-1	1.050	2.92E-07	2.32E-06
Heptane	142-82-5	0.601	1.67E-07	1.32E-06
Toluene	108-88-3	8.241	2.29E-06	1.82E-05
Tetrachloroethene	127-18-4	0.458	1.27E-07	1.01E-06
Ethylbenzene	100-41-4	0.785	2.18E-07	1.73E-06
p/m-Xylene	106-42-3, 108-	3.659	1.02E-06	8.07E-06
o-Xylene	95-47-6	1.291	3.59E-07	2.85E-06
Total Xylenes	1330-20-7	4.951	1.38E-06	1.09E-05
Styrene	100-42-5	0.485	1.35E-07	1.07E-06
1,2,4-Trimethylbenzene	95-63-6	1.012	2.81E-07	2.23E-06

Source:

Heinsohn, Robert Jennings, and Robert Lynn Kabel. Chapter 1, Section 1.6.3 Contaminant Concentration, Equation 1.16. "Sources and Control of Air Pollution". Upper Saddle River, NJ: Prentice-Hall, 1999. 669+. Print.

Sub-Slab Depressurization System – Air Quality Impact Assessment
148-26 Hillside Avenue, Jamaica, Queens, New York Site

Attachment B

Summary of AERSCREEN Modeling Results
Comparison to Applicable NYSDEC DAR-1 SGCs/AGCs and 6
NYCRR Part 212 Requirements

148-26 Hillside Avenue, Jamaica, Queens, NY Site SVE System Effluent Air Quality Dispersion Modeling Results (AERSCREEN, Version 21112)

The maximum hourly concentrations calculated by AERSCREEN are based on a unit emission rate of 1 g/s, and then scaled based on each pollutant's actual emission rate. Hourly and annual maximum concentrations of each pollutant are calculated using the following equations:

$$C_{\text{hourly},i} = C_{\text{AERSCREEN}} * \frac{E_{h,i}}{E_u}$$

where: $C_{\text{hourly},i}$ = maximum hourly concentration of pollutant i ($\mu\text{g}/\text{m}^3$)

$C_{\text{AERSCREEN}}$ = maximum hourly concentration from AERSCREEN ($\mu\text{g}/\text{m}^3$)

$E_{h,i}$ = maximum hourly emission rate of pollutant i (g/s)

E_u = unit emission rate = 1 g/s

$$C_{\text{annual},i} = C_{\text{AERSCREEN}} * S * \frac{E_{a,i}}{E_u}$$

where: $C_{\text{annual},i}$ = average annual concentration of pollutant i ($\mu\text{g}/\text{m}^3$)

$C_{\text{AERSCREEN}}$ = maximum hourly concentration from AERSCREEN ($\mu\text{g}/\text{m}^3$)

S = scaling factor = 0.10

$E_{a,i}$ = average annual emission rate of pollutant i (g/s)

E_u = unit emission rate = 1 g/s

AERSCREEN Predicted Air Quality Impacts for SVE System Effluent (Modeled Source ID: SVE STK)

Contaminant	Contaminant CAS #	Pollutant Averaging Time	Modeled Emission Rate (g/s)	Minimum Distance to Fence (ft)	Receptor Height (ft agl)	$C_{\text{AERSCREEN}}$ ($\mu\text{g}/\text{m}^3$)	Contaminant Emission Rate		Predicted Hourly Contaminant Impact ($\mu\text{g}/\text{m}^3$)	AERSCREEN Annual Scaling Ratio	Predicted Annual Contaminant Impact ($\mu\text{g}/\text{m}^3$)
							lb/hr	g/s			
Dichlorodifluoromethane	75-71-8	1-Hr	1	10	118.5	1.83E+05	1.17E-06	1.48E-07	2.71E-02	n/a	n/a
Chloromethane	74-87-3	1-Hr	1	10	118.5	1.83E+05	5.63E-07	7.10E-08	1.30E-02	n/a	n/a
1,3-Butadiene	106-99-0	1-Hr	1	10	118.5	1.83E+05	2.44E-06	3.07E-07	5.63E-02	n/a	n/a
Ethanol	64-17-5	1-Hr	1	10	118.5	1.83E+05	9.31E-06	1.17E-06	2.15E-01	n/a	n/a
Acetone	67-64-1	1-Hr	1	10	118.5	1.83E+05	9.25E-06	1.17E-06	2.13E-01	n/a	n/a
Isopropanol	67-63-0	1-Hr	1	10	118.5	1.83E+05	3.55E-06	4.47E-07	8.19E-02	n/a	n/a
2-Butanone	78-93-3	1-Hr	1	10	118.5	1.83E+05	1.88E-06	2.36E-07	4.33E-02	n/a	n/a
Tetrahydrofuran	109-99-9	1-Hr	1	10	118.5	1.83E+05	2.42E-04	3.05E-05	5.59E+00	n/a	n/a
n-Hexane	110-54-3	1-Hr	1	10	118.5	1.83E+05	4.11E-06	5.18E-07	9.49E-02	n/a	n/a
Benzene	71-43-2	1-Hr	1	10	118.5	1.83E+05	1.25E-05	1.58E-06	2.89E-01	n/a	n/a
Cyclohexane	110-82-7	1-Hr	1	10	118.5	1.83E+05	1.21E-06	1.52E-07	2.79E-02	n/a	n/a
2,2,4-Trimethylpentane	540-84-1	1-Hr	1	10	118.5	1.83E+05	2.32E-06	2.92E-07	5.34E-02	n/a	n/a
Heptane	142-82-5	1-Hr	1	10	118.5	1.83E+05	1.32E-06	1.67E-07	3.06E-02	n/a	n/a
Toluene	108-88-3	1-Hr	1	10	118.5	1.83E+05	1.82E-05	2.29E-06	4.19E-01	n/a	n/a
Tetrachloroethene	127-18-4	1-Hr	1	10	118.5	1.83E+05	1.01E-06	1.27E-07	2.33E-02	n/a	n/a

148-26 Hillside Avenue, Jamaica, Queens, NY Site SVE System Effluent Air Quality Dispersion Modeling Results (AERSCREEN, Version 21112)

AERSCREEN Predicted Air Quality Impacts for SVE System Effluent (Modeled Source ID: SVE STK)

Contaminant	Contaminant CAS #	Pollutant Averaging Time	Modeled Emission Rate (g/s)	Minimum Distance to Fence (ft)	Receptor Height (ft agl)	C _{AERSCREEN} (µg/m ³)	Contaminant Emission Rate		Predicted Hourly Contaminant Impact (µg/m ³)	AERSCREEN Annual Scaling Ratio	Predicted Annual Contaminant Impact (µg/m ³)
							lb/hr	g/s			
Ethylbenzene	100-41-4	1-Hr	1	10	118.5	1.83E+05	1.73E-06	2.18E-07	4.00E-02	n/a	n/a
p/m-Xylene	06-42-3, 108-38-3	1-Hr	1	10	118.5	1.83E+05	8.07E-06	1.02E-06	1.86E-01	n/a	n/a
o-Xylene	95-47-6	1-Hr	1	10	118.5	1.83E+05	2.85E-06	3.59E-07	6.57E-02	n/a	n/a
Total Xylenes	1330-20-7	1-Hr	1	10	118.5	1.83E+05	1.09E-05	1.38E-06	2.52E-01	n/a	n/a
Styrene	100-42-5	1-Hr	1	10	118.5	1.83E+05	1.07E-06	1.35E-07	2.47E-02	n/a	n/a
1,2,4-Trimethylbenzene	95-63-6	1-Hr	1	10	118.5	1.83E+05	2.23E-06	2.81E-07	5.15E-02	n/a	n/a
Dichlorodifluoromethane	75-71-8	Annual	1	10	118.5	1.83E+05	1.17E-06	1.48E-07	2.71E-02	0.10	2.71E-03
Chloromethane	74-87-3	Annual	1	10	118.5	1.83E+05	5.63E-07	7.10E-08	1.30E-02	0.10	1.30E-03
1,3-Butadiene	106-99-0	Annual	1	10	118.5	1.83E+05	2.44E-06	3.07E-07	5.63E-02	0.10	5.63E-03
Ethanol	64-17-5	Annual	1	10	118.5	1.83E+05	9.31E-06	1.17E-06	2.15E-01	0.10	2.15E-02
Acetone	67-64-1	Annual	1	10	118.5	1.83E+05	9.25E-06	1.17E-06	2.13E-01	0.10	2.13E-02
Isopropanol	67-63-0	Annual	1	10	118.5	1.83E+05	3.55E-06	4.47E-07	8.19E-02	0.10	8.19E-03
2-Butanone	78-93-3	Annual	1	10	118.5	1.83E+05	1.88E-06	2.36E-07	4.33E-02	0.10	4.33E-03
Tetrahydrofuran	109-99-9	Annual	1	10	118.5	1.83E+05	2.42E-04	3.05E-05	5.59E+00	0.10	5.59E-01
n-Hexane	110-54-3	Annual	1	10	118.5	1.83E+05	4.11E-06	5.18E-07	9.49E-02	0.10	9.49E-03
Benzene	71-43-2	Annual	1	10	118.5	1.83E+05	1.25E-05	1.58E-06	2.89E-01	0.10	2.89E-02
Cyclohexane	110-82-7	Annual	1	10	118.5	1.83E+05	1.21E-06	1.52E-07	2.79E-02	0.10	2.79E-03
2,2,4-Trimethylpentane	540-84-1	Annual	1	10	118.5	1.83E+05	2.32E-06	2.92E-07	5.34E-02	0.10	5.34E-03
Heptane	142-82-5	Annual	1	10	118.5	1.83E+05	1.32E-06	1.67E-07	3.06E-02	0.10	3.06E-03
Toluene	108-88-3	Annual	1	10	118.5	1.83E+05	1.82E-05	2.29E-06	4.19E-01	0.10	4.19E-02
Tetrachloroethene	127-18-4	Annual	1	10	118.5	1.83E+05	1.01E-06	1.27E-07	2.33E-02	0.10	2.33E-03
Ethylbenzene	100-41-4	Annual	1	10	118.5	1.83E+05	1.73E-06	2.18E-07	4.00E-02	0.10	4.00E-03
p/m-Xylene	06-42-3, 108-38-3	Annual	1	10	118.5	1.83E+05	8.07E-06	1.02E-06	1.86E-01	0.10	1.86E-02
o-Xylene	95-47-6	Annual	1	10	118.5	1.83E+05	2.85E-06	3.59E-07	6.57E-02	0.10	6.57E-03
Total Xylenes	1330-20-7	Annual	1	10	118.5	1.83E+05	1.09E-05	1.38E-06	2.52E-01	0.10	2.52E-02
Styrene	100-42-5	Annual	1	10	118.5	1.83E+05	1.07E-06	1.35E-07	2.47E-02	0.10	2.47E-03
1,2,4-Trimethylbenzene	95-63-6	Annual	1	10	118.5	1.83E+05	2.23E-06	2.81E-07	5.15E-02	0.10	5.15E-03

