Appendix 3.15-3

Limited Asbestos Inspection Report and PFAS Sampling for Dewatering

AIRTEK ENVIRONMENTAL CORP.

39 – 37 29th Street, Long Island City, New York, 11101
Phone (718) 937-3720 Fax (718) 937-3721
www.airtekenv.com

LIMITED ASBESTOS INSPECTION REPORT

Conducted At:

Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike
Uniondale, NY 11553

Prepared For:

Las Vegas Sands Corp.
5420 S. Durango Dr.
Las Vegas, NV 89113

Prepared by:

Airtek Environmental Corp.
39-37 29th Street
Long Island City, NY 11101

Airtek Project No: 23-0428

February 16th, 2024

TABLE OF CONTENTS

APPENDICES

1.0 BACKGROUND

Airtek Environmental Corp. has conducted a limited asbestos inspection for the presence of Asbestos-Containing Materials (ACM) with the potential to be disturbed by planned renovations to the following site:

Site: Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike, Uniondale, NY 11553

Area Inspected: All reasonably accessible areas.

Scope of Work: Planned structural, mechanical and architectural

The New York State Department of Labor-certified ACM Inspectors responsible for this project were:

Jeffrey Cohen	NYS DOL Asbestos Inspector	# 20-00448	EXP. 05/2024
Keith Dalbon	NYS DOL Asbestos Inspector	# 16-14838	EXP. 06/2024

Site Visit(s): 10/04/23, 12/20/23, 01/17/24 and 01/24/24

Report Date: 02/16/24

Field Procedures and Analysis Methodology:

Guidelines used for the inspection were established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos Containing Materials in Buildings, Office of Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763.

Field information was organized as per the concept of homogenous material. A homogenous material is defined as a suspect material of similar age, appearance, function and texture. Each material was grouped together as a specific homogenous material, sampled and then assessed for condition.

Bulk samples of suspect ACM were analyzed by Polarized Light Microscopy (PLM) with dispersion staining, as described in 40 CFR Part 763 and the National Emissions Standard for Hazardous Air Pollutants (NESHAPS).

The New York State Department of Health has recently revised the PLM Stratified Point Counting Method. The new method, “Polarized Light Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples” can be found as item 198.1 in the Environmental Laboratory Approval Program (ELAP) Certification manual.

The State of New York ELAP has determined that analysis of Non-friable, Organically Bound Materials (NOB) are not reliably performed by PLM. Therefore, if PLM analysis of a NOB yields a negative result, it must be further confirmed by Transmission Electron Microscopy (TEM).

All samples were initially analyzed by PLM. Samples which produced a negative PLM result and which are classified as a NOB were then re-analyzed utilizing the TEM methodology.

This report contains data which was produced by Airtek’s Laboratory (39-37 29th Street, LIC, NY 11101) accredited by ELAP #11040 & NVLAP #102011-0 for bulk asbestos fiber analysis.

2.0 SCOPE OF WORK

A historical ACM documentation review along with a physical/visual inspection of accessible areas for ACM, bulk sampling of suspect ACM materials, and quantification of suspect and confirmed ACM materials was conducted at:

Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike,
Uniondale, NY 11553

The inspection was characterized by a close visual inspection of all accessible areas for suspect ACM with the potential to be disturbed by the proposed scope of work provided by the Client. Suspect materials were sampled and inventoried for location and quantity.

3.0 INSPECTION RESULTS

Asbestos-containing building materials and assumed asbestos-containing building materials were identified by both the historical documentation review and the current physical inspection of the site. Many of the identified ACM and suspect-ACM materials have the potential to be disturbed by the planned renovations.

Historical Documentation:

Historical documentation is too voluminous to include in this report in its entirety. A link to an electronic file repository has been included in Appendix A to this report.

Current Sample Data:

Laboratory analytical results and chains-of-custody for bulk samples collected for ACM analysis during the current (2023/2024) inspection are included in Appendix B to this report.

ACM Inventory:

The findings of the historical documentation review and the current sampling and analysis effort have been synopsized and tabulated in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Asbestos-containing materials were identified at the property. If these materials are to be disturbed by the planned scope of work asbestos abatement is required prior to demolition or renovation.

If any suspect-ACM material that was not previously tested is encountered during the renovation/demolition, and if the material is subject to disturbance by the renovation/demolition work, the suspect material should be assumed to be ACM until confirmed by laboratory analysis to be non-ACM.

5.0 AREAS NOT INSPECTED

Airtek inspected and sampled materials that were observable and accessible to the survey team. If materials were not accessible and not sampled, they are assumed ACM unless tested to confirm that they are ACM or non-ACM by laboratory analysis.

6.0 REPORT CERTIFICATIONS

Airtek certifies that the information contained herein is based on the physical and visual inspections conducted by Airtek and data collected during the inspection and the historical documentation review.

Sincerely yours,
Airtek Environmental Corp.

Jeffrey Cohen
Project Manager
NYS DOL Asbestos Inspector

APPENDIX A:

ACM Inventory

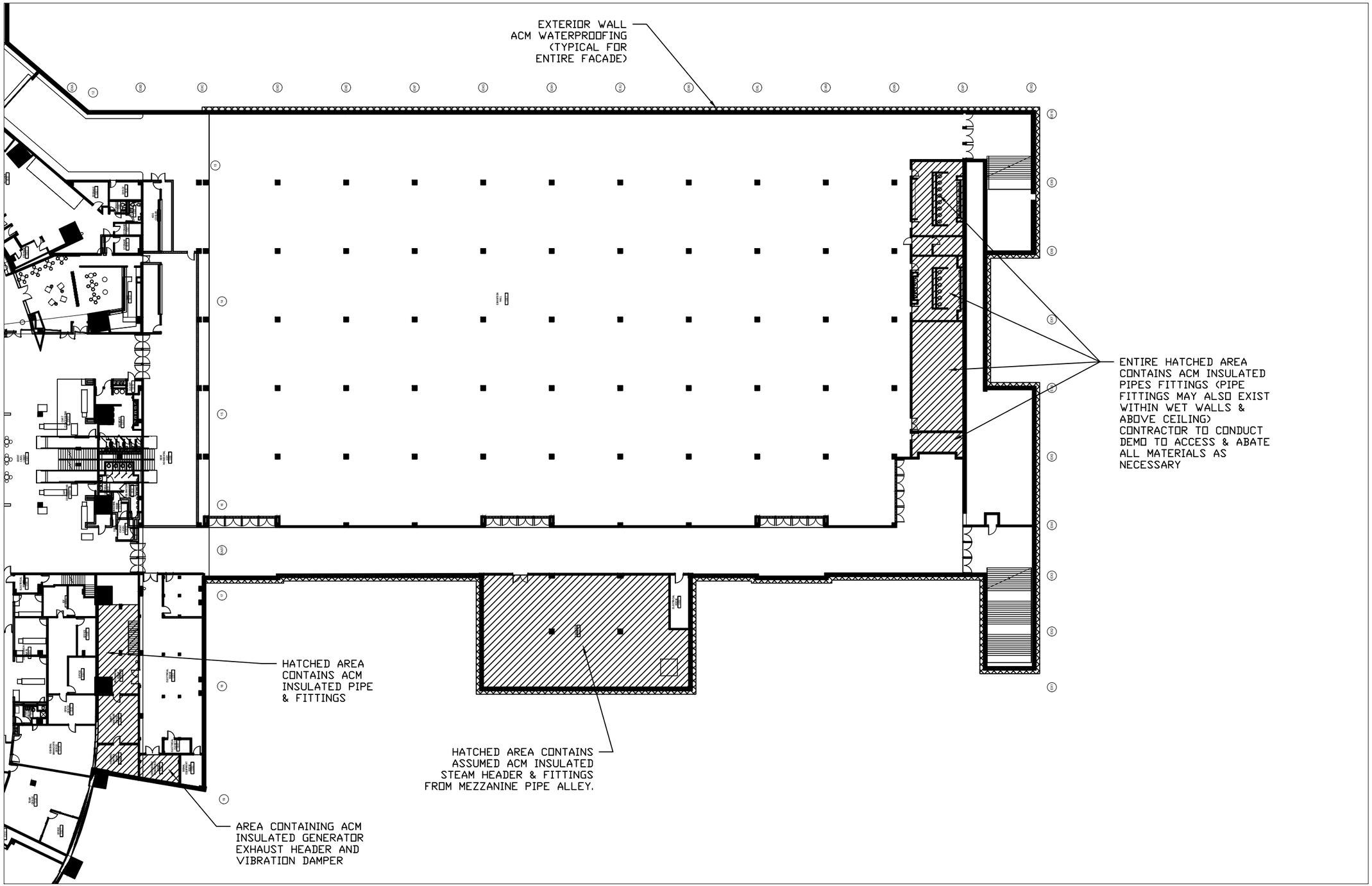
NVMC ACM Inspection Results/ACM Inventory - February 16, 2024

ACM
Non-ACM
Pending
Inaccessible - Suspect ACM
Probe Package 5 - Pending

Level	Location	Material	Status	Quantity	Drawing
Exhibition Hall Service Area	**Wet Walls/Above Ceilings**	**Pipe Insulation**	**ACM**	**<260lf**	**H101**
Exhibition Hall	Under Floor Slab	Waterproofing	Non-Suspect Plastic		
Exhibition Hall	**Exterior Walls**	**Waterproofing**	**ACM**	**28,000sf**	**H101**
Exhibition Hall	**Above Ceiling Slab**	**Waterproofing**	**Inaccessible - Suspect ACM**		**H101**
Loading Dock	**Guard Office**	**VAT & Mastic**	**ACM**	**125sf**	**H102**
Loading Dock	**Guard Office**	**Ceiling Tile & Glue Dots**	**ACM**	**125sf**	**H102**
Loading Dock	Under Floor Slab	Waterproofing	Non-Suspect Plastic		
Event Level	**Exterior Walls**	**Waterproofing**	**ACM**	**24,000sf**	**H103**
Event Level	**AC-1 & AC-2 Mechanical**	**Pipe Insulation**	**ACM**	**<260lf**	**H103**
Event Level	**Emergency Generator Room**	**Exhaust Pipe Insulation**	**ACM**	**16lf**	**H103**
Event Level	**Emergency Generator Room**	**Vibration Damper Cloth**	**ACM**	**4sf**	**H103**
Event Level	**Mechanical Rooms by Ex Hall**	**Domestic Water Pipe**	**ACM**	**<260lf**	**H103**
Event Level	**Main Switch Gear Room**	**Electrical Panels**	**Inaccessible - In Service**		**H107**
Event Level	**Old General Manager Office**	**VAT & Mastic**	**ACM**	**1,600sf**	**H103**
Event Level	**Air Handlers**	**Door Sealant**	**ACM**	**600lf**	**H103**
Event Level	**Rooms E307, E510, E539**	**VAT & Mastic**	**ACM**	**1500sf**	**H103**
Event Level	**Room E123**	**Mastic Remnants**	**ACM**	**500sf**	**H103**
Event Level	Under Floor Slab	Waterproofing	Non-Suspect		
Event Level	Under Floor Slab	Glycol System	Non-Suspect		
Event Level	**Lobby Terrazzo**	**Flooring Materials**	**Non-ACM per Langan**		**H103**
Event Level	**Gym Room**	**Mirror Glue**	**Inaccessible - In Service**		**H103**
Event Level	**Lobby Under Escalator**	**Floor Mastic**	**Locate and Quantify**	**TBD**	**H103**
Event Level	**Kitchens**	**Freezer Insulation**	**Inaccessible - In Service**		**H103**
East Mezzanine - Old Box Office	**Corridor & Offices**	**VAT & Mastic**	**ACM**	**1,100sf**	**H104**
East Mezzanine - Old Box Office	**Above Ceiling/Wet Walls**	**Pipe Joints**	**ACM**	**<25lf**	**H104**
East Mezzanine - Old Box Office	**Stair to Mezzanine**	**Grey Flooring & Mastic**	**ACM**	**80sf**	**H104**
Commissary Mezzanine NW	**Corridor & Offices**	**VAT & Mastic**	**ACM**	**1,600sf**	**H105**
Commissary Mezzanine NW	**Above Ceiling/Wet Walls**	**Pipe/Joints**	**ACM**	**<25lf**	**H105**
Pipe Alley	**Along Ex Hall South Side**	**Old Steam Supply**	**ACM**	**900lf**	**H106**
Concourse Level	Electrical Switch Gear Rooms	Electrical Panels	Non-Suspect		
Event Level	**Lobby Terrazzo**	**Flooring Materials**	**Non-ACM per Langan**		**H103**
300 Level Ceiling	**Outside Face of Steel/Gap Spaces**	**Spray-on Fireproofing**	**ACM**	**3,300sf**	**H108**
300 Level Ceiling	**In Ceiling Plenum**	**Spray-on Fireproofing**	**ACM**	**28,000sf**	**H108**
South Side Suites	**Suites Corridor Ceiling**	**Spray-on Fireproofing**	**ACM**	**3,300sf**	**H108**
Truss Level	**Air Handlers**	**Vibration Damper Cloth**	**Inaccessible - In Service**		**H109**
Truss Level	**Air Handlers**	**Door Frame Sealant**	**ACM**	**1,200lf**	**H109**
Truss Level	**Master Sound Room**	**VAT & Mastiic**	**ACM**	**850sf**	**H109**
Truss Level	**Electric Rm by Master Sound Rm**	**Transite Debris**	**ACM**	**1 CY**	**H109**
Truss Level	Electrical Switch Gear Rooms	Electrical Panels	Non-Suspect - New		
Truss Level	**Space Between Mechanical Rms**	**Spray-on Fireproofing**	**ACM**	**1,600sf**	**H109**
Truss Level	**Exterior Perimeter**	**Transite Baffles**	**Inaccessible - Structure**		**H109**
Old Suites	**Mirrors**	**Mirror Mastic**	**Inaccessible - In Service**		**H109**
Roof Level	**Roof Edge**	**Gutter-Backing Membrane**	**ACM**	**16,000sf**	**H110**
Roof Level	**Roof Field**	**Roof Membrane**	**ACM**	**90,000sf**	**H110**
Roof Level	**Roof Edge**	**Roof Flashing**	**ACM**	**Included in 90K**	**H110**
Roof Level	**Roof Field**	**Penetration Flashing**	**ACM**	**Included in 90K**	**H110**
Throughout	**Elevator Doors**	**Door Insulation**	**Inaccessible - In Service**		**Throughout**
Throughout	**Elevator Machine Rooms**	**Brake Pads**	**Inaccessible - In Service**		**Throughout**
Exterior (Below Grade)	**Chilled Water System**	**Pipe Insulation**	**Probe Package 5**		**H111**
Exterior (Below Grade)	**Domestic Water System**	**Pipe Insulation**	**Probe Package 5**		**H111**
Exterior (Below Grade)	**Dry Wells**	**Traniste Piping**	**Probe Package 5**		**H111**

APPENDIX B:

