



AMC Engineering PLLC

18-36 42nd Street
Astoria, NY 11105
O: 718.545.0474

October 30, 2023

Rafi Alam, PM
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233

Re: Soil Vapor Intrusion Evaluation Report
69-02 Queens Boulevard
Site No. C241235
Queens, NY 11377

Dear Mr. Alam,

Attached is the Soil Vapor Intrusion Evaluation Report for the above referenced site prepared by AMC Engineering PLLC (AMC) on behalf of the QB Development Owner LLC. This report summarizes the indoor air sample results that were collected from July 11 through July 12, 2023, and August 23, 2023 within the Track 1 and Track 4 portions of the site to evaluate vapor intrusion potential in accordance with the approved May 2023 Soil Vapor Intrusion Work Plan and Site Management Plan (SMP) at the above referenced site.

If you have any questions or comments regarding the attached report, please do not hesitate to contact me.

Very truly yours,

Ariel Czemerinski, PE
AMC Engineering, PLLC

Cc: Ariel Czemerinski, AMC ariel@amc-engineering.com

Background

The site is located in the Woodside section of Queens County and is comprised of two irregular shaped tax parcels identified as Block 2432, Lots 8 and 9 (**Figure 1**). The site is located between Queens Boulevard to the north, 70th Street to the east, 47th Avenue to the south and 69th Street to the west. The site is approximately 1.65 acres (71,862 sf). The Track 4 portion of the site has a concrete cover with a vapor barrier installed to address potential soil vapor intrusion from the remaining contaminants in groundwater beneath the Site.

In accordance with the Site Management Plan (SMP), approved by the New York State Department of Environmental Conservation (NYSDEC), the potential for soil vapor intrusion in new development structures located on Track 4 and Track 1 were evaluated to determine if monitoring or mitigation actions need to be taken.

Vapor Intrusion Sampling

From July 11 through July 12, 2023, a total of nine air samples were collected to determine the potential of vapor intrusion into the site buildings located on Track 1 and Track 4 (**see Figure 1**). On August 2nd, 2023, AMC inspected the chemical and product inventory observed in Track 1 and Track 4. The completed Soil Vapor/Structure Sampling Building Questionnaire is provided in **Appendix A**. In Track 1, one indoor air sample (IA-T1) and one sub-slab sample (SS-T1) were collected. In Track 4, one indoor air sample (IA-T4) and one sub-slab sample (SS-T4) were collected. In the school (located in the Track 1 area), one indoor air sample in cellar (IA-C), one indoor air sample in a classroom and second floor stairwell (IA-CR and IA-S), and one indoor air sample in the cafeteria on the third floor (IA-CAF) were collected. In conjunction with the indoor air sampling, one (1) ambient air quality sample was collected at the breathing zone in the courtyard (OA) to characterize site-specific outdoor air conditions (**see Figure 2 to Figure 5** for the site sampling locations). In addition, on August 23rd, IA-C was resampled as per the New York State Department of Health (NYSDOH), Soil Vapor Intrusion (SVI) Guidance for evaluating vapor intrusion in New York State.

Samples were collected using laboratory-certified, 6.0-liter Summa vacuum canisters equipped with laboratory-supplied regulators calibrated to collect a sample over a 24-hour period (for indoor air, sub-slab, and ambient air) in accordance with NYSDOH protocols and procedures. The nine air quality samples were submitted to Phoenix Environmental Laboratories (Manchester, CT) for volatile organic carbon (VOCs) analysis via USEPA Method TO 15.

RESULTS

The results of the sampling were compared to the applicable Matrices A, B and C of the New York State Department of Health (NYSDOH), Soil Vapor Intrusion (SVI) Guidance for evaluating vapor intrusion in New York State. None of the indoor air samples analyzed from the Track 4 portion of the site exhibited chlorinated VOCs at concentrations above the respective minimal values for “Indoor Air Concentration” in its respective NYSDOH decision matrix.



Carbon Tetrachloride, Methylene Chloride, and Vinyl Chloride were found above the concentration guidelines in one indoor air sample taken from the cellar (IA-C) in Track 1, but were not found in any of the other indoor air or sub-slab samples, therefore it is inferred that the presence of Carbon Tetrachloride, Methylene Chloride, and Vinyl Chloride is due to an unidentified source in the school cellar only and not from sub-slab vapor intrusion. A visual inspection and inventory of the area was carried out and did not reveal any obvious sources for these compounds.

Following the NYSDoH SVI Guidance, the sample taken at the cellar was repeated after inspections reveal no evident source for the chemicals. The re-test conducted on 8/23/23 resulted in all VOCs below any action level when compared to action concentration in the matrices, as shown in the lab report which is also tabulated, therefore No Further Action is needed with respect to the indoor air at the school space and throughout the site.

Lab report details are provided in **Appendix B** along with the Data Usability Summary Report (DUSR) in **Appendix C**. **Figure 2** to **Figure 5** show the indoor air and outdoor air sampling locations for the Site. **Table 1** illustrates the results of the indoor and outdoor air sampling in Track 1 and Track 4 portions of the site. Tables 2, 3, and 4 contain the Soil Vapor/Indoor Air Matrices A, B, and C respectively, used to make the NFA assessment.

SUMMARY AND CONCLUSIONS

Based on the laboratory results, the concentrations of VOCs (based on current NYSDOH Decision Matrices from Final Soil Vapor Intrusion Guidance, October 2006 and updated May 2017) revealed that no further action needs to be taken at 69-02 Queens Boulevard.



Table 1: Indoor Air Sampling Results in Track 1 and Track 4



Phoenix Environmental Laboratories, Inc.																																																	
587 East Middle Turnpike																																																	
P.O. Box 370		Lab Sample Id				C050115				C050122				C050121				C050114				C083571				C050119				C050120				C050123				C050116				C050117				C050118			
Manchester, CT 06040		Collection Date				7/11/2023				7/11/2023				7/11/2023				7/11/2023				8/23/2023				7/11/2023				7/11/2023				7/11/2023				7/11/2023				7/11/2023							
						SS-T4-TRACK 4				IA-T4-TRACK 4				SS-T1-TRACK 1				IS-C-SCHOOL CELLAR				IS-C-SCHOOL CELLAR				IA-T1-TRACK 1				IA-CS-SECOND				IA-S SECOND FLOOR				IA-CAF-CAFETERIA				OA-COURTYARD				DUPLICATE			
						Air				Air				Air				Air				Air				Air				Air				Air				Air				Air				Air			
(860) 645-1102		Client Id				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB				SUBSLAB			
		Matrix				Air				Air				Air				Air				Air				Air				Air				Air				Air				Air				Air			
Project Id : 69-02 QUEENS BOULEVARD C241235		CAS				Units				Result				RL				Result				RL				Result				RL				Result				RL				Result				RL			
Volatiles (TO15) By TO15																																																	
A	1,1-Dichloroethene	75-35-4	ug/m3	< 1.00	1.00	< 0.20	0.20	< 1.00	1.00	0.53	0.20	< 1.00	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20														
A	Carbon Tetrachloride	56-23-5	ug/m3	< 1.00	1.00	0.49	0.20	< 1.00	1.00	2.65	0.20	0.41	0.20	0.47	0.20	0.62	0.20	0.6	0.20	0.56	0.20	0.47	0.20	0.56	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20														
A	Cis-1,2-Dichloroethene	156-59-2	ug/m3	< 1.00	1.00	< 0.20	0.20	< 1.00	1.00	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20														
A	Trichloroethene	79-01-6	ug/m3	< 0.99	0.99	< 0.20	0.20	< 0.99	0.99	< 0.20	0.20	0.3	0.20	< 0.20	0.20	< 0.20	0.20	0.37	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20														
B	1,1,1-Trichloroethane	71-55-6	ug/m3	< 5.00	5.00	< 1.00	1.00	< 5.00	5.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00														
B	Methylene Chloride	75-09-2	ug/m3	< 15.0	15.0	< 3.00	3.00	< 15.0	15.0	30.6	3.00	6.42	3.00	< 3.00	3.00	8.37	3.00	8.37	3.00	5.76	3.00	< 3.00	3.00	5.49	3.00	< 3.00	3.00	< 3.00	3.00	< 3.00	3.00	< 3.00	3.00	< 3.00	3.00														
B	Tetrachloroethene	127-18-4	ug/m3	< 1.25	1.25	0.59	0.25	< 1.25	1.25	0.7	0.25	0.48	0.25	0.39	0.25	0.56	0.25	1.1	0.25	0.31	0.25	0.25	0.25	0.64	0.25	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20														
C	Vinyl Chloride	75-01-4	ug/m3	< 1.00	1.00	< 0.20	0.20	< 1.00	1.00	1.1	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20														

NO FURTHER ACTION

MONITOR

IDENTIFY SOURCES AND RESAMPLE OR MITIGATE

MITIGATE

Soil Vapor/Indoor Air Matrix A

May 2017

Analytes Assigned:

Trichloroethene (TCE), *cis*-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)		
	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX A

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Table 3

Soil Vapor/Indoor Air Matrix B

May 2017

Analytes Assigned:

Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)		
	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX B

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 1 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Table 4

Soil Vapor/Indoor Air Matrix C

May 2017

Analytes Assigned:

Vinyl Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)	
	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

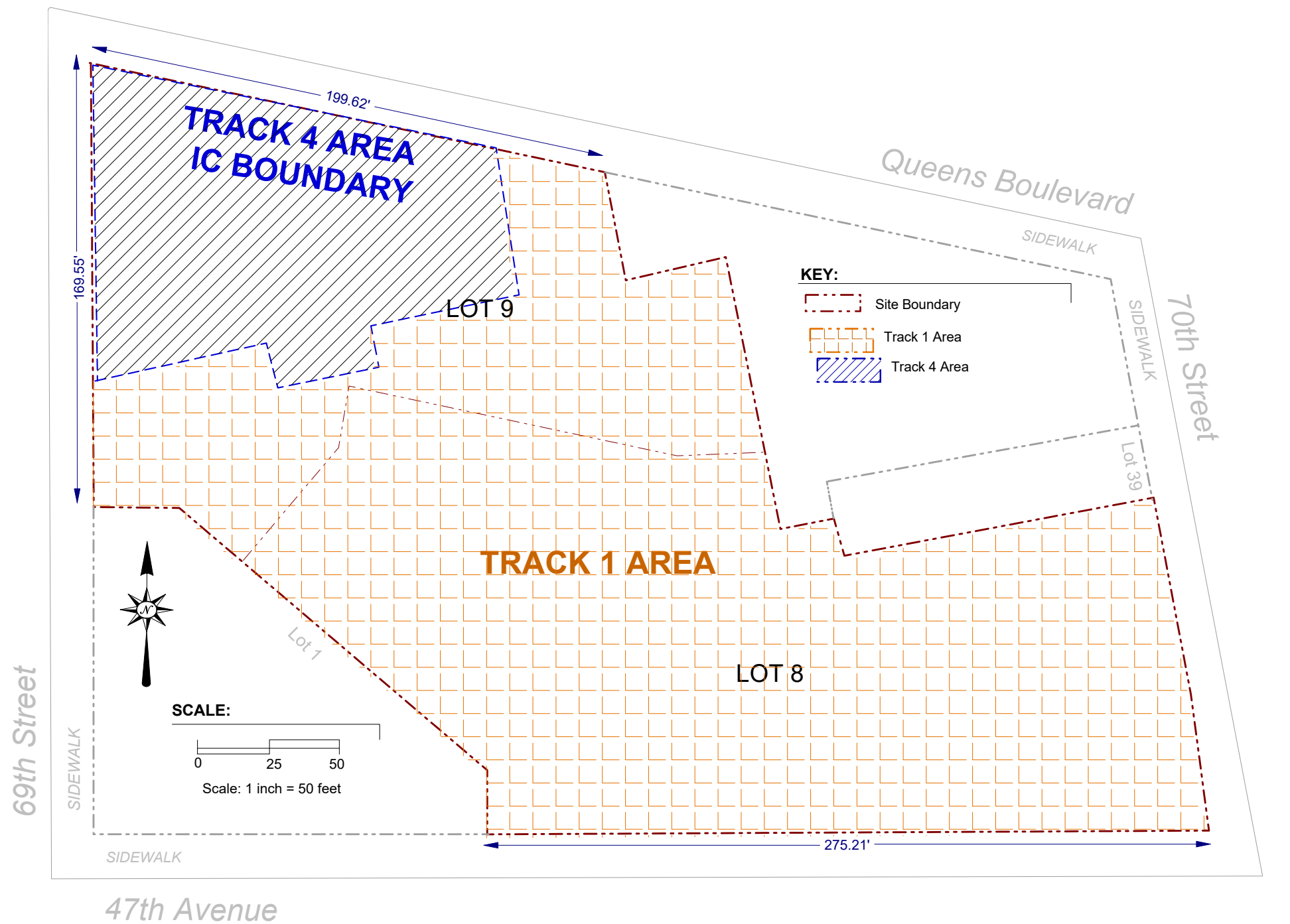
ADDITIONAL NOTES FOR MATRIX C

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Figure 1: 69-02 Queens Boulevard **Site Map**





AMC Engineering, PLLC
 18-36 42nd Street
 Astoria, NY 11105

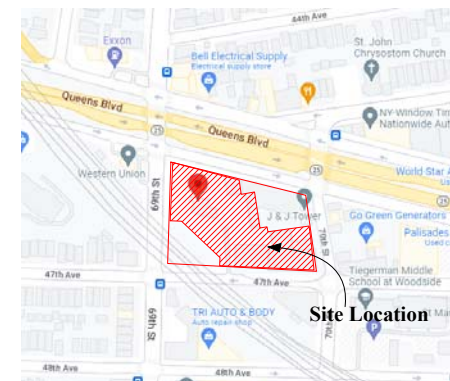
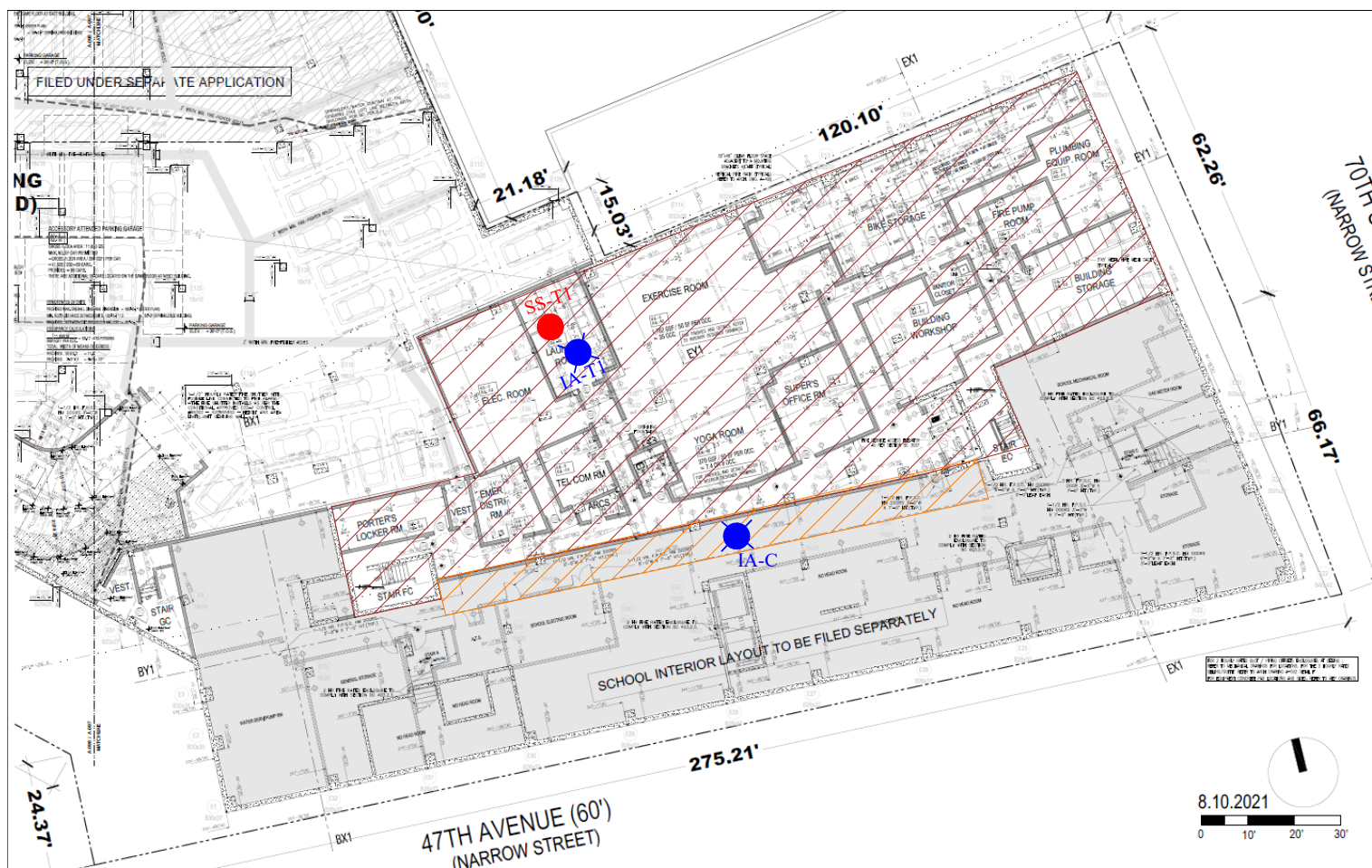
Figure No.
1

11/22/2021

Site Name: **69-02 QUEENS BOULEVARD - C241235**
 Site Address: **46-09 69TH STREET / 46-10 70TH STREET, WOODSIDE, NY**
 Drawing Title: **SITE PLAN**

Figures: Site Sampling Locations – Track 1



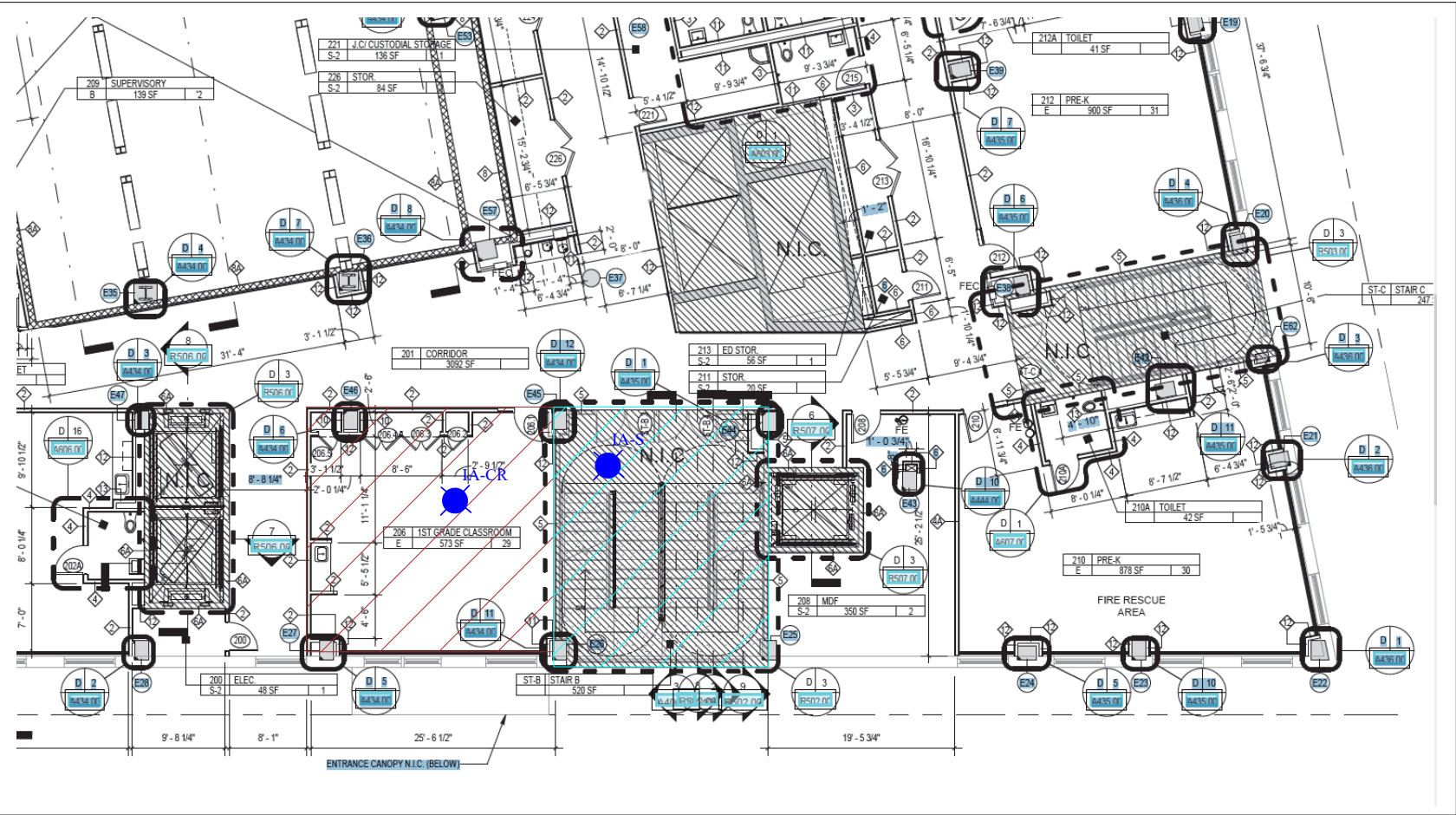
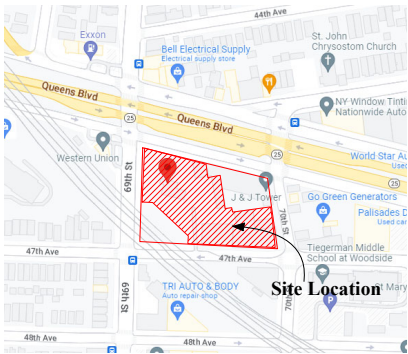


Legend:

- Sub-slab Vapor Sample Location
- Indoor Air Sample Location
- Track 1
- School Hallway

AMC ENGINEERING PLLC 18-36 42nd Street Astoria, NY 11105 718 545-0474	
PROJECT	
69-02 Queens Boulevard Queens, NY 11206	
TITLE:	
SVI and Indoor Air Sampling Location Plan	
SEAL & SIGNATURE:	DATE: <u>JUNE 13, 2023</u>
	PROJECT NO.:
	DRAWING BY: <u>AH</u>
	CHECK BY:
	DWG No.:
Figure 2	

SECOND FLOOR



Legend:

-  Indoor Air Sample Location
-  Classroom
-  Stairwell



AMC ENGINEERING PLLC
18-36 42nd Street
Astoria, NY 11105
718 545-0474

PROJECT

69-02 Queens Boulevard
Queens, NY 11206

TITLE:

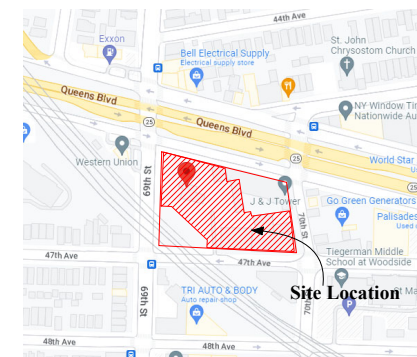
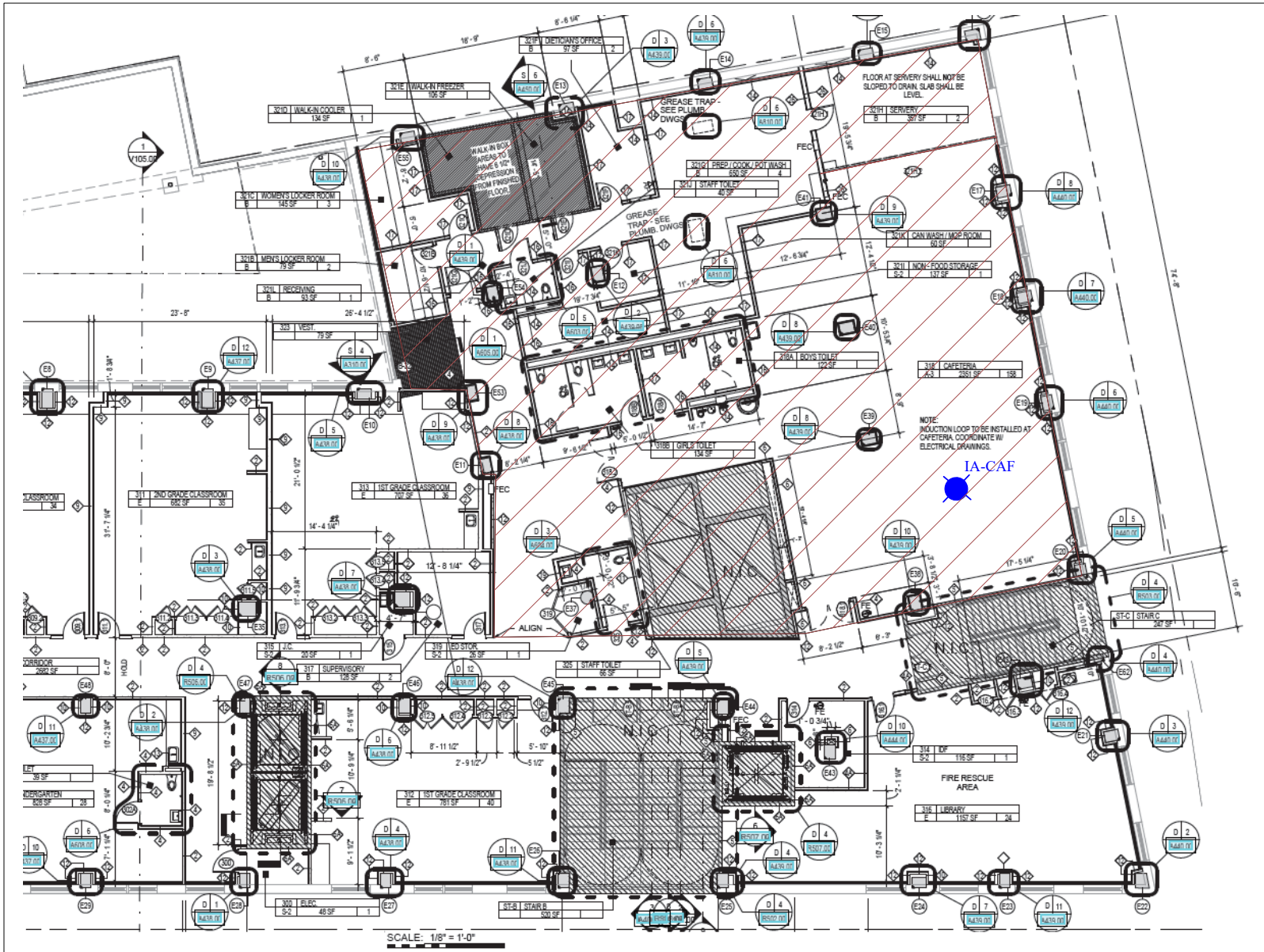
School:
Indoor Air Sampling
Location Plan

SEAL & SIGNATURE:

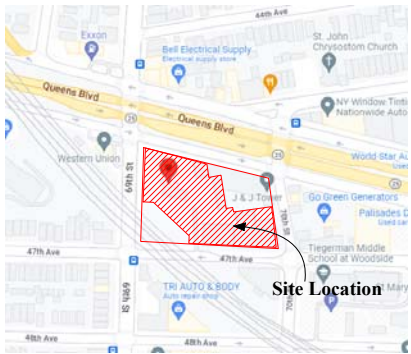
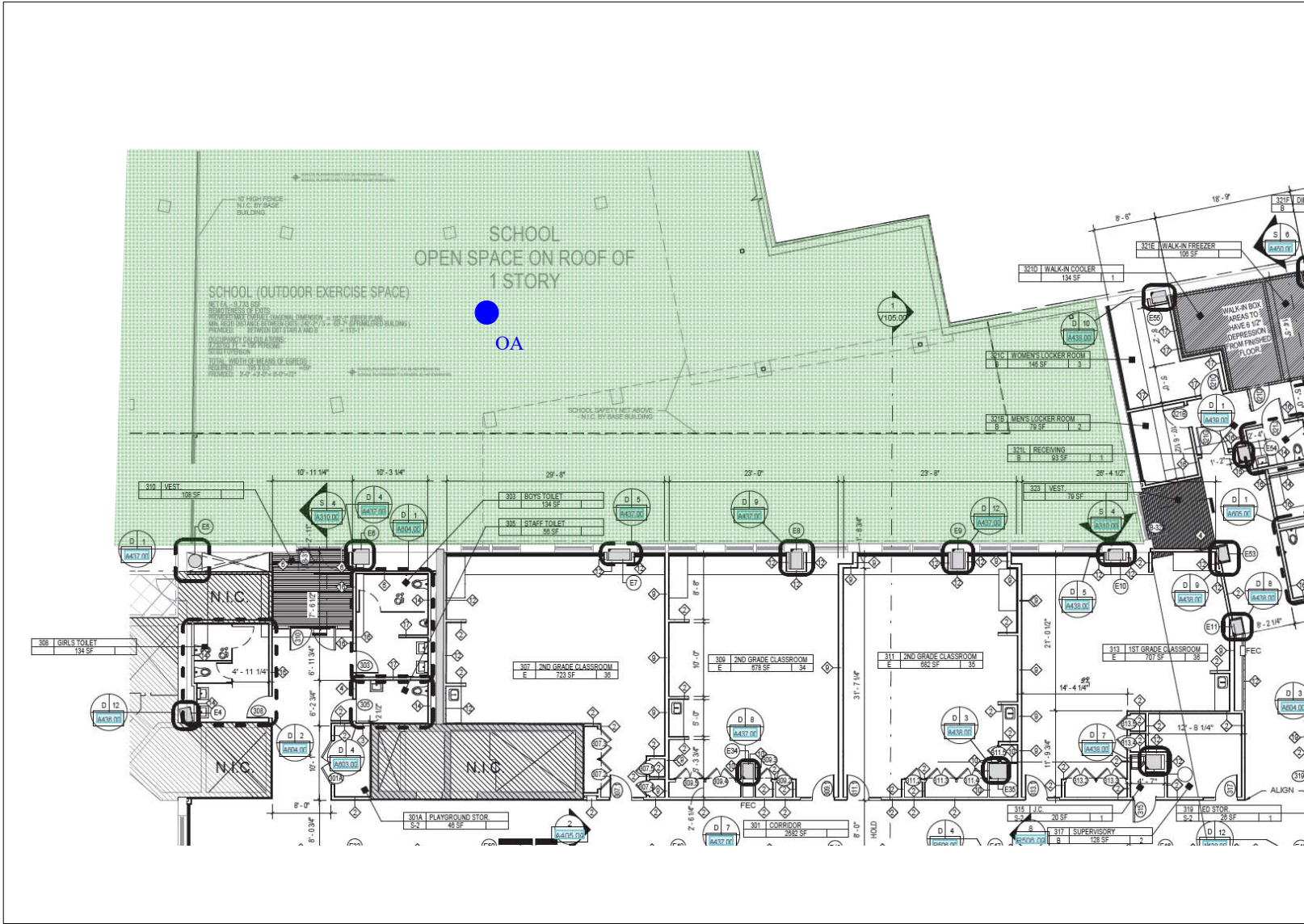
DATE: MAY 16, 2023
PROJECT No:
DRAWING BY: AH
CHK BY:
DWG No:

Figure 3

THIRD FLOOR



 AMC ENGINEERING PLLC 18-36 42nd Street Astoria, NY 11105 718 545-0474	
PROJECT	
69-02 Queens Boulevard Queens, NY 11206	
TITLE:	
School: Indoor Air Sampling Location Plan	
SEAL & SIGNATURE:	DATE: MAY 16, 2023
	PROJECT No:
	DRAWING BY: AH
	CHECK BY:
	DWG No:
Figure 4	



Legend:

- Outdoor Air Sample Location
- Outdoor Space



AMC ENGINEERING PLLC
18-36 42nd Street
Astoria, NY 11105
718 545-0474

PROJECT

69-02 Queens Boulevard
Queens, NY 11206

TITLE:

School:
Outdoor Air Sampling
Location Plan

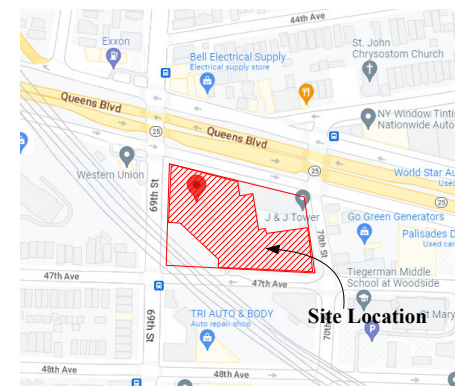
SEAL & SIGNATURE:

DATE: JUN 13, 2023
PROJECT No:
DRAWING BY: AH
CHK BY:
DWG No:

Figure 5

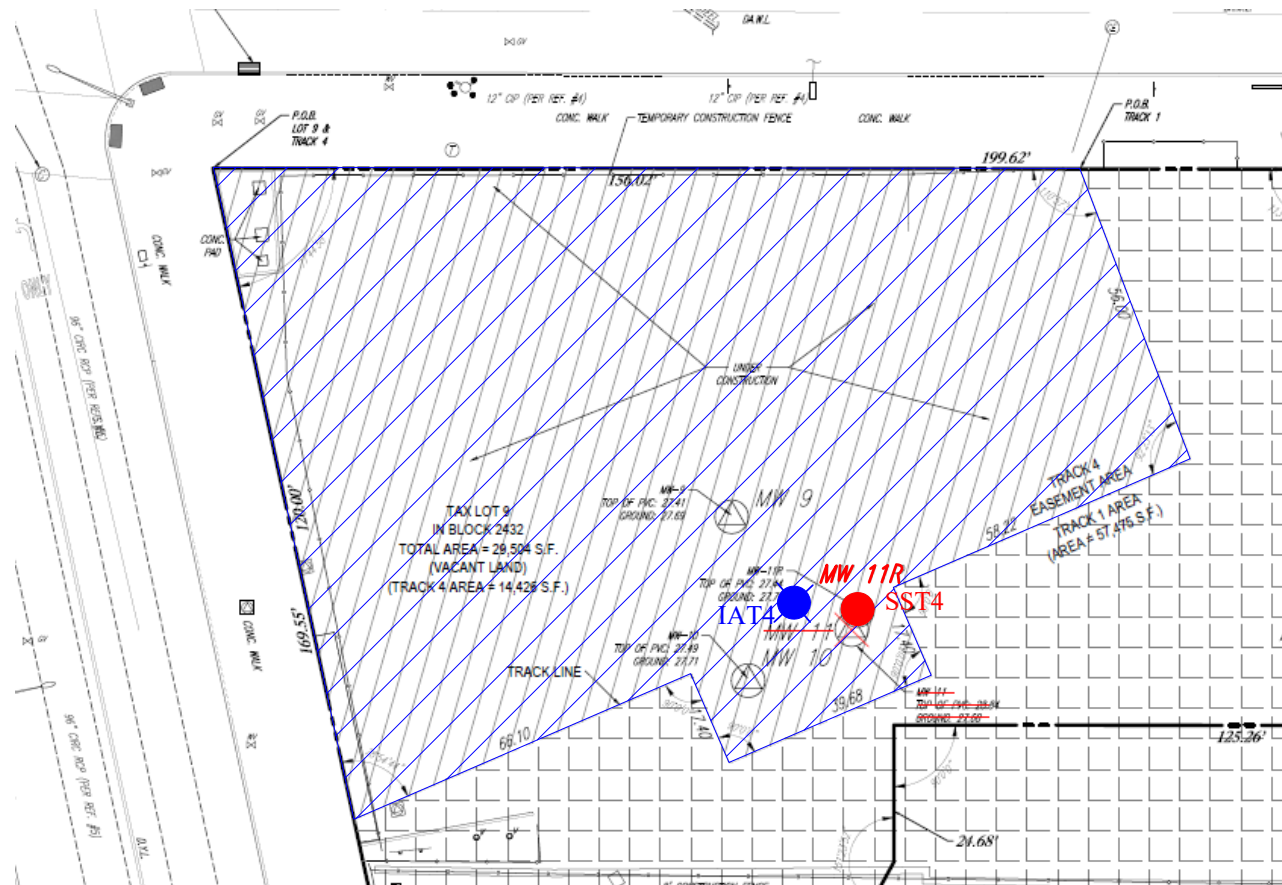
Figure: Site Sampling Locations – Track 4



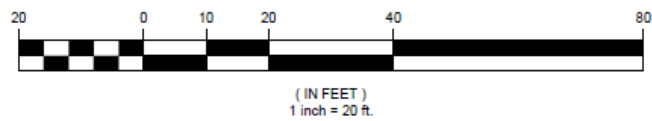


Legend:

- Sub-slab Vapor Sample Location
- ⊗ Indoor Air Sample Location
- Track 4 Portion of Site



GRAPHIC SCALE



 AMC ENGINEERING PLLC 18-36 42nd Street Astoria, NY 11105 718 545-0474	
PROJECT	
69-02 Queens Boulevard Queens, NY 11206	
TITLE:	
SVI Sampling Location Plan	
SEAL & SIGNATURE:	DATE: MAY 15, 2023 PROJECT No.: DRAWING BY: AH CHK BY: DWG No.:
Figure 1	

Appendix A: Soil Vapor Intrusion – Structure Sampling Building Questionnaire



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

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

Preparer's Name Ariel Czerninski Date/Time Prepared 8/6/23
Preparer's Affiliation Engineer/AEC Phone No. 718 545 0474
Purpose of Investigation Indoor Air Evaluation

1. OCCUPANT:**Interviewed:** Y / N

Last Name: Chen First Name: Bobbi

Address: 69-02 Queens Blvd

County: Queens

Home Phone: _____ Office Phone: _____

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

2. OWNER OR LANDLORD: (Check if same as occupant ☐)**Interviewed:** Y / N

Last Name: Besim (Resident Manager for Residential) First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS**Type of Building:** (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: _____

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: <u>Building</u>

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Under construction - School

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

Other characteristics:

Number of floors _____

Building age 0

Is the building insulated? ☒ Y / N

How air tight? ☒ Tight / Average / Not Tight

4. AIRFLOW

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

Airflow between floors

None

Airflow near source

N/A

Outdoor air infiltration

through open doors

Infiltration into air ducts

N/A

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

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

Basement/Lowest level depth below grade: 9 (feet)

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

None

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

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

Hot air circulation
Space Heaters
Electric baseboard

Heat pump
Stream radiation
Wood stove

Hot water baseboard
Radiant floor
Outdoor wood boiler Other _____

The primary type of fuel used is:

Natural Gas
Electric
Wood

Fuel Oil
Propane
Coal

Kerosene
Solar

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? ☒ Y / ☐ N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

throughout buildings - none in basements/cellars

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)		
Basement	School Vacant	Body Th amenities, office	Body Th amenities, office
1 st Floor	Classrooms	Residential	Residential
2 nd Floor			
3 rd Floor			
4 th Floor			

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?

☒ Y / ☐ N

b. Does the garage have a separate heating unit?

Y / ☒ N / ☒ NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)

Y / ☒ N / ☒ NA

Please specify _____

d. Has the building ever had a fire?

Y / ☒ N When? _____

e. Is a kerosene or unvented gas space heater present?

Y / ☒ N Where? _____

f. Is there a workshop or hobby/craft area?

Y / ☒ N Where & Type? _____

g. Is there smoking in the building?

Y / ☒ N How frequently? _____

h. Have cleaning products been used recently?

☒ Y / ☐ N When & Type? off the shelf cleaning

i. Have cosmetic products been used recently?

☒ Y / ☐ N When & Type? _____

j. Has painting/staining been done in the last 6 months?

☒ Y ☐ N Where & When? throughout

k. Is there new carpet, drapes or other textiles?

☒ Y ☐ N Where & When? occupied space in cells

l. Have air fresheners been used recently?

Y ☒ ☐ N When & Type? _____

m. Is there a kitchen exhaust fan?

Y / N If yes, where vented? N/A

n. Is there a bathroom exhaust fan?

☒ Y ☐ N If yes, where vented? _____

o. Is there a clothes dryer?

☒ Y ☐ N If yes, is it vented outside? ☒ Y ☐ N

p. Has there been a pesticide application?

Y ☒ ☐ N When & Type? _____

Are there odors in the building?

Y ☒ ☐ N

If yes, please describe: _____

Do any of the building occupants use solvents at work?

Y ☒ ☐ N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work?

Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

☒ No

Unknown

Is there a radon mitigation system for the building/structure? Y ☒ ☐ N Date of Installation: _____

Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:

☒ Public Water

Drilled Well

Driven Well

Dug Well

Other: _____

Sewage Disposal:

☒ Public Sewer

Septic Tank

Leach Field

Dry Well

Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

N/A

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

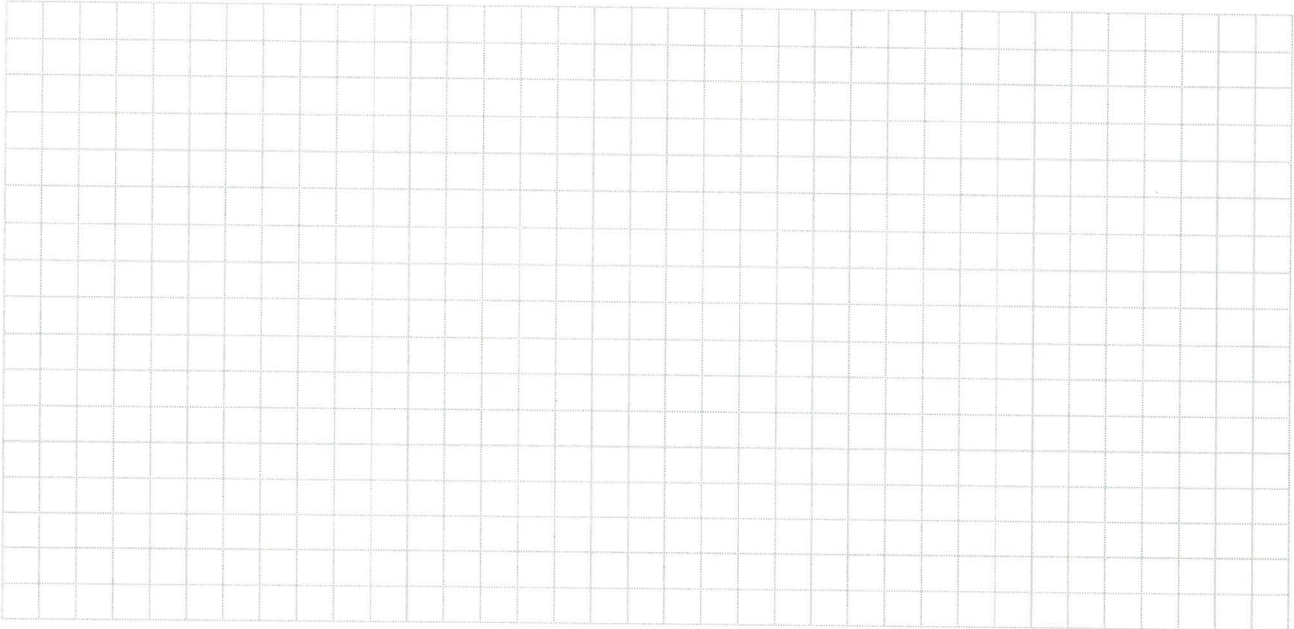
d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

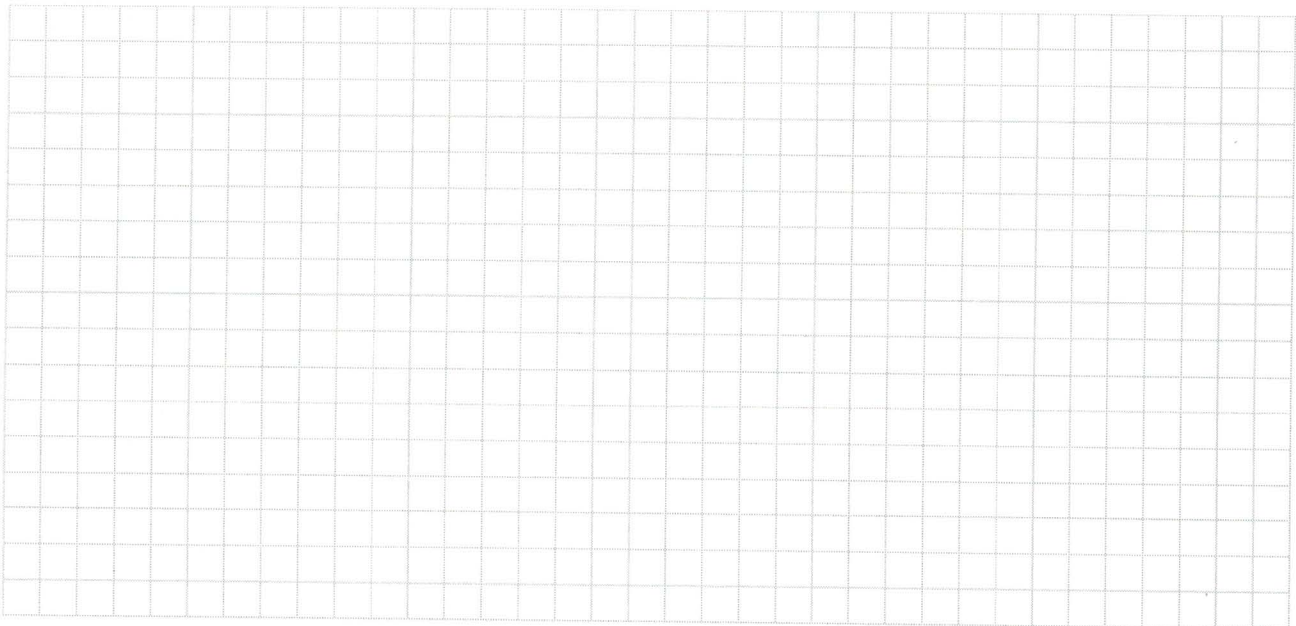
- Refer to floor plans in report

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



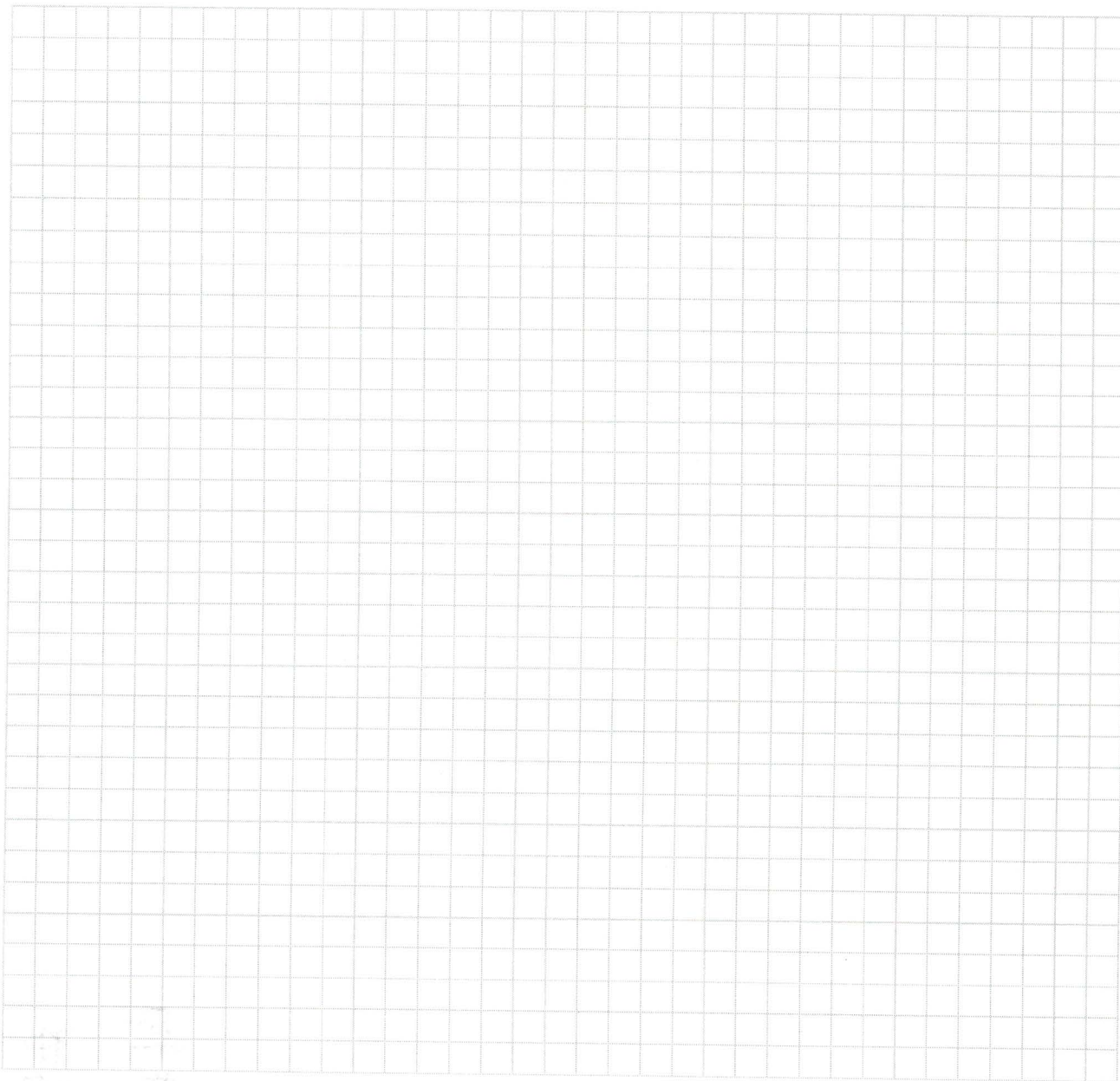
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.





NOT FOR CIRCULATION

[illegible]

RECREATION CONSTRUCTION
2010-2011
2012-2013
2014-2015
2016-2017
2018-2019
2020-2021
2022-2023
2024-2025
2026-2027
2028-2029
2030-2031
2032-2033
2034-2035
2036-2037
2038-2039
2040-2041
2042-2043
2044-2045
2046-2047
2048-2049
2050-2051
2052-2053
2054-2055
2056-2057
2058-2059
2060-2061
2062-2063
2064-2065
2066-2067
2068-2069
2070-2071
2072-2073
2074-2075
2076-2077
2078-2079
2080-2081
2082-2083
2084-2085
2086-2087
2088-2089
2090-2091
2092-2093
2094-2095
2096-2097
2098-2099
2100-2101
2102-2103
2104-2105
2106-2107
2108-2109
2110-2111
2112-2113
2114-2115
2116-2117
2118-2119
2120-2121
2122-2123
2124-2125
2126-2127
2128-2129
2130-2131
2132-2133
2134-2135
2136-2137
2138-2139
2140-2141
2142-2143
2144-2145
2146-2147
2148-2149
2150-2151
2152-2153
2154-2155
2156-2157
2158-2159
2160-2161
2162-2163
2164-2165
2166-2167
2168-2169
2170-2171
2172-2173
2174-2175
2176-2177
2178-2179
2180-2181
2182-2183
2184-2185
2186-2187
2188-2189
2190-2191
2192-2193
2194-2195
2196-2197
2198-2199
2200-2201
2202-2203
2204-2205
2206-2207
2208-2209
2210-2211
2212-2213
2214-2215
2216-2217
2218-2219
2220-2221
2222-2223
2224-2225
2226-2227
2228-2229
2230-2231
2232-2233
2234-2235
2236-2237
2238-2239
2240-2241
2242-2243
2244-2245
2246-2247
2248-2249
2250-2251
2252-2253
2254-2255
2256-2257
2258-2259
2260-2261
2262-2263
2264-2265
2266-2267
2268-2269
2270-2271
2272-2273
2274-2275
2276-2277
2278-2279
2280-2281
2282-2283
2284-2285
2286-2287
2288-2289
2290-2291
2292-2293
2294-2295
2296-2297
2298-2299
2300-2301
2302-2303
2304-2305
2306-2307
2308-2309
2310-2311
2312-2313
2314-2315
2316-2317
2318-2319
2320-2321
2322-2323
2324-2325
2326-2327
2328-2329
2330-2331
2332-2333
2334-2335
2336-2337
2338-2339
2340-2341
2342-2343
2344-2345
2346-2347
2348-2349
2350-2351
2352-2353
2354-2355
2356-2357
2358-2359
2360-2361
2362-2363
2364-2365
2366-2367
2368-2369
2370-2371
2372-2373
2374-2375
2376-2377
2378-2379
2380-2381
2382-2383
2384-2385
2386-2387
2388-2389
2390-2391
2392-2393
2394-2395
2396-2397
2398-2399
2400-2401
2402-2403
2404-2405
2406-2407
2408-2409
2410-2411
2412-2413
2414-2415
2416-2417
2418-2419
2420-2421
2422-2423
2424-2425
2426-2427
2428-2429
2430-2431
2432-2433
2434-2435
2436-2437
2438-2439
2440-2441
2442-2443
2444-2445
2446-2447
2448-2449
2450-2451
2452-2453
2454-2455
2456-2457
2458-2459
2460-2461
2462-2463
2464-2465
2466-2467
2468-2469
2470-2471
2472-2473
2474-2475
2476-2477
2478-2479
2480-2481
2482-2483
2484-2485
2486-2487
2488-2489
2490-2491
2492-2493
2494-2495
2496-2497
2498-2499
2500-2501
2502-2503
2504-2505
2506-2507
2508-2509
2510-2511
2512-2513
2514-2515
2516-2517
2518-2519
2520-2521
2522-2523
2524-2525
2526-2527
2528-2529
2530-2531
2532-2533
2534-2535
2536-2537
2538-2539
2540-2541
2542-2543
2544-2545
2546-2547
2548-2549
2550-2551
2552-2553
2554-2555
2556-2557
2558-2559
2560-2561
2562-2563
2564-2565
2566-2567
2568-2569
2570-2571
2572-2573
2574-2575
2576-2577
2578-2579
2580-2581
2582-2583
2584-2585
2586-2587
2588-2589
2590-2591
2592-2593
2594-2595
2596-2597
2598-2599
2600-2601
2602-2603
2604-2605
2606-2607
2608-2609
2610-2611
2612-2613
2614-2615
2616-2617
2618-2619
2620-2621
2622-2623
2624-2625
2626-2627
2628-2629
2630-2631
2632-2633
2634-2635
2636-2637
2638-2639
2640-2641
2642-2643
2644-2645
2646-2647
2648-2649
2650-2651
2652-2653
2654-2655
2656-2657
2658-2659
2660-2661
2662-2663
2664-2665
2666-2667
2668-2669
2670-2671
2672-2673
2674-2675
2676-2677
2678-2679
2680-2681
2682-2683
2684-2685
2686-2687
2688-2689
2690-2691
2692-2693
2694-2695
2696-2697
2698-2699
2700-2701
2702-2703
2704-2705
2706-2707
2708-2709
2710-2711
2712-2713
2714-2715
2716-2717
2718-2719
2720-2721
2722-2723
2724-2725
2726-2727
2728-2729
2730-2731
2732-2733
2734-2735
2736-2737
2738-2739
2740-2741
2742-2743
2744-2745
2746-2747
2748-2749
2750-2751
2752-2