148-26 Hillside Avenue, Jamaica, Queens, NY Site SVE System Effluent - Potential Air Quality Impacts

Worst-Case Potential Impacts from System Effluent Beyond Property Line - Uncontrolled (Baseline) Emission Rates at 175 ACFM, 70 °F Exit Temperature and 118.5' Effluent Exhaust Release Height

Contaminant	Contaminant CAS #	Uncontrolled Emission Rate (lb/hr) ¹	Maximum Potential Annual Emissions (lb/yr) ¹	USEPA AERSCREEN Worst-Case Predicted Impacts ²			NYSDEC HTAC? ³	§212-2.2 Table 2 HTAC Mass Emission Limit (lb/yr) ³	NYSDEC DAR-1 Toxicity Level ^{4,5}	NYSDEC Contaminant Environmental Rating ⁴ (Proposed)	Air Cleaning Requirements of Table 4 of 212-2.3	NYSDEC DAR-1 Guideline Values		In Compliance w/ Part 212?
				Max 1-hr Conc. (µg/m ³)	Max Annual Conc. (µg/m ³)	Receptor Distance from Source (ft)						NYSDEC Short-term Guideline Conc (µg/m ³)	NYSDEC Annual Guideline Conc (µg/m ³)	
Dichlorodifluoromethane	75-71-8	1.17E-06	1.03E-02	0.027	0.003	10.00	N	--	(Moderate)	B	Meet Applicable SGC/AGC	(--)	12000.0	Y
Chloromethane	74-87-3	5.63E-07	4.94E-03	0.013	0.001	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	90.0	Y
1,3-Butadiene	106-99-0	2.44E-06	2.14E-02	5.6E-02	5.6E-03	10.00	Y	25	High	A	Meet HTAC Mass Emission Limit	(--)	3.3E-02	Y
Ethanol	64-17-5	9.31E-06	8.16E-02	0.215	0.021	10.00	N	--	Low	C	Meet Applicable SGC/AGC	(--)	45000.0	Y
Acetone	67-64-1	9.25E-06	8.10E-02	0.213	0.021	10.00	N	--	Low	C	Meet Applicable SGC/AGC	180000.0	30000.0	Y
Isopropanol	67-63-0	3.55E-06	3.11E-02	0.082	0.008	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	98000.0	7000.0	Y
2-Butanone	78-93-3	1.88E-06	1.64E-02	0.043	0.004	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	13000.0	5000.0	Y
Tetrahydrofuran	109-99-9	2.42E-04	2.12E+00	5.587	0.559	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	30000.0	350.0	Y
n-Hexane	110-54-3	4.11E-06	3.60E-02	0.095	0.009	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	700.0	Y
Benzene	71-43-2	1.25E-05	1.10E-01	0.289	2.9E-02	10.00	Y	100	High	A	Meet HTAC Mass Emission Limit	27.0	1.3E-01	Y
Cyclohexane	110-82-7	1.21E-06	1.06E-02	0.028	0.003	10.00	N	--	Low	C	Meet Applicable SGC/AGC	(--)	6000.0	Y
2,2,4-Trimethylpentane	540-84-1	2.32E-06	2.03E-02	0.053	0.005	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	3300.0	Y
Heptane	142-82-5	1.32E-06	1.16E-02	0.031	0.003	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	210000.0	3900.0	Y
Toluene	108-88-3	1.82E-05	1.59E-01	0.419	0.042	10.00	N	--	Low	C	Meet Applicable SGC/AGC	37000.0	5000.0	Y
Tetrachloroethene	127-18-4	1.01E-06	8.85E-03	0.023	0.002	10.00	Y	1000	High	A	Meet HTAC Mass Emission Limit	300.0	3.8	Y
Ethylbenzene	100-41-4	1.73E-06	1.52E-02	0.040	0.004	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	1000.0	Y
p/m-Xylene	106-42-3, 108-38-3	8.07E-06	7.07E-02	0.186	0.019	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	100.0	Y
o-Xylene	95-47-6	2.85E-06	2.49E-02	0.066	0.007	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	100.0	Y
Total Xylenes	1330-20-7	1.09E-05	9.56E-02	0.252	0.025	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	22000.0	100.0	Y
Styrene	100-42-5	1.07E-06	9.37E-03	0.025	0.002	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	17000.0	1000.0	Y
1,2,4-Trimethylbenzene	95-63-6	2.23E-06	1.95E-02	0.051	0.005	10.00	N	--	Moderate	B	Meet Applicable SGC/AGC	(--)	60.0	Y

Table Notes:

- ¹ Hourly emission rates based on soil vapor sampling results from Pace Analytical Report dated April 2, 2025, and SVE System design maximum volumetric flow rate of 175 ACFM @ 116 °F. Maximum annual emissions calculated by multiplying hourly emission rate by 8,760 hours of operation per year.
- ² Worst-Case Scenario based upon following assumptions:
 - Height of nearest sensitive receptor equal to release height of SVE effluent/exhaust discharge point (118.5 ft above grade).
 - Horizontal distance of nearest sensitive receptor assumed to equal 10 feet (approximate distance of nearest adjacent property line).
- ³ Per 6 NYCRR 212-2.2 Table 2 - highly toxic air contaminant list. For an air contaminant listed here, the facility owner or operator shall either limit the actual annual emissions from all process operations at the facility so as to not exceed the mass emission limit listed for the individual HTAC; or demonstrate compliance with the air cleaning requirements for the HTAC as specified in subdivision 212-2.3(b), Table 4 – degree of air cleaning required for non-criteria air contaminants, of Subpart 212-2.3 for the environmental rating assigned to the contaminant by NYSDEC.
- ⁴ From DAR-1 AGC/SGC Tables: H = High, M = Moderate, L = Low. In accordance with DAR-1 procedures, when assigning an initial Environmental Rating (ER) for each contaminant, an ER of "A" should be assigned to high toxicity contaminants; an ER of "B" should be assigned to moderate toxicity contaminants; an ER of "C" should be assigned to low toxicity contaminants; and, an ER of "D" should only be initially assigned to contaminants identified as simple asphyxiants.
- ⁵ Per DAR-1 procedures, those air contaminants without a toxicity classification should be assigned a moderate toxicity classification. Thus, where a toxicity value has not been assigned in the AGC/SGC Tables, a moderate toxicity rating, denoted as "(moderate)", is shown. SGC and AGC which are not available are denoted as "(--)".

Sub-Slab Depressurization System – Air Quality Impact Assessment
148-26 Hillside Avenue, Jamaica, Queens, New York Site

Attachment C

AERSCREEN Model Output

TITLE: SCENARIO 1 - WORST CASE

***** POINTCAP PARAMETERS *****

SOURCE EMISSION RATE:	1.0000 g/s	7.937 lb/hr
STACK HEIGHT:	36.12 meters	118.50 feet
STACK INNER DIAMETER:	0.095 meters	3.75 inches
PLUME EXIT TEMPERATURE:	294.3 K	70.0 Deg F
PLUME EXIT VELOCITY:	11.591 m/s	38.03 ft/s
STACK AIR FLOW RATE:	175 ACFM	
STACK BASE LONGITUDE:	-73.8079 deg	600705. Easting
STACK BASE LATITUDE:	40.7059 deg	4506792. Northing
STACK BASE UTM ZONE:		18
REFERENCE DATUM (NADA):		4
STACK BASE ELEVATION:	20.01 meters	65.65 feet
RURAL OR URBAN:	URBAN	
POPULATION:	3940	
FLAGPOLE RECEPTOR HEIGHT:	36.12 meters	118.50 feet
DIGITAL ELEVATION MAP(S)	"USGS_NED_13_n41w074.tif"	
INITIAL PROBE DISTANCE =	450. meters	1476. feet

***** BUILDING DOWNWASH PARAMETERS *****

USER DEFINED BPIPPRM INPUT FILE: AERSCREEN.BPI

MAXIMUM BUILDING HEIGHT:	33.5 meters	110.0 feet
MAXIMUM BUILDING LENGTH:	56.5 meters	185.3 feet
MINIMUM BUILDING WIDTH:	39.2 meters	128.6 feet