ACM Location Drawings



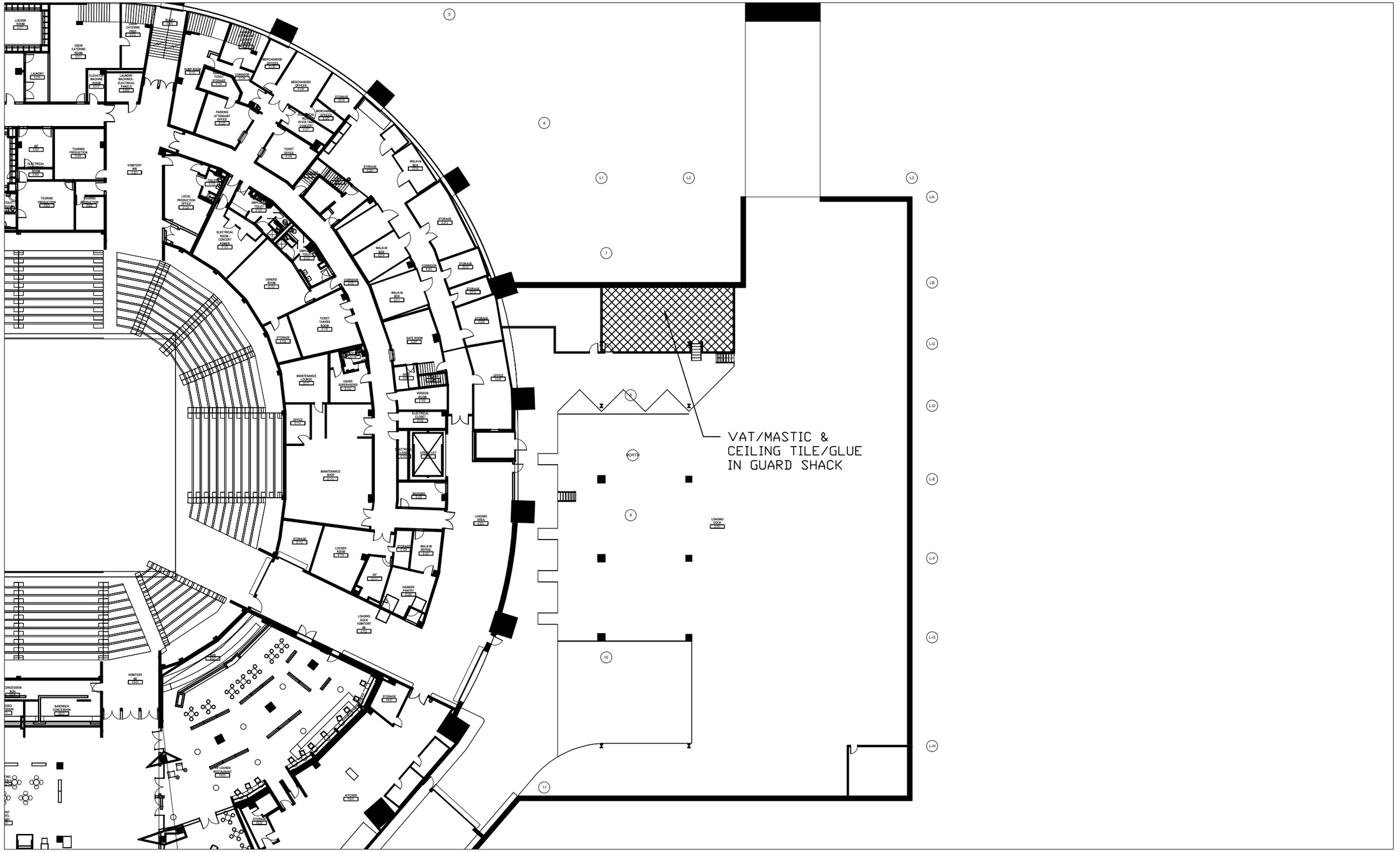
AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: NASSAU VETERANS MEMORIAL COLISEUM

Drawing Title: EVENT LEVEL
EXPOSITION HALL
ACM PLAN

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. H101



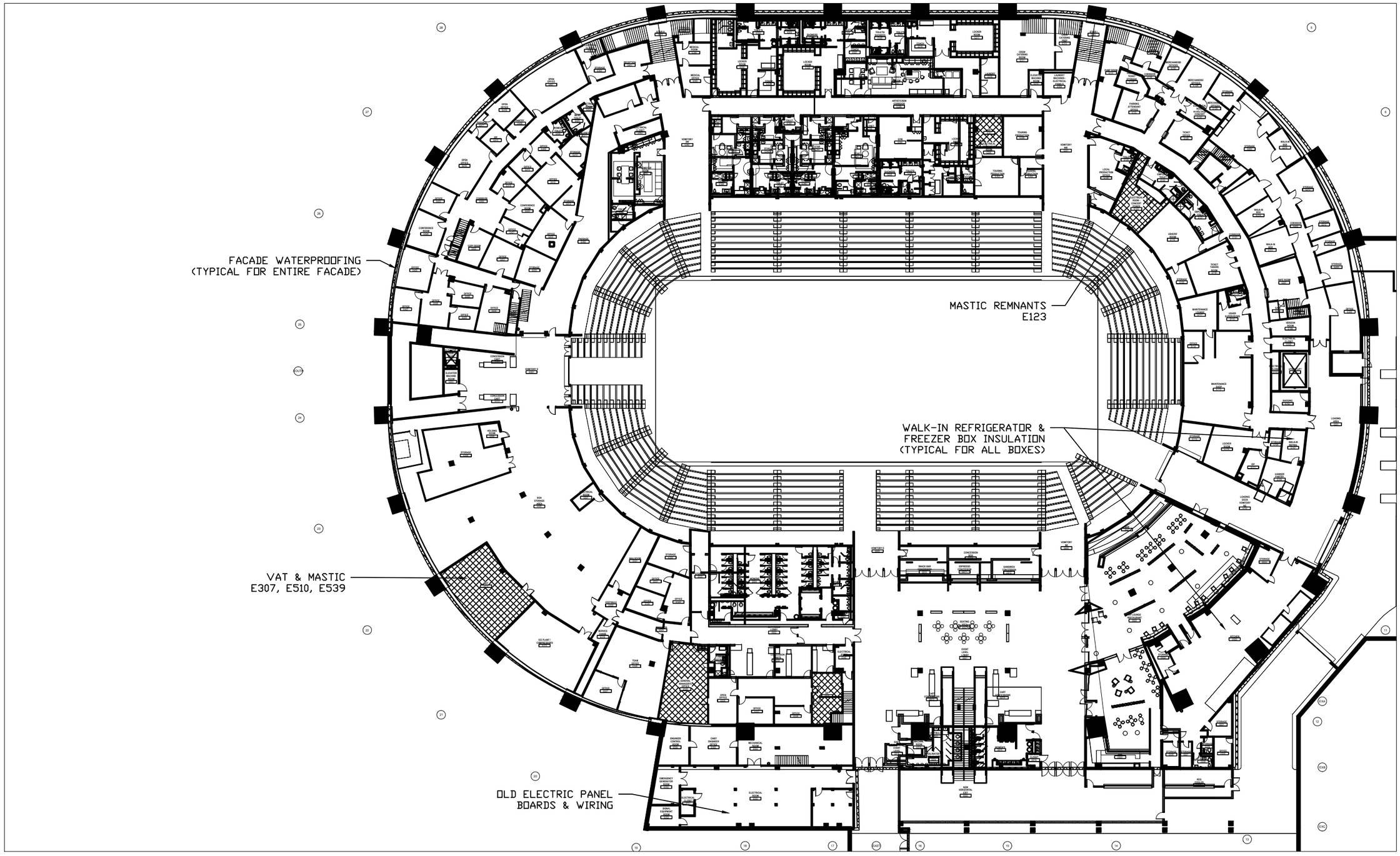
AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: NASSAU VETERANS MEMORIAL COLISEUM

Drawing Title: LOADING DOCK **LEVEL**
ACM PLAN

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. H102



AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

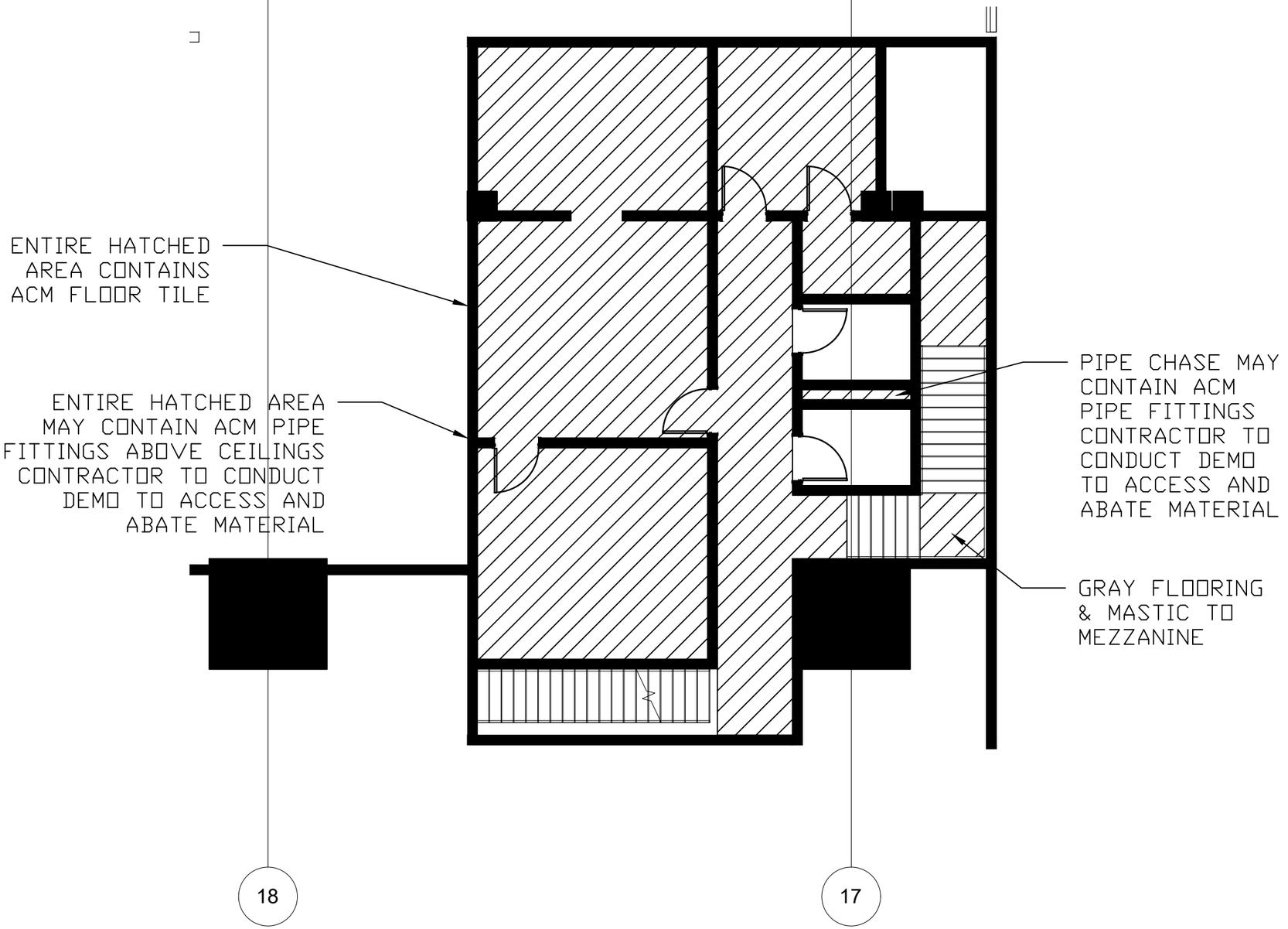
Project: **NASSAU VETERANS MEMORIAL COLISEUM**

Drawing Title:

EVENT **LEVEL**
ACM INSPECTION PLAN

Date:	09/28/2023
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No.
H103



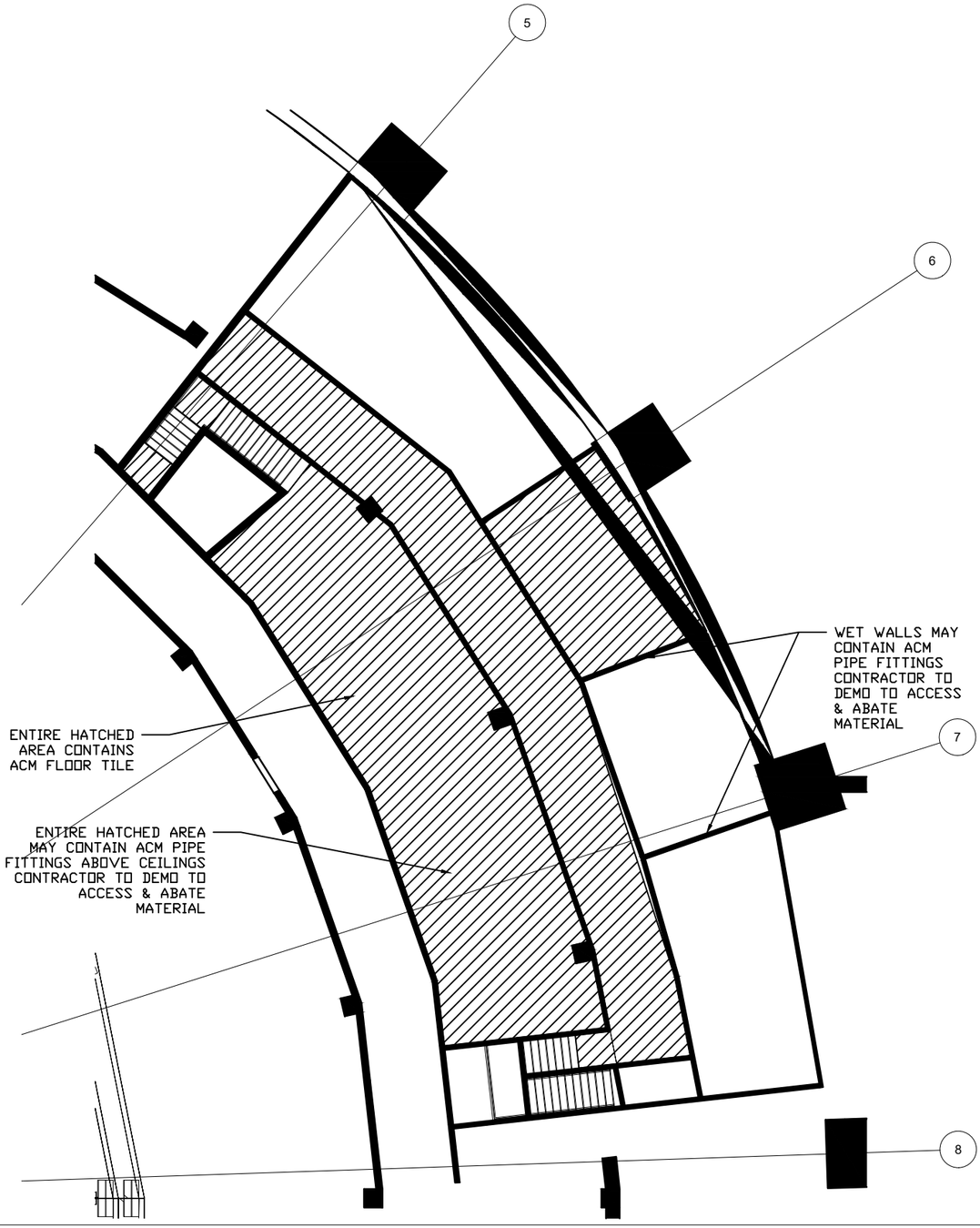
AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: NASSAU VETERANS MEMORIAL COLISEUM