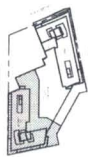
PROJECT
EAST BUILDING
16-10 70TH STREET
QUEENS
NEW YORK CITY

EAST TOWER PART PLAN A
CONSTRUCTION FLOOR - CELLAR
RENTAL FLOOR - CELLAR

A-096.00

© Wiley-Blackwell





NOT FOR CONSTRUCTION

SEPT-16-2022	BULLETIN NO. 2	19% INSURANCE UPDATES
SEPT-27-2021	BULLETIN NO. 1	19% INSURANCE & DOB RE-SUBMISSION
OCT-5-2021		DOB RE-SUBMISSION
AUG-7-2021		DOB RE-SUBMISSION
MAY-28-2021		DOB RE-SUBMISSION
JUN-16-2020		DOB RE-SUBMISSION
MAY-18-2021		DOB RE-SUBMISSION (ASAP)

APR-28-2028	DOB: EN RE-SUBMISSION
APR-4-2028	DOB: RE-SUBMISSION
APR-1-2028	BILDS IHPD PLAN SET FOR REVIEW
MAR-28-2028	35% ISSUANCE FOR REVIEW
FEB-7-2028	DOB: RE-SUBMISSION

AN-31-2225	BLDS / NPD PLAN SET FOR REVIEW
CT-18-2218	DOB RE-SUBMISSION
EP-18-2219	DOB RE-SUBMISSION
UG-24-2215	BLDS / NPD PLAN SET FOR REVIEW
JUL-25-2212	18% QD SET FOR REVIEW

04-15-2019	DOB INITIAL FILING
06-12-2019	180% SD SET FOR REVIEW
08-3-2019	FOR REVIEW

AKM ARCHITECTS LLP
ARCHITECTS
148 WEST 36TH STREET | P.O. BOX 10011
NEW YORK, NY 10018-0011
Tel: 212.693.2500 | Fax: 212.693.2501
www.akmarchitects.com

(212)-643-9055
 (212)-244-8000

(942) 472-0519
 (912) 478-5400

(712) 696-1816
 (712) 414-9023
 (712) 653-1792

CONTACT INFORMATION: (712) 305-1818
ON SITE CONSULTANTS

JB DEVELOPMENT OWNER LLC
10000 AVENUE SUITE 500, NEW YORK, NY 10022
212-512-0000

PROJECT: WEST BUILDING
600 60TH STREET

0-09 09TH STREET
QUEENS
NEW YORK CITY

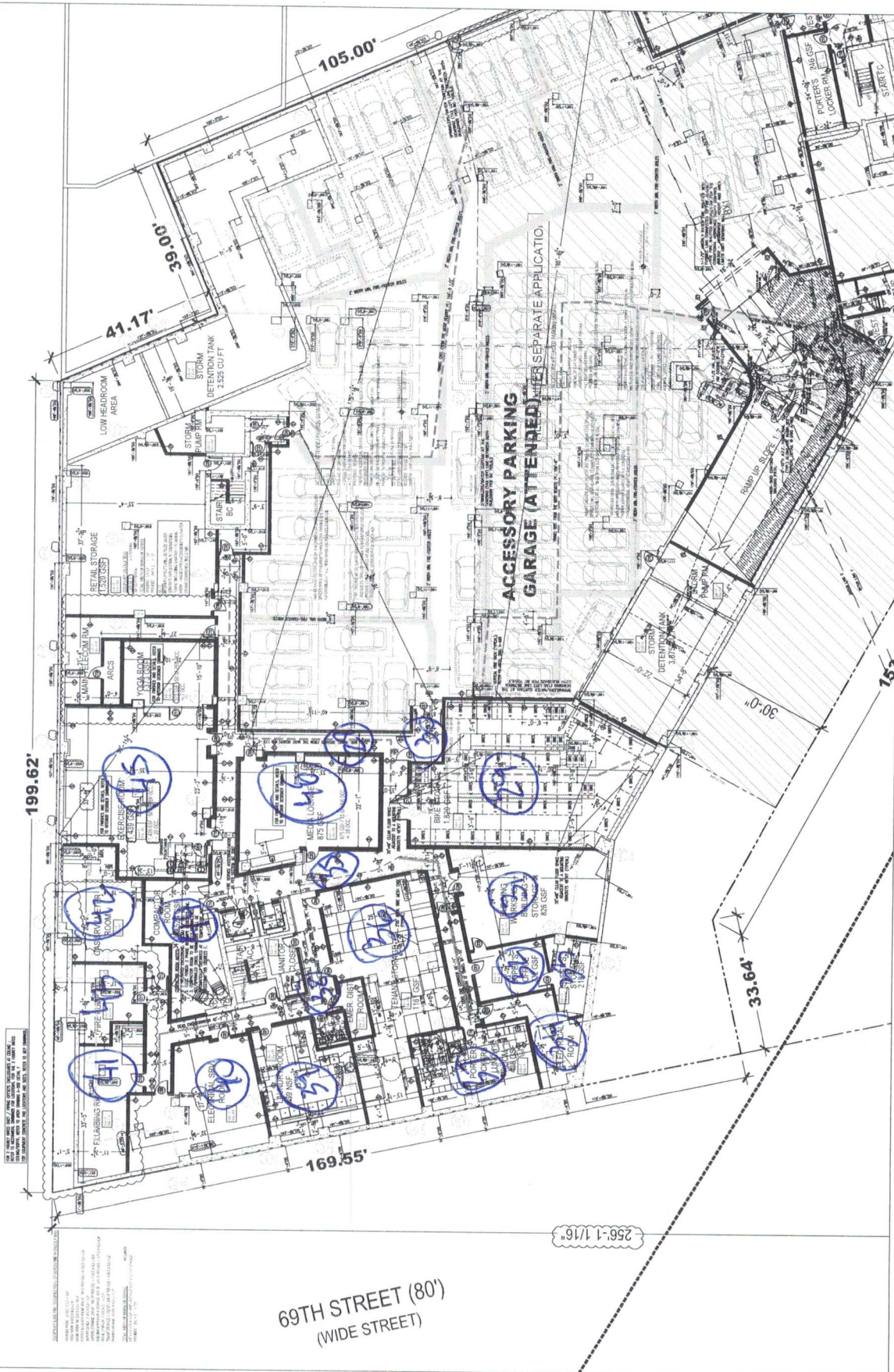
WEST TOWER
CONSTRUCTION FLOOR - CELLAR
RENTAL FLOOR - CELLAR

18" = 1' 0"

A-100.00

Page 1 of 2

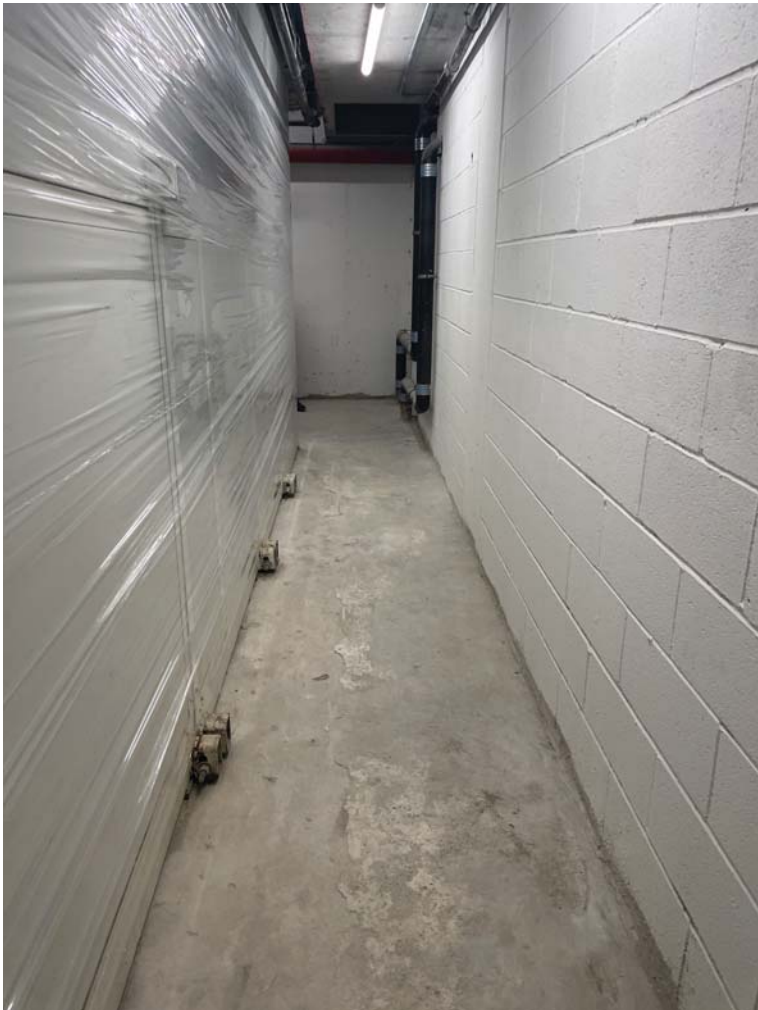
QUEENS BOULEVARD (200')
(WIDE STREET)



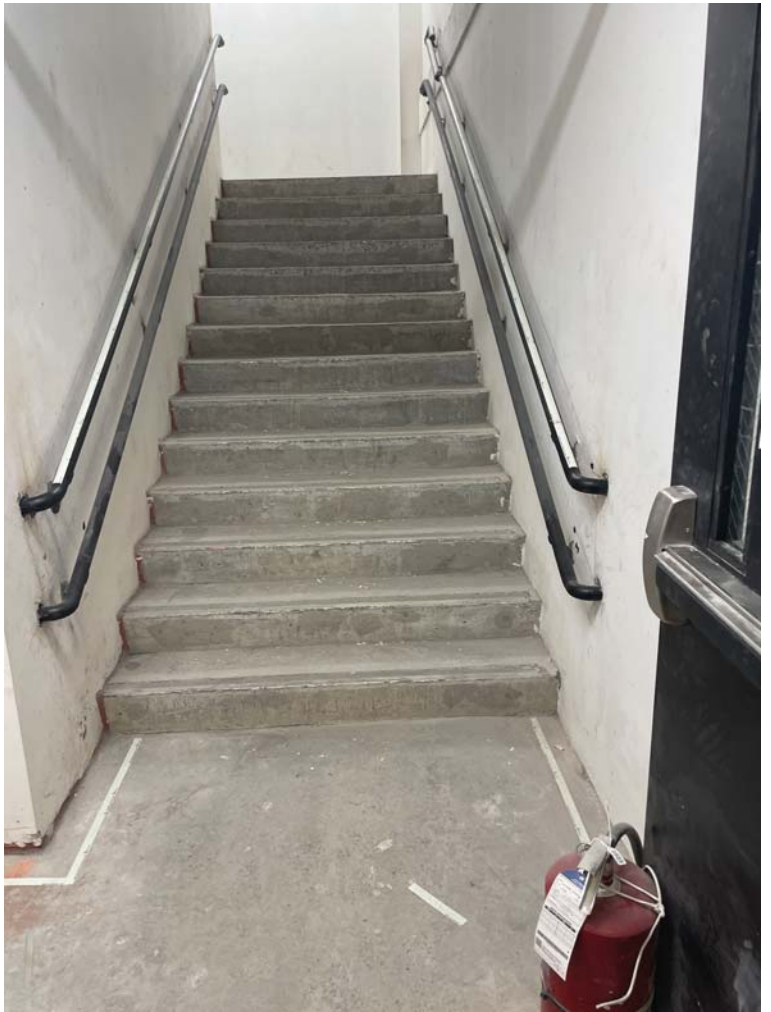
ALL FLOOR NUMBERS INDICATED ARE CONSTRUCTION FLOOR NUMBERS U.O.N.

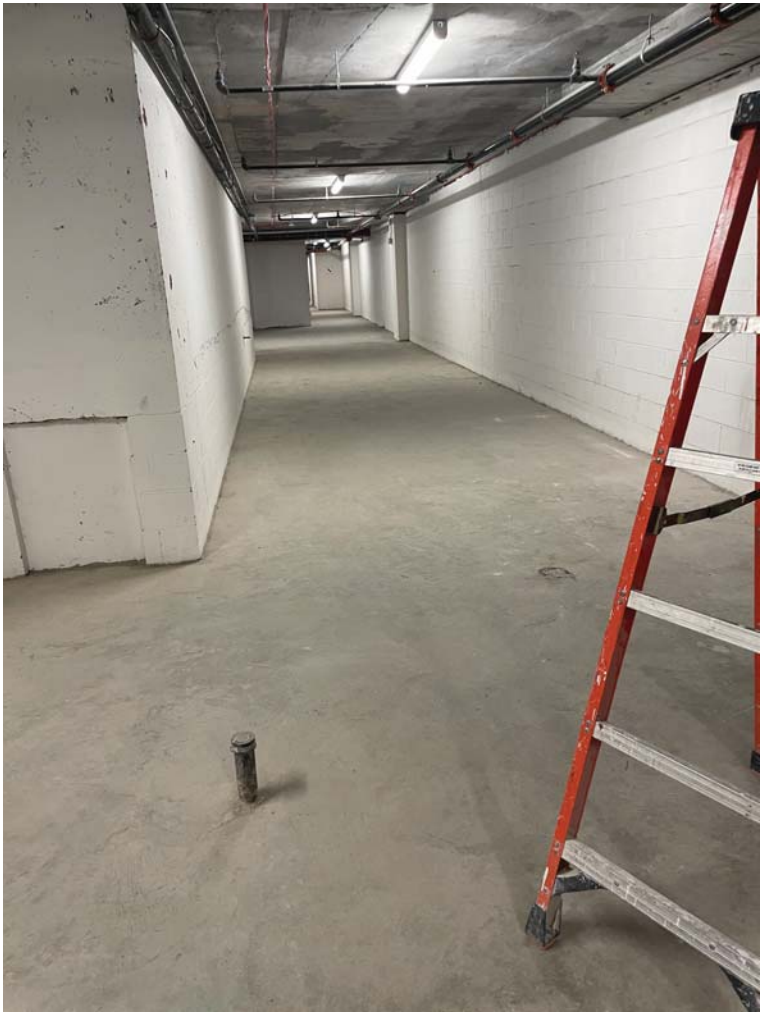
4.12.2022

69TH STREET (80")
(WIDE STREET)

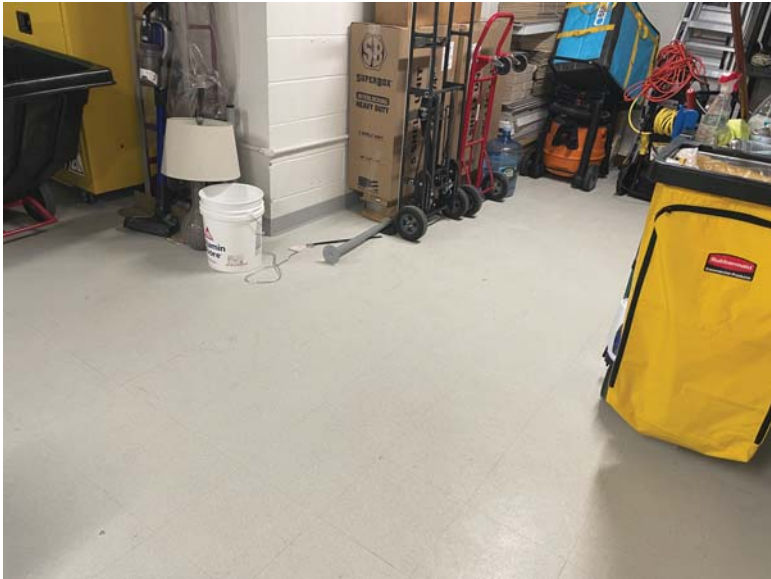
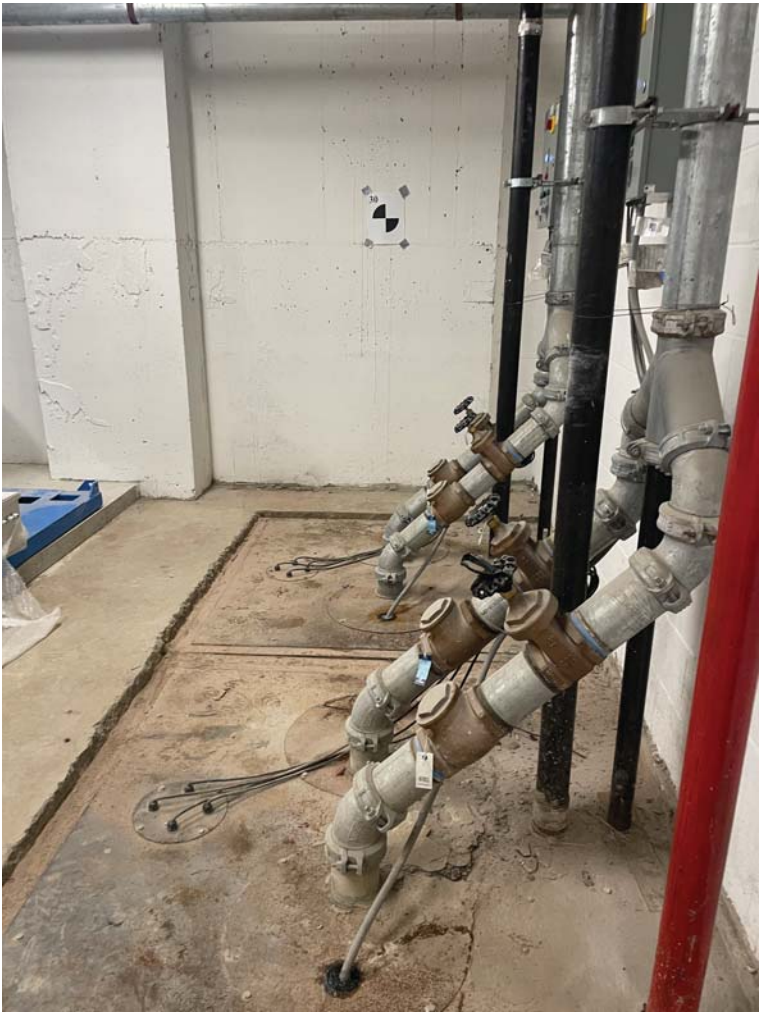