 ***** FLOW SECTOR ANALYSIS *****
 25 meter receptor spacing: 1. meters - 450. meters

TEMPORAL FLOW SECTOR	BUILD WIDTH	BUILD LENGTH	XBADJ	YBADJ	MAXIMUM 1-HR CONC (ug/m3)	IMPACT DIST (m)	RECEPTOR HEIGHT (m)	PERIOD
10	54.36	55.22	-15.33	-13.01	0.1477E+07	1.0	0.01	ANN
20	56.27	56.39	-13.84	-10.71	0.1097E+07	1.0	0.00	ANN
30	56.47	55.85	-11.93	-8.08	0.7689E+06	1.0	0.00	ANN
40	54.95	53.61	-9.66	-5.21	0.5175E+06	1.0	0.00	ANN
50	51.77	49.74	-7.09	-2.18	0.3749E+06	1.0	0.00	ANN
60	47.01	44.36	-4.31	0.92	0.2883E+06	1.0	0.00	ANN
70	42.03	39.20	-2.29	4.13	0.2445E+06	1.0	-0.01	ANN
80	47.93	45.70	-6.49	7.09	0.3626E+06	1.0	-0.01	ANN
90	52.37	50.80	-10.49	9.84	0.6009E+06	1.0	-0.01	ANN
100	55.22	54.36	-14.18	12.28	0.1119E+07	1.0	-0.02	ANN
110	56.39	56.27	-17.43	14.36	0.1694E+07	1.0	-0.02	ANN
120	55.85	56.47	-20.15	15.99	0.4267E+07	1.0	-0.02	ANN
130	53.61	54.95	-22.27	17.15	0.4470E+07	1.0	-0.02	ANN
140	49.74	51.77	-23.70	17.78	0.4621E+07	1.0	-0.02	ANN
150	44.36	47.01	-24.42	17.87	0.4817E+07	1.0	-0.02	ANN
160	39.20	42.03	-25.14	17.32	0.5077E+07	1.0	-0.02	ANN
170	45.70	47.93	-31.05	16.36	0.5325E+07	1.0	-0.02	ANN
180	50.80	52.37	-36.02	14.91	0.5581E+07	1.0	-0.02	ANN
190	54.36	55.22	-39.89	13.01	0.5820E+07	1.0	-0.02	ANN
200	56.27	56.39	-42.55	10.71	0.6070E+07	1.0	-0.02	ANN
210	56.47	55.85	-43.92	8.08	0.6230E+07	1.0	-0.02	ANN
220	54.95	53.61	-43.95	5.21	0.6579E+07	1.0	-0.01	ANN
230	51.77	49.74	-42.65	2.18	0.6662E+07	1.0	-0.01	ANN
240	47.01	44.36	-40.05	-0.92	0.6660E+07	1.0	-0.01	ANN
250	42.03	39.20	-36.92	-4.13	0.6610E+07	1.0	-0.01	ANN
260*	47.93	45.70	-39.21	-7.09	0.6781E+07	1.0	0.00	ANN
270	52.37	50.80	-40.31	-9.84	0.6687E+07	1.0	0.00	ANN
280	55.22	54.36	-40.19	-12.28	0.6417E+07	1.0	0.00	ANN
290	56.39	56.27	-38.84	-14.36	0.6016E+07	1.0	0.00	ANN
300	55.85	56.47	-36.31	-15.99	0.5975E+07	1.0	0.01	ANN
310	53.61	54.95	-32.69	-17.15	0.5817E+07	1.0	0.01	ANN
320	49.74	51.77	-28.06	-17.78	0.5576E+07	1.0	0.01	ANN
330	44.36	47.01	-22.59	-17.87	0.5342E+07	1.0	0.01	ANN
340	39.20	42.03	-16.89	-17.32	0.3761E+07	1.0	0.01	ANN
350	45.70	47.93	-16.88	-16.36	0.2455E+07	1.0	0.01	ANN
360	50.80	52.37	-16.35	-14.91	0.1621E+07	1.0	0.01	ANN

* = worst case flow sector

 ***** MAKEMET METEOROLOGY PARAMETERS *****

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: USER ENTERED

ALBEDO: 0.21

BOWEN RATIO: 1.62

ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADJUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR MO DY JDY HR

 10 01 09 9 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.36	0.043	-9.000	0.020	-999.	208.	17.3	1.000	1.62	0.21	0.50

HT	REF TA	HT
10.0	250.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR MO DY JDY HR

 10 01 09 9 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.36	0.043	-9.000	0.020	-999.	208.	17.3	1.000	1.62	0.21	0.50

HT	REF TA	HT
----	--------	----

10.0 250.0 2.0

***** AERSCREEN AUTOMATED DISTANCES *****
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	RECEPTOR HEIGHT (m)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	RECEPTOR HEIGHT (m)
1.00	0.6781E+07	0.00	225.00	244.7	-0.32
3.05	0.1832E+06	-0.04	250.00	216.9	-0.42
25.00	3063.	-0.02	275.00	195.5	-0.53
50.00	1990.	0.07	300.00	178.6	-0.59
75.00	1177.	0.03	325.00	169.6	-3.37
100.00	751.1	0.01	350.00	165.1	-5.12
125.00	533.8	0.09	375.00	163.0	-3.97
150.00	411.4	0.04	400.00	161.7	-4.14
175.00	334.4	-0.23	425.00	160.9	-5.03
200.00	282.6	-0.34	450.00	159.4	-5.15

***** AERSCREEN MAXIMUM IMPACT SUMMARY *****

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
ELEVATED TERRAIN	0.6781E+07	0.6781E+07	0.6103E+07	0.4068E+07	0.6781E+06

DISTANCE FROM SOURCE 1.00 meters directed toward 260 degrees
 RECEPTOR HEIGHT 0.00 meters

IMPACT AT THE
 AMBIENT BOUNDARY 0.6781E+07 0.6781E+07 0.6103E+07 0.4068E+07 0.6781E+06

DISTANCE FROM SOURCE 1.00 meters directed toward 260 degrees
 RECEPTOR HEIGHT 0.00 meters

APPENDIX B

Laboratory Analytical Data for System Air Samples



ANALYTICAL REPORT

Lab Number:	L2514635
Client:	H2M Architects & Engineers 290 Broad Hollow Road Suite 400E Melville, NY 11747
ATTN:	Jessica Proscia
Phone:	(631) 393-4986
Project Name:	148-28 HILLSIDE AVE
Project Number:	Not Specified
Report Date:	04/02/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NH ELAP (2249).

120 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.pacelabs.com



Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2514635-01	EFFLUENTAIR(3/12/25)	SOIL_VAPOR	148-28 HILLSIDE AVE, QUEENS NY	03/12/25 11:43	03/13/25

Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 28, 2025. The canister certification data is provided as an addendum.

L2514635-01: The sample was re-analyzed on dilution in order to quantitate the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

L2514635-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 04/02/25

AIR

Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2514635-01
 Client ID: EFFLUENTAIR(3/12/25)
 Sample Location: 148-28 HILLSIDE AVE, QUEENS NY

Date Collected: 03/12/25 11:43
 Date Received: 03/13/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 04/01/25 01:59
 Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Dichlorodifluoromethane	0.361	0.200	--	1.79	0.989	--		1
Chloromethane	0.416	0.200	--	0.859	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.68	0.200	--	3.72	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	7.51	5.00	--	14.2	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.95	1.00	--	14.1	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	2.20	1.00	--	5.41	2.46	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.969	0.500	--	2.86	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2514635-01
 Client ID: EFFLUENTAIR(3/12/25)
 Sample Location: 148-28 HILLSIDE AVE, QUEENS NY

Date Collected: 03/12/25 11:43
 Date Received: 03/13/25
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	116	0.500	--	342	1.47	--	E	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.78	0.200	--	6.27	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	5.97	0.200	--	19.1	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.535	0.200	--	1.84	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.756	0.200	--	3.53	0.934	--		1
Heptane	0.493	0.200	--	2.02	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	7.36	0.200	--	27.7	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.227	0.200	--	1.54	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.607	0.200	--	2.64	0.869	--		1



Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2514635-01
 Client ID: EFFLUENTAIR(3/12/25)
 Sample Location: 148-28 HILLSIDE AVE, QUEENS NY

Date Collected: 03/12/25 11:43
 Date Received: 03/13/25
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
p/m-Xylene	2.84	0.400	--	12.3	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.383	0.200	--	1.63	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.999	0.200	--	4.34	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.691	0.200	--	3.40	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.190	--	ND	0.996	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	108		60-140
chlorobenzene-d5	112		60-140



Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2514635-01 D
 Client ID: EFFLUENTAIR(3/12/25)
 Sample Location: 148-28 HILLSIDE AVE, QUEENS NY

Date Collected: 03/12/25 11:43
 Date Received: 03/13/25
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 04/01/25 09:02
 Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Tetrahydrofuran	125	2.50	--	369	7.37	--		5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	83		60-140



Project Name: 148-28 HILLSIDE AVE

Lab Number: L2514635

Project Number: Not Specified

Report Date: 04/02/25

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/31/25 19:27

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01 Batch: WG2047623-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	1.00	--	ND	2.46	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: 148-28 HILLSIDE AVE

Lab Number: L2514635

Project Number: Not Specified

Report Date: 04/02/25

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/31/25 19:27

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01 Batch: WG2047623-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1



Project Name: 148-28 HILLSIDE AVE

Lab Number: L2514635

Project Number: Not Specified

Report Date: 04/02/25

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/31/25 19:27

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01 Batch: WG2047623-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.190	--	ND	0.996	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Lab Control Sample Analysis
Batch Quality Control

Project Name: 148-28 HILLSIDE AVE

Lab Number: L2514635

Project Number: Not Specified

Report Date: 04/02/25

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01 Batch: WG2047623-3								
Dichlorodifluoromethane	88		-		70-130	-		
Chloromethane	92		-		70-130	-		
Freon-114	93		-		70-130	-		
Vinyl chloride	88		-		70-130	-		
1,3-Butadiene	83		-		70-130	-		
Bromomethane	88		-		70-130	-		
Chloroethane	81		-		70-130	-		
Ethanol	76		-		40-160	-		
Vinyl bromide	80		-		70-130	-		
Acetone	97		-		40-160	-		
Trichlorofluoromethane	90		-		70-130	-		
Isopropanol	90		-		40-160	-		
1,1-Dichloroethene	95		-		70-130	-		
Tertiary butyl Alcohol	82		-		70-130	-		
Methylene chloride	94		-		70-130	-		
3-Chloropropene	80		-		70-130	-		
Carbon disulfide	83		-		70-130	-		
Freon-113	96		-		70-130	-		
trans-1,2-Dichloroethene	94		-		70-130	-		
1,1-Dichloroethane	90		-		70-130	-		
Methyl tert butyl ether	86		-		70-130	-		
2-Butanone	84		-		70-130	-		
cis-1,2-Dichloroethene	94		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 148-28 HILLSIDE AVE

Lab Number: L2514635

Project Number: Not Specified

Report Date: 04/02/25

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01 Batch: WG2047623-3								
Ethyl Acetate	102		-		70-130	-		
Chloroform	92		-		70-130	-		
Tetrahydrofuran	89		-		70-130	-		
1,2-Dichloroethane	85		-		70-130	-		
n-Hexane	97		-		70-130	-		
1,1,1-Trichloroethane	94		-		70-130	-		
Benzene	82		-		70-130	-		
Carbon tetrachloride	84		-		70-130	-		
Cyclohexane	98		-		70-130	-		
1,2-Dichloropropane	88		-		70-130	-		
Bromodichloromethane	91		-		70-130	-		
1,4-Dioxane	88		-		70-130	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	99		-		70-130	-		
Heptane	81		-		70-130	-		
cis-1,3-Dichloropropene	86		-		70-130	-		
4-Methyl-2-pentanone	76		-		70-130	-		
trans-1,3-Dichloropropene	89		-		70-130	-		
1,1,2-Trichloroethane	94		-		70-130	-		
Toluene	91		-		70-130	-		
2-Hexanone	72		-		70-130	-		
Dibromochloromethane	96		-		70-130	-		
1,2-Dibromoethane	90		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 148-28 HILLSIDE AVE