Drawing Title: OLD BOX OFFICE MEZZANINE EAST ACM PLAN

Date:	01/24/2025
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. H104



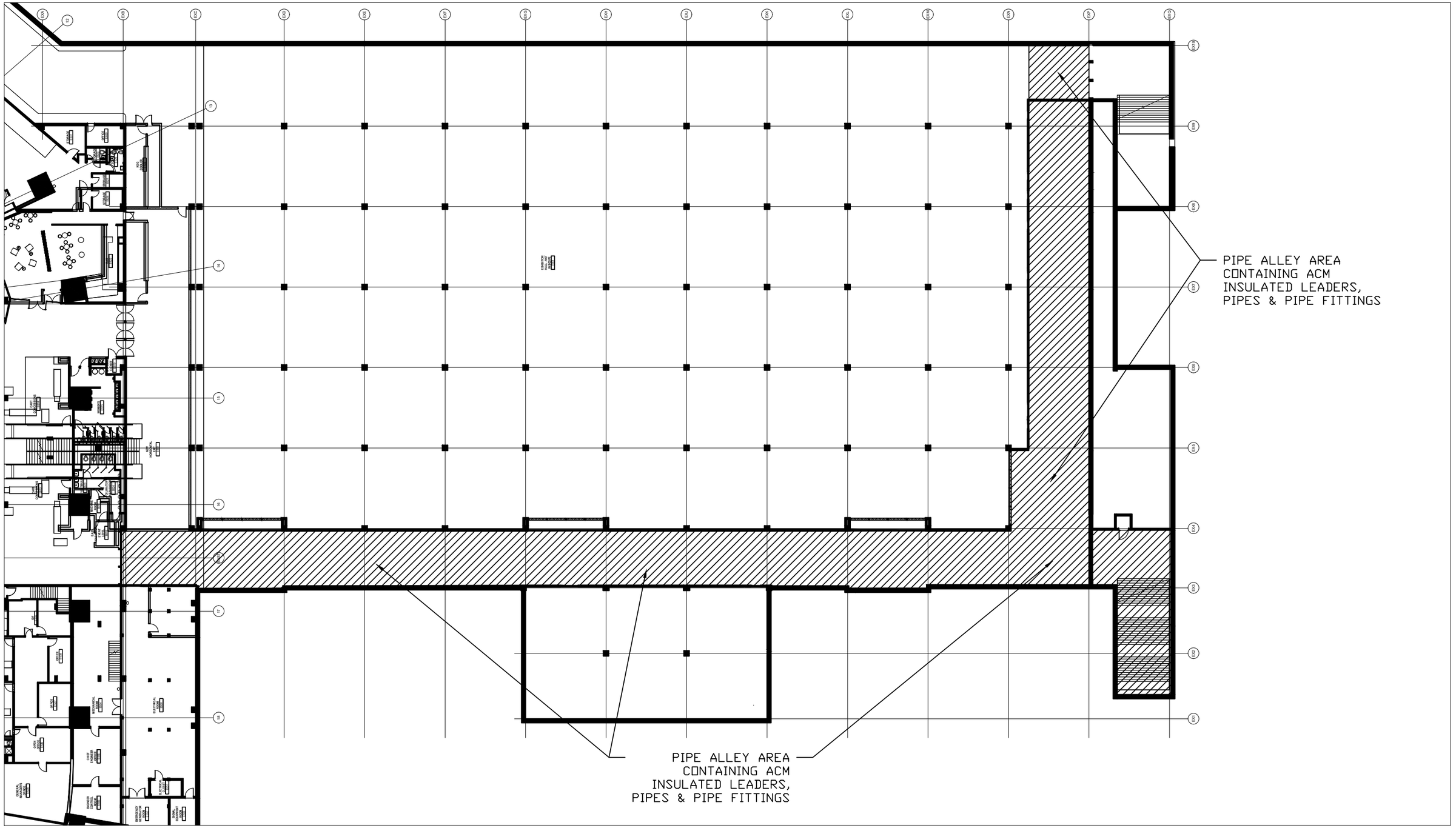
AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: **NASSAU VETERANS MEMORIAL COLISEUM**

Drawing Title: COMMISSARY **MEZZANINE NW**
ACM PLAN

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. **H105**



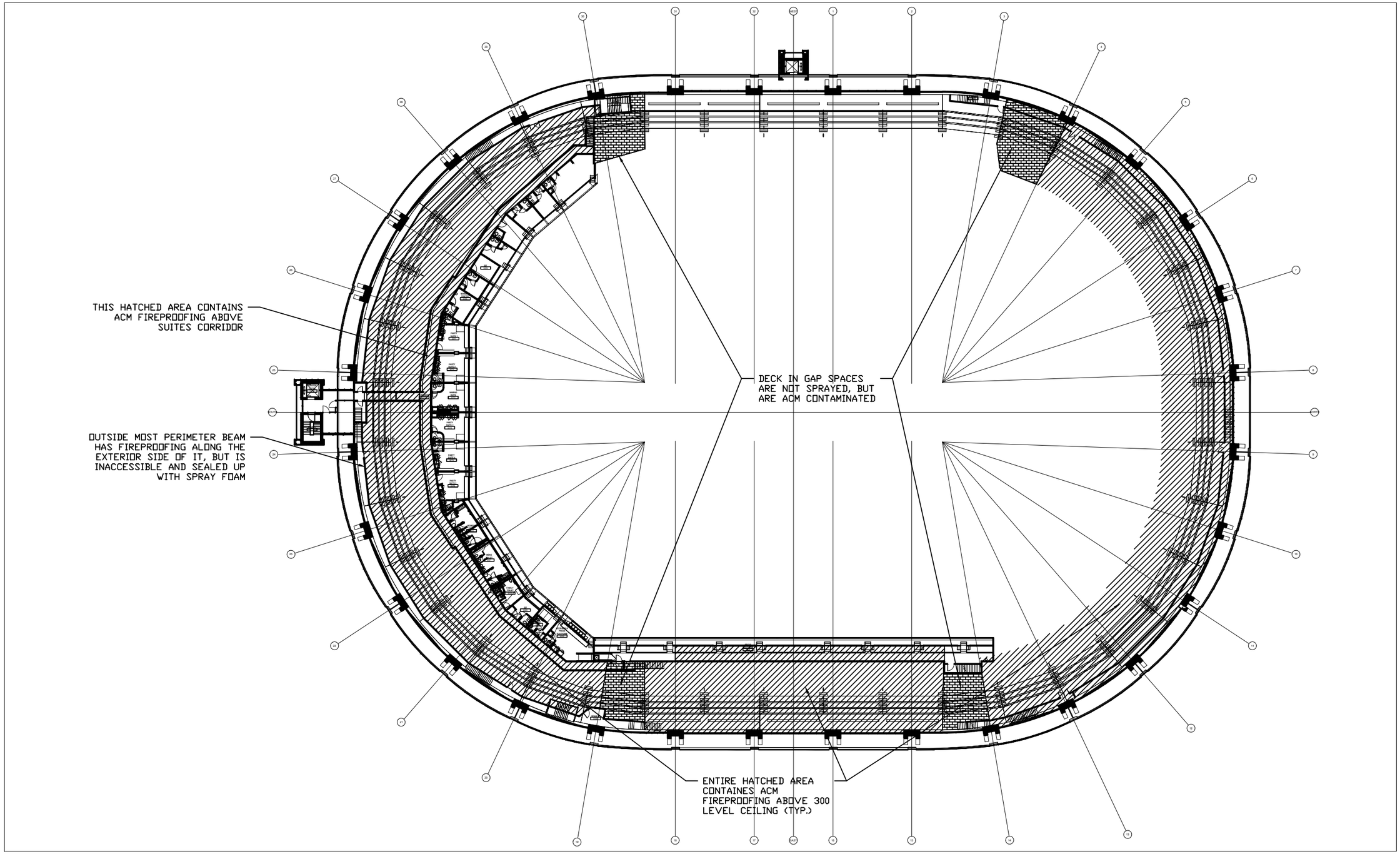
AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: NASSAUVETERANS MEMORIAL COLISEUM

Drawing Title: EVENT LEVEL MEZZANINE
PIPE ALLEY
ACM PLAN

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. H106



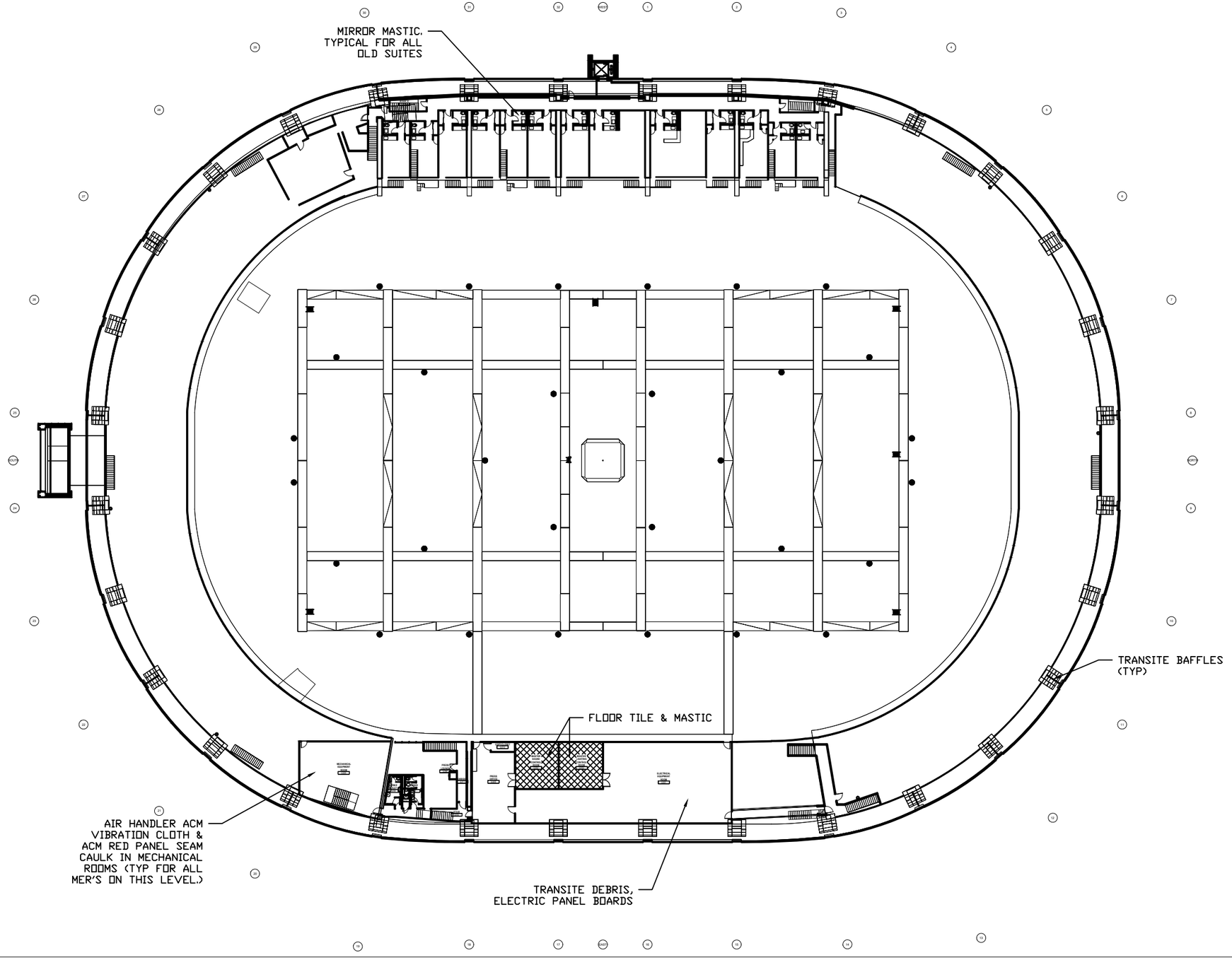
AIRTEK ENVIRONMENTAL, LLC
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720

Project: NASSAU VETERANS MEMORIAL COLISEUM

Drawing Title: SUITES & PRESS LEVEL ACM PLAN

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. H108



AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: **NASSAU VETERANS MEMORIAL COLISEUM**

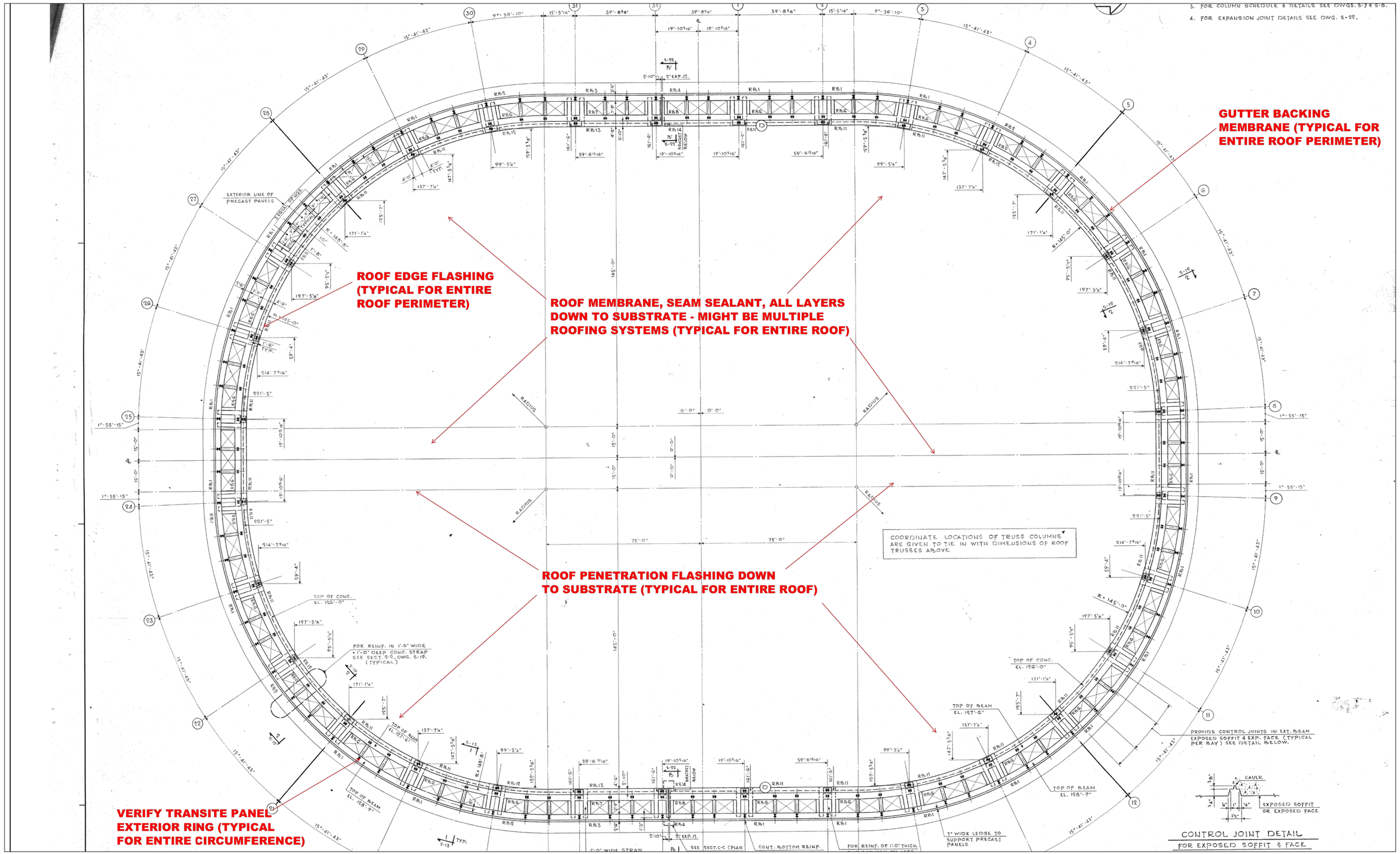
Drawing Title: TRUSS, **SUITES & MECHANICAL LEVEL ACM PLAN**