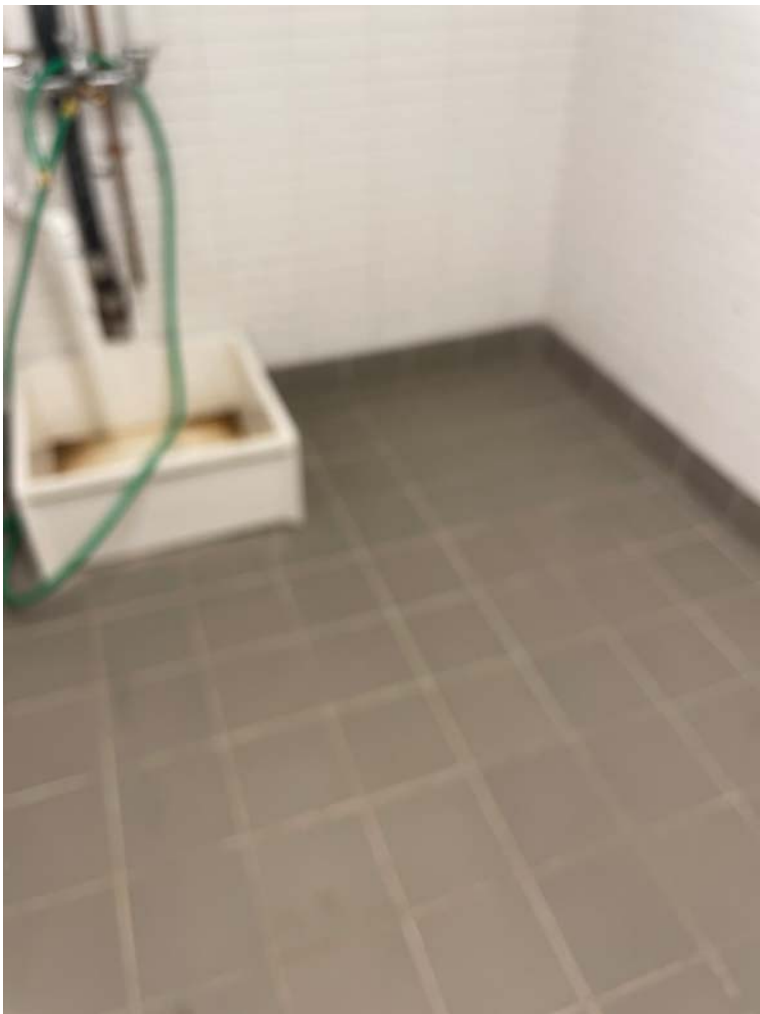


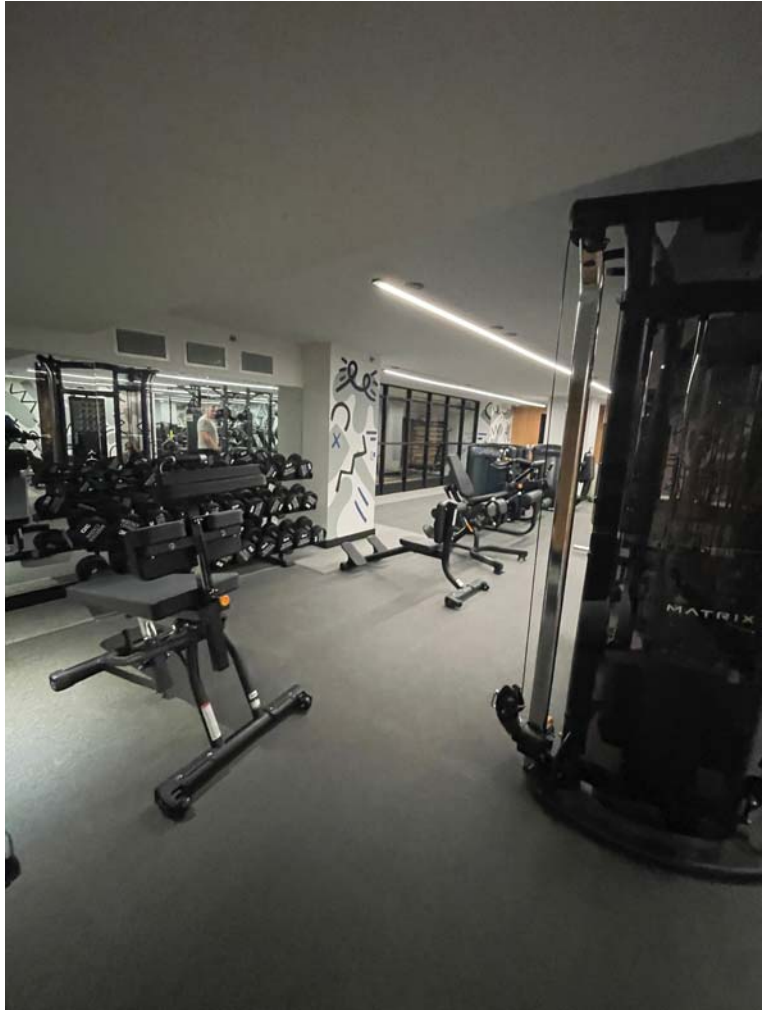


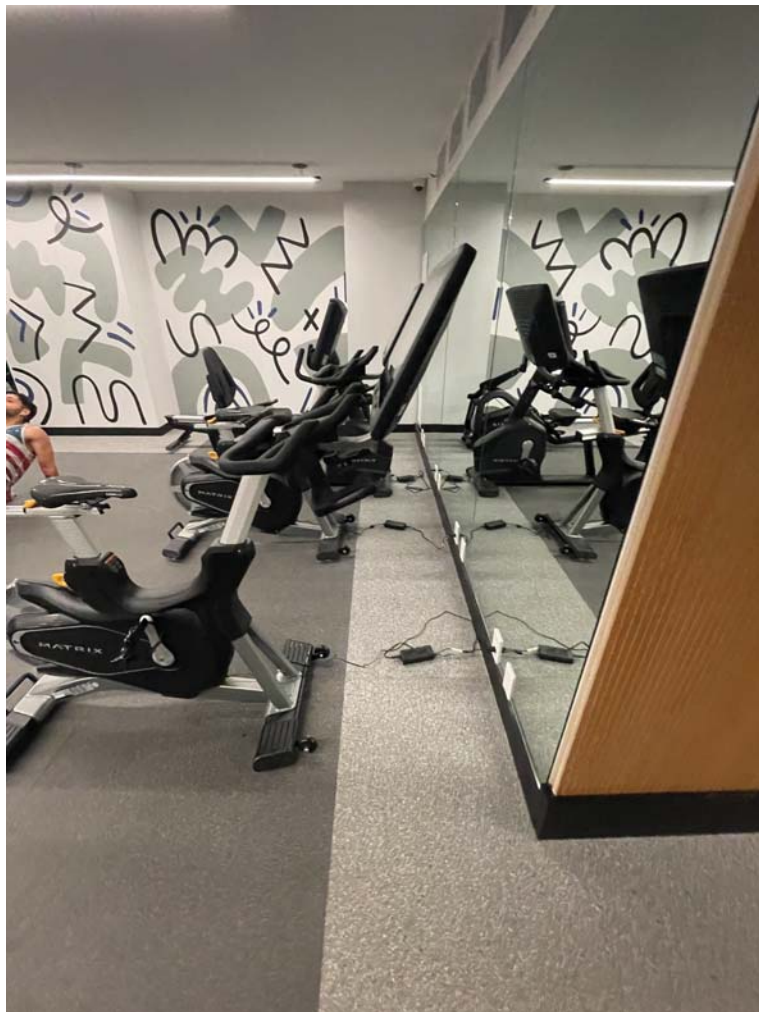


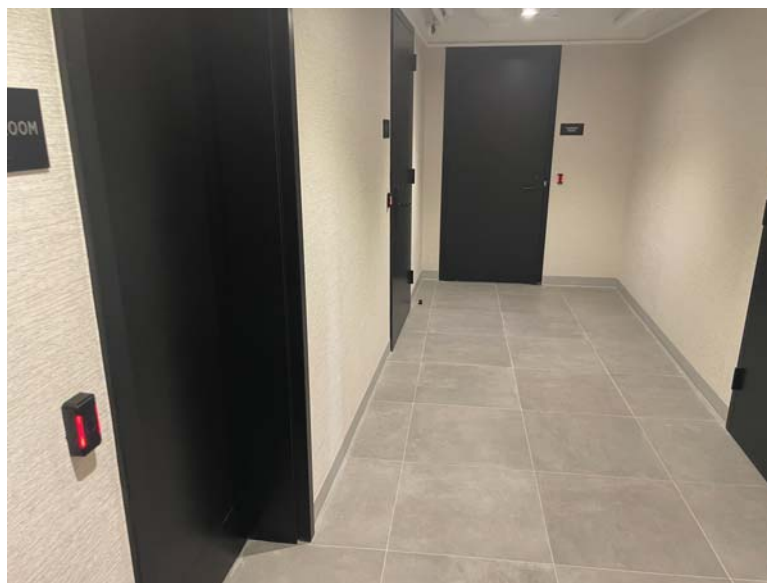
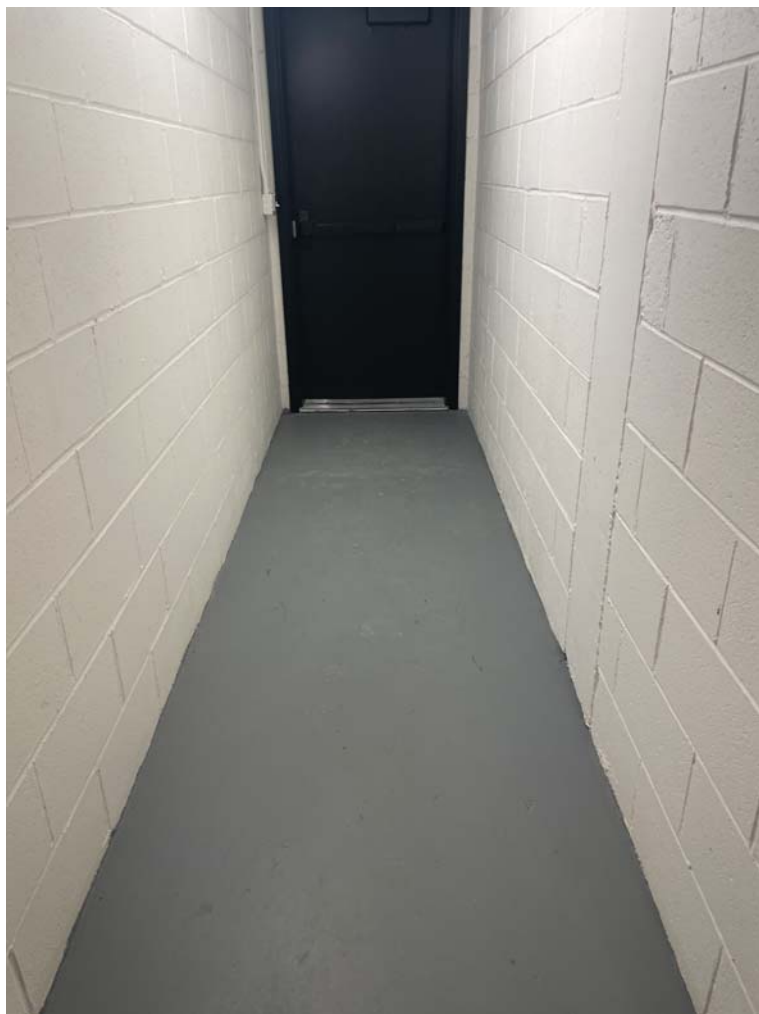
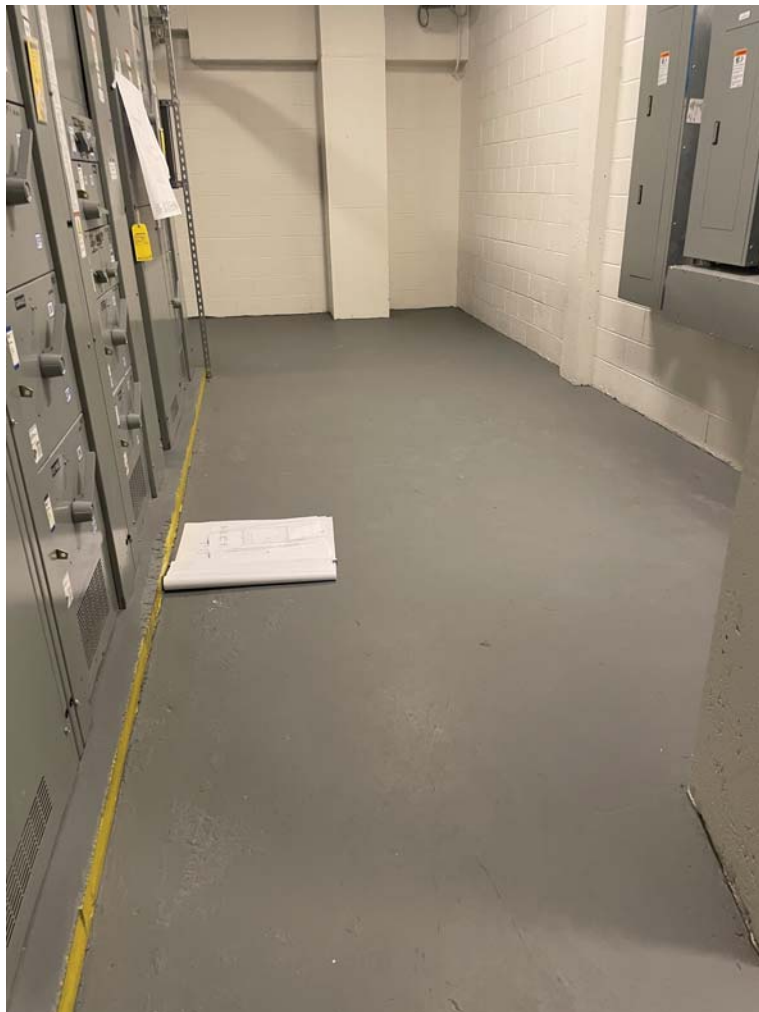






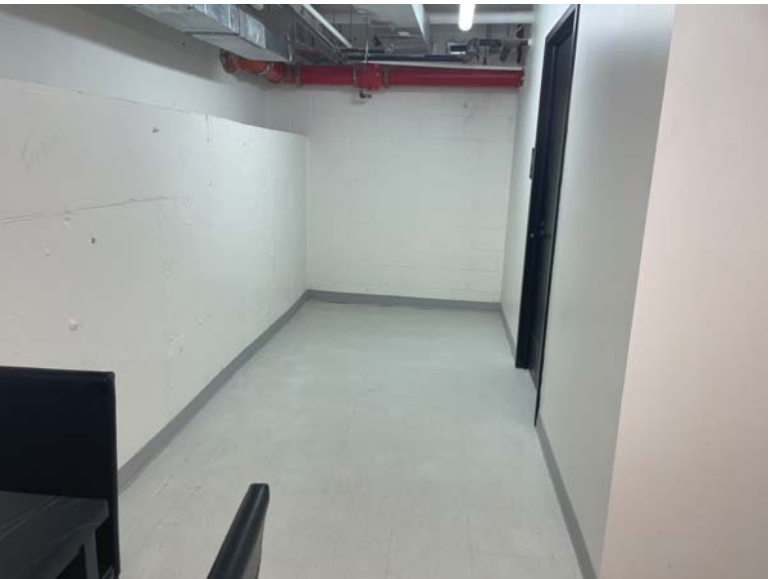
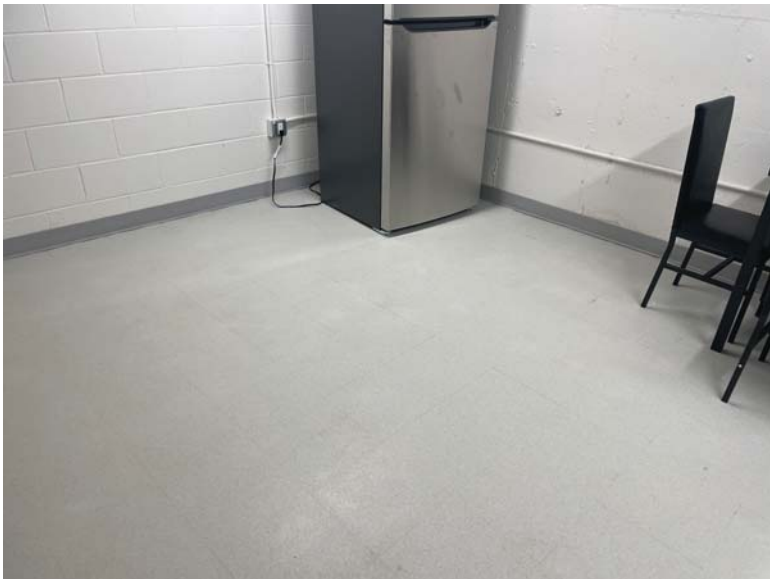
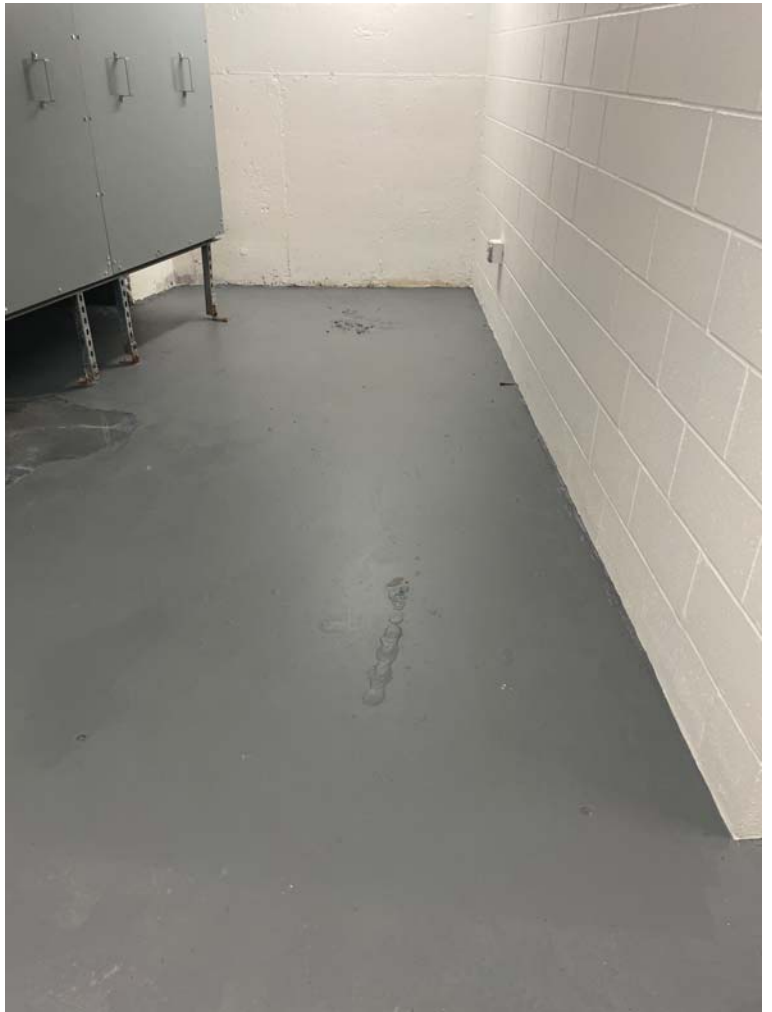


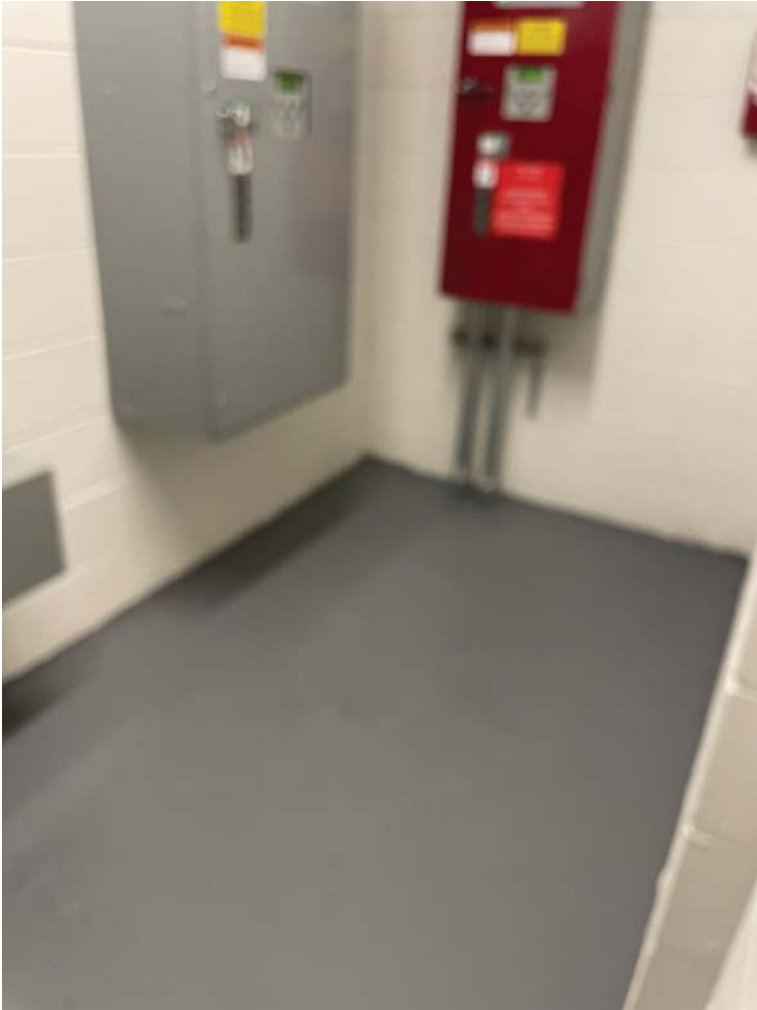




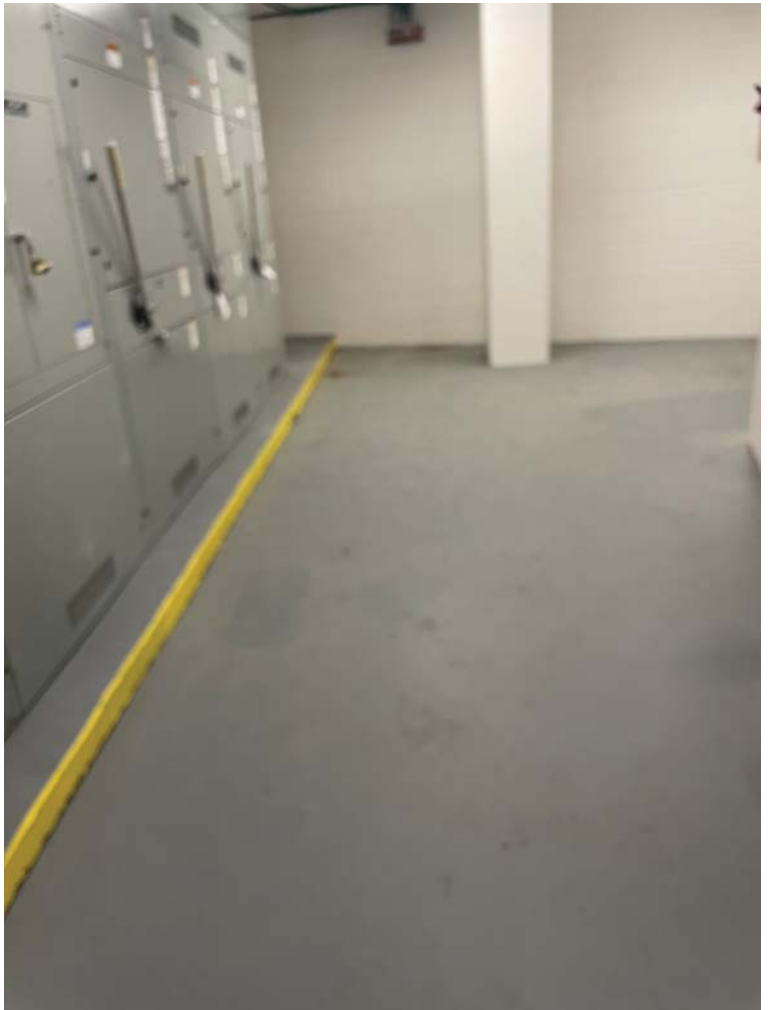
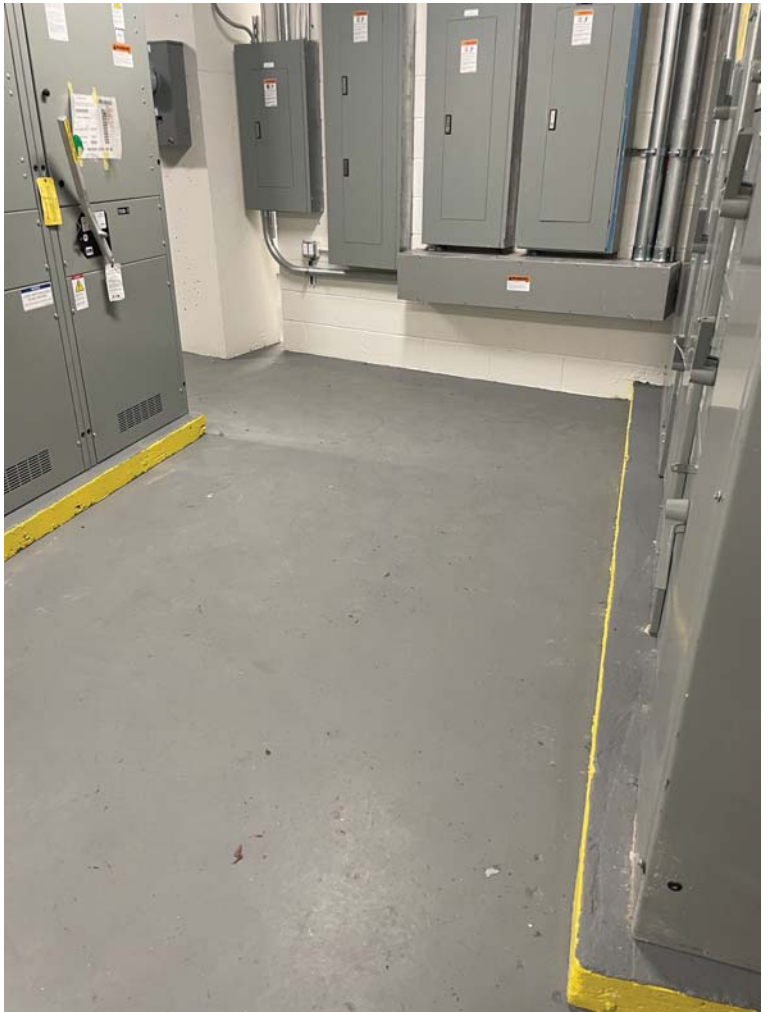




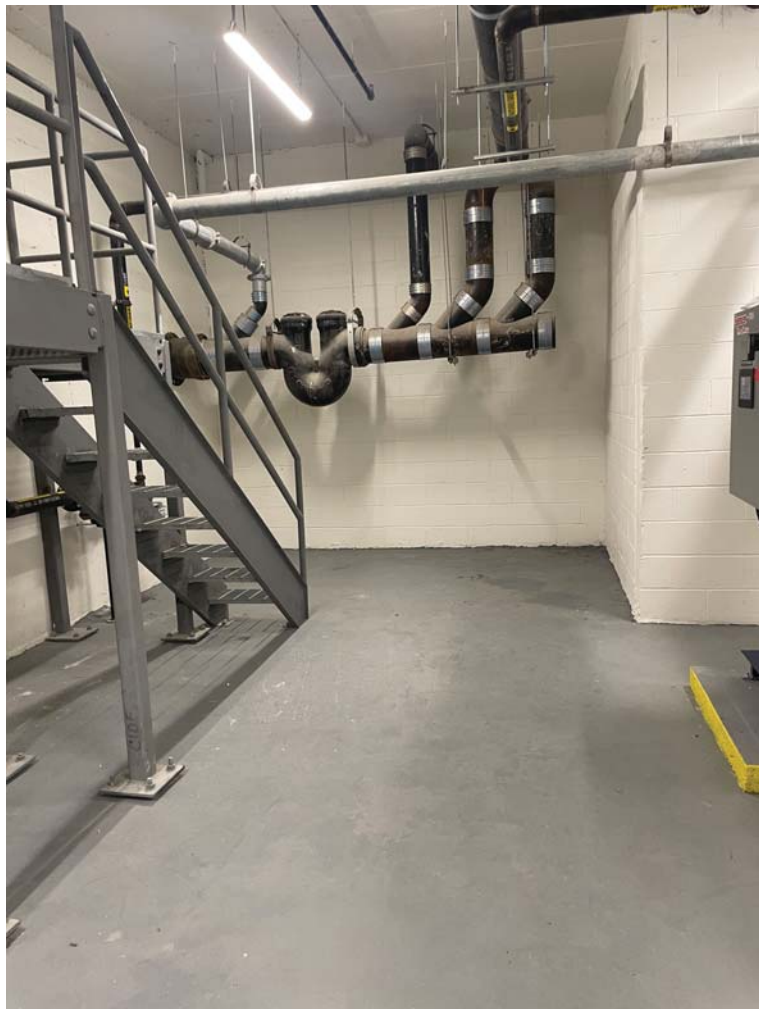


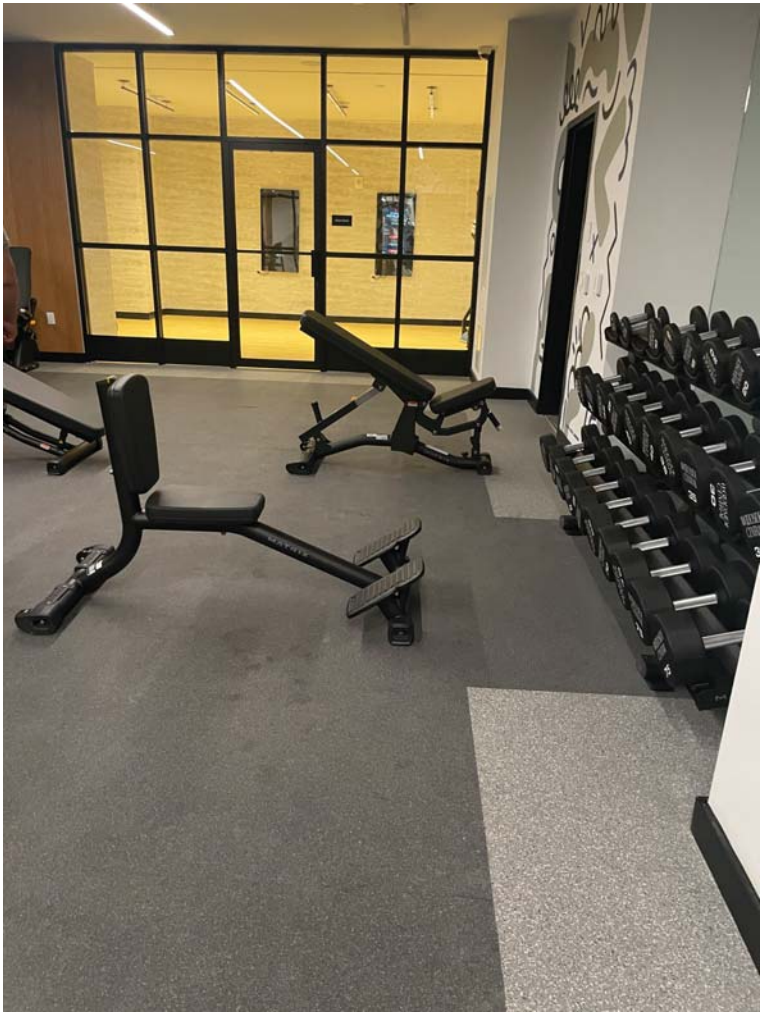












Appendix B: Phoenix Laboratory Data **Package**



Appendix C: DUSR





Geology

Hydrology

Remediation

Water Supply

April 17, 2023

Ms. Anjeza Harrington
Environmental Engineer
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Re: Data Validation Reports
69-02 Queens Blvd.
July-August 2023 Air/Soil Gas Sampling Events

Dear Ms. Harrington:

The Data Usability Summary Reports and QA/QC reviews are attached to this letter for the 69-02 Queens Blvd. site, July-August 2023 air sampling events. The data for Phoenix Environmental Laboratories, Inc. SDG numbers GCO50114 and GCO83571 are acceptable with issues that are identified in the DUSRs and QA/QC review summaries. There are no data that are rejected (R) in the data packs.

A list of data validation acronyms and qualifiers is attached to assist you in interpreting the data validation reviews. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for providing us an opportunity with AMC Engineering, PLLC.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

z:\projects\2023\23600-23620\23618-queens blvd (69-02)\temp-review\queens blvd-232.ltr.docx

GCO50114



**Data Usability Summary Report for
Phoenix Environmental Laboratories, Inc.
SDG: GCO50114**

**9 Soil Vapor/Air Samples and 1 Field Duplicate
Collected July 11, 2023**

Prepared by: Donald Anné
October 27, 2023

Geology

Hydrology

Remediation

Water Supply

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results for 9 soil vapor/air samples analyzed for TO15 volatiles.

The overall performances of the analyses are acceptable. Phoenix Environmental Laboratories, Inc. did fulfill the requirements of the analytical method.

The data are acceptable with some minor issues that are identified in the accompanying data validation reviews. The following data were flagged:

- The positive volatile results for ethanol were qualified as “estimated, biased high” (J+) for samples IA-CS-SECOND FLOOR CLASSROOM, IA-T4-TRACK 4 INDOOR AIR, and IA-S SECOND FLOOR STAIRWELL because the percent recoveries for ethanol were above the QC limits in the associated air/soil vapor LCSs.
- The positive volatile results for acetone in samples IS-C-SCHOOL CELLAR, IA-CAF-CAFETERIA, and DUPLICATE were quantitated using data that were extrapolated beyond the highest calibration standard and flagged “E” by the laboratory. The results for acetone marked “E” in the samples were qualified as estimated (J).
- The positive volatile results for ethanol in samples IA-CAF-CAFETERIA, DUPLICATE, and IA-T1-TRACK 1 INDOOR AIR were quantitated using data that were extrapolated beyond the highest calibration standard and flagged “E” by the laboratory. The results for ethanol marked “E” in the samples were qualified as estimated (J).
- The positive volatile results for 14 compounds (attached table) were qualified as estimated (J) in samples IA-T4-TRACK 4 INDOOR AIR and DUPLICATE because the relative percent differences for these 14 compounds were above the allowable maximum in the air field duplicate pair IA-T4-TRACK 4 INDOOR AIR/DUPLICATE.