Lab Number: L2514635

Project Number: Not Specified

Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01 Batch: WG2047623-3								
Tetrachloroethene	91		-		70-130	-		
Chlorobenzene	89		-		70-130	-		
Ethylbenzene	92		-		70-130	-		
p/m-Xylene	93		-		70-130	-		
Bromoform	101		-		70-130	-		
Styrene	90		-		70-130	-		
1,1,2,2-Tetrachloroethane	98		-		70-130	-		
o-Xylene	93		-		70-130	-		
4-Ethyltoluene	99		-		70-130	-		
1,3,5-Trimethylbenzene	99		-		70-130	-		
1,2,4-Trimethylbenzene	98		-		70-130	-		
Benzyl chloride	86		-		70-130	-		
1,3-Dichlorobenzene	98		-		70-130	-		
1,4-Dichlorobenzene	97		-		70-130	-		
1,2-Dichlorobenzene	86		-		70-130	-		
1,2,4-Trichlorobenzene	96		-		70-130	-		
Naphthalene	86		-		70-130	-		
Hexachlorobutadiene	91		-		70-130	-		

Project Name: 148-28 HILLSIDE AVE

Serial_No:04022518:11
Lab Number: L2514635

Project Number:

Report Date: 04/02/25

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt	Flow Controller Leak Chk	Flow Out mL/min	Flow In	% RPD
L2514635-01	EFFLUENTAIR(3/12/25)	240	2.7L Can	02/28/25	509979	L2454716-02	Pass	29.9	0.0	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 09/24/24 18:59
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	103		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 09/24/24 18:59
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2454716
Report Date: 04/02/25

Air Canister Certification Results

Lab ID: L2454716-02
 Client ID: CAN 552 SHELF 8
 Sample Location:

Date Collected: 09/23/24 16:00
 Date Received: 09/24/24
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	103		60-140



Project Name: 148-28 HILLSIDE AVE**Lab Number:** L2514635**Project Number:** Not Specified**Report Date:** 04/02/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

NA Absent

Container Information**Container ID** **Container Type**

L2514635-01A Canister - 2.7L (Batch Certified)

Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
NA	NA			Y	Absent		TO15-LL(30)

Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: 148-28 HILLSIDE AVE
Project Number: Not Specified

Lab Number: L2514635
Report Date: 04/02/25

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: 148-28 HILLSIDE AVE**Lab Number:** L2514635**Project Number:** Not Specified**Report Date:** 04/02/25**Data Qualifiers**

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 148-28 HILLSIDE AVE

Lab Number: L2514635

Project Number: Not Specified

Report Date: 04/02/25

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Pace Analytical Services LLC

ID No.:17873

Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

Page 1 of 2

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

MADEP-APH.**Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

Pace Analytical Services LLC

ID No.:17873

Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

Page 2 of 2

Certification IDs:**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.



Alpha Analytical
 320 Forbes Blvd
 Mansfield, MA 02048-1806
 Tel: 508-822-9300
 Fax: 508-822-3288

AIR Chain-of-Custody - NJ

Date Rec'd in Lab 3/14/25 ALPHA Job# L2514635

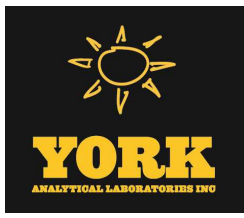
Client Contact Information	Project Information	NJ DEP Information	1 of 1 COCs
Company: <u>H2M</u>	Project Name: <u>148-28 Hillside Ave</u>	Bureau: _____ Division: _____ Contract No: _____	Analysis Matrix
Address: <u>290 Broad Hollow Rd</u>	Project No: <u>Queens NY</u>	Report Information - Data Deliverables:	
City/State/Zip: <u>Melville, NY</u>	Site/Location: <u>148-28 Hillside Ave</u>	<input type="checkbox"/> FAX: _____	Indoor / Ambient Air Soil Gas <u>SVC EFFLUENT</u>
Phone: <u>516-230-6300</u>	Project Manager: <u>Jessica Proscia</u>	<input checked="" type="checkbox"/> ADEx <input type="checkbox"/> Criteria Checker: _____	
FAX: _____		<input checked="" type="checkbox"/> EMail (standard pdf report)	
Email: <u>JProscia@h2m.com</u>	Analysis Turn-Around Time	Billing Information	
Site Contact: <u>Jessica Proscia</u>	Standard (Specify) _____	<input type="checkbox"/> Same as Client Info PO #: _____	
Site Contact Phone: _____	Rush (Specify) _____		

ALPHA LAB ID (Lab Use Only)	Sample Identification	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field (Hg) (Start)	Canister Pressure in Field (Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Outgoing Canister Pressure (Hg) (Note 1)	Incoming Canister Pressure (Hg) (Note 2)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (mL/min) (Note 1)	Batch Cert ID (Note 1)	TO-15	EPA 30C	Indoor / Ambient Air	Soil Gas
<u>14635-01</u>	<u>Effluent Air (3/12/25) 3/12/25</u>		<u>11:40</u>	<u>11:43</u>	<u>-10</u>	<u>-2</u>	<u>54°</u>	<u>50°</u>			<u>6rb0097</u>	<u>240</u>	<u>2.7</u>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>

Custody Seals:	Temperature (Fahrenheit)				Individual Preparing Canister/Containers and Laboratory Canister Certification Name: _____ Signature: _____				
Outgoing Seal No: _____ <small>(refer to crate seal)</small>	Ambient	Maximum	Minimum	Start					
Incoming Seal No: _____ <small>(if applicable)</small>	Stop			Stop					
	Pressure (inches of Hg)				Footnotes: (1) Refer to equipment tags for these readings. (2) Readings provided in data deliverable package.				
	Ambient	Maximum	Minimum	Start					
	Stop			Stop					

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: <u>[Signature]</u>	Date/Time: _____	Canisters Received by: <u>[Signature]</u>	Date/Time: <u>3/13/25 10:29</u>	Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until all ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.
Samples Relinquished by: <u>[Signature]</u>	Date/Time: <u>3/13/25 16:00</u>	Received by: <u>[Signature]</u>	Date/Time: <u>3-13-25 18:40</u>	
Relinquished by: <u>[Signature]</u>	Date/Time: <u>3-13-25 22:25</u>	Received by: <u>[Signature]</u>	Date/Time: <u>MAR 13 2025 0240</u>	



Technical Report

prepared for:

H2M architects + engineers
290 Broad Hollow Road, 4th Floor East
Melville NY, 11747
Attention: Jessica Proscia

Report Date: 11/04/2025
Client Project ID: 148-18 Hillside Ave Queens NY
York Project (SDG) No.: 25J1746

Stratford, CT Laboratory IDs:
NY:10854, NJ: CT005, PA: 68-0440, CT: PH-0723



Richmond Hill, NY Laboratory IDs:
NY:12058, NJ: NY037, CT: PH-0721, NH: 2097,
EPA: NY01600

120 RESEARCH DRIVE
www.YORKLAB.com

STRATFORD, CT 06615
(203) 325-1371

132-02 89th AVENUE
FAX (203) 357-0166

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 11/04/2025
Client Project ID: 148-18 Hillside Ave Queens NY
York Project (SDG) No.: 25J1746

H2M architects + engineers
290 Broad Hollow Road, 4th Floor East
Melville NY, 11747
Attention: Jessica Proscia

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on October 29, 2025 and listed below. The project was identified as your project: **148-18 Hillside Ave Queens NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
25J1746-01	SVE-3	Vapor Extraction	10/28/2025	10/29/2025

General Notes for York Project (SDG) No.: 25J1746

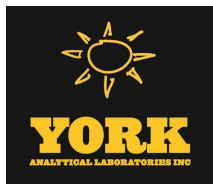
1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854, NJ Cert No. CT005, PA Cert No. 68-04440, CT Cert No. PH-0723; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058, NJ Cert No. NY037, CT Cert No. PH-0721, NH Cert No. 2097, EPA Cert No. NY01600.

Approved By: 

Cassie L. Mosher
Laboratory Manager

Date: 11/04/2025





Sample Information

Client Sample ID: SVE-3

York Sample ID: 25J1746-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

25J1746

148-18 Hillside Ave Queens NY

Vapor Extraction

October 28, 2025 2:00 pm

10/29/2025

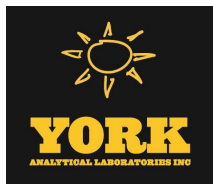
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	1.0	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.81	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.0	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.1	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.81	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.60	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.29	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
120-82-1	1,2,4-Trichlorobenzene	ND	CAL-E, TO-CCV	ug/m ³	55	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.73	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.1	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.89	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.60	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.69	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.0	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.73	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
106-99-0	1,3-Butadiene	ND		ug/m ³	0.98	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.89	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.69	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
106-46-7	1,4-Dichlorobenzene	ND	CAL-E	ug/m ³	0.89	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
123-91-1	1,4-Dioxane	ND		ug/m ³	2.7	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
540-84-1	* ^2,2,4-Trimethylpentane	1.9		ug/m ³	0.35	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
78-93-3	2-Butanone	ND		ug/m ³	22	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR



Sample Information

Client Sample ID: SVE-3

York Sample ID: 25J1746-01

York Project (SDG) No.
25J1746

Client Project ID
148-18 Hillside Ave Queens NY

Matrix
Vapor Extraction

Collection Date/Time
October 28, 2025 2:00 pm

Date Received
10/29/2025

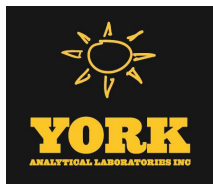
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m ³	1.2	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
107-05-1	3-Chloropropene	ND		ug/m ³	2.3	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.61	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
67-64-1	Acetone	ND		ug/m ³	18	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
107-02-8	* ^Acrolein	ND		ug/m ³	0.34	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
107-13-1	Acrylonitrile	ND		ug/m ³	16	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
71-43-2	Benzene	ND		ug/m ³	0.47	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
100-44-7	Benzyl chloride	ND		ug/m ³	19	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-27-4	Bromodichloromethane	ND		ug/m ³	0.99	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-25-2	Bromoform	ND		ug/m ³	1.5	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
74-83-9	Bromomethane	ND		ug/m ³	0.58	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-15-0	Carbon disulfide	ND		ug/m ³	0.46	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.23	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
108-90-7	Chlorobenzene	ND		ug/m ³	0.68	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-00-3	Chloroethane	ND		ug/m ³	0.39	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
67-66-3	Chloroform	5.9		ug/m ³	0.72	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
74-87-3	Chloromethane	0.73		ug/m ³	0.31	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
156-59-2	cis-1,2-Dichloroethylene	0.65		ug/m ³	0.29	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.67	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
110-82-7	Cyclohexane	ND		ug/m ³	0.51	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
124-48-1	Dibromochloromethane	ND		ug/m ³	1.3	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-71-8	Dichlorodifluoromethane	2.2		ug/m ³	0.73	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
141-78-6	* Ethyl acetate	ND		ug/m ³	27	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR



Sample Information

Client Sample ID: SVE-3

York Sample ID: 25J1746-01

York Project (SDG) No.
25J1746

Client Project ID
148-18 Hillside Ave Queens NY

Matrix
Vapor Extraction

Collection Date/Time
October 28, 2025 2:00 pm

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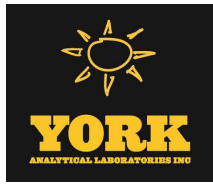
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	Ethyl Benzene	ND		ug/m ³	0.64	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.6	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
67-63-0	Isopropanol	4.2		ug/m ³	2.2	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
98-82-8	Isopropylbenzene	ND		ug/m ³	0.73	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.61	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.53	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-09-2	Methylene chloride	ND		ug/m ³	3.1	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
91-20-3	* ^Naphthalene	ND		ug/m ³	7.8	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
104-51-8	* n-Butylbenzene	ND		ug/m ³	0.81	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
142-82-5	n-Heptane	ND		ug/m ³	0.61	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
110-54-3	n-Hexane	ND		ug/m ³	0.52	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
103-65-1	* n-Propylbenzene	ND		ug/m ³	0.73	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
95-47-6	o-Xylene	ND		ug/m ³	0.64	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
179601-23-1	p- & m- Xylenes	1.4		ug/m ³	1.3	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.73	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
99-87-6	* p-Isopropyltoluene	ND		ug/m ³	0.81	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
115-07-1	* Propylene	ND		ug/m ³	0.26	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
135-98-8	* sec-Butylbenzene	ND		ug/m ³	0.81	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
100-42-5	Styrene	ND		ug/m ³	0.63	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
98-06-6	* tert-Butylbenzene	ND		ug/m ³	0.81	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
127-18-4	Tetrachloroethylene	39		ug/m ³	1.0	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.87	1.483	EPA TO-15 Certifications:	10/30/2025 08:00	10/31/2025 17:06	YR
108-88-3	Toluene	0.78		ug/m ³	0.56	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR



Sample Information

Client Sample ID: SVE-3

York Sample ID: 25J1746-01

York Project (SDG) No.
25J1746

Client Project ID
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Matrix
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Collection Date/Time
October 28, 2025 2:00 pm

Date Received
10/29/2025

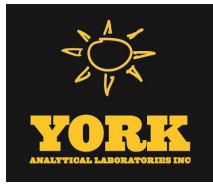
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.59	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.67	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
79-01-6	Trichloroethylene	ND		ug/m ³	0.20	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-69-4	Trichlorofluoromethane (Freon 11)	1.1		ug/m ³	0.83	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
108-05-4	Vinyl acetate	ND		ug/m ³	0.52	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
593-60-2	Vinyl bromide	ND		ug/m ³	0.65	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
75-01-4	Vinyl Chloride	ND		ug/m ³	0.19	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR
1330-20-7	Xylenes, Total	ND		ug/m ³	1.9	1.483	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/30/2025 08:00	10/31/2025 17:06	YR



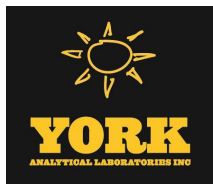
Analytical Batch Summary

Batch ID: BK50079

Preparation Method EPA T015 PREP

Prepared By: YR

YORK Sample ID	Client Sample ID	Preparation Date
25J1746-01	SVE-3	10/30/25
BK50079-BLK1	Blank	10/30/25
BK50079-BS1	LCS	10/30/25



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BK50079 - EPA T015 PREP

Blank (BK50079-BLK1)

Prepared: 10/30/2025 Analyzed: 10/31/2025

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.20	"								
1,2,4-Trichlorobenzene	ND	37	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	1.8	"								
2,2,4-Trimethylpentane	ND	0.23	"								
2-Butanone	ND	15	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	12	"								
Acrolein	ND	0.23	"								
Acrylonitrile	ND	11	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	13	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.20	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	18	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	1.5	"								
Isopropylbenzene	ND	0.49	"								



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

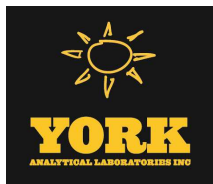
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BK50079 - EPA TO15 PREP

Blank (BK50079-BLK1)

Prepared: 10/30/2025 Analyzed: 10/31/2025

Methyl Methacrylate	ND	0.41	ug/m ³								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	2.1	"								
Naphthalene	ND	5.2	"								
n-Butylbenzene	ND	0.55	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
n-Propylbenzene	ND	0.49	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
p-Isopropyltoluene	ND	0.55	"								
Propylene	ND	0.17	"								
sec-Butylbenzene	ND	0.55	"								
Styrene	ND	0.43	"								
tert-Butylbenzene	ND	0.55	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								
Xylenes, Total	ND	1.3	"								



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

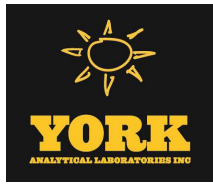
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BK50079 - EPA TO15 PREP

LCS (BK50079-BS1)

Prepared: 10/30/2025 Analyzed: 10/31/2025

1,1,1,2-Tetrachloroethane	9.30		ppbv	10.0		93.0	70-130				
1,1,1-Trichloroethane	8.88		"	10.0		88.8	70-130				
1,1,2,2-Tetrachloroethane	10.3		"	10.0		103	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.78		"	10.0		97.8	70-130				
1,1,2-Trichloroethane	9.81		"	10.0		98.1	70-130				
1,1-Dichloroethane	9.12		"	10.0		91.2	70-130				
1,1-Dichloroethylene	8.71		"	10.0		87.1	70-130				
1,2,4-Trichlorobenzene	7.65		"	10.0		76.5	70-130				
1,2,4-Trimethylbenzene	9.42		"	10.0		94.2	70-130				
1,2-Dibromoethane	9.82		"	10.0		98.2	70-130				
1,2-Dichlorobenzene	9.95		"	10.0		99.5	70-130				
1,2-Dichloroethane	8.27		"	10.0		82.7	70-130				
1,2-Dichloropropane	10.2		"	10.0		102	70-130				
1,2-Dichlorotetrafluoroethane	9.33		"	10.0		93.3	70-130				
1,3,5-Trimethylbenzene	9.06		"	10.0		90.6	70-130				
1,3-Butadiene	11.0		"	10.0		110	70-130				
1,3-Dichlorobenzene	10.1		"	10.0		101	70-130				
1,3-Dichloropropane	9.63		"	10.0		96.3	70-130				
1,4-Dichlorobenzene	10.4		"	10.0		104	70-130				
1,4-Dioxane	9.97		"	10.0		99.7	70-130				
2,2,4-Trimethylpentane	10.1		"	10.0		101	70-130				
2-Butanone	9.19		"	10.0		91.9	70-130				
2-Hexanone	9.45		"	10.0		94.5	70-130				
3-Chloropropene	9.56		"	10.0		95.6	70-130				
4-Methyl-2-pentanone	9.01		"	10.0		90.1	70-130				
Acetone	8.29		"	10.0		82.9	70-130				
Acrolein	10.1		"	10.0		101	70-130				
Acrylonitrile	9.11		"	10.0		91.1	70-130				
Benzene	9.88		"	10.0		98.8	70-130				
Benzyl chloride	9.78		"	10.0		97.8	70-130				
Bromodichloromethane	9.35		"	10.0		93.5	70-130				
Bromoform	9.55		"	10.0		95.5	70-130				
Bromomethane	10.2		"	10.0		102	70-130				
Carbon disulfide	10.0		"	10.0		100	70-130				
Carbon tetrachloride	8.38		"	10.0		83.8	70-130				
Chlorobenzene	9.49		"	10.0		94.9	70-130				
Chloroethane	10.6		"	10.0		106	70-130				
Chloroform	9.26		"	10.0		92.6	70-130				
Chloromethane	10.1		"	10.0		101	70-130				
cis-1,2-Dichloroethylene	8.79		"	10.0		87.9	70-130				
cis-1,3-Dichloropropylene	9.91		"	10.0		99.1	70-130				
Cyclohexane	9.96		"	10.0		99.6	70-130				
Dibromochloromethane	9.28		"	10.0		92.8	70-130				
Dichlorodifluoromethane	9.40		"	10.0		94.0	70-130				
Ethyl acetate	8.81		"	10.0		88.1	70-130				
Ethyl Benzene	9.74		"	10.0		97.4	70-130				
Hexachlorobutadiene	8.12		"	10.0		81.2	70-130				
Isopropanol	9.88		"	10.0		98.8	70-130				
Isopropylbenzene	9.57		"	10.0		95.7	70-130				
Methyl Methacrylate	9.57		"	10.0		95.7	70-130				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

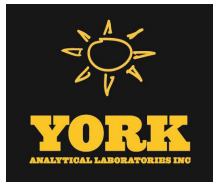
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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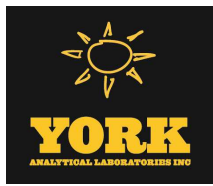
Batch BK50079 - EPA T015 PREP

LCS (BK50079-BS1)