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. **H109**

3. FOR COLUMN SCHEDULE & DETAILS SEE DWGS. S-7 & S-8.

4. FOR EXPANSION JOINT DETAILS SEE DWG. S-9B.



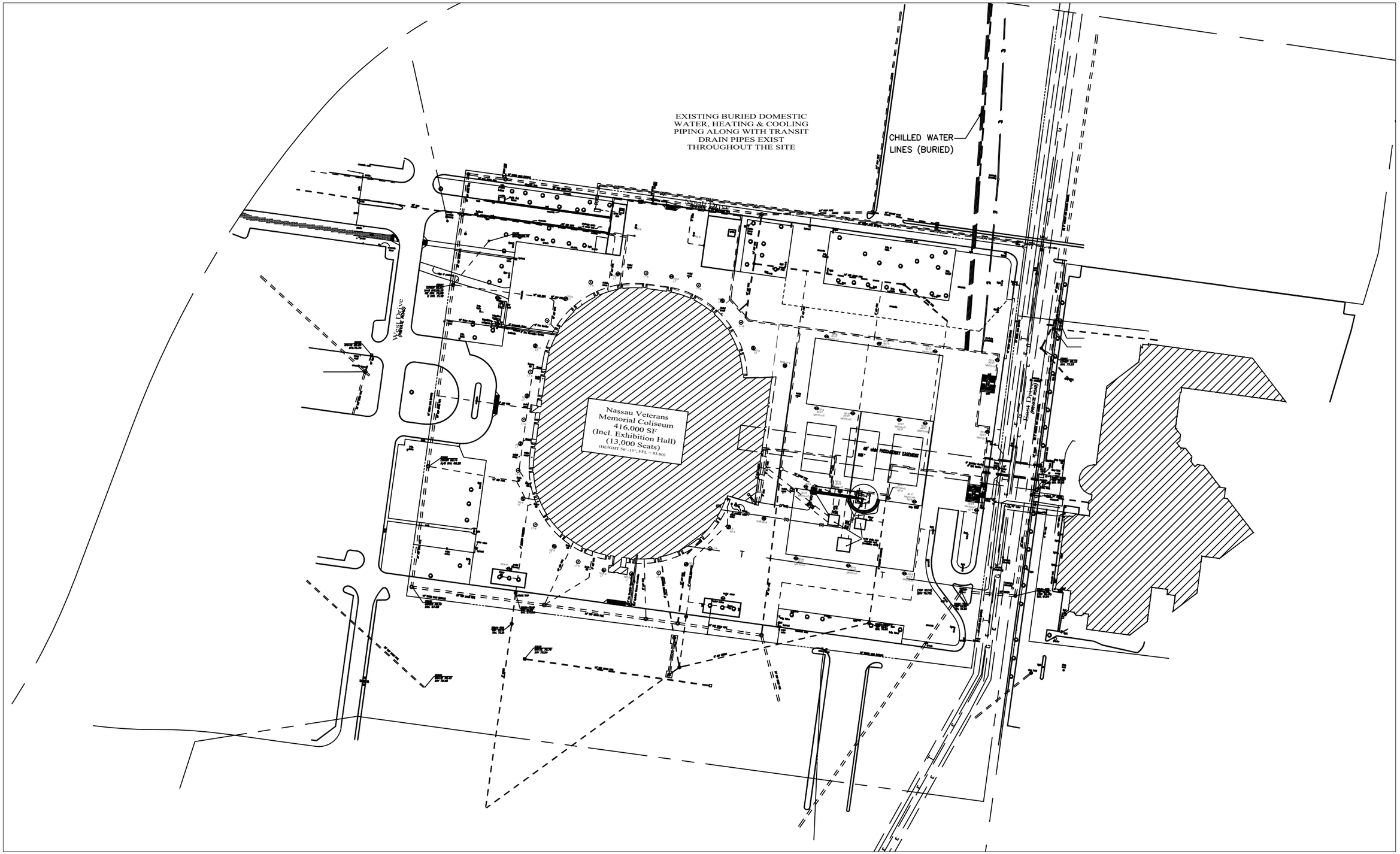
AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: NASSAU VETERANS MEMORIAL COLISEUM

Drawing Title: ROOF LEVEL ACM PLAN

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. H110



AIRTEK ENVIRONMENTAL CORP.
39-37 29th STREET
LONG ISLAND CITY, NY 11101
TEL: 718.937.3720
FAX: 718.937-3721

Project: **NASSAU VETERANS MEMORIAL COLISEUM**

Drawing Title: SITE UTILITY ACM PLAN

Date:	01/24/2024
Drawn by:	M. PORTER
Checked by:	B. LEWIS
Manager:	B. LEWIS

Drawing No. **H111**

APPENDIX C:

Photo Log

Drawing H-110	NVMC Roof	Date: 12-2023

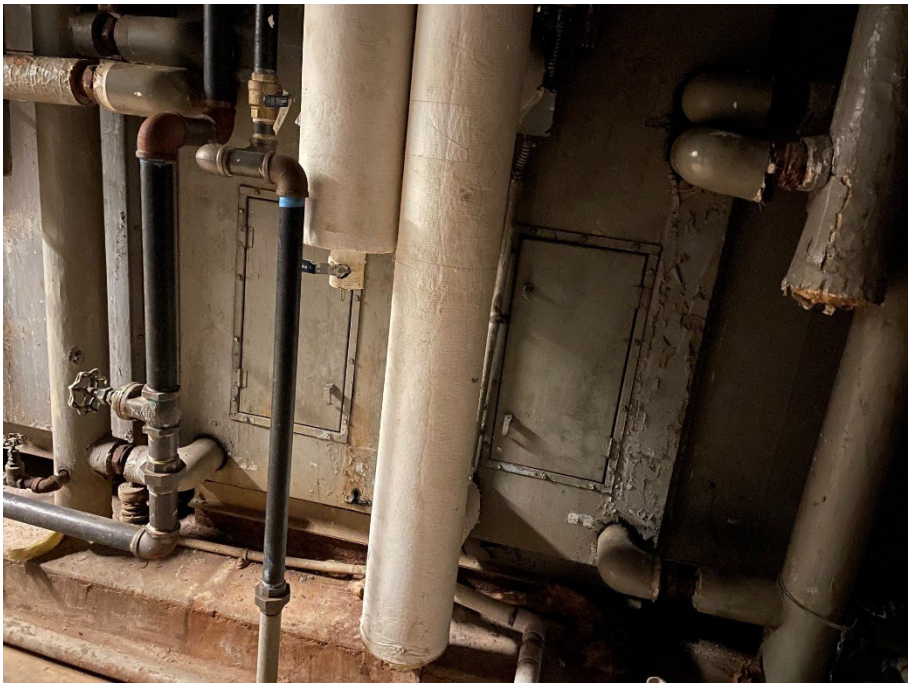
Drawing H-110	NVM Roof Gutter	Date: 12-2023

Drawing H-110	NVM Roof Multiple ACM Membranes	Date: 12-2023

Drawing H-110	NVM Roof with ACM tar-impregnated wood strips	Date: 12-2023

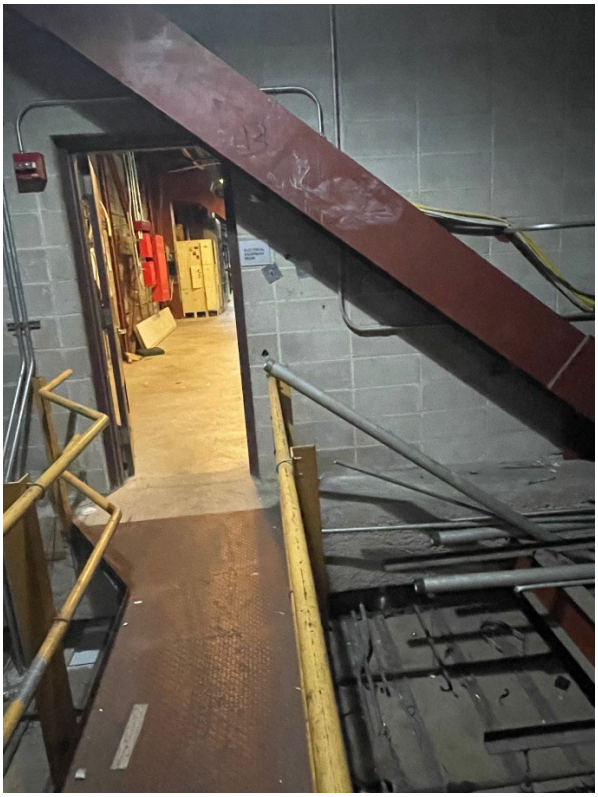
Drawing H-110	NVM Roof Gutter Side and Base ACM Tar and Membranes	Date: 12-2023

Drawing H-109	ACM Electrical panels in Electric Room S301 at Truss Level	Date: 02-2024



Drawing H-109	Truss Level AC Units – Door Frame and Panel Sealant	02-2024

Drawing H-108	ACM Spray-on Truss Level Beams Between Mechanical Rooms	Date: 02-2024



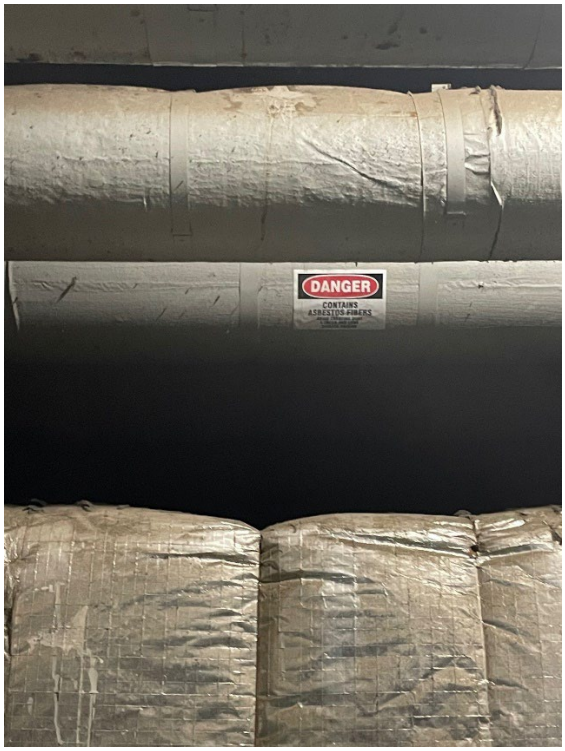
Drawing H-108	ACM Spray-on Truss Level Beams Between Mechanical Rooms	Date: 02-2024

Drawing H-108	300-Level Drop Ceiling	Date: 02-2024

Drawing H-108	300-Level Drop Ceiling	Date: 02-2024

Drawing H-108	300-Level Drop Ceiling	Date: 02-2024

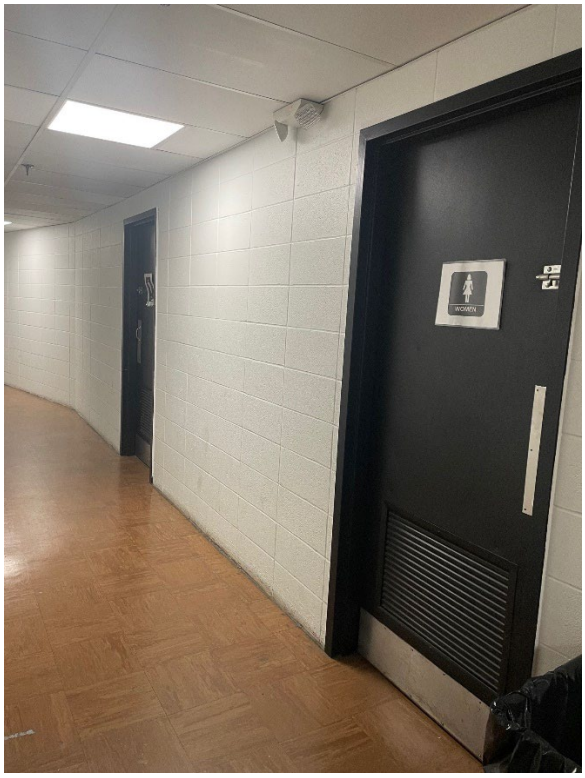
Drawing H-106	AC Unit Door ACM Frame & Panel Sealant	Date: 01-2024



Drawing H-106	Pipe Alley Old Steam Lines ACM	Date: 02-2024

Drawing H-106	Pipe Alley Old Steam Lines ACM	Date: 02-2024

Drawing H-106	Pipe Alley Old ACM Steam Lines Turn into AC-1 and AC-2	Date: 02-2024



Drawing H-105	Commissary Mezzanine ACM Wet Walls	Date 02-2024

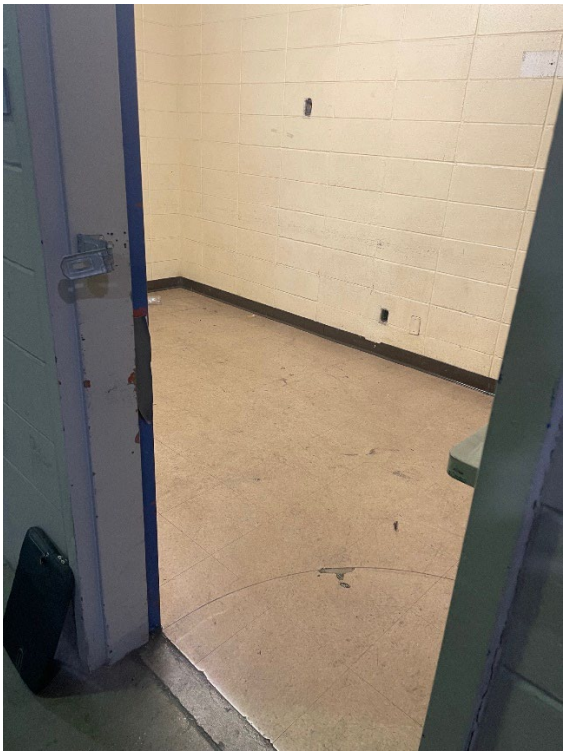
Drawing H-105	Commissary Mezzanine VAT and Mastic	Date: 02-2024