All data are considered usable, with estimated (J or J+) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

z:\projects\2023\23600-23620\23618-queens blvd (69-02)\temp-review\gco50114.dus.docx

679 Plank Road • Clifton Park, New York 12065 • (518) 348-6995 • Fax (518) 348-6966

www.alphageoscience.com

Qualified Data Section



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 358

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23 12:05
07/13/23 16:24

Time

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50114

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: IS-C-SCHOOL CELLAR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethene	0.135	0.051	0.051	0.53	0.20	0.20	07/14/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/14/23	KCA	1
1,2,4-Trimethylbenzene	20.9	0.204	0.204	103	1.00	1.00	07/14/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/14/23	KCA	1
1,3,5-Trimethylbenzene	5.85	0.204	0.204	28.7	1.00	1.00	07/14/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/14/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,4-Dichlorobenzene	116	1.66	1.66	697	10.0	10.0	07/21/23	KCA	10
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
4-Ethyltoluene	19.0	0.204	0.204	93.3	1.00	1.00	07/14/23	KCA	1
4-Isopropyltoluene	0.544	0.182	0.182	2.98	1.00	1.00	07/14/23	KCA	1
4-Methyl-2-pentanone(MIBK)	6.39	0.244	0.244	26.2	1.00	1.00	07/14/23	KCA	1
Acetone	460 J E	2.11	2.11	1090 J	5.01	5.01	07/14/23	KCA	5
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/14/23	KCA	1
Benzene	0.534	0.313	0.313	1.70	1.00	1.00	07/14/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/14/23	KCA	1

Client ID: IS-C-SCHOOL CELLAR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	0.754	0.149	0.149	5.05	1.00	1.00	07/14/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/14/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/14/23	KCA	1
Carbon Disulfide	0.398	0.321	0.321	1.24	1.00	1.00	07/14/23	KCA	1
Carbon Tetrachloride	0.422	0.032	0.032	2.65	0.20	0.20	07/14/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/14/23	KCA	1
Chloroform	118	1.02	1.02	576	4.98	4.98	07/14/23	KCA	5
Chloromethane	3.33	0.485	0.485	6.87	1.00	1.00	07/14/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Cyclohexane	0.827	0.291	0.291	2.84	1.00	1.00	07/14/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/14/23	KCA	1
Dichlorodifluoromethane	0.403	0.202	0.202	1.99	1.00	1.00	07/14/23	KCA	1
Ethanol	194	2.66	2.66	365	5.01	5.01	07/14/23	KCA	5
Ethyl acetate	1.26	0.278	0.278	4.54	1.00	1.00	07/14/23	KCA	1
Ethylbenzene	4.58	0.230	0.230	19.9	1.00	1.00	07/14/23	KCA	1
Heptane	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/14/23	KCA	1
Hexane	0.638	0.284	0.284	2.25	1.00	1.00	07/14/23	KCA	1
Isopropylalcohol	15.3	0.407	0.407	37.6	1.00	1.00	07/14/23	KCA	1
Isopropylbenzene	1.13	0.204	0.204	5.55	1.00	1.00	07/14/23	KCA	1
m,p-Xylene	15.8	0.230	0.230	68.6	1.00	1.00	07/14/23	KCA	1
Methyl Ethyl Ketone	13.4	0.339	0.339	39.5	1.00	1.00	07/14/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
Methylene Chloride	8.81	0.863	0.863	30.6	3.00	3.00	07/14/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
o-Xylene	6.03	0.230	0.230	26.2	1.00	1.00	07/14/23	KCA	1
Propylene	7.14	0.581	0.581	12.3	1.00	1.00	07/14/23	KCA	1
sec-Butylbenzene	0.352	0.182	0.182	1.93	1.00	1.00	07/14/23	KCA	1
Styrene	6.17	0.235	0.235	26.3	1.00	1.00	07/14/23	KCA	1
Tetrachloroethene	0.104	0.037	0.037	0.70	0.25	0.25	07/14/23	KCA	1
Tetrahydrofuran	1.22	0.339	0.339	3.60	1.00	1.00	07/14/23	KCA	1
Toluene	8.66	0.266	0.266	32.6	1.00	1.00	07/14/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/14/23	KCA	1
Trichlorofluoromethane	0.201	0.178	0.178	1.13	1.00	1.00	07/14/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/14/23	KCA	1
Vinyl Chloride	0.431	0.078	0.078	1.10	0.20	0.20	07/14/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	103	%	%	103	%	%	07/14/23	KCA	1
% IS-1,4-Difluorobenzene	90	%	%	90	%	%	07/14/23	KCA	1
% IS-Bromochloromethane	88	%	%	88	%	%	07/14/23	KCA	1
% IS-Chlorobenzene-d5	96	%	%	96	%	%	07/14/23	KCA	1
% Bromofluorobenzene (5x)	106	%	%	106	%	%	07/14/23	KCA	5
% IS-1,4-Difluorobenzene (5x)	89	%	%	89	%	%	07/14/23	KCA	5
% IS-Bromochloromethane (5x)	87	%	%	87	%	%	07/14/23	KCA	5
% IS-Chlorobenzene-d5 (5x)	94	%	%	94	%	%	07/14/23	KCA	5

Client ID: IS-C-SCHOOL CELLAR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
% Bromofluorobenzene (10x)	100	%	%	100	%	%	07/21/23	KCA	10
% IS-1,4-Difluorobenzene (10x)	95	%	%	95	%	%	07/21/23	KCA	10
% IS-Bromochloromethane (10x)	94	%	%	94	%	%	07/21/23	KCA	10
% IS-Chlorobenzene-d5 (10x)	93	%	%	93	%	%	07/21/23	KCA	10

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

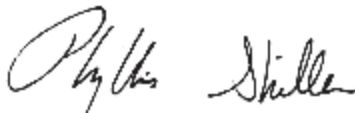
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

E = Estimated value quantitated above calibration range for this compound.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 28580

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23 11:58
07/13/23 16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50115

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: SS-T4-TRACK 4 SUBSLAB

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.729	0.729	ND	5.00	5.00	07/14/23	KCA	5
1,1,1-Trichloroethane	ND	0.917	0.917	ND	5.00	5.00	07/14/23	KCA	5
1,1,2,2-Tetrachloroethane	ND	0.729	0.729	ND	5.00	5.00	07/14/23	KCA	5
1,1,2-Trichloroethane	ND	0.917	0.917	ND	5.00	5.00	07/14/23	KCA	5
1,1-Dichloroethane	ND	1.24	1.24	ND	5.02	5.02	07/14/23	KCA	5
1,1-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	5
1,2,4-Trichlorobenzene	ND	0.674	0.674	ND	5.00	5.00	07/14/23	KCA	5
1,2,4-Trimethylbenzene	50.5	1.02	1.02	248	5.01	5.01	07/14/23	KCA	5
1,2-Dibromoethane(EDB)	ND	0.651	0.651	ND	5.00	5.00	07/14/23	KCA	5
1,2-Dichlorobenzene	ND	0.832	0.832	ND	5.00	5.00	07/14/23	KCA	5
1,2-Dichloroethane	98.4	1.24	1.24	398	5.02	5.02	07/14/23	KCA	5
1,2-dichloropropane	ND	1.08	1.08	ND	4.99	4.99	07/14/23	KCA	5
1,2-Dichlorotetrafluoroethane	ND	0.716	0.716	ND	5.00	5.00	07/14/23	KCA	5
1,3,5-Trimethylbenzene	16.0	1.02	1.02	78.6	5.01	5.01	07/14/23	KCA	5
1,3-Butadiene	ND	2.26	2.26	ND	5.00	5.00	07/14/23	KCA	5
1,3-Dichlorobenzene	ND	0.832	0.832	ND	5.00	5.00	07/14/23	KCA	5
1,4-Dichlorobenzene	67.3	0.832	0.832	404	5.00	5.00	07/14/23	KCA	5
1,4-Dioxane	ND	1.39	1.39	ND	5.01	5.01	07/14/23	KCA	5
2-Hexanone(MBK)	ND	1.22	1.22	ND	4.99	4.99	07/14/23	KCA	5
4-Ethyltoluene	48.1	1.02	1.02	236	5.01	5.01	07/14/23	KCA	5
4-Isopropyltoluene	ND	0.911	0.911	ND	5.00	5.00	07/14/23	KCA	5
4-Methyl-2-pentanone(MIBK)	9.55	1.22	1.22	39.1	4.99	4.99	07/14/23	KCA	5
Acetone	59.3	2.11	2.11	141	5.01	5.01	07/14/23	KCA	5
Acrylonitrile	ND	2.31	2.31	ND	5.01	5.01	07/14/23	KCA	5
Benzene	ND	1.57	1.57	ND	5.01	5.01	07/14/23	KCA	5
Benzyl chloride	ND	0.966	0.966	ND	5.00	5.00	07/14/23	KCA	5

Client ID: SS-T4-TRACK 4 SUBSLAB

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.747	0.747	ND	5.00	5.00	07/14/23	KCA	5
Bromoform	ND	0.484	0.484	ND	5.00	5.00	07/14/23	KCA	5
Bromomethane	ND	1.29	1.29	ND	5.01	5.01	07/14/23	KCA	5
Carbon Disulfide	ND	1.61	1.61	ND	5.01	5.01	07/14/23	KCA	5
Carbon Tetrachloride	ND	0.159	0.159	ND	1.00	1.00	07/14/23	KCA	5
Chlorobenzene	ND	1.09	1.09	ND	5.01	5.01	07/14/23	KCA	5
Chloroethane	ND	1.90	1.90	ND	5.01	5.01	07/14/23	KCA	5
Chloroform	1.59	1.02	1.02	7.76	4.98	4.98	07/14/23	KCA	5
Chloromethane	ND	2.42	2.42	ND	4.99	4.99	07/14/23	KCA	5
Cis-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	5
cis-1,3-Dichloropropene	ND	1.10	1.10	ND	4.99	4.99	07/14/23	KCA	5
Cyclohexane	ND	1.45	1.45	ND	4.99	4.99	07/14/23	KCA	5
Dibromochloromethane	ND	0.587	0.587	ND	5.00	5.00	07/14/23	KCA	5
Dichlorodifluoromethane	ND	1.01	1.01	ND	4.99	4.99	07/14/23	KCA	5
Ethanol	113	2.66	2.66	213	5.01	5.01	07/14/23	KCA	5
Ethyl acetate	3.70	1.39	1.39	13.3	5.01	5.01	07/14/23	KCA	5
Ethylbenzene	7.25	1.15	1.15	31.5	4.99	4.99	07/14/23	KCA	5
Heptane	ND	1.22	1.22	ND	5.00	5.00	07/14/23	KCA	5
Hexachlorobutadiene	ND	0.469	0.469	ND	5.00	5.00	07/14/23	KCA	5
Hexane	2.03	1.42	1.42	7.15	5.00	5.00	07/14/23	KCA	5
Isopropylalcohol	11.6	2.04	2.04	28.5	5.01	5.01	07/14/23	KCA	5
Isopropylbenzene	2.05	1.02	1.02	10.1	5.01	5.01	07/14/23	KCA	5
m,p-Xylene	21.5	1.15	1.15	93.3	4.99	4.99	07/14/23	KCA	5
Methyl Ethyl Ketone	4.22	1.70	1.70	12.4	5.01	5.01	07/14/23	KCA	5
Methyl tert-butyl ether(MTBE)	ND	1.39	1.39	ND	5.01	5.01	07/14/23	KCA	5
Methylene Chloride	ND	4.32	4.32	ND	15.0	15.0	07/14/23	KCA	5
n-Butylbenzene	ND	0.911	0.911	ND	5.00	5.00	07/14/23	KCA	5
o-Xylene	8.76	1.15	1.15	38.0	4.99	4.99	07/14/23	KCA	5
Propylene	17.8	2.91	2.91	30.6	5.01	5.01	07/14/23	KCA	5
sec-Butylbenzene	ND	0.911	0.911	ND	5.00	5.00	07/14/23	KCA	5
Styrene	ND	1.17	1.17	ND	4.98	4.98	07/14/23	KCA	5
Tetrachloroethene	ND	0.184	0.184	ND	1.25	1.25	07/14/23	KCA	5
Tetrahydrofuran	ND	1.70	1.70	ND	5.01	5.01	07/14/23	KCA	5
Toluene	628	7.97	7.97	2370	30.0	30.0	07/18/23	KCA	30
Trans-1,2-Dichloroethene	ND	1.26	1.26	ND	4.99	4.99	07/14/23	KCA	5
trans-1,3-Dichloropropene	ND	1.10	1.10	ND	4.99	4.99	07/14/23	KCA	5
Trichloroethene	ND	0.185	0.185	ND	0.99	0.99	07/14/23	KCA	5
Trichlorofluoromethane	ND	0.891	0.891	ND	5.00	5.00	07/14/23	KCA	5
Trichlorotrifluoroethane	ND	0.653	0.653	ND	5.00	5.00	07/14/23	KCA	5
Vinyl Chloride	ND	0.390	0.390	ND	1.00	1.00	07/14/23	KCA	5
QA/QC Surrogates/Internals									
% Bromofluorobenzene (5x)	106	%	%	106	%	%	07/14/23	KCA	5
% IS-1,4-Difluorobenzene (5x)	86	%	%	86	%	%	07/14/23	KCA	5
% IS-Bromochloromethane (5x)	84	%	%	84	%	%	07/14/23	KCA	5
% IS-Chlorobenzene-d5 (5x)	92	%	%	92	%	%	07/14/23	KCA	5
% Bromofluorobenzene (15x)	102	%	%	102	%	%	07/18/23	KCA	15
% IS-1,4-Difluorobenzene (15x)	103	%	%	103	%	%	07/18/23	KCA	15
% IS-Bromochloromethane (15x)	105	%	%	105	%	%	07/18/23	KCA	15
% IS-Chlorobenzene-d5 (15x)	104	%	%	104	%	%	07/18/23	KCA	15

Client ID: SS-T4-TRACK 4 SUBSLAB

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
% Bromofluorobenzene (30x)	100	%	%	100	%	%	07/18/23	KCA	30
% IS-1,4-Difluorobenzene (30x)	95	%	%	95	%	%	07/18/23	KCA	30
% IS-Bromochloromethane (30x)	96	%	%	96	%	%	07/18/23	KCA	30
% IS-Chlorobenzene-d5 (30x)	96	%	%	96	%	%	07/18/23	KCA	30

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

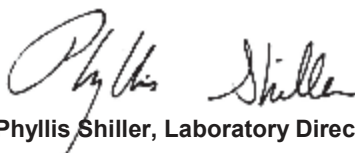
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Elevated reporting limits have been reported due to the presence of reported target compounds in the TO15 list above the calibration. Sample was run at an initial dilution.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 19859

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23
07/13/23

Time

12:24
16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50116

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: IA-CAF-CAFETERIA

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/14/23	KCA	1
1,2,4-Trimethylbenzene	3.87	0.204	0.204	19.0	1.00	1.00	07/14/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/14/23	KCA	1
1,3,5-Trimethylbenzene	1.24	0.204	0.204	6.09	1.00	1.00	07/14/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/14/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,4-Dichlorobenzene	27.6	0.166	0.166	166	1.00	1.00	07/14/23	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
4-Ethyltoluene	3.03	0.204	0.204	14.9	1.00	1.00	07/14/23	KCA	1
4-Isopropyltoluene	0.215	0.182	0.182	1.18	1.00	1.00	07/14/23	KCA	1
4-Methyl-2-pentanone(MIBK)	3.40	0.244	0.244	13.9	1.00	1.00	07/14/23	KCA	1
Acetone	146 J E	0.421	0.421	347 J	1.00	1.00	07/14/23	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/14/23	KCA	1
Benzene	0.334	0.313	0.313	1.07	1.00	1.00	07/14/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/14/23	KCA	1

Client ID: IA-CAF-CAFETERIA

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	07/14/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/14/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/14/23	KCA	1
Carbon Disulfide	ND	0.321	0.321	ND	1.00	1.00	07/14/23	KCA	1
Carbon Tetrachloride	0.089	0.032	0.032	0.56	0.20	0.20	07/14/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/14/23	KCA	1
Chloroform	2.22	0.205	0.205	10.8	1.00	1.00	07/14/23	KCA	1
Chloromethane	0.645	0.485	0.485	1.33	1.00	1.00	07/14/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	07/14/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/14/23	KCA	1
Dichlorodifluoromethane	0.463	0.202	0.202	2.29	1.00	1.00	07/14/23	KCA	1
Ethanol	88.0 J E	0.531	0.531	166 J	1.00	1.00	07/14/23	KCA	1
Ethyl acetate	0.623	0.278	0.278	2.24	1.00	1.00	07/14/23	KCA	1
Ethylbenzene	2.61	0.230	0.230	11.3	1.00	1.00	07/14/23	KCA	1
Heptane	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/14/23	KCA	1
Hexane	ND	0.284	0.284	ND	1.00	1.00	07/14/23	KCA	1
Isopropylalcohol	11.5	0.407	0.407	28.3	1.00	1.00	07/14/23	KCA	1
Isopropylbenzene	0.265	0.204	0.204	1.30	1.00	1.00	07/14/23	KCA	1
m,p-Xylene	8.57	0.230	0.230	37.2	1.00	1.00	07/14/23	KCA	1
Methyl Ethyl Ketone	19.0	0.339	0.339	56.0	1.00	1.00	07/14/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
Methylene Chloride	1.66	0.863	0.863	5.76	3.00	3.00	07/14/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
o-Xylene	2.75	0.230	0.230	11.9	1.00	1.00	07/14/23	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	07/14/23	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
Styrene	1.46	0.235	0.235	6.22	1.00	1.00	07/14/23	KCA	1
Tetrachloroethene	0.045	0.037	0.037	0.31	0.25	0.25	07/14/23	KCA	1
Tetrahydrofuran	ND	0.339	0.339	ND	1.00	1.00	07/14/23	KCA	1
Toluene	3.60	0.266	0.266	13.6	1.00	1.00	07/14/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/14/23	KCA	1
Trichlorofluoromethane	0.218	0.178	0.178	1.22	1.00	1.00	07/14/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/14/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	07/14/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	106	%	%	106	%	%	07/14/23	KCA	1
% IS-1,4-Difluorobenzene	83	%	%	83	%	%	07/14/23	KCA	1
% IS-Bromochloromethane	82	%	%	82	%	%	07/14/23	KCA	1
% IS-Chlorobenzene-d5	88	%	%	88	%	%	07/14/23	KCA	1

Client ID: IA-CAF-CAFETERIA

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

E = Estimated value quantitated above calibration range for this compound.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 23334

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23
07/13/23

Time

12:45
16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50117

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: OA-COURTYARD OUTDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/14/23	KCA	1
1,2,4-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/14/23	KCA	1
1,3,5-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	07/14/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/14/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,4-Dichlorobenzene	0.276	0.166	0.166	1.66	1.00	1.00	07/14/23	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
4-Ethyltoluene	ND	0.204	0.204	ND	1.00	1.00	07/14/23	KCA	1
4-Isopropyltoluene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
Acetone	6.28	0.421	0.421	14.9	1.00	1.00	07/14/23	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/14/23	KCA	1
Benzene	ND	0.313	0.313	ND	1.00	1.00	07/14/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/14/23	KCA	1

Client ID: OA-COURTYARD OUTDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	07/14/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/14/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/14/23	KCA	1
Carbon Disulfide	ND	0.321	0.321	ND	1.00	1.00	07/14/23	KCA	1
Carbon Tetrachloride	0.075	0.032	0.032	0.47	0.20	0.20	07/14/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/14/23	KCA	1
Chloroform	ND	0.205	0.205	ND	1.00	1.00	07/14/23	KCA	1
Chloromethane	0.528	0.485	0.485	1.09	1.00	1.00	07/14/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	07/14/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/14/23	KCA	1
Dichlorodifluoromethane	0.440	0.202	0.202	2.17	1.00	1.00	07/14/23	KCA	1
Ethanol	14.0	0.531	0.531	26.4	1.00	1.00	07/14/23	KCA	1
Ethyl acetate	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
Ethylbenzene	ND	0.230	0.230	ND	1.00	1.00	07/14/23	KCA	1
Heptane	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/14/23	KCA	1
Hexane	ND	0.284	0.284	ND	1.00	1.00	07/14/23	KCA	1
Isopropylalcohol	0.995	0.407	0.407	2.44	1.00	1.00	07/14/23	KCA	1
Isopropylbenzene	ND	0.204	0.204	ND	1.00	1.00	07/14/23	KCA	1
m,p-Xylene	0.304	0.230	0.230	1.32	1.00	1.00	07/14/23	KCA	1
Methyl Ethyl Ketone	0.458	0.339	0.339	1.35	1.00	1.00	07/14/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
Methylene Chloride	ND	0.863	0.863	ND	3.00	3.00	07/14/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
o-Xylene	ND	0.230	0.230	ND	1.00	1.00	07/14/23	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	07/14/23	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
Styrene	ND	0.235	0.235	ND	1.00	1.00	07/14/23	KCA	1
Tetrachloroethene	0.037	0.037	0.037	0.25	0.25	0.25	07/14/23	KCA	1
Tetrahydrofuran	ND	0.339	0.339	ND	1.00	1.00	07/14/23	KCA	1
Toluene	0.590	0.266	0.266	2.22	1.00	1.00	07/14/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/14/23	KCA	1
Trichlorofluoromethane	0.229	0.178	0.178	1.29	1.00	1.00	07/14/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/14/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	07/14/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	104	%	%	104	%	%	07/14/23	KCA	1
% IS-1,4-Difluorobenzene	82	%	%	82	%	%	07/14/23	KCA	1
% IS-Bromochloromethane	83	%	%	83	%	%	07/14/23	KCA	1
% IS-Chlorobenzene-d5	87	%	%	87	%	%	07/14/23	KCA	1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

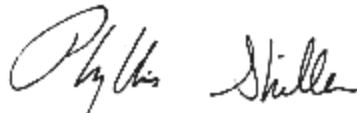
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 12872

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23 12:25
07/13/23 16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50118

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: DUPLICATE

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/14/23	KCA	1
1,2,4-Trimethylbenzene	4.00 J	0.204	0.204	19.7 J	1.00	1.00	07/14/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/14/23	KCA	1
1,3,5-Trimethylbenzene	1.20 J	0.204	0.204	5.90 J	1.00	1.00	07/14/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/14/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,4-Dichlorobenzene	28.1 J	0.166	0.166	169 J	1.00	1.00	07/14/23	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
4-Ethyltoluene	3.27 J	0.204	0.204	16.1 J	1.00	1.00	07/14/23	KCA	1
4-Isopropyltoluene	0.232 J	0.182	0.182	1.27 J	1.00	1.00	07/14/23	KCA	1
4-Methyl-2-pentanone(MIBK)	3.53 J	0.244	0.244	14.5 J	1.00	1.00	07/14/23	KCA	1
Acetone	144 J E	0.421	0.421	342 J	1.00	1.00	07/14/23	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/14/23	KCA	1
Benzene	ND	0.313	0.313	ND	1.00	1.00	07/14/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/14/23	KCA	1

Client ID: DUPLICATE

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	07/14/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/14/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/14/23	KCA	1
Carbon Disulfide	ND	0.321	0.321	ND	1.00	1.00	07/14/23	KCA	1
Carbon Tetrachloride	0.089	0.032	0.032	0.56	0.20	0.20	07/14/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/14/23	KCA	1
Chloroform	2.17	0.205	0.205	10.6	1.00	1.00	07/14/23	KCA	1
Chloromethane	0.639	0.485	0.485	1.32	1.00	1.00	07/14/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	07/14/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/14/23	KCA	1
Dichlorodifluoromethane	0.437	0.202	0.202	2.16	1.00	1.00	07/14/23	KCA	1
Ethanol	86.6 J E	0.531	0.531	163 J	1.00	1.00	07/14/23	KCA	1
Ethyl acetate	0.643 J	0.278	0.278	2.32 J	1.00	1.00	07/14/23	KCA	1
Ethylbenzene	2.66 J	0.230	0.230	11.5 J	1.00	1.00	07/14/23	KCA	1
Heptane	0.249	0.244	0.244	1.02	1.00	1.00	07/14/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/14/23	KCA	1
Hexane	ND	0.284	0.284	ND	1.00	1.00	07/14/23	KCA	1
Isopropylalcohol	11.4 J	0.407	0.407	28.0 J	1.00	1.00	07/14/23	KCA	1
Isopropylbenzene	0.268 J	0.204	0.204	1.32 J	1.00	1.00	07/14/23	KCA	1
m,p-Xylene	8.78 J	0.230	0.230	38.1 J	1.00	1.00	07/14/23	KCA	1
Methyl Ethyl Ketone	20.1 J	0.339	0.339	59.2 J	1.00	1.00	07/14/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
Methylene Chloride	1.58	0.863	0.863	5.49	3.00	3.00	07/14/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
o-Xylene	2.80 J	0.230	0.230	12.2 J	1.00	1.00	07/14/23	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	07/14/23	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
Styrene	1.53 J	0.235	0.235	6.51 J	1.00	1.00	07/14/23	KCA	1
Tetrachloroethene	0.095	0.037	0.037	0.64	0.25	0.25	07/14/23	KCA	1
Tetrahydrofuran	ND	0.339	0.339	ND	1.00	1.00	07/14/23	KCA	1
Toluene	3.62	0.266	0.266	13.6	1.00	1.00	07/14/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/14/23	KCA	1
Trichlorofluoromethane	0.217	0.178	0.178	1.22	1.00	1.00	07/14/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/14/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	07/14/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	108	%	%	108	%	%	07/14/23	KCA	1
% IS-1,4-Difluorobenzene	80	%	%	80	%	%	07/14/23	KCA	1
% IS-Bromochloromethane	80	%	%	80	%	%	07/14/23	KCA	1
% IS-Chlorobenzene-d5	82	%	%	82	%	%	07/14/23	KCA	1

Client ID: DUPLICATE

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

E = Estimated value quantitated above calibration range for this compound.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 19835

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23
07/13/23

Time

13:00
16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50119

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: IA-T1-TRACK 1 INDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/14/23	KCA	1
1,2,4-Trimethylbenzene	28.7	0.204	0.204	141	1.00	1.00	07/14/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/14/23	KCA	1
1,3,5-Trimethylbenzene	8.19	0.204	0.204	40.2	1.00	1.00	07/14/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/14/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,4-Dichlorobenzene	57.0	3.33	3.33	342	20.0	20.0	07/18/23	KCA	20
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
4-Ethyltoluene	22.5	0.204	0.204	111	1.00	1.00	07/14/23	KCA	1
4-Isopropyltoluene	0.814	0.182	0.182	4.47	1.00	1.00	07/14/23	KCA	1
4-Methyl-2-pentanone(MIBK)	3.62	0.244	0.244	14.8	1.00	1.00	07/14/23	KCA	1
Acetone	33.2	0.421	0.421	78.8	1.00	1.00	07/14/23	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/14/23	KCA	1
Benzene	ND	0.313	0.313	ND	1.00	1.00	07/14/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/14/23	KCA	1

Client ID: IA-T1-TRACK 1 INDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	07/14/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/14/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/14/23	KCA	1
Carbon Disulfide	ND	0.321	0.321	ND	1.00	1.00	07/14/23	KCA	1
Carbon Tetrachloride	0.075	0.032	0.032	0.47	0.20	0.20	07/14/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/14/23	KCA	1
Chloroform	0.900	0.205	0.205	4.39	1.00	1.00	07/14/23	KCA	1
Chloromethane	ND	0.485	0.485	ND	1.00	1.00	07/14/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	07/14/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/14/23	KCA	1
Dichlorodifluoromethane	0.418	0.202	0.202	2.07	1.00	1.00	07/14/23	KCA	1
Ethanol	111	J E 0.531	0.531	209	J 1.00	1.00	07/14/23	KCA	1
Ethyl acetate	0.691	0.278	0.278	2.49	1.00	1.00	07/14/23	KCA	1
Ethylbenzene	2.67	0.230	0.230	11.6	1.00	1.00	07/14/23	KCA	1
Heptane	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/14/23	KCA	1
Hexane	0.327	0.284	0.284	1.15	1.00	1.00	07/14/23	KCA	1
Isopropylalcohol	3.39	0.407	0.407	8.33	1.00	1.00	07/14/23	KCA	1
Isopropylbenzene	0.818	0.204	0.204	4.02	1.00	1.00	07/14/23	KCA	1
m,p-Xylene	8.84	0.230	0.230	38.4	1.00	1.00	07/14/23	KCA	1
Methyl Ethyl Ketone	2.51	0.339	0.339	7.40	1.00	1.00	07/14/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
Methylene Chloride	ND	0.863	0.863	ND	3.00	3.00	07/14/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
o-Xylene	3.81	0.230	0.230	16.5	1.00	1.00	07/14/23	KCA	1
Propylene	3.89	0.581	0.581	6.69	1.00	1.00	07/14/23	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
Styrene	0.663	0.235	0.235	2.82	1.00	1.00	07/14/23	KCA	1
Tetrachloroethene	0.058	0.037	0.037	0.39	0.25	0.25	07/14/23	KCA	1
Tetrahydrofuran	ND	0.339	0.339	ND	1.00	1.00	07/14/23	KCA	1
Toluene	1.71	0.266	0.266	6.44	1.00	1.00	07/14/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/14/23	KCA	1
Trichlorofluoromethane	0.203	0.178	0.178	1.14	1.00	1.00	07/14/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/14/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	07/14/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	103	%	%	103	%	%	07/14/23	KCA	1
% IS-1,4-Difluorobenzene	91	%	%	91	%	%	07/14/23	KCA	1
% IS-Bromochloromethane	89	%	%	89	%	%	07/14/23	KCA	1
% IS-Chlorobenzene-d5	97	%	%	97	%	%	07/14/23	KCA	1
% Bromofluorobenzene (20x)	102	%	%	102	%	%	07/18/23	KCA	20
% IS-1,4-Difluorobenzene (20x)	98	%	%	98	%	%	07/18/23	KCA	20
% IS-Bromochloromethane (20x)	102	%	%	102	%	%	07/18/23	KCA	20
% IS-Chlorobenzene-d5 (20x)	99	%	%	99	%	%	07/18/23	KCA	20