Prepared: 10/30/2025 Analyzed: 10/31/2025

Methyl tert-butyl ether (MTBE)	9.31		ppbv	10.0		93.1	70-130				
Methylene chloride	9.24		"	10.0		92.4	70-130				
Naphthalene	9.76		"	10.0		97.6	70-130				
n-Butylbenzene	10.4		"	10.0		104	70-130				
n-Heptane	9.30		"	10.0		93.0	70-130				
n-Hexane	10.0		"	10.0		100	70-130				
n-Propylbenzene	9.80		"	10.0		98.0	70-130				
o-Xylene	9.37		"	10.0		93.7	70-130				
p- & m- Xylenes	18.7		"	20.0		93.6	70-130				
p-Ethyltoluene	9.92		"	10.0		99.2	70-130				
p-Isopropyltoluene	9.53		"	10.0		95.3	70-130				
Propylene	10.7		"	10.0		107	70-130				
sec-Butylbenzene	9.50		"	10.0		95.0	70-130				
Styrene	9.68		"	10.0		96.8	70-130				
tert-Butylbenzene	9.35		"	10.0		93.5	70-130				
Tetrachloroethylene	9.03		"	10.0		90.3	70-130				
Tetrahydrofuran	9.33		"	10.0		93.3	70-130				
Toluene	9.47		"	10.0		94.7	70-130				
trans-1,2-Dichloroethylene	9.38		"	10.0		93.8	70-130				
trans-1,3-Dichloropropylene	9.53		"	10.0		95.3	70-130				
Trichloroethylene	9.13		"	10.0		91.3	70-130				
Trichlorofluoromethane (Freon 11)	8.85		"	10.0		88.5	70-130				
Vinyl acetate	10.0		"	10.0		100	70-130				
Vinyl bromide	10.3		"	10.0		103	70-130				
Vinyl Chloride	9.85		"	10.0		98.5	70-130				





Sample and Data Qualifiers Relating to This Work Order

- TO-CCV The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
- CAL-E The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%)

Definitions and Other Explanations

- * Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
- ND NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
- RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
- LOQ LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
- LOD LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
- MDL METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
- Reported to This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
- NR Not reported
- RPD Relative Percent Difference
- Wet The data has been reported on an as-received (wet weight) basis
- Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

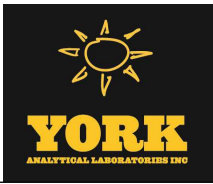
If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

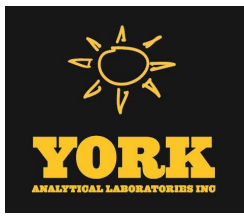
2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.





Technical Report

prepared for:

H2M architects + engineers
290 Broad Hollow Road, 4th Floor East
Melville NY, 11747
Attention: Jason Cooper

Report Date: 10/27/2025
Client Project ID: 148-18 Hillside Avenue Queens, NY
York Project (SDG) No.: 25J1229

Stratford, CT Laboratory IDs:
NY:10854, NJ: CT005, PA: 68-0440, CT: PH-0723



Richmond Hill, NY Laboratory IDs:
NY:12058, NJ: NY037, CT: PH-0721, NH: 2097,
EPA: NY01600

120 RESEARCH DRIVE
www.YORKLAB.com

STRATFORD, CT 06615
(203) 325-1371



132-02 89th AVENUE
FAX (203) 357-0166

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 10/27/2025
Client Project ID: 148-18 Hillside Avenue Queens, NY
York Project (SDG) No.: 25J1229

H2M architects + engineers
290 Broad Hollow Road, 4th Floor East
Melville NY, 11747
Attention: Jason Cooper

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on October 20, 2025 and listed below. The project was identified as your project: **148-18 Hillside Avenue Queens, NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
25J1229-01	SVE-2	Vapor Extraction	10/15/2025	10/20/2025

General Notes for York Project (SDG) No.: 25J1229

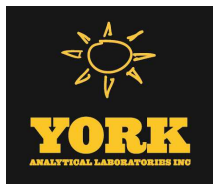
1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854, NJ Cert No. CT005, PA Cert No. 68-04440, CT Cert No. PH-0723; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058, NJ Cert No. NY037, CT Cert No. PH-0721, NH Cert No. 2097, EPA Cert No. NY01600.

Approved By: 

Cassie L. Mosher
Laboratory Manager

Date: 10/27/2025





Sample Information

Client Sample ID: SVE-2

York Sample ID: 25J1229-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

25J1229

148-18 Hillside Avenue Queens, NY

Vapor Extraction

October 15, 2025 9:40 am

10/20/2025

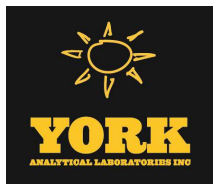
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	0.94	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.75	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.94	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.1	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.75	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.56	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.27	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
120-82-1	1,2,4-Trichlorobenzene	ND	CAL-E	ug/m ³	51	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.68	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.1	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.83	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.56	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.64	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.96	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.68	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
106-99-0	1,3-Butadiene	ND		ug/m ³	0.91	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.83	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.64	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
106-46-7	1,4-Dichlorobenzene	ND	CAL-E	ug/m ³	0.83	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
123-91-1	1,4-Dioxane	ND		ug/m ³	2.5	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
540-84-1	* ^2,2,4-Trimethylpentane	ND		ug/m ³	0.32	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
78-93-3	2-Butanone	ND		ug/m ³	20	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR



Sample Information

Client Sample ID: SVE-2

York Sample ID: 25J1229-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

25J1229

148-18 Hillside Avenue Queens, NY

Vapor Extraction

October 15, 2025 9:40 am

10/20/2025

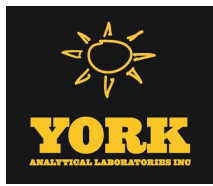
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m ³	1.1	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
107-05-1	3-Chloropropene	ND		ug/m ³	2.2	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.56	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
67-64-1	Acetone	46		ug/m ³	16	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
107-02-8	* ^Acrolein	ND		ug/m ³	0.32	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
107-13-1	Acrylonitrile	ND		ug/m ³	15	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
71-43-2	Benzene	0.79		ug/m ³	0.44	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
100-44-7	Benzyl chloride	ND		ug/m ³	18	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-27-4	Bromodichloromethane	ND		ug/m ³	0.92	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-25-2	Bromoform	ND		ug/m ³	1.4	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
74-83-9	Bromomethane	ND		ug/m ³	0.53	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-15-0	Carbon disulfide	ND		ug/m ³	0.43	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.22	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
108-90-7	Chlorobenzene	ND		ug/m ³	0.63	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-00-3	Chloroethane	ND		ug/m ³	0.36	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
67-66-3	Chloroform	5.9		ug/m ³	0.67	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
74-87-3	Chloromethane	0.97		ug/m ³	0.28	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
156-59-2	cis-1,2-Dichloroethylene	0.98		ug/m ³	0.27	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.62	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
110-82-7	Cyclohexane	ND		ug/m ³	0.47	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
124-48-1	Dibromochloromethane	ND		ug/m ³	1.2	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-71-8	Dichlorodifluoromethane	2.8		ug/m ³	0.68	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
141-78-6	* Ethyl acetate	53		ug/m ³	25	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR



Sample Information

Client Sample ID: SVE-2

York Sample ID: 25J1229-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

25J1229

148-18 Hillside Avenue Queens, NY

Vapor Extraction

October 15, 2025 9:40 am

10/20/2025

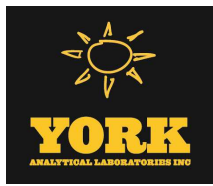
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	Ethyl Benzene	ND		ug/m ³	0.60	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.5	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
67-63-0	Isopropanol	22		ug/m ³	2.0	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
98-82-8	Isopropylbenzene	ND		ug/m ³	0.68	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.56	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.50	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-09-2	Methylene chloride	ND		ug/m ³	2.9	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
91-20-3	* ^Naphthalene	ND	CAL-E	ug/m ³	7.2	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
104-51-8	* n-Butylbenzene	ND		ug/m ³	0.76	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
142-82-5	n-Heptane	ND		ug/m ³	0.56	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
110-54-3	n-Hexane	3.6		ug/m ³	0.49	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
103-65-1	* n-Propylbenzene	ND		ug/m ³	0.68	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
95-47-6	o-Xylene	0.60		ug/m ³	0.60	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
179601-23-1	p- & m- Xylenes	1.8		ug/m ³	1.2	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.68	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
99-87-6	* p-Isopropyltoluene	ND		ug/m ³	0.76	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
115-07-1	* Propylene	ND		ug/m ³	0.24	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
135-98-8	* sec-Butylbenzene	ND		ug/m ³	0.76	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
100-42-5	Styrene	ND		ug/m ³	0.59	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
98-06-6	* tert-Butylbenzene	ND		ug/m ³	0.76	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
127-18-4	Tetrachloroethylene	50		ug/m ³	0.93	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.81	1.376	EPA TO-15 Certifications:	10/20/2025 09:08	10/25/2025 09:12	YR
108-88-3	Toluene	3.5		ug/m ³	0.52	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR



Sample Information

Client Sample ID: SVE-2

York Sample ID: 25J1229-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

25J1229

148-18 Hillside Avenue Queens, NY

Vapor Extraction

October 15, 2025 9:40 am

10/20/2025

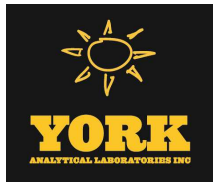
Q A Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.55	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.62	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
79-01-6	Trichloroethylene	0.81		ug/m ³	0.18	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-69-4	Trichlorofluoromethane (Freon 11)	1.7		ug/m ³	0.77	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
108-05-4	Vinyl acetate	ND		ug/m ³	0.48	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
593-60-2	Vinyl bromide	ND		ug/m ³	0.60	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
75-01-4	Vinyl Chloride	ND		ug/m ³	0.18	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR
1330-20-7	Xylenes, Total	2.4		ug/m ³	1.8	1.376	EPA TO-15 Certifications: NJDEP-NY037,NYSDOH-NY12058	10/20/2025 09:08	10/25/2025 09:12	YR



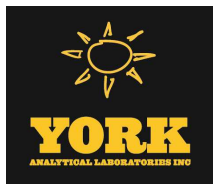
Analytical Batch Summary

Batch ID: BJ51639

Preparation Method: EPA TO15 PREP

Prepared By: YR

YORK Sample ID	Client Sample ID	Preparation Date
25J1229-01	SVE-2	10/20/25
BJ51639-BLK1	Blank	10/23/25
BJ51639-BS1	LCS	10/23/25



Volatile Organic Compounds in Air by GC/MS - Quality Control Data
York Analytical Laboratories, Inc.