Drawing H-101	Mech Room by Engineering Office ACM Pipe and Fittings	Date: 02-2024

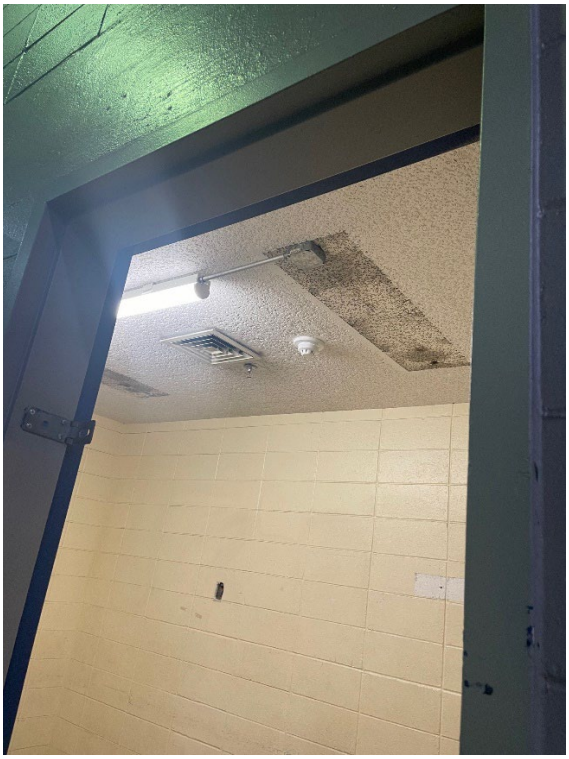
Drawing H-103	Main Switch Gear Room Assumed ACM Panels	Date: 02-2024

Drawing H-102	Loading Dock Guard Shack Exterior	Date: 02-2024

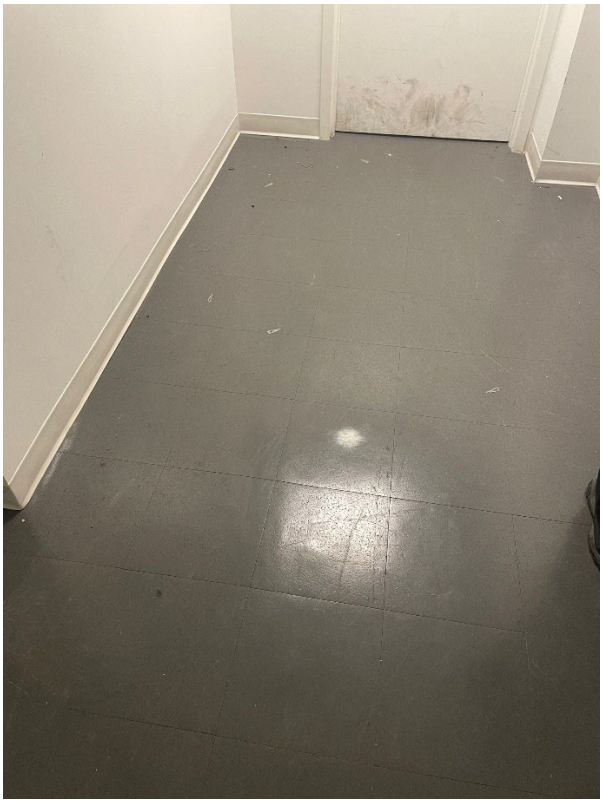
Drawing H-102	Loading Dock Guard Shack VAT and Ceiling Tile	Date:02-2024



Drawing H-101	VAT Mastic Room E630	Date: 02-2024



Drawing H-101	Room E630 Ceiling	Date: 02-2024



Drawing H-101	Oil Water Separator Area VAT	Date: 02-2024

Drawing H-101	Ex Hall Restrooms and Concession Area Pipe and Fittings	Date: 02-2024

Drawing H-101	Ex Hall Restrooms and Concession Area Pipe and Fittings	Date: 02-2024

Drawing H-101	Ex Hall Restrooms and Concession Area Pipe and Fittings	Date: 02-2024

APPENDIX D:

Current Certificates of Analysis
And Sample Chains of Custody

39-37 29th Street, Long Island City, NY 11101
Phone: (718) 937-3720
www.airtekenv.com

Test Report: Asbestos Analysis of Bulk Material

Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	10/4/2023
Project Address:	Nassau Veterans Memorial Coliseum 1255 Hempstead Turnpike, Uniondale, NY 11553			Date Received :	10/6/2023
				Date Analyzed :	10/9/2023

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
1	23-969	198.6 198.4	Fiberglass Pipe Canvas Wrap with Yellow Mastic - Event Level, Mezz, Pipe Tunnel	NOB Heterogeneous Silver/Tan/Non-Fibrous		Residue 27.3%	**NAD/Inconclusive** Total Asbestos	**None Detected** Total Asbestos
2	23-969	198.6 198.4	Fiberglass Pipe Canvas Wrap with Yellow Mastic - Event Level, Mezz, Pipe Tunnel	NOB Heterogeneous Silver/Tan/Non-Fibrous		Residue 17.5%	**NAD/Inconclusive** Total Asbestos	**None Detected** Total Asbestos
3	23-969	198.6 198.4	Fiberglass Pipe Canvas Wrap with Yellow Mastic - Event Level, Mezz, Pipe Tunnel	NOB Heterogeneous Silver/Tan/Non-Fibrous		Residue 21.1%	**NAD/Inconclusive** Total Asbestos	**None Detected** Total Asbestos
4	23-969	198.6 198.4	Fiberglass Pipe Canvas Wrap with Black Tar/Mastic - Event Level, Mezz, Pipe Tunnel	NOB Heterogeneous Silver/Tan/Non-Fibrous		Residue 27.9%	**NAD/Inconclusive** Total Asbestos	**None Detected** Total Asbestos
5	23-969	198.6 198.4	Fiberglass Pipe Canvas Wrap with Black Tar/Mastic - Event Level, Mezz, Pipe Tunnel	NOB Heterogeneous Silver/Tan/Non-Fibrous		Residue 15.1%	**NAD/Inconclusive** Total Asbestos	**None Detected** Total Asbestos
6	23-969	198.6 198.4	Fiberglass Pipe Canvas Wrap with Black Tar/Mastic - Event Level, Mezz, Pipe Tunnel	NOB Heterogeneous Silver/Tan/Non-Fibrous		Residue 29.9%	**NAD/Inconclusive** Total Asbestos	**None Detected** Total Asbestos
7	23-969	198.1	Duct Insulation - Truss Level, Mech Space, F-17 Duct	FRIABLE Homogeneous Grey/Non-Fibrous	Synthetic 10% Fiberglass 10%	Binder/Filler 80%	**None Detected** Total Asbestos	**Not Analyzed** Total Asbestos

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Test Report: Asbestos Analysis of Bulk Material

Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	10/4/2023
Project Address:	Nassau Veterans Memorial Coliseum 1255 Hempstead Turnpike, Uniondale, NY 11553			Date Received :	10/6/2023
				Date Analyzed :	10/9/2023

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
8	23-969	198.1	Duct Insulation - Truss Level, Mech Space, F-17 Duct	FRIABLE Homogeneous Grey/Non-Fibrous	Synthetic 10% Fiberglass 10%	Binder/Filler 80%	**None Detected** Total Asbestos	**Not Analyzed** Total Asbestos
9	23-969	198.1	Duct Insulation - Truss Level, Mech Space, F-17 Duct	FRIABLE Homogeneous Grey/Non-Fibrous	Synthetic 10% Fiberglass 10%	Binder/Filler 80%	**None Detected** Total Asbestos	**Not Analyzed** Total Asbestos

Analyst PLM 198.1 :	Michael Gittings	Analysis Date:	10/9/2023
Analyst PLM 198.6:	Michael Gittings	Analysis Date:	10/9/2023
Analyst TEM 198.4:	Azzeddine Barakat	Analysis Date:	10/17/2023

Approved By:
QA/QC Manager

Date: 10/25/2023

Method: PLM with EPA 600/M4/82/020, ELAP 198.1 and ELAP 198.6; TEM by ELAP 198.4, Vermiculite by ELAP 198.8.
Methods of stratified point-counting or negative scanning are used on at least 4 mounts, as per 198.1
Polarized light microscopy is not consistently reliable in detecting asbestos in floor covering/non-friable organically bound materials (NOB's). NOB's should be analyzed by quantitative TEM. The above test report relates only to item tested.
Layered samples are analyzed by layer. Any positive layer will be reported separately. Asbetos percentage is based on point-counting rules described in ELAP 198.1.
*VERMICULTE NOTE DISCLAIMER: Samples that contain more than 10% vermiculite are re-analyzed by ELAP method 198.6. This method does not remove verimculite and may underestimate the level of asbestos containing greater than 10% vermiculite.
Attic fill, block fill or other loose bulk Vermiculite materials must be designated and treated as ACM per NYSDOH
All Surfacing Materials containing vermiculite must be analyzed by a laboratory approved for ELAP 198.8
Airtek collects samples in accordance with EPA 40 CFR Part 763.
This report should not be used to claim product certification, approval or endorsement by NVLAP,
NIST or any agency of the federal government and may not be reproduced, except in full, without written approval by Airtek.
Currently approved by ELAP (11040) for Asbestos in Friable Material item 198.1 and EPA 600/M4/82/020, asbestos in Non Friable Materials 198.6 (NOB by PLM) and asbestos in Non Friable
Material 198.4 (TEM).
Currently accredited by the NVLAP lab code 102011-0 for Bulk Asbestos Analysis (PLM) EPA 600/M4/82/020.
This report relates only to the samples reported above and must not be reproduced except in full with the approval of the laboratory.

Airtek ENVIRONMENTAL

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☒ 24 HRS ☐ OTHER

OCT 3 '23 PM 12:29

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 1 OF 1

PROJECT NO.: 23-0428
CLIENT: LV Sands Nassau Coliseum
PROJECT SITE: Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike, Uniondale, NY 11553
INVESTIGATOR: Jeffrey Cohen

LOCATION(S) SURVEYED: Throughout
SCOPE OF WORK: Limited Asbestos Inspection - Renovations
INSPECTOR: Jeffrey Cohen DATE(S) OF INSPECTION: 10/4/2023

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIAB	Asbestos %	Vermiculite* %
	01	23-969	Fiberglass Pipe Canvas Wrap w/ Yellow mastic	Event Level - Mezz - Pipe Tunnel	TBD	1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	Inc/NAD	NVD
	02		↓	↓	↓	1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	↓	↓
	03		↓	↓	↓	1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	↓	↓
	04		Fiberglass Pipe Canvas Wrap w/ black tar/mastic	↓	↓	1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	↓	↓
	05		↓	↓	↓	1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	↓	↓
	06		↓	↓	↓	1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	↓	↓
	07		Duct Insulation	Truss Level - Mech Space - F-17 duct	60SF	1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	↓
	08		↓	↓	↓	1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	09		↓	↓	↓	1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓

PHYSICAL CONDITION ASSESSMENT

1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: _____ DATE: 10/6/23 TIME: 1230
RECEIVED BY: Mahdi Hassan DATE: 10/6/23 TIME: 12:29 pm
ANALYZED BY: Mehul Oza DATE: 10/9/23 TIME: 06:40
CHECKED BY: _____ DATE: _____ TIME: _____

FIELD NOTES:

ANALYZE: ☐ ALL ☒ STOP AT FIRST POSITIVE ☐ PLM ☐ TEM (if necessary)

NYSDOL INSPECTOR: J. Cohen 20-00448
NYCDEP INVESTIGATOR: J. Cohen 162138
TELEPHONE NO. : (718) 937-3720
ADDRESS: Airtek Environmental Corp.
39-37 29th Street, L.I.C., NY 11101

1. A visual determination of accessible suspect materials and condition.
2. Collect bulk samples of suspect building materials.
3. A physical "Hand Pressure" test for determining friability and condition.
4. Assessment of suspect friable and non-friable materials and locations.
5. Quantify the amount of suspect materials in their respective locations.
6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk Sample locations and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.
9. Any inconclusive result for a NOB must be confirmed by TEM or assumed ACM.

Worksheets Analysis by PLM (ELAP 198.1,198.6)

Form Ver. #2 5/19/2022

Appearance				Treatment	Asbestos Results	Fibrous	Non-Fibrous
1. Brown	7. Black	1. Fibrous	1. Homogeneous	1. Teased	1. Chrysotile	1. Cellulose	1. Quartz
2. Grey	8. Silver	2. Non-Fibrous	2. Heterogeneous	2. Crushed	2. Amosite	2. Fiberglass	2. Mica
3. Tan	9. Blue	3. Other	3. Other	3. Dissolved	3. Anthophyllite	3. Min. Wool	3. Gypsum
4. White	10. Orange		4. Layers	4. Ashed	4. Tremolite	4. Synthetic	4. Carbonates
5. Red	11. Yellow			5. NOB	5. Actinolite	5. Hair	5. Organic Matrix
6. Various	12. Green			6. THF	6. Crocidolite	6. Wollastonite	6. Perlite
					7. None Detected	7. Other	7. Binder/Filler

1. 1.550 2. 1.605 3. 1.630 4. 1.680 5. 1.700

Sign: + -

Birefringence: O L M H

Pleochroism: W=Wavy S=Straight C=Curvy

Ext. Angle: P=Parallel W=Wavy O=Oblique

Project #	23-0428
Batch #	23-969
Client	LV Sands Coliseum
Analyst	MG
Analysis Date	10/9/2023
Room Temp. (°C)	24

Airtek ENVIRONMENTAL

Sample #	Elap Method	Appearance	Treatment	ASBESTOS Type	ASBESTOS %	VERM.	FIBROUS Type	FIBROUS %	NON-FIBROUS Type	NON-FIBROUS %	*EPA 600/M4/82/020 *ELAP Item 198.1 point count methods Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Total Pts.	Total Asbe.	Asbestos Fibers Optical Propereties RI Oil	|	⌟	B	M	S	P	E
1	198.6	Silver/Tan		None Detected / INC	0.00%	NVD			Residue		0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	NOB																									
		Heterogeneous																										
2	198.6	Silver/Tan		None Detected / INC	0.00%	NVD			Residue		0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	NOB																									
		Heterogeneous																										
3	198.6	Silver/Tan		None Detected / INC	0.00%	NVD			Residue		0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	NOB																									
		Heterogeneous																										
4	198.6	Silver/Tan		None Detected / INC	0.00%	NVD			Residue		0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	NOB																									
		Heterogeneous																										
5	198.6	Silver/Tan		None Detected / INC	0.00%	NVD			Residue		0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	NOB																									
		Heterogeneous																										
6	198.6	Silver/Tan		None Detected / INC	0.00%	NVD			Residue		0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	NOB																									
		Heterogeneous																										
7	198.1	Grey		None Detected	0.00%	NVD	Synthetic	10%	Binder/Filler	80.00%	0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	Crushed				Fiberglass	10%																				
		Homogenous																										
8	198.1	Grey		None Detected	0.00%	NVD	Synthetic	10%	Binder/Filler	80.00%	0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	Crushed				Fiberglass	10%																				
		Homogenous																										
9	198.1	Grey		None Detected	0.00%	NVD	Synthetic	10%	Binder/Filler	80.00%	0/50	0/50	0/50	0/50					200	0%								
		Non-Fibrous	Crushed				Fiberglass	10%																				
		Homogenous																										