Client ID: IA-T1-TRACK 1 INDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

E = Estimated value quantitated above calibration range for this compound.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 19836

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23
07/13/23

Time

12:20
16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50120

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: IA-CS-SECOND FLOOR CLASSROOM

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/14/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/14/23	KCA	1
1,2,4-Trimethylbenzene	6.76	0.204	0.204	33.2	1.00	1.00	07/14/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/14/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/14/23	KCA	1
1,3,5-Trimethylbenzene	2.16	0.204	0.204	10.6	1.00	1.00	07/14/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/14/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/14/23	KCA	1
1,4-Dichlorobenzene	35.7	1.66	1.66	215	10.0	10.0	07/18/23	KCA	10
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/14/23	KCA	1
4-Ethyltoluene	5.72	0.204	0.204	28.1	1.00	1.00	07/14/23	KCA	1
4-Isopropyltoluene	0.336	0.182	0.182	1.84	1.00	1.00	07/14/23	KCA	1
4-Methyl-2-pentanone(MIBK)	3.44	0.244	0.244	14.1	1.00	1.00	07/14/23	KCA	1
Acetone	122	4.21	4.21	290	10.0	10.0	07/18/23	KCA	10
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/14/23	KCA	1
Benzene	0.369	0.313	0.313	1.18	1.00	1.00	07/14/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/14/23	KCA	1

Client ID: IA-CS-SECOND FLOOR CLASSROOM

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	07/14/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/14/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/14/23	KCA	1
Carbon Disulfide	0.541	0.321	0.321	1.68	1.00	1.00	07/14/23	KCA	1
Carbon Tetrachloride	0.098	0.032	0.032	0.62	0.20	0.20	07/14/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/14/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/14/23	KCA	1
Chloroform	4.84	0.205	0.205	23.6	1.00	1.00	07/14/23	KCA	1
Chloromethane	0.673	0.485	0.485	1.39	1.00	1.00	07/14/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/14/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	07/14/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/14/23	KCA	1
Dichlorodifluoromethane	0.446	0.202	0.202	2.20	1.00	1.00	07/14/23	KCA	1
Ethanol	128 J+	5.31	5.31	241 J+	10.0	10.0	07/18/23	KCA	10
Ethyl acetate	0.891	0.278	0.278	3.21	1.00	1.00	07/14/23	KCA	1
Ethylbenzene	3.33	0.230	0.230	14.5	1.00	1.00	07/14/23	KCA	1
Heptane	0.321	0.244	0.244	1.31	1.00	1.00	07/14/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/14/23	KCA	1
Hexane	0.307	0.284	0.284	1.08	1.00	1.00	07/14/23	KCA	1
Isopropylalcohol	16.1	0.407	0.407	39.6	1.00	1.00	07/14/23	KCA	1
Isopropylbenzene	0.395	0.204	0.204	1.94	1.00	1.00	07/14/23	KCA	1
m,p-Xylene	11.4	0.230	0.230	49.5	1.00	1.00	07/14/23	KCA	1
Methyl Ethyl Ketone	17.8	0.339	0.339	52.5	1.00	1.00	07/14/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/14/23	KCA	1
Methylene Chloride	2.37	0.863	0.863	8.23	3.00	3.00	07/14/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
o-Xylene	3.54	0.230	0.230	15.4	1.00	1.00	07/14/23	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	07/14/23	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/14/23	KCA	1
Styrene	1.73	0.235	0.235	7.36	1.00	1.00	07/14/23	KCA	1
Tetrachloroethene	0.083	0.037	0.037	0.56	0.25	0.25	07/14/23	KCA	1
Tetrahydrofuran	ND	0.339	0.339	ND	1.00	1.00	07/14/23	KCA	1
Toluene	5.54	0.266	0.266	20.9	1.00	1.00	07/14/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/14/23	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/14/23	KCA	1
Trichlorofluoromethane	0.220	0.178	0.178	1.24	1.00	1.00	07/14/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/14/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	07/14/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	106	%	%	106	%	%	07/14/23	KCA	1
% IS-1,4-Difluorobenzene	81	%	%	81	%	%	07/14/23	KCA	1
% IS-Bromochloromethane	82	%	%	82	%	%	07/14/23	KCA	1
% IS-Chlorobenzene-d5	85	%	%	85	%	%	07/14/23	KCA	1
% Bromofluorobenzene (10x)	104	%	%	104	%	%	07/18/23	KCA	10
% IS-1,4-Difluorobenzene (10x)	99	%	%	99	%	%	07/18/23	KCA	10
% IS-Bromochloromethane (10x)	99	%	%	99	%	%	07/18/23	KCA	10
% IS-Chlorobenzene-d5 (10x)	98	%	%	98	%	%	07/18/23	KCA	10

Client ID: IA-CS-SECOND FLOOR CLASSROOM

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3LOD/ RL MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	---------------------	-----------	----	----------

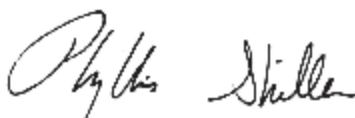
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director****October 23, 2023****Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 23332

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23
07/13/23

Time

13:02
16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50121

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: SS-T1-TRACK 1 SUBSLAB

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.729	0.729	ND	5.00	5.00	07/14/23	KCA	5
1,1,1-Trichloroethane	ND	0.917	0.917	ND	5.00	5.00	07/14/23	KCA	5
1,1,2,2-Tetrachloroethane	ND	0.729	0.729	ND	5.00	5.00	07/14/23	KCA	5
1,1,2-Trichloroethane	ND	0.917	0.917	ND	5.00	5.00	07/14/23	KCA	5
1,1-Dichloroethane	ND	1.24	1.24	ND	5.02	5.02	07/14/23	KCA	5
1,1-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	5
1,2,4-Trichlorobenzene	ND	0.674	0.674	ND	5.00	5.00	07/14/23	KCA	5
1,2,4-Trimethylbenzene	38.5	1.02	1.02	189	5.01	5.01	07/14/23	KCA	5
1,2-Dibromoethane(EDB)	ND	0.651	0.651	ND	5.00	5.00	07/14/23	KCA	5
1,2-Dichlorobenzene	ND	0.832	0.832	ND	5.00	5.00	07/14/23	KCA	5
1,2-Dichloroethane	49.4	1.24	1.24	200	5.02	5.02	07/14/23	KCA	5
1,2-dichloropropane	ND	1.08	1.08	ND	4.99	4.99	07/14/23	KCA	5
1,2-Dichlorotetrafluoroethane	ND	0.716	0.716	ND	5.00	5.00	07/14/23	KCA	5
1,3,5-Trimethylbenzene	12.3	1.02	1.02	60.4	5.01	5.01	07/14/23	KCA	5
1,3-Butadiene	ND	2.26	2.26	ND	5.00	5.00	07/14/23	KCA	5
1,3-Dichlorobenzene	ND	0.832	0.832	ND	5.00	5.00	07/14/23	KCA	5
1,4-Dichlorobenzene	104	0.832	0.832	625	5.00	5.00	07/14/23	KCA	5
1,4-Dioxane	ND	1.39	1.39	ND	5.01	5.01	07/14/23	KCA	5
2-Hexanone(MBK)	ND	1.22	1.22	ND	4.99	4.99	07/14/23	KCA	5
4-Ethyltoluene	34.8	1.02	1.02	171	5.01	5.01	07/14/23	KCA	5
4-Isopropyltoluene	ND	0.911	0.911	ND	5.00	5.00	07/14/23	KCA	5
4-Methyl-2-pentanone(MIBK)	6.58	1.22	1.22	26.9	4.99	4.99	07/14/23	KCA	5
Acetone	70.5	2.11	2.11	167	5.01	5.01	07/14/23	KCA	5
Acrylonitrile	ND	2.31	2.31	ND	5.01	5.01	07/14/23	KCA	5
Benzene	ND	1.57	1.57	ND	5.01	5.01	07/14/23	KCA	5
Benzyl chloride	ND	0.966	0.966	ND	5.00	5.00	07/14/23	KCA	5

Client ID: SS-T1-TRACK 1 SUBSLAB

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.747	0.747	ND	5.00	5.00	07/14/23	KCA	5
Bromoform	ND	0.484	0.484	ND	5.00	5.00	07/14/23	KCA	5
Bromomethane	ND	1.29	1.29	ND	5.01	5.01	07/14/23	KCA	5
Carbon Disulfide	ND	1.61	1.61	ND	5.01	5.01	07/14/23	KCA	5
Carbon Tetrachloride	ND	0.159	0.159	ND	1.00	1.00	07/14/23	KCA	5
Chlorobenzene	ND	1.09	1.09	ND	5.01	5.01	07/14/23	KCA	5
Chloroethane	ND	1.90	1.90	ND	5.01	5.01	07/14/23	KCA	5
Chloroform	ND	1.02	1.02	ND	4.98	4.98	07/14/23	KCA	5
Chloromethane	ND	2.42	2.42	ND	4.99	4.99	07/14/23	KCA	5
Cis-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/14/23	KCA	5
cis-1,3-Dichloropropene	ND	1.10	1.10	ND	4.99	4.99	07/14/23	KCA	5
Cyclohexane	ND	1.45	1.45	ND	4.99	4.99	07/14/23	KCA	5
Dibromochloromethane	ND	0.587	0.587	ND	5.00	5.00	07/14/23	KCA	5
Dichlorodifluoromethane	ND	1.01	1.01	ND	4.99	4.99	07/14/23	KCA	5
Ethanol	155	2.66	2.66	292	5.01	5.01	07/14/23	KCA	5
Ethyl acetate	ND	1.39	1.39	ND	5.01	5.01	07/14/23	KCA	5
Ethylbenzene	4.59	1.15	1.15	19.9	4.99	4.99	07/14/23	KCA	5
Heptane	ND	1.22	1.22	ND	5.00	5.00	07/14/23	KCA	5
Hexachlorobutadiene	ND	0.469	0.469	ND	5.00	5.00	07/14/23	KCA	5
Hexane	ND	1.42	1.42	ND	5.00	5.00	07/14/23	KCA	5
Isopropylalcohol	12.3	2.04	2.04	30.2	5.01	5.01	07/14/23	KCA	5
Isopropylbenzene	1.44	1.02	1.02	7.07	5.01	5.01	07/14/23	KCA	5
m,p-Xylene	14.2	1.15	1.15	61.6	4.99	4.99	07/14/23	KCA	5
Methyl Ethyl Ketone	3.56	1.70	1.70	10.5	5.01	5.01	07/14/23	KCA	5
Methyl tert-butyl ether(MTBE)	ND	1.39	1.39	ND	5.01	5.01	07/14/23	KCA	5
Methylene Chloride	ND	4.32	4.32	ND	15.0	15.0	07/14/23	KCA	5
n-Butylbenzene	ND	0.911	0.911	ND	5.00	5.00	07/14/23	KCA	5
o-Xylene	6.33	1.15	1.15	27.5	4.99	4.99	07/14/23	KCA	5
Propylene	ND	2.91	2.91	ND	5.01	5.01	07/14/23	KCA	5
sec-Butylbenzene	ND	0.911	0.911	ND	5.00	5.00	07/14/23	KCA	5
Styrene	ND	1.17	1.17	ND	4.98	4.98	07/14/23	KCA	5
Tetrachloroethene	ND	0.184	0.184	ND	1.25	1.25	07/14/23	KCA	5
Tetrahydrofuran	ND	1.70	1.70	ND	5.01	5.01	07/14/23	KCA	5
Toluene	336	3.98	3.98	1270	15.0	15.0	07/18/23	KCA	15
Trans-1,2-Dichloroethene	ND	1.26	1.26	ND	4.99	4.99	07/14/23	KCA	5
trans-1,3-Dichloropropene	ND	1.10	1.10	ND	4.99	4.99	07/14/23	KCA	5
Trichloroethene	ND	0.185	0.185	ND	0.99	0.99	07/14/23	KCA	5
Trichlorofluoromethane	ND	0.891	0.891	ND	5.00	5.00	07/14/23	KCA	5
Trichlorotrifluoroethane	ND	0.653	0.653	ND	5.00	5.00	07/14/23	KCA	5
Vinyl Chloride	ND	0.390	0.390	ND	1.00	1.00	07/14/23	KCA	5
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene (5x)	105	%	%	105	%	%	07/14/23	KCA	5
% IS-1,4-Difluorobenzene (5x)	81	%	%	81	%	%	07/14/23	KCA	5
% IS-Bromochloromethane (5x)	81	%	%	81	%	%	07/14/23	KCA	5
% IS-Chlorobenzene-d5 (5x)	86	%	%	86	%	%	07/14/23	KCA	5
% Bromofluorobenzene (15x)	104	%	%	104	%	%	07/18/23	KCA	15
% IS-1,4-Difluorobenzene (15x)	98	%	%	98	%	%	07/18/23	KCA	15
% IS-Bromochloromethane (15x)	104	%	%	104	%	%	07/18/23	KCA	15
% IS-Chlorobenzene-d5 (15x)	101	%	%	101	%	%	07/18/23	KCA	15

Client ID: SS-T1-TRACK 1 SUBSLAB

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

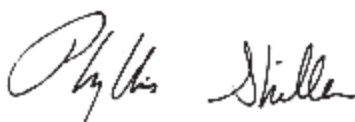
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Elevated reporting limits have been reported due to the presence of reported target compounds in the TO15 list above the calibration. Sample was run at an initial dilution.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 28591

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23
07/13/23

Time

12:02
16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50122

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: IA-T4-TRACK 4 INDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/17/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/17/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/17/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/17/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/17/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/17/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/17/23	KCA	1
1,2,4-Trimethylbenzene	66.0 J	2.04	2.04	324 J	10.0	10.0	07/19/23	KCA	10
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/17/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/17/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/17/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/17/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/17/23	KCA	1
1,3,5-Trimethylbenzene	17.3 J	0.204	0.204	85.0 J	1.00	1.00	07/17/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/17/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/17/23	KCA	1
1,4-Dichlorobenzene	5.11 J	0.166	0.166	30.7 J	1.00	1.00	07/17/23	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/17/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/17/23	KCA	1
4-Ethyltoluene	53.9 J	2.04	2.04	265 J	10.0	10.0	07/19/23	KCA	10
4-Isopropyltoluene	1.79 J	0.182	0.182	9.8 J	1.00	1.00	07/17/23	KCA	1
4-Methyl-2-pentanone(MIBK)	9.78 J	0.244	0.244	40.0 J	1.00	1.00	07/17/23	KCA	1
Acetone	67.1	4.21	4.21	159	10.0	10.0	07/19/23	KCA	10
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/17/23	KCA	1
Benzene	ND	0.313	0.313	ND	1.00	1.00	07/17/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/17/23	KCA	1

Client ID: IA-T4-TRACK 4 INDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	07/17/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/17/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/17/23	KCA	1
Carbon Disulfide	ND	0.321	0.321	ND	1.00	1.00	07/17/23	KCA	1
Carbon Tetrachloride	0.087	0.032	0.032	0.55	0.20	0.20	07/17/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/17/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/17/23	KCA	1
Chloroform	1.79	0.205	0.205	8.73	1.00	1.00	07/17/23	KCA	1
Chloromethane	0.544	0.485	0.485	1.12	1.00	1.00	07/17/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/17/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/17/23	KCA	1
Cyclohexane	4.33	0.291	0.291	14.9	1.00	1.00	07/17/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/17/23	KCA	1
Dichlorodifluoromethane	0.461	0.202	0.202	2.28	1.00	1.00	07/17/23	KCA	1
Ethanol	66.2 J+	5.31	5.31	125 J+	10.0	10.0	07/19/23	KCA	10
Ethyl acetate	3.96 J	0.278	0.278	14.3 J	1.00	1.00	07/17/23	KCA	1
Ethylbenzene	7.20 J	0.230	0.230	31.2 J	1.00	1.00	07/17/23	KCA	1
Heptane	0.254	0.244	0.244	1.04	1.00	1.00	07/17/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/17/23	KCA	1
Hexane	1.28	0.284	0.284	4.51	1.00	1.00	07/17/23	KCA	1
Isopropylalcohol	4.33 J	0.407	0.407	10.6 J	1.00	1.00	07/17/23	KCA	1
Isopropylbenzene	1.88 J	0.204	0.204	9.24 J	1.00	1.00	07/17/23	KCA	1
m,p-Xylene	21.7 J	0.230	0.230	94.2 J	1.00	1.00	07/17/23	KCA	1
Methyl Ethyl Ketone	4.22 J	0.339	0.339	12.4 J	1.00	1.00	07/17/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/17/23	KCA	1
Methylene Chloride	ND	0.863	0.863	ND	3.00	3.00	07/17/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/17/23	KCA	1
o-Xylene	9.03 J	0.230	0.230	39.2 J	1.00	1.00	07/17/23	KCA	1
Propylene	11.9	0.581	0.581	20.5	1.00	1.00	07/17/23	KCA	1
sec-Butylbenzene	0.764	0.182	0.182	4.19	1.00	1.00	07/17/23	KCA	1
Styrene	0.709 J	0.235	0.235	3.02 J	1.00	1.00	07/17/23	KCA	1
Tetrachloroethene	0.074	0.037	0.037	0.50	0.25	0.25	07/17/23	KCA	1
Tetrahydrofuran	ND	0.339	0.339	ND	1.00	1.00	07/17/23	KCA	1
Toluene	3.33	0.266	0.266	12.5	1.00	1.00	07/17/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/17/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/17/23	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/17/23	KCA	1
Trichlorofluoromethane	0.210	0.178	0.178	1.18	1.00	1.00	07/17/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/17/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	07/17/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	102	%	%	102	%	%	07/17/23	KCA	1
% IS-1,4-Difluorobenzene	100	%	%	100	%	%	07/17/23	KCA	1
% IS-Bromochloromethane	98	%	%	98	%	%	07/17/23	KCA	1
% IS-Chlorobenzene-d5	101	%	%	101	%	%	07/17/23	KCA	1
% Bromofluorobenzene (10x)	103	%	%	103	%	%	07/19/23	KCA	10
% IS-1,4-Difluorobenzene (10x)	102	%	%	102	%	%	07/19/23	KCA	10
% IS-Bromochloromethane (10x)	99	%	%	99	%	%	07/19/23	KCA	10
% IS-Chlorobenzene-d5 (10x)	102	%	%	102	%	%	07/19/23	KCA	10

Client ID: IA-T4-TRACK 4 INDOOR AIR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

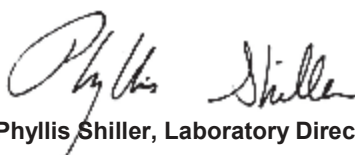
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit¹

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

E = Estimated value quantitated above calibration range for this compound.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 23, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 486

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

07/11/23
07/13/23

Time

12:17
16:24

Laboratory Data

SDG ID: GCO50114
Phoenix ID: CO50123

Project ID: 69-02 QUEENS BOULEVARD C241235
Client ID: IA-S SECOND FLOOR STAIRWELL

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/19/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/19/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	07/19/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	07/19/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/19/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/19/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	07/19/23	KCA	1
1,2,4-Trimethylbenzene	5.48	0.204	0.204	26.9	1.00	1.00	07/19/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	07/19/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/19/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	07/19/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	07/19/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	07/19/23	KCA	1
1,3,5-Trimethylbenzene	1.68	0.204	0.204	8.25	1.00	1.00	07/19/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	07/19/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	07/19/23	KCA	1
1,4-Dichlorobenzene	43.2	1.66	1.66	260	10.0	10.0	07/19/23	KCA	10
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	07/19/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	07/19/23	KCA	1
4-Ethyltoluene	5.09	0.204	0.204	25.0	1.00	1.00	07/19/23	KCA	1
4-Isopropyltoluene	0.304	0.182	0.182	1.67	1.00	1.00	07/19/23	KCA	1
4-Methyl-2-pentanone(MIBK)	3.26	0.244	0.244	13.3	1.00	1.00	07/19/23	KCA	1
Acetone	157	4.21	4.21	373	10.0	10.0	07/19/23	KCA	10
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	07/19/23	KCA	1
Benzene	0.376	0.313	0.313	1.20	1.00	1.00	07/19/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	07/19/23	KCA	1

Client ID: IA-S SECOND FLOOR STAIRWELL

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	07/19/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	07/19/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	07/19/23	KCA	1
Carbon Disulfide	0.442	0.321	0.321	1.38	1.00	1.00	07/19/23	KCA	1
Carbon Tetrachloride	0.096	0.032	0.032	0.60	0.20	0.20	07/19/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	07/19/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	07/19/23	KCA	1
Chloroform	4.30	0.205	0.205	21.0	1.00	1.00	07/19/23	KCA	1
Chloromethane	0.757	0.485	0.485	1.56	1.00	1.00	07/19/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	07/19/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/19/23	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	07/19/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	07/19/23	KCA	1
Dichlorodifluoromethane	0.444	0.202	0.202	2.19	1.00	1.00	07/19/23	KCA	1
Ethanol	149 J+	5.31	5.31	281 J+	10.0	10.0	07/19/23	KCA	10
Ethyl acetate	0.845	0.278	0.278	3.04	1.00	1.00	07/19/23	KCA	1
Ethylbenzene	2.91	0.230	0.230	12.6	1.00	1.00	07/19/23	KCA	1
Heptane	0.319	0.244	0.244	1.31	1.00	1.00	07/19/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	07/19/23	KCA	1
Hexane	0.333	0.284	0.284	1.17	1.00	1.00	07/19/23	KCA	1
Isopropylalcohol	16.0	0.407	0.407	39.3	1.00	1.00	07/19/23	KCA	1
Isopropylbenzene	0.392	0.204	0.204	1.93	1.00	1.00	07/19/23	KCA	1
m,p-Xylene	10.1	0.230	0.230	43.8	1.00	1.00	07/19/23	KCA	1
Methyl Ethyl Ketone	17.7	0.339	0.339	52.2	1.00	1.00	07/19/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	07/19/23	KCA	1
Methylene Chloride	2.41	0.863	0.863	8.37	3.00	3.00	07/19/23	KCA	1
n-Butylbenzene	0.237	0.182	0.182	1.30	1.00	1.00	07/19/23	KCA	1
o-Xylene	3.30	0.230	0.230	14.3	1.00	1.00	07/19/23	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	07/19/23	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	07/19/23	KCA	1
Styrene	1.36	0.235	0.235	5.79	1.00	1.00	07/19/23	KCA	1
Tetrachloroethene	0.163	0.037	0.037	1.10	0.25	0.25	07/19/23	KCA	1
Tetrahydrofuran	ND	0.339	0.339	ND	1.00	1.00	07/19/23	KCA	1
Toluene	4.21	0.266	0.266	15.9	1.00	1.00	07/19/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	07/19/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	07/19/23	KCA	1
Trichloroethene	0.068	0.037	0.037	0.37	0.20	0.20	07/19/23	KCA	1
Trichlorofluoromethane	0.238	0.178	0.178	1.34	1.00	1.00	07/19/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	07/19/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	07/19/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	102	%	%	102	%	%	07/19/23	KCA	1
% IS-1,4-Difluorobenzene	104	%	%	104	%	%	07/19/23	KCA	1
% IS-Bromochloromethane	101	%	%	101	%	%	07/19/23	KCA	1
% IS-Chlorobenzene-d5	107	%	%	107	%	%	07/19/23	KCA	1
% Bromofluorobenzene (10x)	102	%	%	102	%	%	07/19/23	KCA	10
% IS-1,4-Difluorobenzene (10x)	102	%	%	102	%	%	07/19/23	KCA	10
% IS-Bromochloromethane (10x)	99	%	%	99	%	%	07/19/23	KCA	10
% IS-Chlorobenzene-d5 (10x)	101	%	%	101	%	%	07/19/23	KCA	10

Client ID: IA-S SECOND FLOOR STAIRWELL

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

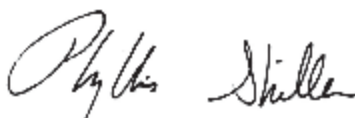
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 23, 2023

Reviewed and Released by: Rashmi Makol, Project Manager

TO-15

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method TO-15 Volatiles Data
for Phoenix Environmental Laboratories, Inc.
SDG: GCO50114**

**9 Soil Vapor/Air Samples and 1 Field Duplicate
Collected July 11, 2023**

Prepared by: Donald Anné
October 27, 2023

Holding Times: Samples were analyzed within recommended USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for target compounds were above the allowable minimum (0.010), as required.

The %Ds for 2-hexanone, benzyl chloride, and benzyl chloride (sim) were above the allowable maximums on 07-14-23 (0714_02.D). The %Ds for 2-hexanone and benzyl chloride were above the allowable maximums on 07-17-23 (0717_02.D). Positive results for these compounds should be considered estimated (J) in associated samples.

Blanks: The analysis of intra-lab blank reported target compounds as not detected. The analyses of the cleaned canisters reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the air/soil gas samples.

Laboratory Control Sample: The percent recovery (%R) for 1,2,4-trichlorobenzene was above QC limits for air/vapor sample CO50114 LCS. The %Rs for ethanol were above QC limits for air/vapor samples CO50122 LCS and CO52475 LCS. The %Rs for ethanol, 1,2,4-trichlorobenzene, and hexachlorobutadiene were above QC limits for air/vapor sample CO54921 LCS. Positive results for these compounds should be considered estimated, biased high (J+) in associated air/soil vapor samples.

Laboratory Duplicate: The relative percent differences for applicable compounds were below the allowable maximum for air/vapor duplicate sample IS-C-SCHOOL CELLAR, as required.

Field Duplicates: The relative percent differences for 14 compounds were below the allowable maximum (25%) for air field duplicate pair IA-T4-TRACK 4 INDOOR AIR/DUPLICATE (attached table). Positive results for these 14 compounds should be considered estimated (J) in samples IA-T4-TRACK 4 INDOOR AIR and DUPLICATE.

Compound ID: Checked compounds were within quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

The results for acetone in samples IS-C-SCHOOL CELLAR, IA-CAF-CAFETERIA, and DUPLICATE were quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The results for ethanol in samples IA-CAF-CAFETERIA, DUPLICATE, and IA-T1-TRACK 1 INDOOR AIR were quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The results that are flagged as 'E' in the samples should be considered estimated (J).

Canister Pressure: The laboratory reported the received samples with a residual vacuum, as required.