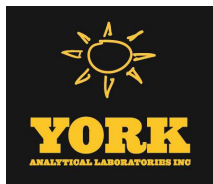
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BJ51639 - EPA TO15 PREP

Blank (BJ51639-BLK1)

Prepared: 10/23/2025 Analyzed: 10/24/2025

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.20	"								
1,2,4-Trichlorobenzene	ND	37	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	1.8	"								
2,2,4-Trimethylpentane	ND	0.23	"								
2-Butanone	ND	15	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	12	"								
Acrolein	ND	0.23	"								
Acrylonitrile	ND	11	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	13	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.20	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	18	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	1.5	"								
Isopropylbenzene	ND	0.49	"								



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

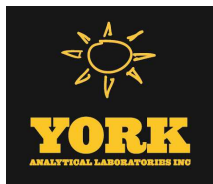
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BJ51639 - EPA TO15 PREP

Blank (BJ51639-BLK1)

Prepared: 10/23/2025 Analyzed: 10/24/2025

Methyl Methacrylate	ND	0.41	ug/m ³								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	2.1	"								
Naphthalene	ND	5.2	"								
n-Butylbenzene	ND	0.55	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
n-Propylbenzene	ND	0.49	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
p-Isopropyltoluene	ND	0.55	"								
Propylene	ND	0.17	"								
sec-Butylbenzene	ND	0.55	"								
Styrene	ND	0.43	"								
tert-Butylbenzene	ND	0.55	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								
Xylenes, Total	ND	1.3	"								



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting		Spike Level	Source*		%REC Limits	Flag	RPD	
		Limit	Units		Result	%REC			RPD	Limit

Batch BJ51639 - EPA TO15 PREP

LCS (BJ51639-BS1)

Prepared: 10/23/2025 Analyzed: 10/24/2025

1,1,1,2-Tetrachloroethane	10.3		ppbv	10.0		103	70-130			
1,1,1-Trichloroethane	10.9		"	10.0		109	70-130			
1,1,2,2-Tetrachloroethane	10.7		"	10.0		107	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.3		"	10.0		113	70-130			
1,1,2-Trichloroethane	10.9		"	10.0		109	70-130			
1,1-Dichloroethane	10.3		"	10.0		103	70-130			
1,1-Dichloroethylene	10.1		"	10.0		101	70-130			
1,2,4-Trichlorobenzene	9.77		"	10.0		97.7	70-130			
1,2,4-Trimethylbenzene	10.8		"	10.0		108	70-130			
1,2-Dibromoethane	10.9		"	10.0		109	70-130			
1,2-Dichlorobenzene	11.8		"	10.0		118	70-130			
1,2-Dichloroethane	10.3		"	10.0		103	70-130			
1,2-Dichloropropane	10.4		"	10.0		104	70-130			
1,2-Dichlorotetrafluoroethane	12.3		"	10.0		123	70-130			
1,3,5-Trimethylbenzene	10.8		"	10.0		108	70-130			
1,3-Butadiene	11.4		"	10.0		114	70-130			
1,3-Dichlorobenzene	12.0		"	10.0		120	70-130			
1,3-Dichloropropane	10.5		"	10.0		105	70-130			
1,4-Dichlorobenzene	12.2		"	10.0		122	70-130			
1,4-Dioxane	10.6		"	10.0		106	70-130			
2,2,4-Trimethylpentane	10.7		"	10.0		107	70-130			
2-Butanone	9.89		"	10.0		98.9	70-130			
2-Hexanone	10.2		"	10.0		102	70-130			
3-Chloropropene	9.77		"	10.0		97.7	70-130			
4-Methyl-2-pentanone	9.51		"	10.0		95.1	70-130			
Acetone	9.27		"	10.0		92.7	70-130			
Acrolein	10.6		"	10.0		106	70-130			
Acrylonitrile	9.55		"	10.0		95.5	70-130			
Benzene	10.9		"	10.0		109	70-130			
Benzyl chloride	11.2		"	10.0		112	70-130			
Bromodichloromethane	10.8		"	10.0		108	70-130			
Bromoform	10.8		"	10.0		108	70-130			
Bromomethane	11.3		"	10.0		113	70-130			
Carbon disulfide	10.9		"	10.0		109	70-130			
Carbon tetrachloride	10.4		"	10.0		104	70-130			
Chlorobenzene	10.2		"	10.0		102	70-130			
Chloroethane	11.2		"	10.0		112	70-130			
Chloroform	10.9		"	10.0		109	70-130			
Chloromethane	11.8		"	10.0		118	70-130			
cis-1,2-Dichloroethylene	9.58		"	10.0		95.8	70-130			
cis-1,3-Dichloropropylene	10.6		"	10.0		106	70-130			
Cyclohexane	10.4		"	10.0		104	70-130			
Dibromochloromethane	10.7		"	10.0		107	70-130			
Dichlorodifluoromethane	11.5		"	10.0		115	70-130			
Ethyl acetate	9.49		"	10.0		94.9	70-130			
Ethyl Benzene	10.4		"	10.0		104	70-130			
Hexachlorobutadiene	10.7		"	10.0		107	70-130			
Isopropanol	10.3		"	10.0		103	70-130			
Isopropylbenzene	10.5		"	10.0		105	70-130			
Methyl Methacrylate	10.1		"	10.0		101	70-130			



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

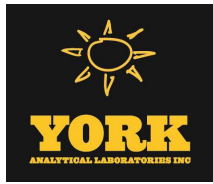
Analyte	Result	Reporting	Units	Spike	Source*	%REC	Limits	Flag	RPD	Limit	Flag
		Limit		Level	Result	%REC			RPD		

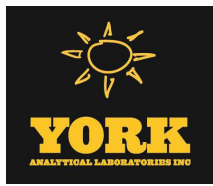
Batch BJ51639 - EPA TO15 PREP

LCS (BJ51639-BS1)

Prepared: 10/23/2025 Analyzed: 10/24/2025

Methyl tert-butyl ether (MTBE)	10.7		ppbv	10.0		107	70-130				
Methylene chloride	10.3		"	10.0		103	70-130				
Naphthalene	11.8		"	10.0		118	70-130				
n-Butylbenzene	12.3		"	10.0		123	70-130				
n-Heptane	9.60		"	10.0		96.0	70-130				
n-Hexane	10.6		"	10.0		106	70-130				
n-Propylbenzene	10.8		"	10.0		108	70-130				
o-Xylene	10.2		"	10.0		102	70-130				
p- & m- Xylenes	20.4		"	20.0		102	70-130				
p-Ethyltoluene	10.8		"	10.0		108	70-130				
p-Isopropyltoluene	11.2		"	10.0		112	70-130				
Propylene	10.5		"	10.0		105	70-130				
sec-Butylbenzene	10.9		"	10.0		109	70-130				
Styrene	10.6		"	10.0		106	70-130				
tert-Butylbenzene	10.7		"	10.0		107	70-130				
Tetrachloroethylene	10.3		"	10.0		103	70-130				
Tetrahydrofuran	9.68		"	10.0		96.8	70-130				
Toluene	10.4		"	10.0		104	70-130				
trans-1,2-Dichloroethylene	10.4		"	10.0		104	70-130				
trans-1,3-Dichloropropylene	10.8		"	10.0		108	70-130				
Trichloroethylene	10.0		"	10.0		100	70-130				
Trichlorofluoromethane (Freon 11)	10.9		"	10.0		109	70-130				
Vinyl acetate	9.45		"	10.0		94.5	70-130				
Vinyl bromide	11.4		"	10.0		114	70-130				
Vinyl Chloride	10.8		"	10.0		108	70-130				





Sample and Data Qualifiers Relating to This Work Order

CAL-E The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%)

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



York Analytical Laboratories, Inc.
 120 Research Drive 132-02 89th Ave Queens,
 Stratford, CT 06615 NY 11418

YORK
 ANALYTICAL LABORATORIES INC

clientservices@yorklab.com
 www.yorklab.com

Field Chain-of-Custody Record - AIR

YORK Project No.

25J1229

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
 This document serves as your written authorization for YORK to proceed with the analyses requested below.
 signature binds you to YORK's Standard Terms & Conditions.

Your

Page 1 of 2

YOUR Information		Report To:		Invoice To:		YOUR Project Number		Turn-Around Time	
Company: Same		Company: HAM architects + Engineers		Company: HAM architects + Engineers		148-18 Hillside Avenue		RUSH - Next Day	
Address: Same		Address: 290 Broad hollow Rd		Address: 290 Broad hollow Rd		Queens, NY		RUSH - Two Day	
Phone: Same		Phone: 516-830-6300		Phone: Melville, NY 11747		YOUR Project Name		RUSH - Three Day	
Contact: Same		Contact: Jessica Proscia		Contact:		148-18 Hillside Avenue		RUSH - Four Day	
E-mail: Same		E-mail: JProscia@ham.com		E-mail: accounts.payable@ham.com		Queens, NY		Standard (5-7 Day)	
E-mail: Same		E-mail: JProscia@ham.com		E-mail: accounts.payable@ham.com		YOUR PO#:			

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

YORK Reg. Comp. Compared to the following Regulation(s): (please fill in)

Samples Collected by: (print your name above and sign below)
 Jessica Proscia
 M J

Air Matrix Codes	Samples From	Report / EDD Type (circle selections)			YORK Reg. Comp.
AI - Indoor Ambient Air	New York	Summary Report	CT RCP	Standard Excel EDD	
AO - Outdoor Amb. Air	New Jersey	QA Report	CT RCP DQA/DUE	EQUIS (Standard)	
AE - Vapor Extraction Well/ Process Gas/Effluent	Connecticut	NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQUIS	
AS - Soil Vapor/Sub-Slab	Pennsylvania	NY ASP B Package	NJDKQP	NJDEP SRP HazSite	
	Other	Other:			

Certified Canisters: Batch ___ Individual ___ Please enter the following REQUIRED Field Data Reporting Units: ug/m³ ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SVE-2	10/14 - 10/15 9:40 - 9:30	AE	-30	-4	37011	2458	T0-15

Comments: Recd at 10/20/25 20:32
 Relinquished at 10/20/25 23:38

Detection Limits Required	Sampling Media
≤ 1 ug/m ³ ___ NYSDEC V1 Limits ___ Routine Survey ___ Other ___	6 Liter Canister <input checked="" type="checkbox"/> Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
M J	10/20/25 11AM	K Balonyork	10/20/25 11AM	K Balonyork	10/20/25 1600
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
M J	10/20/25 1600				
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				M J	10/20/25 16:00

22 10/21/25

APPENDIX C

Data Usability Summary Reports (DUSRS)

DATA USABILITY SUMMARY REPORT

York Analytical Services
York Project (SDG) No.: 25J1229
Client ID: 148-18 Hillside Avenue, Queens, NY
Collection Date – October 15, 2025

PREPARED FOR:

H2M architects & engineers
290 Broadhollow Road
Melville, NY 11747
Attn: Jason Cooper

PREPARED BY:

Christine A. Camardella, P.G., PMP
54 Prentice Road
Levittown, New York 11756
chriscamardella@hotmail.com
516-946-1121

January 7, 2026

Client Project ID: 148-18 Hillside Avenue, Queens, NY
York Project (SDG) No. 25J1229
Sample Collection Date: October 15, 2025

Data Usability Summary Report Introduction & Notes

Sample Collection Date: October 15, 2025
York Project (SDG) No. 25J1229

Sample Identification:

CLIENT SAMPLE ID	LAB ID	SAMPLE DATE	MATRIX	TO-15
SVE-2	25J1229-01	10/15/2025	Air	X
SVE-3	25J1229-02	10/17/2025	Air	X

Definitions:

OA – Outdoor Air
SV – Soil Vapor
GW – Groundwater
NA – Not Analyzed
PFAS – Polyfluoroalkyl Substances
VOCs – Volatile Organic Compounds
SVOCs – Semi-Volatile Organic Compounds
Herbs – Herbicides
PCBs – Polychlorinated Biphenyls
Pest - Pesticides
LCS – Lab Control Sample
LCSD – Lab Control Sample Duplicate

York Analytical Laboratories, Inc.