Airtek Environmental

PREP	6	PLM	6	TEM	6

GRAVIMETRIC (NOB) PREPARATION, NOB-PLM/TEM (198.6; 198.4) ANALYSIS SHEET

Client	LV Sands Nassau	Project #	23-0428	Oven ID&Temp				F1	481
NOB Prep & Date	MH	10/6/2023	LAB Batch #	23-969	Time ON	3:00PM	Time OFF		5:00PM
NOB PLM Analyst & Date	MG	10/9/2023			NOB TEM PREP	TE	TEM Analyst & Date	AB	10/17/2023

SAMPLE #	CRUC #	CRUC WT	CRUC WT & SAMPLE	SAMPLE WT	CRUC WT SAMPLE ASHED	PD WT & FILTER	PD WT FILTER & SAMPLE	NONASB RES %	Organic %	CaCO3 %	TOTAL RESIDUE %	NOB PLM ANALYSIS		NOB PLM Total ASB/ VER %	NOB TEM ANALYSIS							NOB TEM Total ASB / VER %
												%	ASB. TYPE		Grid Box	GRID ID	MORPH	SAED	EDX	%	ASB. TYPE	
1	10	12.3303	12.5205	0.1902	12.4118	8.1608	8.2127	27.3	57.2	15.5	27.3		NAD		48	10C				0	NAD	
2	46	9.4150	9.6096	0.1946	9.4799	8.1587	8.1928	17.5	66.6	15.9	17.5		NAD		48	10D				0	NAD	
3	65	12.8169	12.9712	0.1543	12.8781	8.1596	8.1922	21.1	60.3	18.6	21.1		NAD		48	10E				0	NAD	
4	139	12.1229	12.3906	0.2677	12.2383	8.1604	8.2352	27.9	56.9	15.2	27.9		NAD		49	1A				0	NAD	
5	171	13.2917	13.5956	0.3039	13.3498	8.1588	8.2048	15.1	80.9	4.0	15.1		NAD		49	1B				0	NAD	
6	194	11.6646	11.7895	0.1249	11.7079	8.1588	8.1962	29.9	65.3	4.8	29.9		NAD		49	1C				0	NAD	

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands	Airtek Project #:	23-0428	Date Sampled :	12/20/2023
Project Address:	NVMC			Date Received :	1/3/2024
				Date Analyzed :	1/10/2024

Sample ID#	Lab ID#	NYS ELAP Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result		TEM Result(198.4)	
							Asbestos Type	%	Asbestos Type	%
1-1	24-07	198.6	Membrane 1	NOB Homogeneous Black/Non-Fibrous		Residue 33.0%	**Chrysotile** Total Asbestos	**3.3%** 3.3%	**Not Analyzed** Total Asbestos	
1-2	24-07	198.1	Insulation	FRIABLE Heterogeneous Brown/Non-Fibrous		Non-Fib Matrix 100%	**No Asbestos Detected** Total Asbestos		**Not Analyzed** Total Asbestos	
1-3	24-07	198.6	Membrane 3	NOB Homogeneous Black/Non-Fibrous		Residue 39.8%	**Chrysotile** Total Asbestos	**23%** 23%	**Not Analyzed** Total Asbestos	
1-4	24-07	198.6	Membrane 2	NOB Homogeneous Black/Non-Fibrous		Residue 36.8%	**Chrysotile** Total Asbestos	**29%** 29%	**Not Analyzed** Total Asbestos	
1-5	24-07	198.6	Base Layer	NOB Homogeneous Black/Non-Fibrous		Residue 24.8%	**Chrysotile** Total Asbestos	**14%** 14%	**Not Analyzed** Total Asbestos	
2-1	24-07	198.6	Membrane 3	NOB Homogeneous Black/Non-Fibrous		Residue 38.6%	**Chrysotile** Total Asbestos	**25%** 25%	**Not Analyzed** Total Asbestos	
2-2	24-07	198.6	Membrane 2	NOB Homogeneous Black/Non-Fibrous		Residue 24.1%	**Chrysotile** Total Asbestos	**19%** 19%	**Not Analyzed** Total Asbestos	

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands	Airtek Project #:	23-0428	Date Sampled :	12/20/2023
Project Address:	NVMC			Date Received :	1/3/2024
				Date Analyzed :	1/10/2024

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
2-3	24-07	198.6	Membrane 1	NOB Homogeneous Black/Non-Fibrous		Residue 40.1%	**Chrysotile 32%** Total Asbestos 32%	**Not Analyzed** Total Asbestos
2-4	24-07	198.6 198.4	Insulation Batt	NOB Homogeneous Black/Non-Fibrous		Residue 7.3%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
2-5	24-07	198.1	Insulation Brown	FRIABLE Heterogeneous Brown/Non-Fibrous		Non-Fib Matrix 100%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
3-1	24-07	198.6 198.4	Insulation Batt	NOB Homogeneous Black/Non-Fibrous		Residue 15.6%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
3-2	24-07	198.6	Membrane 1	NOB Homogeneous Black/Non-Fibrous		Residue 40.9%	**Chrysotile 20%** Total Asbestos 20%	**Not Analyzed** Total Asbestos
3-3	24-07	198.1	Insulation 2 Brown	FRIABLE Heterogeneous Brown/Non-Fibrous		Non-Fib Matrix 100%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
3-4	24-07	198.6 198.4	Membrane 2	NOB Homogeneous Black/Non-Fibrous		Residue 15.5%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands	Airtek Project #:	23-0428	Date Sampled :	12/20/2023
Project Address:	NVMC			Date Received :	1/3/2024
				Date Analyzed :	1/10/2024

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
3-5	24-07	198.6 198.4	Membrane 3	NOB Homogeneous Black/Non-Fibrous		Residue 15.5%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
4-1	24-07	198.6 198.4	Cap Sheet	NOB Homogeneous Black/Non-Fibrous		Residue 23.9%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
4-2	24-07	198.6	Membrane 1	NOB Homogeneous Black/Non-Fibrous		Residue 32.9%	**Chrysotile 26%** Total Asbestos 26%	**Not Analyzed** Total Asbestos
4-3	24-07	198.6	Membrane 2	NOB Homogeneous Black/Non-Fibrous		Residue 27.9%	**Chrysotile 16%** Total Asbestos 16%	**Not Analyzed** Total Asbestos
4-4	24-07	198.6	Membrane 3	NOB Homogeneous Black/Non-Fibrous		Residue 26.9%	**Chrysotile 22%** Total Asbestos 22%	**Not Analyzed** Total Asbestos
4-5	24-07	198.6 198.4	Insulation Batt	NOB Homogeneous Black/Non-Fibrous		Residue 17.5%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
5-1	24-07	198.6	Membrane 2	NOB Homogeneous Black/Non-Fibrous		Residue 51.2%	**Chrysotile 26%** Total Asbestos 26%	**Not Analyzed** Total Asbestos

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands	Airtek Project #:	23-0428	Date Sampled :	12/20/2023
Project Address:	NVMC			Date Received :	1/3/2024
				Date Analyzed :	1/10/2024

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
5-2	24-07	198.6	Membrane 3	NOB Homogeneous Black/Non-Fibrous		Residue 34.1%	**Chrysotile 27%** Total Asbestos 27%	**Not Analyzed** Total Asbestos
5-3	24-07	198.6 198.4	Cap Sheet	NOB Homogeneous Black/Non-Fibrous		Residue 18.1%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
5-4	24-07	198.6	Membrane 1	NOB Homogeneous Black/Non-Fibrous		Residue 46.8%	**Chrysotile 27%** Total Asbestos 27%	**Not Analyzed** Total Asbestos
5-5	24-07	198.6 198.4	Insulation Batt	NOB Homogeneous Black/Non-Fibrous		Residue 17.3%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
6-1	24-07	198.6 198.4	Membrane 2	NOB Homogeneous Black/Non-Fibrous		Residue 1.2%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
6-2	24-07	198.6	Membrane 1	NOB Homogeneous Black/Non-Fibrous		Residue 43.3%	**Chrysotile 35%** Total Asbestos 35%	**Not Analyzed** Total Asbestos
6-3	24-07	198.6 198.4	Cap Sheet	NOB Homogeneous Black/Non-Fibrous		Residue 25.9%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands	Airtek Project #:	23-0428	Date Sampled :	12/20/2023
Project Address:	NVMC			Date Received :	1/3/2024
				Date Analyzed :	1/10/2024

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
6-4	24-07	198.6 198.4	Membrane 3	NOB Homogeneous Black/Non-Fibrous		Residue 2.0%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
6-5	24-07	198.6 198.4	Insulation Batt	NOB Homogeneous Black/Non-Fibrous		Residue 2.0%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
6-6	24-07	198.6	Membrane, Block Felt	NOB Homogeneous Black/Non-Fibrous		Residue 43.1%	**Chrysotile 35%** Total Asbestos 35%	**Not Analyzed** Total Asbestos

Analyst PLM 198.1 :	Mukhamed Ismoilov	Analysis Date:	1/10/2024
Analyst PLM 198.6:	Mukhamed Ismoilov	Analysis Date:	1/10/2024
Analyst TEM 198.4:	Efren Martinez	Analysis Date:	1/17/2024
Analyst PLM 198.8:		Analysis Date:	

Approved By:
QA/QC Manager Azzeddine Barakat Date: 1/18/2024

Method: PLM with EPA 600/M4/82/020, ELAP 198.1 and ELAP 198.6; TEM by ELAP 198.4, Vermiculite by ELAP 198.8.
Methods of stratified point-counting or negative scanning are used on at least 4 mounts, as per 198.1 Polarized light microscopy is not consistently reliable in detecting asbestos in floor covering/non-friable organically bound materials (NOB's). NOB's should be analyzed by quantitative TEM. The above test report relates only to item tested.
Layered samples are analyzed by layer. Any positive layer will be reported separately. Asbetos percentage is based on point-counting rules described in ELAP 198.1.
*VERMICULTE NOTE DISCLAIMER: Samples that contain more than 10% vermiculite are re-analyzed by ELAP method 198.6. This method does not remove verimculite and may underestimate the level of asbestos containing greater than 10% vermiculite.
Attic fill, block fill or other loose bulk Vermiculite materials must be designated and treated as ACM per NYSDOH
All Surfacing Materials containing vermiculite must be analyzed by a laboratory approved for ELAP 198.8
Airtek collects samples in accordance with EPA 40 CFR Part 763.
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Currently approved by ELAP (11040) for Asbestos in Friable Material item 198.1 and EPA 600/M4/82/020, asbestos in Non Friable Materials 198.6 (NOB by PLM) and asbestos in Non Friable Material 198.4 (TEM).
Currently accredited by the NVLAP lab code 102011-0 (Testing) for Bulk Asbestos Analysis (PLM) EPA 600/M4/82/020.
This report relates only to the samples reported above and must not be reproduced except in full with the approval of the laboratory.

JAN 3 '24 PM3:00

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☐ 24 HRS ☒ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 1 OF 6

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NVMC
INVESTIGATOR: N/A - NYS

LOCATION(S) SURVEYED: Roof
SCOPE OF WORK: Renovation
INSPECTOR: AP Johson DATE(S) OF INSPECTION: 12/20/23

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIABLE	Asbestos %	Vermiculite* %
	1-1	24-07	Membrane 1			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	3.3% CHR	INID
	1-2		Insulation			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	
	1-3		Membrane 3			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	23% CHR	
	1-4		Membrane 2			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	29% CHR	
	1-5	↓	Base Layer			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	14% CHR	
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [illegible] DATE: 1/3/24 TIME: 2pm
RECEIVED BY: Michael Cat DATE: 1/3/24 TIME: 15:00
ANALYZED BY: [illegible] DATE: 1/10/24 TIME: 10:12
CHECKED BY: _____ DATE: _____ TIME: _____

ANALYZE: ☒ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

NYSDOL INSPECTOR:
CERTIFICATE NO.:

TELEPHONE NO. : (718)937-3720
ADDRESS: Airtek Environmental Corp.
39-37 29th Street, L.I.C., NY 11101

1. A visual determination of accessible suspect materials and condition.
2. Collect bulk samples of suspect building materials.
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Airtek

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☐ 24 HRS ☒ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 2 OF 6

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NVMC
INVESTIGATOR: N/A - NYS

LOCATION(S) SURVEYED: Roof
SCOPE OF WORK: Renovation
INSPECTOR: A.P. Johnson DATE(S) OF INSPECTION: 12/20/23

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIABLE	Asbestos %	Vermiculite* %
	2-1	2407	Membrane 3			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	60 25% CHR	NAD
	2-2		Membrane 2			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	19% CHR	
	2-3		Membrane 1			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	32% CHR	
	2-4		Insulation Beige			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	INC / NAD	
	2-5	↓	Insulation Brown			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [signature] DATE: 1/3/24 TIME: 2pm
RECEIVED BY: Michael Gitz DATE: 1/3/24 TIME: 15:00
ANALYZED BY: [signature] DATE: 1/10/24 TIME: 10:12 AM
CHECKED BY: _____ DATE: _____ TIME: _____

ANALYZE: ☒ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

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Airtek ENVIRONMENTAL

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☐ 24 HRS ☒ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 3 OF 6

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NVMC
INVESTIGATOR: N/A - NYS

LOCATION(S) SURVEYED: Roof
SCOPE OF WORK: Renovation
INSPECTOR: A.P. Johnson DATE(S) OF INSPECTION: 12/20/23

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIABLE	Asbestos %	Vermiculite* %
	3-1	24-07	Insulation Batt			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	INC/NAD	NVD
	3-2	↓	~~#~~ Membrane 1			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	20% CHR	↓
	3-3		Insulation 2 Brown			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	
	3-4		Membrane 2			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	INC/NAD	
	3-5	↓	Membrane 3			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	1	↓
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT	FRIABLE	PLM - POLARIZED LIGHT MICROSCOPY / TEM - TRANSMISSION ELECTRON MICROSCOPY
1 Damaged or Significantly Damaged Friable TSI 2 Damaged Friable Surfacing ACM 3 Significantly Damaged Friable Surfacing ACM 4 Damaged or Significantly Damaged Friable Misc. ACM 5 ACBM with potential for Damage 6 ACBM with potential for Significant Damage 7 Remaining Friable or Suspect ACBM G – Good / MD – Minor Damage / P -Poor	Yes (Y) No (N)	RELINQUISHED BY: [signature] DATE: 1/3/24 TIME: 2PM RECEIVED BY: Michael Gitt DATE: 1/3/24 TIME: 15:00 ANALYZED BY: [signature] DATE: 1/10/24 TIME: 10:12AM CHECKED BY: _____ DATE: _____ TIME: _____

NYSDOL INSPECTOR:
CERTIFICATE NO.:

TELEPHONE NO. : (718)937-3720
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ANALYZE: ☒ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

Airtek ENVIRONMENTAL

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☐ 24 HRS ☒ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 4 OF 6

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NVMC
INVESTIGATOR: N/A - NYS

LOCATION(S) SURVEYED: Roof
SCOPE OF WORK: Renovation
INSPECTOR: A.P. Johnson DATE(S) OF INSPECTION: 12/20/23