3
AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCO50114

LCS - Client Id: CO50114 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Propylene	10		7.742	77	70	130
Dichlorodifluoromethane	10		9.079	91	70	130
Chloromethane	10		8.391	84	70	130
1,2-Dichlorotetrafluoroethane	10		9.263	93	70	130
Vinyl Chloride	10		8.672	87	70	130
1,3-Butadiene	10		8.443	84	70	130
Bromomethane	10		9.210	92	70	130
Chloroethane	10		8.916	89	70	130
Ethanol	10		11.03	110	70	130
Acetone	10		7.643	76	70	130
Trichlorofluoromethane	10		9.488	95	70	130
Isopropylalcohol	10		8.097	81	70	130
Acrylonitrile	10		8.537	85	70	130
1,1-Dichloroethene	10		8.809	88	70	130
Methylene Chloride	10		8.245	82	70	130
Carbon Disulfide	10		9.008	90	70	130
Trichlorotrifluoroethane	10		9.126	91	70	130
Trans-1,2-Dichloroethene	10		8.847	88	70	130
1,1-Dichloroethane	10		8.795	88	70	130
Methyl tert-butyl ether(MTBE)	10		9.428	94	70	130
Methyl Ethyl Ketone	10		8.495	85	70	130
Cis-1,2-Dichloroethene	10		8.739	87	70	130
Hexane	10		9.276	93	70	130
Chloroform	10		9.081	91	70	130
Ethyl acetate	10		7.618	76	70	130
Tetrahydrofuran	10		9.440	94	70	130
1,2-Dichloroethane	10		8.649	86	70	130
1,1,1-Trichloroethane	10		10.45	105	70	130
Benzene	10		9.541	95	70	130
Carbon Tetrachloride	10		9.603	96	70	130
Cyclohexane	10		8.762	88	70	130
1,2-dichloropropane	10		9.243	92	70	130
Bromodichloromethane	10		9.440	94	70	130
Trichloroethene	10		9.867	99	70	130
1,4-Dioxane	10		11.01	110	70	130
Heptane	10		8.697	87	70	130
cis-1,3-Dichloropropene	10		9.814	98	70	130
4-Methyl-2-pentanone(MIBK)	10		9.895	99	70	130
trans-1,3-Dichloropropene	10		9.908	99	70	130
1,1,2-Trichloroethane	10		9.649	96	70	130
Toluene	10		10.01	100	70	130
Dibromochloromethane	10		9.995	100	70	130
2-Hexanone(MBK)	10		8.703	87	70	130
1,2-Dibromoethane(EDB)	10		9.712	97	70	130

FORM III AIR

LCS - Client Id: CO50114 LCS

FORM III AIR

3
AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCO50114

LCS - Client Id: CO50122 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Propylene	10		10.68	107	70	130
Dichlorodifluoromethane	10		10.44	104	70	130
Chloromethane	10		10.81	108	70	130
1,2-Dichlorotetrafluoroethane	10		10.84	108	70	130
Vinyl Chloride	10		10.79	108	70	130
1,3-Butadiene	10		10.96	110	70	130
Bromomethane	10		10.45	105	70	130
Chloroethane	10		10.55	106	70	130
Ethanol	10		15.94	159 *	70	130
Acetone	10		10.33	103	70	130
Trichlorofluoromethane	10		10.05	101	70	130
Isopropylalcohol	10		12.86	129	70	130
Acrylonitrile	10		11.57	116	70	130
1,1-Dichloroethene	10		10.43	104	70	130
Methylene Chloride	10		10.68	107	70	130
Carbon Disulfide	10		10.40	104	70	130
Trichlorotrifluoroethane	10		10.40	104	70	130
Trans-1,2-Dichloroethene	10		10.38	104	70	130
1,1-Dichloroethane	10		10.50	105	70	130
Methyl tert-butyl ether(MTBE)	10		10.61	106	70	130
Methyl Ethyl Ketone	10		10.41	104	70	130
Cis-1,2-Dichloroethene	10		10.71	107	70	130
Hexane	10		11.08	111	70	130
Chloroform	10		10.57	106	70	130
Ethyl acetate	10		9.126	91	70	130
Tetrahydrofuran	10		12.23	122	70	130
1,2-Dichloroethane	10		10.40	104	70	130
1,1,1-Trichloroethane	10		10.46	105	70	130
Benzene	10		10.65	107	70	130
Carbon Tetrachloride	10		10.33	103	70	130
Cyclohexane	10		9.875	99	70	130
1,2-dichloropropane	10		10.37	104	70	130
Bromodichloromethane	10		10.09	101	70	130
Trichloroethene	10		10.46	105	70	130
1,4-Dioxane	10		11.82	118	70	130
Heptane	10		10.89	109	70	130
cis-1,3-Dichloropropene	10		10.59	106	70	130
4-Methyl-2-pentanone(MIBK)	10		10.74	107	70	130
trans-1,3-Dichloropropene	10		10.74	107	70	130
1,1,2-Trichloroethane	10		10.41	104	70	130
Toluene	10		10.62	106	70	130
Dibromochloromethane	10		10.47	105	70	130
2-Hexanone(MBK)	10		11.12	111	70	130
1,2-Dibromoethane(EDB)	10		10.49	105	70	130

FORM III AIR

LCS - Client Id: **CO50122 LCS**

FORM III AIR

3
AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCO50114

LCS - Client Id: CO52475 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Propylene	10		10.68	107	70	130
Dichlorodifluoromethane	10		10.44	104	70	130
Chloromethane	10		10.81	108	70	130
1,2-Dichlorotetrafluoroethane	10		10.84	108	70	130
Vinyl Chloride	10		10.79	108	70	130
1,3-Butadiene	10		10.96	110	70	130
Bromomethane	10		10.45	105	70	130
Chloroethane	10		10.55	106	70	130
Ethanol	10		15.94	159 *	70	130
Acetone	10		10.33	103	70	130
Trichlorofluoromethane	10		10.05	101	70	130
Isopropylalcohol	10		12.86	129	70	130
Acrylonitrile	10		11.57	116	70	130
1,1-Dichloroethene	10		10.43	104	70	130
Methylene Chloride	10		10.68	107	70	130
Carbon Disulfide	10		10.40	104	70	130
Trichlorotrifluoroethane	10		10.40	104	70	130
Trans-1,2-Dichloroethene	10		10.38	104	70	130
1,1-Dichloroethane	10		10.50	105	70	130
Methyl tert-butyl ether(MTBE)	10		10.61	106	70	130
Methyl Ethyl Ketone	10		10.41	104	70	130
Cis-1,2-Dichloroethene	10		10.71	107	70	130
Hexane	10		11.08	111	70	130
Chloroform	10		10.57	106	70	130
Ethyl acetate	10		9.126	91	70	130
Tetrahydrofuran	10		12.23	122	70	130
1,2-Dichloroethane	10		10.40	104	70	130
1,1,1-Trichloroethane	10		10.46	105	70	130
Benzene	10		10.65	107	70	130
Carbon Tetrachloride	10		10.33	103	70	130
Cyclohexane	10		9.875	99	70	130
1,2-dichloropropane	10		10.37	104	70	130
Bromodichloromethane	10		10.09	101	70	130
Trichloroethene	10		10.46	105	70	130
1,4-Dioxane	10		11.82	118	70	130
Heptane	10		10.89	109	70	130
cis-1,3-Dichloropropene	10		10.59	106	70	130
4-Methyl-2-pentanone(MIBK)	10		10.74	107	70	130
trans-1,3-Dichloropropene	10		10.74	107	70	130
1,1,2-Trichloroethane	10		10.41	104	70	130
Toluene	10		10.62	106	70	130
Dibromochloromethane	10		10.47	105	70	130
2-Hexanone(MBK)	10		11.12	111	70	130
1,2-Dibromoethane(EDB)	10		10.49	105	70	130

FORM III AIR

LCS - Client Id: **CO52475 LCS**

Page 65 of 717

3
AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCO50114

LCS - Client Id: CO54921 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Propylene	10		10.71	107	70	130
Dichlorodifluoromethane	10		10.49	105	70	130
Chloromethane	10		10.88	109	70	130
1,2-Dichlorotetrafluoroethane	10		10.75	108	70	130
Vinyl Chloride	10		10.71	107	70	130
1,3-Butadiene	10		11.06	111	70	130
Bromomethane	10		10.35	104	70	130
Chloroethane	10		10.48	105	70	130
Ethanol	10		15.95	160 *	70	130
Acetone	10		10.29	103	70	130
Trichlorofluoromethane	10		10.05	101	70	130
Isopropylalcohol	10		12.53	125	70	130
Acrylonitrile	10		10.77	108	70	130
1,1-Dichloroethene	10		10.44	104	70	130
Methylene Chloride	10		10.78	108	70	130
Carbon Disulfide	10		10.42	104	70	130
Trichlorotrifluoroethane	10		10.45	105	70	130
Trans-1,2-Dichloroethene	10		10.40	104	70	130
1,1-Dichloroethane	10		10.57	106	70	130
Methyl tert-butyl ether(MTBE)	10		10.69	107	70	130
Methyl Ethyl Ketone	10		10.65	107	70	130
Cis-1,2-Dichloroethene	10		10.68	107	70	130
Hexane	10		11.17	112	70	130
Chloroform	10		10.56	106	70	130
Ethyl acetate	10		9.473	95	70	130
Tetrahydrofuran	10		12.04	120	70	130
1,2-Dichloroethane	10		10.37	104	70	130
1,1,1-Trichloroethane	10		10.35	104	70	130
Benzene	10		10.62	106	70	130
Carbon Tetrachloride	10		10.38	104	70	130
Cyclohexane	10		9.893	99	70	130
1,2-dichloropropane	10		10.32	103	70	130
Bromodichloromethane	10		10.00	100	70	130
Trichloroethene	10		10.30	103	70	130
1,4-Dioxane	10		12.82	128	70	130
Heptane	10		10.83	108	70	130
cis-1,3-Dichloropropene	10		10.47	105	70	130
4-Methyl-2-pentanone(MIBK)	10		10.91	109	70	130
trans-1,3-Dichloropropene	10		10.62	106	70	130
1,1,2-Trichloroethane	10		10.36	104	70	130
Toluene	10		10.57	106	70	130
Dibromochloromethane	10		10.05	101	70	130
2-Hexanone(MBK)	10		11.23	112	70	130
1,2-Dibromoethane(EDB)	10		10.19	102	70	130

FORM III AIR

LCS - Client Id: **CO54921 LCS**

Page 67 of 717

7A
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCO50114

Instrument: CHEM20 Calibration Date: 07/14/23 Time: 08:38

Lab File Id: 0714_02.D Init. Calib. Date(s): 07/13/23 07/13/23

Heated Purge (Y/N): Y Init. Calib. Times: 17:28 23:22

GC Column: RTX-1 60M Method File: 20_AIR_0713.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Propylene	1.068	0.797		25.4	30
Dichlorodifluoromethane	2.538	2.340		7.8	30
Chloromethane	1.194	0.995		16.7	30
1,2-Dichlorotetrafluoroethane	2.434	2.222		8.7	30
Vinyl Chloride	1.093	0.956		12.5	30
1,3-Butadiene	0.962	0.817		15.1	30
Bromomethane	0.935	0.887		5.1	30
Chloroethane	0.486	0.451		7.2	30
Ethanol	0.430	0.334		22.3	30
Acetone	2.197	1.713		22.0	30
Trichlorofluoromethane	2.847	2.615		8.1	30
Isopropylalcohol	2.501	2.038		18.5	30
Acrylonitrile	0.970	0.765		21.1	30
1,1-Dichloroethene	1.901	1.585		16.6	30
Methylene Chloride	1.658	1.299		21.7	30
Carbon Disulfide	2.635	2.444		7.2	30
Trichlorotrifluoroethane	2.141	1.961		8.4	30
Trans-1,2-Dichloroethene	1.718	1.530		10.9	30
1,1-Dichloroethane	2.019	1.772		12.2	30
Methyl tert-butyl ether(MTBE)	2.469	2.209		10.5	30
Methyl Ethyl Ketone	2.809	2.276		19.0	30
Cis-1,2-Dichloroethene	1.646	1.273		22.7	30
Hexane	1.831	1.430		21.9	30
Chloroform	2.221	1.886		15.1	30
Ethyl acetate	0.487	0.439		9.9	30
Tetrahydrofuran	1.417	1.065		24.8	30
1,2-Dichloroethane	1.624	1.311		19.3	30
1,1,1-Trichloroethane	2.228	1.954		12.3	30
Benzene	2.911	2.657		8.7	30
Carbon Tetrachloride	2.385	2.238		6.2	30
Cyclohexane	1.263	1.058		16.2	30
1,2-dichloropropane	0.385	0.345		10.4	30
Bromodichloromethane	0.658	0.617		6.2	30
Trichloroethene	0.409	0.405		1.0	30
1,4-Dioxane	0.159	0.179		-12.6	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria
%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCO50114

Instrument: CHEM20 Calibration Date: 07/14/23 Time: 08:38

Lab File Id: 0714_02.D Init. Calib. Date(s): 07/13/23 07/13/23

Heated Purge (Y/N): Y Init. Calib. Times: 17:28 23:22

GC Column: RTX-1 60M Method File: 20_AIR_0713.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Heptane	0.721	0.562		22.1	30
cis-1,3-Dichloropropene	0.471	0.425		9.8	30
4-Methyl-2-pentanone(MIBK)	0.843	0.738		12.5	30
trans-1,3-Dichloropropene	0.430	0.382		11.2	30
1,1,2-Trichloroethane	0.368	0.349		5.2	30
Toluene	1.014	0.927		8.6	30
Dibromochloromethane	0.711	0.710		0.1	30
2-Hexanone(MBK) qfi	1.000	0.74		26.0 #	20
1,2-Dibromoethane(EDB)	0.602	0.590		2.0	30
Tetrachloroethene	0.526	0.543		-3.2	30
1,1,1,2-Tetrachloroethane	0.922	1.062		-15.2	30
Chlorobenzene	1.570	1.735		-10.5	30
Ethylbenzene	2.408	2.423		-0.6	30
m,p-Xylene	1.778	1.460		17.9	30
Bromoform	1.282	1.541		-20.2	30
Styrene	1.347	1.481		-9.9	30
1,1,2,2-Tetrachloroethane	1.584	1.553		2.0	30
o-Xylene	1.952	2.003		-2.6	30
Isopropylbenzene	2.801	3.040		-8.5	30
4-Ethyltoluene	2.861	2.641		7.7	30
1,3,5-Trimethylbenzene	2.151	2.441		-13.5	30
1,2,4-Trimethylbenzene	2.284	2.171		4.9	30
Benzyl chloride qfi	1.000	0.74		26.0 #	20
1,3-Dichlorobenzene	1.646	1.719		-4.4	30
1,4-Dichlorobenzene	1.634	1.577		3.5	30
sec-Butylbenzene	3.382	3.655		-8.1	30
4-Isopropyltoluene	3.125	3.458		-10.7	30
1,2-Dichlorobenzene	1.558	1.500		3.7	30
n-Butylbenzene	2.676	2.632		1.6	30
1,2,4-Trichlorobenzene	1.136	1.144		-0.7	30
Hexachlorobutadiene	1.337	1.593		-19.1	30
1,2-Dichlorotetrafluoroethane(sim)	2.272	2.215		2.5	30
Vinyl Chloride(sim)	1.048	0.966		7.8	30
Bromomethane(sim)	0.907	0.884		2.5	30
Trichlorofluoromethane(sim)	2.582	2.404		6.9	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCO50114

Instrument: CHEM20 Calibration Date: 07/14/23 Time: 08:38

Lab File Id: 0714_02.D Init. Calib. Date(s): 07/13/23 07/13/23

Heated Purge (Y/N): Y Init. Calib. Times: 17:28 23:22

GC Column: RTX-1 60M Method File: 20_AIR_0713.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
1,2-Dichloroethane(sim)	1.458	1.307		10.4	30
1,1,1-Trichloroethane(sim)	2.125	2.065		2.8	30
Benzene(sim)	2.733	2.652		3.0	30
Carbon Tetrachloride(sim)	2.119	2.206		-4.1	30
1,1-Dichloroethene(sim)	1.724	1.581		8.3	30
Trichlorotrifluoroethane(sim)	2.022	1.971		2.5	30
Trans-1,2-Dichloroethene(sim)	1.584	1.525		3.7	30
1,1-Dichloroethane(sim)	2.007	1.849		7.9	30
Cis-1,2-Dichloroethene(sim)	1.452	1.269		12.6	30
Chloroform(sim)	2.084	1.923		7.7	30
1,2-dichloropropane(sim)	0.414	0.349		15.7	30
Bromodichloromethane(sim)	0.667	0.618		7.3	30
Trichloroethene(sim)	0.475	0.416		12.4	30
1,4-Dioxane(sim) qi	1.000	1.11		-11.0	20
cis-1,3-Dichloropropene(sim)	0.460	0.439		4.6	30
1,1,2-Trichloroethane(sim)	0.370	0.349		5.7	30
Dibromochloromethane(sim)	0.735	0.714		2.9	30
1,2-Dibromoethane(EDB)(sim)	0.567	0.576		-1.6	30
Tetrachloroethene(sim)	0.631	0.582		7.8	30
Bromoform(sim)	1.424	1.588		-11.5	30
m,p-Xylene(sim)	1.813	1.867		-3.0	30
1,1,2,2-Tetrachloroethane(sim)	1.684	1.532		9.0	30
Benzyl chloride(sim) qfi	1.000	1.23		-23.0 #	20
1,3-Dichlorobenzene(sim)	1.800	1.865		-3.6	30
1,4-Dichlorobenzene(sim)	1.848	1.606		13.1	30
sec-Butylbenzene(sim)	3.501	3.974		-13.5	30
4-Isopropyltoluene(sim)	2.889	3.459		-19.7	30
1,2-Dichlorobenzene(sim)	1.699	1.583		6.8	30
n-Butylbenzene(sim)	2.343	2.632		-12.3	30
1,2,4-Trichlorobenzene(sim)	1.087	1.219		-12.1	30
Hexachlorobutadiene(sim)	1.542	1.566		-1.6	30
% Bromofluorobenzene	1.303	1.416		-8.7	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria
%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
(#) Maximum %D not met.

7A
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCO50114

Instrument: CHEM20 Calibration Date: 07/17/23 Time: 10:58

Lab File Id: 0717_02.D Init. Calib. Date(s): 07/13/23 07/13/23

Heated Purge (Y/N): Y Init. Calib. Times: 17:28 23:22

GC Column: RTX-1 60M Method File: 20_AIR_0713.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Propylene	1.068	0.779		27.1	30
Dichlorodifluoromethane	2.538	2.368		6.7	30
Chloromethane	1.194	1.056		11.6	30
1,2-Dichlorotetrafluoroethane	2.434	2.411		0.9	30
Vinyl Chloride	1.093	1.058		3.2	30
1,3-Butadiene	0.962	0.880		8.5	30
Bromomethane	0.935	0.929		0.6	30
Chloroethane	0.486	0.463		4.7	30
Ethanol	0.430	0.358		16.7	30
Acetone	2.197	1.822		17.1	30
Trichlorofluoromethane	2.847	2.589		9.1	30
Isopropylalcohol	2.501	1.892		24.4	30
Acrylonitrile	0.970	0.859		11.4	30
1,1-Dichloroethene	1.901	1.737		8.6	30
Methylene Chloride	1.658	1.476		11.0	30
Carbon Disulfide	2.635	2.577		2.2	30
Trichlorotrifluoroethane	2.141	2.078		2.9	30
Trans-1,2-Dichloroethene	1.718	1.568		8.7	30
1,1-Dichloroethane	2.019	1.877		7.0	30
Methyl tert-butyl ether(MTBE)	2.469	2.388		3.3	30
Methyl Ethyl Ketone	2.809	2.436		13.3	30
Cis-1,2-Dichloroethene	1.646	1.386		15.8	30
Hexane	1.831	1.566		14.5	30
Chloroform	2.221	1.949		12.2	30
Ethyl acetate	0.487	0.490		-0.6	30
Tetrahydrofuran	1.417	1.045		26.3	30
1,2-Dichloroethane	1.624	1.396		14.0	30
1,1,1-Trichloroethane	2.228	1.973		11.4	30
Benzene	2.911	2.641		9.3	30
Carbon Tetrachloride	2.385	2.079		12.8	30
Cyclohexane	1.263	1.070		15.3	30
1,2-dichloropropane	0.385	0.337		12.5	30
Bromodichloromethane	0.658	0.606		7.9	30
Trichloroethene	0.409	0.384		6.1	30
1,4-Dioxane	0.159	0.166		-4.4	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria
%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCO50114

Instrument: CHEM20 Calibration Date: 07/17/23 Time: 10:58

Lab File Id: 0717_02.D Init. Calib. Date(s): 07/13/23 07/13/23

Heated Purge (Y/N): Y Init. Calib. Times: 17:28 23:22

GC Column: RTX-1 60M Method File: 20_AIR_0713.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Heptane	0.721	0.544		24.5	30
cis-1,3-Dichloropropene	0.471	0.424		10.0	30
4-Methyl-2-pentanone(MIBK)	0.843	0.722		14.4	30
trans-1,3-Dichloropropene	0.430	0.363		15.6	30
1,1,2-Trichloroethane	0.368	0.345		6.3	30
Toluene	1.014	0.884		12.8	30
Dibromochloromethane	0.711	0.652		8.3	30
2-Hexanone(MBK) qfi	1.000	0.72		28.0 #	20
1,2-Dibromoethane(EDB)	0.602	0.543		9.8	30
Tetrachloroethene	0.526	0.511		2.9	30
1,1,1,2-Tetrachloroethane	0.922	0.954		-3.5	30
Chlorobenzene	1.570	1.665		-6.1	30
Ethylbenzene	2.408	2.266		5.9	30
m,p-Xylene	1.778	1.411		20.6	30
Bromoform	1.282	1.368		-6.7	30
Styrene	1.347	1.239		8.0	30
1,1,2,2-Tetrachloroethane	1.584	1.466		7.4	30
o-Xylene	1.952	1.897		2.8	30
Isopropylbenzene	2.801	2.835		-1.2	30
4-Ethyltoluene	2.861	2.505		12.4	30
1,3,5-Trimethylbenzene	2.151	2.233		-3.8	30
1,2,4-Trimethylbenzene	2.284	2.035		10.9	30
Benzyl chloride qfi	1.000	0.67		33.0 #	20
1,3-Dichlorobenzene	1.646	1.536		6.7	30
1,4-Dichlorobenzene	1.634	1.492		8.7	30
sec-Butylbenzene	3.382	3.487		-3.1	30
4-Isopropyltoluene	3.125	3.210		-2.7	30
1,2-Dichlorobenzene	1.558	1.374		11.8	30
n-Butylbenzene	2.676	2.512		6.1	30
1,2,4-Trichlorobenzene	1.136	1.032		9.2	30
Hexachlorobutadiene	1.337	1.415		-5.8	30
1,2-Dichlorotetrafluoroethane(sim)	2.272	2.232		1.8	30
Vinyl Chloride(sim)	1.048	1.015		3.1	30
Bromomethane(sim)	0.907	0.862		5.0	30
Trichlorofluoromethane(sim)	2.582	2.435		5.7	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCO50114

Instrument: CHEM20 Calibration Date: 07/17/23 Time: 10:58

Lab File Id: 0717_02.D Init. Calib. Date(s): 07/13/23 07/13/23

Heated Purge (Y/N): Y Init. Calib. Times: 17:28 23:22

GC Column: RTX-1 60M Method File: 20_AIR_0713.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
1,2-Dichloroethane(sim)	1.458	1.295		11.2	30
1,1,1-Trichloroethane(sim)	2.125	1.987		6.5	30
Benzene(sim)	2.733	2.451		10.3	30
Carbon Tetrachloride(sim)	2.119	2.069		2.4	30
1,1-Dichloroethene(sim)	1.724	1.612		6.5	30
Trichlorotrifluoroethane(sim)	2.022	1.995		1.3	30
Trans-1,2-Dichloroethene(sim)	1.584	1.455		8.1	30
1,1-Dichloroethane(sim)	2.007	1.894		5.6	30
Cis-1,2-Dichloroethene(sim)	1.452	1.286		11.4	30
Chloroform(sim)	2.084	1.890		9.3	30
1,2-dichloropropane(sim)	0.414	0.364		12.1	30
Bromodichloromethane(sim)	0.667	0.607		9.0	30
Trichloroethene(sim)	0.475	0.423		10.9	30
1,4-Dioxane(sim) qi	1.000	1.04		-4.0	20
cis-1,3-Dichloropropene(sim)	0.460	0.441		4.1	30
1,1,2-Trichloroethane(sim)	0.370	0.346		6.5	30
Dibromochloromethane(sim)	0.735	0.712		3.1	30
1,2-Dibromoethane(EDB)(sim)	0.567	0.541		4.6	30
Tetrachloroethene(sim)	0.631	0.586		7.1	30
Bromoform(sim)	1.424	1.505		-5.7	30
m,p-Xylene(sim)	1.813	1.808		0.3	30
1,1,2,2-Tetrachloroethane(sim)	1.684	1.534		8.9	30
Benzyl chloride(sim) qfi	1.000	1.14		-14.0	20
1,3-Dichlorobenzene(sim)	1.800	1.781		1.1	30
1,4-Dichlorobenzene(sim)	1.848	1.518		17.9	30
sec-Butylbenzene(sim)	3.501	3.857		-10.2	30
4-Isopropyltoluene(sim)	2.889	3.222		-11.5	30
1,2-Dichlorobenzene(sim)	1.699	1.543		9.2	30
n-Butylbenzene(sim)	2.343	2.512		-7.2	30
1,2,4-Trichlorobenzene(sim)	1.087	1.178		-8.4	30
Hexachlorobutadiene(sim)	1.542	1.412		8.4	30
% Bromofluorobenzene	1.303	1.376		-5.6	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria
%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
(#) Maximum %D not met.

Field Duplicate Calculation Section

Volatiles TO-15

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. GCO50114

	S1=	IA-T4-TRACK 4 INDOOR AIR	S2=	DUPLICATE	
<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>		
1,2,4-Trimethylbenzene	66	4.00	177%		*
1,3,5-Trimethylbenzene	17.3	1.20	174%		*
1,4-Dichlorobenzene	5.11	28.1	138%		*
4-Ethyltoluene	53.9	3.27	177%		*
4-Isopropyltoluene	1.79	0.232	154%		*
4-Methyl-2-pentanone(MIBK)	9.78	3.53	94%		*
Acetone	67.1	144	NC		
Carbon Tetrachloride	0.087	0.089	2%		
Chloroform	1.79	2.17	19%		
Chloromethane	0.544	0.639	16%		
Cyclohexane	4.33	ND	NC		
Dichlorodifluoromethane	0.461	0.437	5%		
Ethanol	66.2	86.6	NC		
Ethyl acetate	3.96	0.643	144%		*
Ethylbenzene	7.2	2.66	92%		*
Heptane	0.254	0.249	2%		
Hexane	1.28	ND	NC		
Isopropylalcohol	4.33	11.4	90%		*
Isopropylbenzene	1.88	0.268	150%		*
m,p-Xylene	21.7	8.78	85%		*
Methyl Ethyl Ketone	4.22	20.1	131%		*
Methylene Chloride	ND	1.58	NC		
o-Xylene	9.03	2.80	105%		*
Propylene	11.9	ND	NC		
sec-Butylbenzene	0.764	ND	NC		
Styrene	0.709	1.53	73%		*
Tetrachloroethene	0.074	0.095	25%		
Toluene	3.33	3.62	8%		
Trichlorofluoromethane	0.210	0.217	3%		

* RPD is above the allowable maximum (25%).

All results are in ppv v/v.

Bold numbers were values that are below the CRQL or above the high standard.

ND - Not detected.

NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

GC083571



**Data Usability Summary Report for
Phoenix Environmental Laboratories, Inc.
SDG: GCO83571**

**1 Air Sample
Collected August 23, 2023**

Prepared by: Donald Anné
October 27, 2023

Geology

Hydrology

Remediation

Water Supply

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results for one air sample analyzed for TO15 volatiles.

The overall performances of the analyses are acceptable. Phoenix Environmental Laboratories, Inc. did fulfill the requirements of the analytical method.

The data are acceptable with some minor issues that are identified in the accompanying data validation reviews. The following data were flagged:

- The positive volatile result for ethanol was qualified as “estimated, biased high” (J+) for sample IA-C-SCHOOL CELLAR because the percent recovery for ethanol was above the QC limits in the associated air/soil vapor LCS.