- Case Narrative – please refer to laboratory report, page 12.
- Data Qualifier Definitions - please refer to laboratory report, page 17.

Notes on Qualifiers:

Client Project ID: 148-18 Hillside Avenue, Queens, NY
York Project (SDG) No. 25J1229
Sample Collection Date: October 15, 2025

All qualifiers utilized were identified on page 17, Data Qualifier Definitions of the Laboratory Report.

The data package was evaluated as per:

- New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) 10/Technical Guidance for Site Investigation and Remediation – May 3, 2010, Appendix 2B – Guidance for the Development of DUSRs.
- United States Environmental Protection Agency (USEPA) Laboratory Contract Program.

EPA TO15 – AIR SAMPLES

1. A review of the Supporting Documentation was conducted. This included the Canister and Flow Controller Information – all passed, Air Canister Certification Results – no qualifiers utilized, and no values were found outside of Acceptance Criteria.
2. Is the data package complete as defined under the requirements for the most current DEC Analytical Services Protocol (ASP) Category B or USEPA CLP data deliverables?
 - a. Yes, the data package is complete as per DEC ASP Category B.
3. Have all the holding times been met?
 - a. Yes, all holding times have been met – Reviewed Holding Time Summary.

4. Form 1 – AIR SAMPLES

- a. SVE-2, SVE-3
 - i. Qualifiers used:
 1. U – Not detected at the reporting limit (RL) for the sample.
 2. CAL-E – The value reported is ESTIMATED.
 - ii. Quantitation Report Reviewed
 - iii. Data is Acceptable.

5. Form I – METHOD BLANK DATA SHEET – EPA TO-15

- a. Laboratory ID: BJ51639-BLK1
 - i. Qualifiers used:
 1. U – Not detected at the reporting limit (RL) for the sample.
 - ii. Quantitation Report Reviewed.
 - iii. Data is Acceptable.
6. Do all the QC data; blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?
 - a. Yes, all the QC Data falls within the protocol required limits and specifications.

7. Form III – LCS/LCS DUPLICATE RECOVERY

- a. Laboratory ID: BJ51639-BS1
 - i. No values found outside of QC limits.
 - ii. Data is Acceptable.

8. Form IV – PREPARATION BATCH SUMMARY

- i. Observations noted on SVE-2.

9. Form V – MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

- i. All values PASS.
- ii. Data is Acceptable.

10. Form V – ANALYTIS BATCH (SEQUENCE) SUMMARY

- i. Data is Acceptable.

11. Form VI – INITIAL CALIBRATION DATA

- i. Calibration: SJ50025 exceeded method guidelines.
- ii. Reviewed Quantitation Report.
- iii. Data is Acceptable.

12. SECOND-SOURCE CALIBRATION VERIFICATION

- a. Laboratory ID: S5J1416-SCV1
 - i. No values found outside of QC limits.
 - ii. Reviewed Quantitation Report.

13. Form VII – CONTINUING CALIBRATION CHECK

- a. Lab Sample ID: S5J2730-CCV1
 - i. No values found outside of QC limits.
 - ii. Data is Acceptable.
- b. Reviewed Quantitation Report.

14. Form VIII – INTERNAL STANDARD AREA AND RT SUMMARY

- a. No values found outside of QC limits.
- b. Data is Acceptable.

15. Have all the data been generated using established and agreed upon analytical protocols?

- a. Yes, all the data has been generated using established and agreed upon analytical protocols.

16. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?

- a. Yes, the raw data confirms the results provided in the data summary sheets and quality control verification forms.
 - i. Reviewed Volatiles Raw QC Data – Quantitation Report, Manual Integration Report, Evaluate Continuing Calibration Report.

17. Have the correct data qualifiers been used and are they consistent with the most current DEC ASP?

- a. Yes, the correct data qualifiers have been used.

18. Have any quality control (QC) exceedances been specifically noted in the DUSR?

- a. The Quality Control data has been checked; any exceedances have been noted.

DATA USABILITY SUMMARY REPORT

York Analytical Services
York Project (SDG) No.: 25J1746
Client ID: 148-18 Hillside Avenue, Queens, NY
Collection Date – October 28, 2025

PREPARED FOR:

H2M architects & engineers
290 Broadhollow Road
Melville, NY 11747
Attn: Jason Cooper

PREPARED BY:

Christine A. Camardella, P.G., PMP
54 Prentice Road
Levittown, New York 11756
chriscamardella@hotmail.com
516-946-1121

January 7, 2026

Client Project ID: 148-18 Hillside Avenue, Queens, NY
York Project (SDG) No. 25J1746
Sample Collection Date: October 28, 2025

Data Usability Summary Report Introduction & Notes

Sample Collection Date: October 28, 2025
York Project (SDG) No. 25J1746

Sample Identification:

CLIENT SAMPLE ID	LAB ID	SAMPLE DATE	MATRIX	TO-15
SVE-3	25J1746-01	10/28/2025	Air	X

Definitions:

OA – Outdoor Air
SV – Soil Vapor
GW – Groundwater
NA – Not Analyzed
PFAS – Polyfluoroalkyl Substances
VOCs – Volatile Organic Compounds
SVOCs – Semi-Volatile Organic Compounds
Herbs – Herbicides
PCBs – Polychlorinated Biphenyls
Pest - Pesticides
LCS – Lab Control Sample
LCSD – Lab Control Sample Duplicate

York Analytical Laboratories, Inc.

- Case Narrative – please refer to laboratory report, page 10.
- Data Qualifier Definitions - please refer to laboratory report, page 19.

Notes on Qualifiers:

All qualifiers utilized were identified on page 19, Data Qualifier Definitions of the Laboratory Report.

The data package was evaluated as per:

Client Project ID: 148-18 Hillside Avenue, Queens, NY

York Project (SDG) No. 25J1746

Sample Collection Date: October 28, 2025

- New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) 10/Technical Guidance for Site Investigation and Remediation – May 3, 2010, Appendix 2B – Guidance for the Development of DUSRs.
- United States Environmental Protection Agency (USEPA) Laboratory Contract Program.

EPA TO15 – AIR SAMPLES

1. A review of the Supporting Documentation was conducted. This included the Canister and Flow Controller Information – all passed, Air Canister Certification Results – no qualifiers utilized, and no values were found outside of Acceptance Criteria.
2. Is the data package complete as defined under the requirements for the most current DEC Analytical Services Protocol (ASP) Category B or USEPA CLP data deliverables?
 - a. Yes, the data package is complete as per DEC ASP Category B.
3. Have all the holding times been met?
 - a. Yes, all holding times have been met – Reviewed Holding Time Summary.

4. Form 1 – AIR SAMPLES

- a. SVE-3
 - i. Qualifiers used:
 1. U – Not detected at the reporting limit (RL) for the sample.
 2. CAL-E – The value reported is ESTIMATED.
 3. TO-CCV - The value reported is ESTIMATED.
 - ii. Quantitation Report Reviewed
 - iii. Data is Acceptable.

5. Form I – METHOD BLANK DATA SHEET – EPA TO-15

- a. Laboratory ID: BK50079-BLK1
 - i. Qualifiers used:
 1. U – Not detected at the reporting limit (RL) for the sample.
 - ii. Quantitation Report Reviewed.
 - iii. Data is Acceptable.
6. Do all the QC data; blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?
 - a. Yes, all the QC Data falls within the protocol required limits and specifications.

7. Form III – LCS/LCS DUPLICATE RECOVERY

- a. Laboratory ID: BK50079-BS1
 - i. No values found outside of QC limits.
 - ii. Data is Acceptable.

8. Form IV – PREPARATION BATCH SUMMARY

- i. Observations noted on SVE-2.

9. Form V – MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

- i. All values PASS.
- ii. Data is Acceptable.

10. Form V – ANALYTIS BATCH (SEQUENCE) SUMMARY

- i. Data is Acceptable.

11. Form VI – INITIAL CALIBRATION DATA

- i. Calibration: SJ50025 exceeded method guidelines.
- ii. Reviewed Quantitation Report.
- iii. Data is Acceptable.

12. SECOND-SOURCE CALIBRATION VERIFICATION

- a. Laboratory ID: S5J1416-SCV1
 - i. No values found outside of QC limits.
 - ii. Reviewed Quantitation Report.

13. Form VII – CONTINUING CALIBRATION CHECK

- a. Lab Sample ID: S5K0308-CCV1
 - i. One (1) value found outside of QC limits – 1,2,4-Trichlorobenzene.
 - ii. Data is Acceptable.
- b. Reviewed Quantitation Report.

14. Form VIII – INTERNAL STANDARD AREA AND RT SUMMARY

- a. No values found outside of QC limits.
- b. Data is Acceptable.

15. Have all the data been generated using established and agreed upon analytical protocols?
- a. Yes, all the data has been generated using established and agreed upon analytical protocols.

16. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?
- a. Yes, the raw data confirms the results provided in the data summary sheets and quality control verification forms.
 - i. Reviewed Volatiles Raw QC Data – Quantitation Report, Manual Integration Report, Evaluate Continuing Calibration Report.

17. Have the correct data qualifiers been used and are they consistent with the most current DEC ASP?
- a. Yes, the correct data qualifiers have been used.

18. Have any quality control (QC) exceedances been specifically noted in the DUSR?
- a. The Quality Control data has been checked; any exceedances have been noted.