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIABLE	Asbestos %	Vermiculite* %
	4-1	24-07	Cap Sheet			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	TUC/NAD	NVD
	4-2		Membrane 1			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	26% CHR	
	4-3		Membrane 2			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	16% CHR	
	4-4		Membrane 3			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	22% CHR	
	4-5	↓	Insulation Batt			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	TUC/NAD	
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [signature] DATE: 1/3/24 TIME: 2 pm
RECEIVED BY: Michael Cathy DATE: 1/3/24 TIME: 15:00
ANALYZED BY: [signature] DATE: 1/10/24 TIME: 10:12AM
CHECKED BY: _____ DATE: _____ TIME: _____

ANALYZE: ☒ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

NYSDOL INSPECTOR:
CERTIFICATE NO.:

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Airtek

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☐ 24 HRS ☒ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 5 OF 6

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NVMC
INVESTIGATOR: N/A - NYS

LOCATION(S) SURVEYED: Roof
SCOPE OF WORK: Renovation
INSPECTOR: A.P. Johnson DATE(S) OF INSPECTION: 12/20/23

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIABLE	Asbestos %	Vermiculite* %
	5-1	24-07	Membrane 2			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	26% CHR	NVD
	5-2		Membrane 3			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	27% CHR	
	5-3		Cap Sheet			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Inc / NAD	
	5-4		Membrane 1			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	27% CHR	
	5-5	↓	Insulation Batt			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Inc / NAD	
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
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5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [signature] DATE: 1/3/24 TIME:
RECEIVED BY: Michael Gilly DATE: 1/3/24 TIME: 15:00
ANALYZED BY: [signature] DATE: 1/10/24 TIME: 10:12AM
CHECKED BY: DATE: TIME:

ANALYZE: ☒ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

NYSDOL INSPECTOR:
CERTIFICATE NO.:

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Airtek Environmental

TURN AROUND TIME: ☐ RUSH ☐ 6 HRS ☐ 24 HRS ☒ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 6 OF 6

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NVMC
INVESTIGATOR: N/A-NYS

LOCATION(S) SURVEYED: Roof
SCOPE OF WORK: Renovation
INSPECTOR: A.P. Johnson **DATE(S) OF INSPECTION:** 12/20/23

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIABLE	Asbestos %	Vermiculite* %
	6-1	24-07	Membrane 2			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Inc/NAD	NAD
	6-2	↓	Membrane 1			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	35% CHR	↓
	6-3	↓	Cap Sheet			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Inc/NAD	↓
	6-4	↓	Membrane 3			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	6-5	↓	Insulation Batt			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	6-6	↓	Membrane - Blk Felt			1, 2, 3, 4, 5, 6, 7 G MD P	Y N	35% CHR	↓
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P - Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY — TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [illegible signature] DATE: 1/3/24 TIME: 2pm
RECEIVED BY: [illegible signature] DATE: 1/3/24 TIME: 15:00
ANALYZED BY: [illegible signature] DATE: 1/10/24 TIME: 10:[illegible]
CHECKED BY: ________ DATE: ________ TIME: ________

Added as per Benn L email on 1/3/24

ANALYZE: ☒ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

NYSDOL INSPECTOR: CERTIFICATE NO.:

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Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-07	Client	LV Sands	Project#	23-0428
Analyst	MI	Analysis Date	1/10/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H-High
M-Morphology: W - Wavy; S - Straight
S - Sign of Elongation: + Pos; - Neg
P - Pleochroism: Y - Yes; N - No
E - Extinction: P - Parallel; O - Oblique

Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Asb Points/Total Points	Total Asb.	RI Oil	R||	RL	B	M	S	P	E
1-1	198.6	Black	NVD	Chrysotile	3.3%			Residue		1	1	1	1					4	10.0%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							10	10	10	10					40									
		Homogeneous	1%																								
1-2	198.1	Brown	NVD	None Detected	0.0%			100.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Teased							50	50	50	50					200									
		Heterogeneous	0%																								
1-3	198.6	Black	NVD	Chrysotile	23.0%			Residue		1	1	1	1					4	57.1%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							2	1	2	2					7									
		Homogeneous	30%																								
1-4	198.6	Black	NVD	Chrysotile	29.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							1	1	2	1					5									
		Homogeneous	50%																								
1-5	198.6	Black	NVD	Chrysotile	14.0%			Residue		1	1	1	1					4	57.1%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							2	1	2	2					7									
		Homogeneous	30%																								
2-1	198.6	Black	NVD	Chrysotile	25.0%			Residue		1	1	1	1					4	66.7%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							1	2	2	1					6									
		Homogeneous	30%																								
2-2	198.6	Black	NVD	Chrysotile	19.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							1	1	1	2					5									
		Homogeneous	50%																								
2-3	198.6	Black	NVD	Chrysotile	32.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							1	1	2	1					5									
		Homogeneous	50%																								
2-4	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
2-5	198.1	Brown	NVD	None Detected	0.0%			100.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Teased							50	50	50	50					200									
		Heterogeneous																									
3-1	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous																									
3-2	198.6	Black	NVD	Chrysotile	20.0%			Residue		1	1	1	1					4	50.0%	1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							2	2	2	2					8									
		Homogeneous	30%																								
3-3	198.1	Brown	NVD	None Detected	0.0%			100.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Teased							50	50	50	50					200									
		Heterogeneous	0%																								

*Disqualifying properties for non absestos fibrous materials: cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-07	Client	LV Sands	Project#	23-0428
Analyst	MI	Analysis Date	1/10/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H-High
M-Morphology: W - Wavy; S - Straight
S - Sign of Elongation: + Pos; - Neg
P - Pleochroism: Y - Yes; N - No
E - Extinction: P - Parallel; O - Oblique

Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Ash Points Total Points	Total Ash	RI Oil	R||	R⊥	B	M	S	P	E
3-4	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
3-5	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
4-1	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous																									
4-2	198.6	Black	NVD	Chrysotile	26.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							1	2	1	1					5									
		Homogeneous	50%																								
4-3	198.6	Black	NVD	Chrysotile	16.0%			Residue		1	1	1	1					4	57.1%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							2	1	2	2					7									
		Homogeneous	50%																								
4-4	198.6	Black	NVD	Chrysotile	22.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							1	1	1	2					5									
		Homogeneous	60%																								
4-5	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
5-1	198.6	Black	NVD	Chrysotile	26.0%			Residue		1	1	1	1					4	50.0%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							2	3	1	2					8									
		Homogeneous	10%																								
5-2	198.6	Black	NVD	Chrysotile	27.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							1	1	2	1					5									
		Homogeneous	50%																								
5-3	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
5-4	198.6	Black	NVD	Chrysotile	27.0%			Residue		1	1	1	1					4	57.1%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							2	2	1	2					7									
		Homogeneous	10%																								
5-5	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
6-1	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								

*Disqualifying properties for non absestos fibrous materials; cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-07	Client	LV Sands	Project#	23-0428
Analyst	MI	Analysis Date	1/10/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H-High
M-Morphology: W - Wavy; S - Straight
S - Sign of Elongation: + Pos; - Neg
P - Pleochroism: Y - Yes; N - No
E - Extinction: P - Parallel; O - Oblique

Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Asb Points Total Points	Total Asb.	RI Oil	R||	R⊥	B	M	S	P	E
6-2	198.6	Black	NVD	Chrysotile	35.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							1	2	1	1					5									
		Homogeneous	50%																								
6-3	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
6-4	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous																									
6-5	198.6	Black	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous																									
6-6	198.6	Black	NVD	Chrysotile	35.0%			Residue		1	1	1	1					4	80.0%	1.550	1.555	1.459	L	W	+	-	P
		Non-Fibrous	NOB							1	1	2	1					5									
		Homogeneous	50%																								

*Disqualifying properties for non absestos fibrous materials: cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Airtek Environmental

PREP	28	PLM	28	TEM	12

GRAVIMETRIC (NOB) PREPARATION, NOB-PLM/TEM (198.6; 198.4) ANALYSIS SHEET

Client	LV Sands	Project #	23-0428	Oven ID&Temp	ATK2023-31	480°C
NOB Prep & Date	MH 1/4/2024	LAB Batch #	24-07	Time ON	6:00PM	Time OFF	8:00PM
NOB PLM Analyst & Date	MI 1/10/2024			NOB TEM PREP	MG	TEM Analyst & Date	EM 1/17/2024

EFREN MARTINEZ

SAMPLE #	CRUC #	CRUC WT	CRUC WT & SAMPLE	SAMPLE WT	CRUC WT SAMPLE ASHED	PD WT & FILTER	PD WT FILTER & SAMPLE	NONASB RES %	Organic %	CaCO3 %	TOTAL RESIDUE %	NOB PLM ANALYSIS %	NOB PLM ANALYSIS ASB. TYPE	NOB PLM Total ASB/ VER %	NOB TEM ANALYSIS Grid Box	GRID ID	MORPH	SAED	EDX	%	ASB. TYPE	NOB TEM Total ASB / VER %
1-1	43	14.3467	14.5371	0.1904	14.4987	8.1227	8.1856	29.7	20.2	46.8	33.0	10	CHR	3.3								
1-3	96	12.8421	13.0858	0.2437	12.9576	8.1211	8.2180	16.8	52.6	7.6	39.8	57	CHR	23								
1-4	120	12.4424	12.7281	0.2857	12.5715	8.1814	8.2864	7.8	54.8	8.4	36.8	80	CHR	29								
1-5	106	14.0247	14.3413	0.3166	14.1112	8.1805	8.2590	10.8	72.7	2.5	24.8	57	CHR	14								
2-1	29	9.2283	9.5057	0.2774	9.3650	8.1229	8.2300	13.6	50.7	10.7	38.6	66	CHR	25								
2-2	185	12.6610	12.9655	0.3045	12.7378	8.1207	8.1940	5.1	74.8	1.1	24.1	80	CHR	19								
2-3	192	12.8442	13.0781	0.2339	12.9449	8.1221	8.2158	8.1	56.9	3.0	40.1	80	CHR	32								
2-4	169	12.4391	12.7027	0.2636	12.4699	8.1235	8.1428	7.3	88.3	4.4	7.3		NAD		124	6A				0	NAD	
3-1	184	12.3334	12.5996	0.2662	12.4465	8.1388	8.1802	15.6	57.5	26.9	15.6		NAD		124	6B				0	NAD	
3-2	232	13.5133	13.7059	0.1926	13.5988	8.1412	8.2200	20.9	55.6	3.5	40.9	50	CHR	20								
3-4	26	11.3376	11.5613	0.2237	11.4328	8.1389	8.1735	15.5	57.4	27.1	15.5		NAD		124	6C				0	NAD	
3-5	149	13.5399	13.8096	0.2697	13.6138	8.1423	8.1842	15.5	72.6	11.9	15.5		NAD		124	6D				0	NAD	
4-1	122	10.4451	10.7191	0.2740	10.5152	8.1216	8.1872	23.9	74.4	1.7	23.9		NAD		124	6E				0	NAD	
4-2	182	13.5883	13.8155	0.2272	13.6675	8.1393	8.2140	6.9	65.1	2.0	32.9	80	CHR	26								
4-3	214	8.7713	9.0396	0.2683	8.8536	8.1426	8.2175	11.9	69.3	2.8	27.9	57	CHR	16								
4-4	162	13.3490	13.5121	0.1631	13.3991	8.1211	8.1650	4.9	69.3	3.8	26.9	80	CHR	22								
4-5	172	13.3982	13.6936	0.2954	13.4682	8.1203	8.1720	17.5	76.3	6.2	17.5		NAD		124	7A				0	NAD	
5-1	183	12.0439	12.2864	0.2425	12.1966	8.1404	8.2645	25.2	37	11.8	51.2	50	CHR	26								
5-2	188	10.9716	11.3507	0.3791	11.1059	8.1419	8.2710	7.1	64.6	1.3	34.1	80	CHR	27								
5-3	243	12.5612	12.6874	0.1262	12.5873	8.1228	8.1456	18.1	79.3	2.6	18.1		NAD		124	7B				0	NAD	
5-4	98	13.6026	13.9153	0.3127	13.7859	8.1208	8.2670	19.8	41.4	11.8	46.8	57.1	CHR	27								
5-5	157	12.8874	13.0696	0.1822	12.9265	8.1196	8.1512	17.3	78.5	4.2	17.3		NAD		124	7C				0	NAD	
6-1	99	8.8601	9.1287	0.2686	8.8922	8.1215	8.1247	1.2	88	10.8	1.2		NAD		124	7D				0	NAD	
6-2	196	14.1513	14.3704	0.2191	14.2689	8.1217	8.2165	8.3	46.3	10.4	43.3	80	CHR	35								

Airtek Environmental	PREP	28	PLM	28	TEM	12

GRAVIMETRIC (NOB) PREPARATION, NOB-PLM/TEM (198.6; 198.4) ANALYSIS SHEET

Client	LV Sands		Project #	23-0428	Oven ID&Temp	ATK2023-31	480°C
NOB Prep & Date	MH	1/4/2024	LAB Batch #	24-07	Time ON 6:00PM	Time OFF	8:00PM
NOB PLM Analyst & Date	MI	1/10/2024			NOB TEM PREP MG	TEM Analyst & Date EM	1/17/2024

SAMPLE #	CRUC #	CRUC WT	CRUC WT & SAMPLE	SAMPLE WT	CRUC WT SAMPLE ASHED	PD WT & FILTER	PD WT FILTER & SAMPLE	NONASB RES %	Organic %	CaCO3 %	TOTAL RESIDUE %	NOB PLM ANALYSIS %	NOB PLM ANALYSIS ASB. TYPE	NOB PLM Total ASB/ VER %	NOB TEM ANALYSIS Grid Box	GRID ID	MORPH	SAED	EDX	%	ASB. TYPE	NOB TEM Total ASB / VER %
6-3	213	11.8708	12.0876	0.2168	11.9343	8.1420	8.1982	25.9	70.7	3.4	25.9		NAD		124	7E				0	NAD	
6-4	197	14.9137	15.1545	0.2408	14.9267	8.1216	8.1265	2.0	94.6	3.4	2.0		NAD		124	8A				0	NAD	
6-5	200	12.7551	13.0156	0.2605	12.7844	8.1418	8.1470	2.0	88.8	9.2	2.0		NAD		124	8B				0	NAD	
6-6	225	12.3108	12.5046	0.1938	12.4113	8.1392	8.2228	8.1	48.1	8.8	43.1	80	CHR	35								

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands	Airtek Project #:	23-0428	Date Sampled :	12/20/2023
Project Address:	NVMC			Date Received :	1/3/2024
				Date Analyzed :	1/8/2024

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
1	24-08	198.6	Foundation Tar - North Wall	NOB Homogeneous Black/Non-Fibrous		Residue 28.8%	**Chrysotile 5.2%** Total Asbestos 5.2%	**Not Analyzed** Total Asbestos

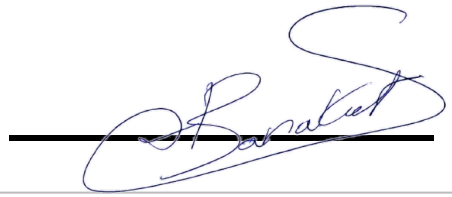
Analyst PLM 198.1 : Analysis Date:

Analyst PLM 198.6: Michael Gittings Analysis Date: 1/8/2024

Analyst TEM 198.4: Analysis Date:

Analyst PLM 198.8: Analysis Date:

Approved By:
QA/QC Manager Azzeddine Barakat Date: 1/16/2024



Method: PLM with EPA 600/M4/82/020, ELAP 198.1 and ELAP 198.6; TEM by ELAP 198.4, Vermiculite by ELAP 198.8.
Methods of stratified point-counting or negative scanning are used on at least 4 mounts, as per 198.1 Polarized light microscopy is not consistently reliable in detecting asbestos in floor covering/non-friable organically bound materials (NOB's). NOB's should be analyzed by quantitative TEM. The above test report relates only to item tested.
Layered samples are analyzed by layer. Any positive layer will be reported separately. Asbetos percentage is based on point-counting rules described in ELAP 198.1.
*VERMICULTE NOTE DISCLAIMER: Samples that contain more than 10% vermiculite are re-analyzed by ELAP method 198.6. This method does not remove verimculite and may underestimate the level of asbestos containing greater than 10% vermiculite.
Attic fill, block fill or other loose bulk Vermiculite materials must be designated and treated as ACM per NYSDOH
All Surfacing Materials containing vermiculite must be analyzed by a laboratory approved for ELAP 198.8
Airtek collects samples in accordance with EPA 40 CFR Part 763.
This report should not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government and may not be reproduced, except in full, without written approval by Airtek.
Currently approved by ELAP (11040) for Asbestos in Friable Material item 198.1 and EPA 600/M4/82/020, asbestos in Non Friable Materials 198.6 (NOB by PLM) and asbestos in Non Friable Material 198.4 (TEM).
Currently accredited by the NVLAP lab code 102011-0 (Testing) for Bulk Asbestos Analysis (PLM) EPA 600/M4/82/020.
This report relates only to the samples reported above and must not be reproduced except in full with the approval of the laboratory.