All data are considered usable, with estimated (J+) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

Qualified Data Section



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

September 06, 2023

FOR: Attn: Ariel Czemerinski
AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105

Sample Information

Matrix: AIR
Location Code: AMC-ENG
Rush Request: Standard
P.O.#:
Canister Id: 28553

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

08/23/23
08/25/23

Time

9:45
18:00

Laboratory Data

SDG ID: GCO83571
Phoenix ID: CO83571

Project ID: 69-02 QUEENS BLVD C241235
Client ID: IA-C-SCHOOL CELLAR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	08/26/23	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	08/26/23	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	08/26/23	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	08/26/23	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	08/26/23	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	08/26/23	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	08/26/23	KCA	1
1,2,4-Trimethylbenzene	1.06	0.204	0.204	5.21	1.00	1.00	08/26/23	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	08/26/23	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	08/26/23	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	08/26/23	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	08/26/23	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	08/26/23	KCA	1
1,3,5-Trimethylbenzene	0.274	0.204	0.204	1.35	1.00	1.00	08/26/23	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	08/26/23	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	08/26/23	KCA	1
1,4-Dichlorobenzene	225	D 3.33	3.33	1350	20.0	20.0	08/28/23	KCA	20
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	08/26/23	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	08/26/23	KCA	1
4-Ethyltoluene	0.726	0.204	0.204	3.57	1.00	1.00	08/26/23	KCA	1
4-Isopropyltoluene	ND	0.182	0.182	ND	1.00	1.00	08/26/23	KCA	1
4-Methyl-2-pentanone(MIBK)	0.551	0.244	0.244	2.26	1.00	1.00	08/26/23	KCA	1
Acetone	85.5	D 8.42	8.42	203	20.0	20.0	08/28/23	KCA	20
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	08/26/23	KCA	1
Benzene	ND	0.313	0.313	ND	1.00	1.00	08/26/23	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	08/26/23	KCA	1

Client ID: IA-C-SCHOOL CELLAR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	08/26/23	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	08/26/23	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	08/26/23	KCA	1
Carbon Disulfide	ND	0.321	0.321	ND	1.00	1.00	08/26/23	KCA	1
Carbon Tetrachloride	0.066	0.032	0.032	0.41	0.20	0.20	08/26/23	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	08/26/23	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	08/26/23	KCA	1
Chloroform	0.575	0.205	0.205	2.81	1.00	1.00	08/26/23	KCA	1
Chloromethane	0.540	0.485	0.485	1.11	1.00	1.00	08/26/23	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	08/26/23	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	08/26/23	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	08/26/23	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	08/26/23	KCA	1
Dichlorodifluoromethane	0.537	0.202	0.202	2.65	1.00	1.00	08/26/23	KCA	1
Ethanol	188 J+ D	10.6	10.6	354 J+	20.0	20.0	08/28/23	KCA	20
Ethyl acetate	0.283	0.278	0.278	1.02	1.00	1.00	08/26/23	KCA	1
Ethylbenzene	0.704	0.230	0.230	3.06	1.00	1.00	08/26/23	KCA	1
Heptane	ND	0.244	0.244	ND	1.00	1.00	08/26/23	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	08/26/23	KCA	1
Hexane	ND	0.284	0.284	ND	1.00	1.00	08/26/23	KCA	1
Isopropylalcohol	8.54	0.407	0.407	21.0	1.00	1.00	08/26/23	KCA	1
Isopropylbenzene	ND	0.204	0.204	ND	1.00	1.00	08/26/23	KCA	1
m,p-Xylene	2.79	0.230	0.230	12.1	1.00	1.00	08/26/23	KCA	1
Methyl Ethyl Ketone	3.07	0.339	0.339	9.05	1.00	1.00	08/26/23	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	08/26/23	KCA	1
Methylene Chloride	1.85	0.863	0.863	6.42	3.00	3.00	08/26/23	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	08/26/23	KCA	1
o-Xylene	1.01	0.230	0.230	4.38	1.00	1.00	08/26/23	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	08/26/23	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	08/26/23	KCA	1
Styrene	1.98	0.235	0.235	8.43	1.00	1.00	08/26/23	KCA	1
Tetrachloroethene	0.071	0.037	0.037	0.48	0.25	0.25	08/26/23	KCA	1
Tetrahydrofuran	1.60	0.339	0.339	4.72	1.00	1.00	08/26/23	KCA	1
Toluene	1.52	0.266	0.266	5.72	1.00	1.00	08/26/23	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	08/26/23	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	08/26/23	KCA	1
Trichloroethene	0.055	0.037	0.037	0.30	0.20	0.20	08/26/23	KCA	1
Trichlorofluoromethane	0.260	0.178	0.178	1.46	1.00	1.00	08/26/23	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	08/26/23	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	08/26/23	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	108	%	%	108	%	%	08/26/23	KCA	1
% IS-1,4-Difluorobenzene	87	%	%	87	%	%	08/26/23	KCA	1
% IS-Bromochloromethane	86	%	%	86	%	%	08/26/23	KCA	1
% IS-Chlorobenzene-d5	87	%	%	87	%	%	08/26/23	KCA	1
% Bromofluorobenzene (20x)	107	%	%	107	%	%	08/28/23	KCA	20
% IS-1,4-Difluorobenzene (20x)	88	%	%	88	%	%	08/28/23	KCA	20
% IS-Bromochloromethane (20x)	89	%	%	89	%	%	08/28/23	KCA	20
% IS-Chlorobenzene-d5 (20x)	89	%	%	89	%	%	08/28/23	KCA	20

Client ID: IA-C-SCHOOL CELLAR

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
-----------	----------------	------------	-------------	-----------------	-------------	-------------	-----------	----	----------

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

E = Estimated value quantitated above calibration range for this compound.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

September 06, 2023

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

TO-15

Data Section



**QA/QC Review of Method TO-15 Volatiles Data
for Phoenix Environmental Laboratories, Inc.
SDG: GCO83571**

**1 Air Sample
Collected August 23, 2023**

Prepared by: Donald Anné
October 27, 2023

Geology

Hydrology

Remediation

Water Supply

Holding Times: The sample was analyzed within recommended USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for target compounds were above the allowable minimum (0.010), as required.

The %Ds for benzyl chloride, hexachlorobutadiene, and benzyl chloride (sim) were above the allowable maximums on 08-25-23 (0825_02.D). The %Ds for 7 compounds (highlighted yellow on attached form 7A) were above the allowable maximums on 08-28-23 (0828_02.D). Positive results for these compounds should be considered estimated (J) in associated samples.

Blanks: The analysis of intra-lab blank reported target compounds as not detected. The analyses of the cleaned canisters reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the air sample.

Laboratory Control Sample: The percent recoveries (%Rs) for ethanol, 1,2,4-trichlorobenzene, and hexachlorobutadiene were above QC limits for air/vapor sample CO82212 LCS. The %Rs for 8 compounds (highlighted yellow on attached form 3) were above QC limits for air/vapor sample CO82421 LCS. Positive results for these compounds should be considered estimated, biased high (J+) in associated air/soil vapor samples.

Compound ID: Checked compounds were within quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

Canister Pressure: The laboratory reported the received sample with a residual vacuum, as required.

3
AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: AMC-ENG
 Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCO83571
 LCS - Client Id: CO82212 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Propylene	10		9.939	99	70	130
Dichlorodifluoromethane	10		11.22	112	70	130
Chloromethane	10		10.27	103	70	130
1,2-Dichlorotetrafluoroethane	10		11.01	110	70	130
Vinyl Chloride	10		10.51	105	70	130
1,3-Butadiene	10		10.44	104	70	130
Bromomethane	10		10.61	106	70	130
Chloroethane	10		10.23	102	70	130
Ethanol	10		16.00	160 *	70	130
Acetone	10		10.47	105	70	130
Trichlorofluoromethane	10		11.37	114	70	130
Isopropylalcohol	10		11.17	112	70	130
Acrylonitrile	10		11.04	110	70	130
1,1-Dichloroethene	10		10.22	102	70	130
Methylene Chloride	10		9.268	93	70	130
Carbon Disulfide	10		9.579	96	70	130
Trichlorotrifluoroethane	10		10.45	105	70	130
Trans-1,2-Dichloroethene	10		10.43	104	70	130
1,1-Dichloroethane	10		10.51	105	70	130
Methyl tert-butyl ether(MTBE)	10		10.45	105	70	130
Methyl Ethyl Ketone	10		10.53	105	70	130
Cis-1,2-Dichloroethene	10		10.93	109	70	130
Hexane	10		10.17	102	70	130
Chloroform	10		10.85	109	70	130
Ethyl acetate	10		7.642	76	70	130
Tetrahydrofuran	10		11.08	111	70	130
1,2-Dichloroethane	10		11.08	111	70	130
1,1,1-Trichloroethane	10		11.02	110	70	130
Benzene	10		10.01	100	70	130
Carbon Tetrachloride	10		11.38	114	70	130
Cyclohexane	10		9.788	98	70	130
1,2-dichloropropane	10		10.23	102	70	130
Bromodichloromethane	10		11.38	114	70	130
Trichloroethene	10		10.39	104	70	130
1,4-Dioxane	10		11.43	114	70	130
Heptane	10		10.33	103	70	130
cis-1,3-Dichloropropene	10		11.01	110	70	130
4-Methyl-2-pentanone(MIBK)	10		11.39	114	70	130
trans-1,3-Dichloropropene	10		11.80	118	70	130
1,1,2-Trichloroethane	10		10.96	110	70	130
Toluene	10		10.73	107	70	130
Dibromochloromethane	10		12.06	121	70	130
2-Hexanone(MBK)	10		11.95	120	70	130
1,2-Dibromoethane(EDB)	10		10.92	109	70	130

FORM III AIR

LCS - Client Id: **CO82212 LCS**

Page 25 of 239

3
AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCO83571

LCS - Client Id: CO82421 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Propylene	10		7.762	78	70	130
Dichlorodifluoromethane	10		13.92	139 *	70	130
Chloromethane	10		11.83	118	70	130
1,2-Dichlorotetrafluoroethane	10		13.64	136 *	70	130
Vinyl Chloride	10		11.90	119	70	130
1,3-Butadiene	10		12.01	120	70	130
Bromomethane	10		12.49	125	70	130
Chloroethane	10		11.69	117	70	130
Ethanol	10		17.56	176 *	70	130
Acetone	10		12.86	129	70	130
Trichlorofluoromethane	10		16.78	168 *	70	130
Isopropylalcohol	10		13.70	137 *	70	130
Acrylonitrile	10		12.37	124	70	130
1,1-Dichloroethene	10		12.62	126	70	130
Methylene Chloride	10		11.56	116	70	130
Carbon Disulfide	10		11.16	112	70	130
Trichlorotrifluoroethane	10		12.85	129	70	130
Trans-1,2-Dichloroethene	10		10.65	107	70	130
1,1-Dichloroethane	10		10.42	104	70	130
Methyl tert-butyl ether(MTBE)	10		11.01	110	70	130
Methyl Ethyl Ketone	10		10.77	108	70	130
Cis-1,2-Dichloroethene	10		10.97	110	70	130
Hexane	10		9.499	95	70	130
Chloroform	10		11.87	119	70	130
Ethyl acetate	10		7.126	71	70	130
Tetrahydrofuran	10		10.90	109	70	130
1,2-Dichloroethane	10		13.10	131 *	70	130
1,1,1-Trichloroethane	10		12.25	123	70	130
Benzene	10		9.647	96	70	130
Carbon Tetrachloride	10		12.55	126	70	130
Cyclohexane	10		9.681	97	70	130
1,2-dichloropropane	10		9.094	91	70	130
Bromodichloromethane	10		12.13	121	70	130
Trichloroethene	10		10.56	106	70	130
1,4-Dioxane	10		10.89	109	70	130
Heptane	10		10.05	101	70	130
cis-1,3-Dichloropropene	10		10.87	109	70	130
4-Methyl-2-pentanone(MIBK)	10		11.73	117	70	130
trans-1,3-Dichloropropene	10		12.03	120	70	130
1,1,2-Trichloroethane	10		10.63	106	70	130
Toluene	10		10.51	105	70	130
Dibromochloromethane	10		12.30	123	70	130
2-Hexanone(MBK)	10		12.24	122	70	130
1,2-Dibromoethane(EDB)	10		10.80	108	70	130

FORM III AIR

LCS - Client Id: **CO82421 LCS**

Page 27 of 239

7A
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO83571

Instrument: CHEM20 Calibration Date: 08/25/23 Time: 13:25

Lab File Id: 0825_02.D Init. Calib. Date(s): 08/24/23 08/25/23

Heated Purge (Y/N): Y Init. Calib. Times: 18:36 00:28

GC Column: RTX-1 60M Method File: 20_AIR_0824.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Propylene	0.886	0.843		4.9	30
Dichlorodifluoromethane	3.279	3.571		-8.9	30
Chloromethane	0.768	0.720		6.3	30
1,2-Dichlorotetrafluoroethane	2.485	2.510		-1.0	30
Vinyl Chloride	0.863	0.909		-5.3	30
1,3-Butadiene	0.661	0.723		-9.4	30
Bromomethane	0.895	0.938		-4.8	30
Chloroethane	0.393	0.388		1.3	30
Ethanol	0.221	0.256		-15.8	30
Acetone	1.748	1.896		-8.5	30
Trichlorofluoromethane	3.325	3.660		-10.1	30
Isopropylalcohol	1.875	2.054		-9.5	30
Acrylonitrile	0.748	0.765		-2.3	30
1,1-Dichloroethene	1.968	1.926		2.1	30
Methylene Chloride	1.319	1.196		9.3	30
Carbon Disulfide	2.699	2.525		6.4	30
Trichlorotrifluoroethane	2.260	2.264		-0.2	30
Trans-1,2-Dichloroethene	1.910	1.953		-2.3	30
1,1-Dichloroethane	2.175	2.187		-0.6	30
Methyl tert-butyl ether(MTBE)	3.438	3.532		-2.7	30
Methyl Ethyl Ketone	2.706	2.725		-0.7	30
Cis-1,2-Dichloroethene	1.949	2.111		-8.3	30
Hexane	1.742	1.723		1.1	30
Chloroform	2.720	2.878		-5.8	30
Ethyl acetate	0.478	0.484		-1.3	30
Tetrahydrofuran	1.338	1.363		-1.9	30
1,2-Dichloroethane	2.368	2.520		-6.4	30
1,1,1-Trichloroethane	2.945	2.798		5.0	30
Benzene	3.313	3.190		3.7	30
Carbon Tetrachloride	2.785	2.287		17.9	30
Cyclohexane	1.270	1.302		-2.5	30
1,2-dichloropropane	0.337	0.325		3.6	30
Bromodichloromethane	0.689	0.638		7.4	30
Trichloroethene	0.363	0.378		-4.1	30
1,4-Dioxane	0.159	0.173		-8.8	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria
%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO83571

Instrument: CHEM20 Calibration Date: 08/25/23 Time: 13:25

Lab File Id: 0825_02.D Init. Calib. Date(s): 08/24/23 08/25/23

Heated Purge (Y/N): Y Init. Calib. Times: 18:36 00:28

GC Column: RTX-1 60M Method File: 20_AIR_0824.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Heptane	0.619	0.639		-3.2	30
cis-1,3-Dichloropropene	0.495	0.443		10.5	30
4-Methyl-2-pentanone(MIBK)	0.791	0.852		-7.7	30
trans-1,3-Dichloropropene	0.479	0.393		18.0	30
1,1,2-Trichloroethane	0.352	0.344		2.3	30
Toluene	1.075	1.082		-0.7	30
Dibromochloromethane	0.611	0.495		19.0	30
2-Hexanone(MBK)	0.748	0.769		-2.8	30
1,2-Dibromoethane(EDB)	0.593	0.593		0.0	30
Tetrachloroethene	0.565	0.587		-3.9	30
1,1,1,2-Tetrachloroethane	0.709	0.663		6.5	30
Chlorobenzene	1.343	1.426		-6.2	30
Ethylbenzene	2.490	2.451		1.6	30
m,p-Xylene	1.894	1.595		15.8	30
Bromoform	0.994	0.717		27.9	30
Styrene	1.292	1.331		-3.0	30
1,1,2,2-Tetrachloroethane	1.076	0.988		8.2	30
o-Xylene	1.994	2.089		-4.8	30
Isopropylbenzene	2.630	2.860		-8.7	30
4-Ethyltoluene	2.469	2.307		6.6	30
1,3,5-Trimethylbenzene	2.077	1.949		6.2	30
1,2,4-Trimethylbenzene	1.971	1.783		9.5	30
Benzyl chloride qfi	1.000	0.39		61.0 #	20
1,3-Dichlorobenzene	1.252	1.037		17.2	30
1,4-Dichlorobenzene	1.158	1.062		8.3	30
sec-Butylbenzene	3.182	3.476		-9.2	30
4-Isopropyltoluene	2.919	3.106		-6.4	30
1,2-Dichlorobenzene	1.104	0.947		14.2	30
n-Butylbenzene	2.666	2.709		-1.6	30
1,2,4-Trichlorobenzene	0.857	1.068		-24.6	30
Hexachlorobutadiene	1.119	1.530		-36.7 #	30
1,2-Dichlorotetrafluoroethane(sim)	2.326	2.178		6.4	30
Vinyl Chloride(sim)	0.876	0.852		2.7	30
Bromomethane(sim)	0.839	0.814		3.0	30
Trichlorofluoromethane(sim)	3.180	3.347		-5.3	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO83571

Instrument: CHEM20 Calibration Date: 08/25/23 Time: 13:25

Lab File Id: 0825_02.D Init. Calib. Date(s): 08/24/23 08/25/23

Heated Purge (Y/N): Y Init. Calib. Times: 18:36 00:28

GC Column: RTX-1 60M Method File: 20_AIR_0824.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
1,2-Dichloroethane(sim)	2.169	2.187		-0.8	30
1,1,1-Trichloroethane(sim)	2.782	2.620		5.8	30
Benzene(sim)	3.221	2.768		14.1	30
Carbon Tetrachloride(sim)	2.304	2.246		2.5	30
1,1-Dichloroethene(sim)	1.907	1.672		12.3	30
Trichlorotrifluoroethane(sim)	2.213	2.061		6.9	30
Trans-1,2-Dichloroethene(sim)	1.801	1.695		5.9	30
1,1-Dichloroethane(sim)	2.211	2.100		5.0	30
Cis-1,2-Dichloroethene(sim)	1.877	1.832		2.4	30
Chloroform(sim)	2.635	2.594		1.6	30
1,2-dichloropropane(sim)	0.383	0.359		6.3	30
Bromodichloromethane(sim)	0.671	0.638		4.9	30
Trichloroethene(sim)	0.448	0.447		0.2	30
1,4-Dioxane(sim)	0.157	0.173		-10.2	30
cis-1,3-Dichloropropene(sim)	0.530	0.490		7.5	30
1,1,2-Trichloroethane(sim)	0.380	0.344		9.5	30
Dibromochloromethane(sim)	0.581	0.568		2.2	30
1,2-Dibromoethane(EDB)(sim)	0.607	0.592		2.5	30
Tetrachloroethene(sim)	0.761	0.718		5.7	30
Bromoform(sim)	0.992	0.885		10.8	30
m,p-Xylene(sim)	2.157	2.022		6.3	30
1,1,2,2-Tetrachloroethane(sim)	1.259	1.063		15.6	30
Benzyl chloride(sim)	0.857	0.563		34.3 #	30
1,3-Dichlorobenzene(sim)	1.547	1.208		21.9	30
1,4-Dichlorobenzene(sim) qfi	1.000	0.86		14.0	20
sec-Butylbenzene(sim)	3.871	3.743		3.3	30
4-Isopropyltoluene(sim)	3.266	3.108		4.8	30
1,2-Dichlorobenzene(sim)	1.366	1.070		21.7	30
n-Butylbenzene(sim)	2.847	2.709		4.8	30
1,2,4-Trichlorobenzene(sim)	1.159	1.272		-9.7	30
Hexachlorobutadiene(sim) qfi	1.000	1.07		-7.0	20
% Bromofluorobenzene	1.307	1.371		-4.9	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria
%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
(#) Maximum %D not met.

7A
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO83571

Instrument: CHEM20 Calibration Date: 08/28/23 Time: 09:27

Lab File Id: 0828_02.D Init. Calib. Date(s): 08/24/23 08/25/23

Heated Purge (Y/N): Y Init. Calib. Times: 18:36 00:28

GC Column: RTX-1 60M Method File: 20_AIR_0824.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Propylene	0.886	0.891		-0.6	30
Dichlorodifluoromethane	3.279	4.157		-26.8	30
Chloromethane	0.768	0.826		-7.6	30
1,2-Dichlorotetrafluoroethane	2.485	3.188		-28.3	30
Vinyl Chloride	0.863	1.020		-18.2	30
1,3-Butadiene	0.661	0.777		-17.5	30
Bromomethane	0.895	1.175		-31.3 #	30
Chloroethane	0.393	0.439		-11.7	30
Ethanol	0.221	0.293		-32.6 #	30
Acetone	1.748	2.143		-22.6	30
Trichlorofluoromethane	3.325	4.723		-42.0 #	30
Isopropylalcohol	1.875	2.185		-16.5	30
Acrylonitrile	0.748	0.714		4.5	30
1,1-Dichloroethene	1.968	2.389		-21.4	30
Methylene Chloride	1.319	1.374		-4.2	30
Carbon Disulfide	2.699	2.823		-4.6	30
Trichlorotrifluoroethane	2.260	2.669		-18.1	30
Trans-1,2-Dichloroethene	1.910	1.906		0.2	30
1,1-Dichloroethane	2.175	2.178		-0.1	30
Methyl tert-butyl ether(MTBE)	3.438	3.433		0.1	30
Methyl Ethyl Ketone	2.706	2.635		2.6	30
Cis-1,2-Dichloroethene	1.949	2.065		-6.0	30
Hexane	1.742	1.579		9.4	30
Chloroform	2.720	2.949		-8.4	30
Ethyl acetate	0.478	0.388		18.8	30
Tetrahydrofuran	1.338	1.250		6.6	30
1,2-Dichloroethane	2.368	2.762		-16.6	30
1,1,1-Trichloroethane	2.945	2.970		-0.8	30
Benzene	3.313	3.043		8.1	30
Carbon Tetrachloride	2.785	2.446		12.2	30
Cyclohexane	1.270	1.226		3.5	30
1,2-dichloropropane	0.337	0.293		13.1	30
Bromodichloromethane	0.689	0.669		2.9	30
Trichloroethene	0.363	0.380		-4.7	30
1,4-Dioxane	0.159	0.163		-2.5	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO83571

Instrument: CHEM20 Calibration Date: 08/28/23 Time: 09:27

Lab File Id: 0828_02.D Init. Calib. Date(s): 08/24/23 08/25/23

Heated Purge (Y/N): Y Init. Calib. Times: 18:36 00:28

GC Column: RTX-1 60M Method File: 20_AIR_0824.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Heptane	0.619	0.579		6.5	30
cis-1,3-Dichloropropene	0.495	0.440		11.1	30
4-Methyl-2-pentanone(MIBK)	0.791	0.806		-1.9	30
trans-1,3-Dichloropropene	0.479	0.422		11.9	30
1,1,2-Trichloroethane	0.352	0.328		6.8	30
Toluene	1.075	1.016		5.5	30
Dibromochloromethane	0.611	0.500		18.2	30
2-Hexanone(MBK)	0.748	0.722		3.5	30
1,2-Dibromoethane(EDB)	0.593	0.535		9.8	30
Tetrachloroethene	0.565	0.575		-1.8	30
1,1,1,2-Tetrachloroethane	0.709	0.628		11.4	30
Chlorobenzene	1.343	1.350		-0.5	30
Ethylbenzene	2.490	2.395		3.8	30
m,p-Xylene	1.894	1.578		16.7	30
Bromoform	0.994	0.788		20.7	30
Styrene	1.292	1.249		3.3	30
1,1,2,2-Tetrachloroethane	1.076	0.875		18.7	30
o-Xylene	1.994	2.020		-1.3	30
Isopropylbenzene	2.630	2.822		-7.3	30
4-Ethyltoluene	2.469	2.552		-3.4	30
1,3,5-Trimethylbenzene	2.077	1.665		19.8	30
1,2,4-Trimethylbenzene	1.971	1.781		9.6	30
Benzyl chloride qfi	1.000	0.52		48.0 #	20
1,3-Dichlorobenzene	1.252	0.987		21.2	30
1,4-Dichlorobenzene	1.158	1.046		9.7	30
sec-Butylbenzene	3.182	3.321		-4.4	30
4-Isopropyltoluene	2.919	3.087		-5.8	30
1,2-Dichlorobenzene	1.104	0.953		13.7	30
n-Butylbenzene	2.666	2.723		-2.1	30
1,2,4-Trichlorobenzene	0.857	1.144		-33.5 #	30
Hexachlorobutadiene	1.119	1.629		-45.6 #	30
1,2-Dichlorotetrafluoroethane(sim)	2.326	2.716		-16.8	30
Vinyl Chloride(sim)	0.876	0.937		-7.0	30
Bromomethane(sim)	0.839	1.001		-19.3	30
Trichlorofluoromethane(sim)	3.180	4.272		-34.3 #	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: AMC-ENG

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO83571

Instrument: CHEM20 Calibration Date: 08/28/23 Time: 09:27

Lab File Id: 0828_02.D Init. Calib. Date(s): 08/24/23 08/25/23

Heated Purge (Y/N): Y Init. Calib. Times: 18:36 00:28

GC Column: RTX-1 60M Method File: 20_AIR_0824.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
1,2-Dichloroethane(sim)	2.169	2.363		-8.9	30
1,1,1-Trichloroethane(sim)	2.782	2.779		0.1	30
Benzene(sim)	3.221	2.592		19.5	30
Carbon Tetrachloride(sim)	2.304	2.351		-2.0	30
1,1-Dichloroethene(sim)	1.907	2.035		-6.7	30
Trichlorotrifluoroethane(sim)	2.213	2.402		-8.5	30
Trans-1,2-Dichloroethene(sim)	1.801	1.624		9.8	30
1,1-Dichloroethane(sim)	2.211	1.971		10.9	30
Cis-1,2-Dichloroethene(sim)	1.877	1.759		6.3	30
Chloroform(sim)	2.635	2.633		0.1	30
1,2-dichloropropane(sim)	0.383	0.317		17.2	30
Bromodichloromethane(sim)	0.671	0.669		0.3	30
Trichloroethene(sim)	0.448	0.433		3.3	30
1,4-Dioxane(sim)	0.157	0.163		-3.8	30
cis-1,3-Dichloropropene(sim)	0.530	0.483		8.9	30
1,1,2-Trichloroethane(sim)	0.380	0.328		13.7	30
Dibromochloromethane(sim)	0.581	0.562		3.3	30
1,2-Dibromoethane(EDB)(sim)	0.607	0.535		11.9	30
Tetrachloroethene(sim)	0.761	0.726		4.6	30
Bromoform(sim)	0.992	0.922		7.1	30
m,p-Xylene(sim)	2.157	1.996		7.5	30
1,1,2,2-Tetrachloroethane(sim)	1.259	0.942		25.2	30
Benzyl chloride(sim)	0.857	0.755		11.9	30
1,3-Dichlorobenzene(sim)	1.547	1.198		22.6	30
1,4-Dichlorobenzene(sim) qfi	1.000	0.85		15.0	20
sec-Butylbenzene(sim)	3.871	3.684		4.8	30
4-Isopropyltoluene(sim)	3.266	3.085		5.5	30
1,2-Dichlorobenzene(sim)	1.366	1.081		20.9	30
n-Butylbenzene(sim)	2.847	2.723		4.4	30
1,2,4-Trichlorobenzene(sim)	1.159	1.362		-17.5	30
Hexachlorobutadiene(sim) qfi	1.000	1.14		-14.0	20
% Bromofluorobenzene	1.307	1.423		-8.9	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria
%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
(#) Maximum %D not met.

Alpha Geoscience: Acronyms and Definitions

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlorophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.