JAN 3 '24 PM3:15

TURN AROUND TIME: ☐ RUSH ☐ 6 HRS ☐ 24 HRS ☒ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 1 OF 1

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NVMC
INVESTIGATOR: N/A - NYS

LOCATION(S) SURVEYED: ~~Roof~~ Exhibition Hall
SCOPE OF WORK: Renovation
INSPECTOR: A.P. Johnson DATE(S) OF INSPECTION: 12/20/23

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIABLE	Asbestos %	Vermiculite* %
	01	24-08	Foundation Tar	North Wall		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	5.2% Chr	NVD
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT

1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE: Yes (Y) No (N)

PLM - POLARIZED LIGHT MICROSCOPY   TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [signature] DATE: 1/3/24 TIME: 2pm
RECEIVED BY: Michael C[signature] DATE: 1/3/24 TIME: 15:15
ANALYZED BY: Michael [signature] DATE: 1/8/24 TIME: 13:45
CHECKED BY: ________ DATE: ________ TIME: ________

NYSDOL INSPECTOR:
CERTIFICATE NO.:

TELEPHONE NO. : (718)937-3720
ADDRESS: Airtek Environmental Corp.
39-37 29th Street, L.I.C., NY 11101

1. A visual determination of accessible suspect materials and condition.
2. Collect bulk samples of suspect building materials.
3. A physical "Hand Pressure" test for determining friability and condition.
4. Assessment of suspect friable and non-friable materials and locations.
5. Quantify the amount of suspect materials in their respective locations.
6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk Sample locations and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.
9. Any inconclusive result for a NOB must be confirmed by TEM or assumed ACM.

ANALYZE: ☐ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-08	Client	LV Sands	Project#	23-0428
Analyst	MG	Analysis Date	1/8/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H- High
M-Morphology: W - Wavy; S - Straight
S - Sign of Elongation: + Pos; - Neg
P - Pleochroism: Y - Yes; N - No
E - Extinction: P - Parallel; O - Oblique

Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Asb. Points/Total Points	Total Asb.	RI Oil	R||	RL	B	M	S	P	E
1	198.6	Black	NVD	Chrysotile	5.2%			Residue		1	1	1	1					4	17.4%	1.550	1.552	1.546	L	W	+	-	P
		Non-Fibrous	NOB							6	6	7	4					23									
		Homogeneous	10%																								

*Disqualifying properties for non absestos fibrous materials: cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Airtek Environmental														PREP	1	PLM	1	TEM	0
GRAVIMETRIC (NOB) PREPARATION, NOB-PLM/TEM (198.6; 198.4) ANALYSIS SHEET																			
Client			LV Sands			Project #		23-0428			Oven ID&Temp			ATK2023-31		480°C			
NOB Prep & Date		MH	1/4/2024			LAB Batch #		24-08			Time ON	6:00PM		Time OFF		8:00PM			
NOB PLM Analyst & Date		MG	1/8/2024								NOB TEM PREP			TEM Analyst & Date					

SAMPLE #	CRUC #	CRUC WT	CRUC WT & SAMPLE	SAMPLE WT	CRUC WT SAMPLE ASHED	PD WT & FILTER	PD WT FILTER & SAMPLE	NONASB RES %	Organic %	CaCO3 %	TOTAL RESIDUE %	NOB PLM ANALYSIS		NOB PLM Total ASB/ VER %	NOB TEM ANALYSIS								NOB TEM Total ASB / VER %
												%	ASB. TYPE		Grid Box	GRID ID	MORPH	SAED	EDX	%	ASB. TYPE	
1	47	9.4498	9.6294	0.1796	9.5491	8.1385	8.1902	23.6	44.7	26.5	28.8	18	CHR	5.2									

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	1/17/2024
Project Address:	Nassau Veterans Memorial Coliseum 1255 Hempstead Turnpike, Uniondale, NY 11553			Date Received :	1/18/2024
				Date Analyzed :	1/24/2024

Sample ID#	Lab ID#	NYS ELAP Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
1	24-61	198.1	3" Branch Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 5%	Non-Fib Matrix 95%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
2	24-61	198.1	3" Branch Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 5%	Non-Fib Matrix 95%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
3	24-61	198.1	3" Branch Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 8%	Non-Fib Matrix 92%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
4	24-61	198.6 198.4	3" Branch Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Beige/Grey/Non-Fibrous		Residue 17.1%	**Inconclusive/** **No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
5	24-61	198.6 198.4	3" Branch Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Beige/Grey/Non-Fibrous		Residue 18.6%	**Inconclusive/** **No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
6	24-61	198.6 198.4	3" Branch Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Beige/Grey/Non-Fibrous	Fiberglass 10%	Residue 22.5%	**Inconclusive/** **No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
7	24-61	198.6 198.4	3" Branch Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Silver/Beige/Non-Fibrous	Fiberglass 15%	Residue 40.9%	**Inconclusive/** **No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	1/17/2024
Project Address:	Nassau Veterans Memorial Coliseum 1255 Hempstead Turnpike, Uniondale, NY 11553			Date Received :	1/18/2024
				Date Analyzed :	1/24/2024

Sample ID#	Lab ID#	NYS ELAP Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
8	24-61	198.6 198.4	3" Branch Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Silver/Beige/Non-Fibrous	Fiberglass 10%	Residue 32.9%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
9	24-61	198.6 198.4	3" Branch Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Silver/Beige/Non-Fibrous	Fiberglass 20%	Residue 59.2%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
10	24-61	198.1	2' Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 20%	Non-Fib Matrix 80%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
11	24-61	198.1	2' Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 25%	Non-Fib Matrix 75%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
12	24-61	198.1	2' Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 24%	Non-Fib Matrix 76%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
13	24-61	198.1	1' Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 28%	Non-Fib Matrix 72%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
14	24-61	198.1	1' Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 24%	Non-Fib Matrix 76%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos

39-37 29th Street, Long Island City, NY 11101
Phone: (718) 937-3720
www.airtekenv.com

Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	1/17/2024
Project Address:	Nassau Veterans Memorial Coliseum 1255 Hempstead Turnpike, Uniondale, NY 11553			Date Received :	1/18/2024
				Date Analyzed :	1/24/2024

Sample ID#	Lab ID#	NYS ELAP Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
15	24-61	198.1	1' Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 26%	Non-Fib Matrix 74%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
16	24-61	198.6 198.4	2' Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous	Fiberglass 10%	Residue 21.7%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
17	24-61	198.6 198.4	2' Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous	Fiberglass 15%	Residue 27.3%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
18	24-61	198.6 198.4	2' Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous	Fiberglass 10%	Residue 23.6%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
19	24-61	198.6 198.4	2' Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Silver/Beige/Non-Fibrous	Fiberglass 8%	Residue 53.6%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
20	24-61	198.6 198.4	2' Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous	Fiberglass 5%	Residue 13.8%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
21	24-61	198.6 198.4	2' Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous	Fiberglass 8%	Residue 17.1%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	1/17/2024
Project Address:	Nassau Veterans Memorial Coliseum			Date Received :	1/18/2024
	1255 Hempstead Turnpike, Uniondale, NY 11553			Date Analyzed :	1/24/2024

Sample ID#	Lab ID#	NYS ELAP Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
22	24-61	198.6 198.4	1' Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous		Residue 17.9%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
23	24-61	198.6 198.4	1' Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous	Fiberglass 8%	Residue 34.5%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
24	24-61	198.6 198.4	1' Pipe Canvas Pipe Wrap - North MER Room / Mechanical Space	NOB Homogeneous Grey/Beige/Non-Fibrous	Fiberglass 6%	Residue 26.4%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
25	24-61	198.6 198.4	1' Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Silver/Grey/Non-Fibrous	Fiberglass 10%	Residue 8.2%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
26	24-61	198.6 198.4	1' Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Silver/Grey/Non-Fibrous	Fiberglass 8%	Residue 12.8%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
27	24-61	198.6 198.4	1' Pipe Fiberglass Paper Wrap - North MER Room / Mechanical Space	NOB Homogeneous Silver/Grey/Non-Fibrous	Fiberglass 25%	Residue 66.6%	**Inconclusive/ No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
28	24-61	198.1	AHU Branch Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 10%	Non-Fib Matrix 90%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos

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Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	1/17/2024
Project Address:	Nassau Veterans Memorial Coliseum 1255 Hempstead Turnpike, Uniondale, NY 11553			Date Received :	1/18/2024
				Date Analyzed :	1/24/2024

Sample ID#	Lab ID#	NYS ELAP Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
29	24-61	198.1	AHU Branch Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 15%	Non-Fib Matrix 85%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
30	24-61	198.1	AHU Branch Pipe Mudded Elbow Insulation - North MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 12%	Non-Fib Matrix 88%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
31	24-61	198.6 198.4	Black Duct Vibration Damper - North MER Room / Mechanical Space	NOB Homogeneous Black/Non-Fibrous	Fiberglass 11%	Residue 52.2%	**Inconclusive/** **No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
32	24-61	198.6 198.4	Black Duct Vibration Damper - North MER Room / Mechanical Space	NOB Homogeneous Black/Non-Fibrous	Fiberglass 13%	Residue 66.3%	**Inconclusive/** **No Asbestos Detected** Total Asbestos	**No Asbestos Detected** Total Asbestos
33	24-61	198.1	Grey Duct Insulation (1st Layer) - South MER Room / Mechanical Space	FRIABLE Homogeneous Grey/Non-Fibrous	Fiberglass 26%	Non-Fib Matrix 74%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
34	24-61	198.1	Grey Duct Insulation (1st Layer) - South MER Room / Mechanical Space	FRIABLE Homogeneous Grey/Non-Fibrous	Fiberglass 25%	Non-Fib Matrix 75%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
35	24-61	198.1	Grey Duct Insulation (1st Layer) - South MER Room / Mechanical Space	FRIABLE Homogeneous Grey/Non-Fibrous	Fiberglass 27%	Non-Fib Matrix 73%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos

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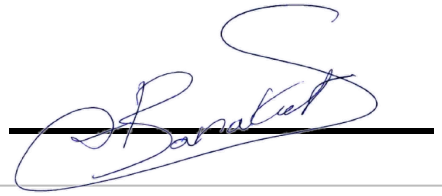
Test Report: Asbestos Analysis of Bulk Material

Airtek Client:	LV Sands Nassau Coliseum	Airtek Project #:	23-0428	Date Sampled :	1/17/2024
Project Address:	Nassau Veterans Memorial Coliseum			Date Received :	1/18/2024
	1255 Hempstead Turnpike, Uniondale, NY 11553			Date Analyzed :	1/24/2024

Sample ID#	Lab ID#	**NYS ELAP** Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result Asbestos Type %	TEM Result(198.4) Asbestos Type %
36	24-61	198.1	White Duct Insulation (2nd Layer) - South MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 18%	Non-Fib Matrix 82%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
37	24-61	198.1	White Duct Insulation (2nd Layer) - South MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 24%	Non-Fib Matrix 76%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos
38	24-61	198.1	White Duct Insulation (2nd Layer) - South MER Room / Mechanical Space	FRIABLE Homogeneous White/Non-Fibrous	Fiberglass 25%	Non-Fib Matrix 75%	**No Asbestos Detected** Total Asbestos	**Not Analyzed** Total Asbestos

Analyst PLM 198.1 :	Mukhamed Ismoilov	Analysis Date:	1/24/2024
Analyst PLM 198.6:	Mukhamed Ismoilov	Analysis Date:	1/24/2024
Analyst TEM 198.4:	Efren Martinez	Analysis Date:	1/29/2024
Analyst PLM 198.8:		Analysis Date:	

Approved By:
QA/QC Manager Azzeddine Barakat Date: 2/2/2024



Method: PLM with EPA 600/M4/82/020, ELAP 198.1 and ELAP 198.6; TEM by ELAP 198.4, Vermiculite by ELAP 198.8.
Methods of stratified point-counting or negative scanning are used on at least 4 mounts, as per 198.1 Polarized light microscopy is not consistently reliable in detecting asbestos in floor covering/non-friable organically bound materials (NOB's). NOB's should be analyzed by quantitative TEM. The above test report relates only to item tested.
Layered samples are analyzed by layer. Any positive layer will be reported separately. Asbetos percentage is based on point-counting rules described in ELAP 198.1.
*VERMICULTE NOTE DISCLAIMER: Samples that contain more than 10% vermiculite are re-analyzed by ELAP method 198.6. This method does not remove verimculite and may underestimate the level of asbestos containing greater than 10% vermiculite.
Attic fill, block fill or other loose bulk Vermiculite materials must be designated and treated as ACM per NYSDOH
All Surfacing Materials containing vermiculite must be analyzed by a laboratory approved for ELAP 198.8
Airtek collects samples in accordance with EPA 40 CFR Part 763.
This report should not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government and may not be reproduced, except in full, without written approval by Airtek.
Currently approved by ELAP (11040) for Asbestos in Friable Material item 198.1 and EPA 600/M4/82/020, asbestos in Non Friable Materials 198.6 (NOB by PLM) and asbestos in Non Friable Material 198.4 (TEM).
Currently accredited by the NVLAP lab code 102011-0 (Testing) for Bulk Asbestos Analysis (PLM) EPA 600/M4/82/020.
This report relates only to the samples reported above and must not be reproduced except in full with the approval of the laboratory.

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☒ 24 HRS ☐ OTHER

JAN 18 '24 PM 12:43

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO.: 23-0428
CLIENT: LV Sands Nassau Coliseum
PROJECT SITE: Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike, Uniondale, NY 11553
INVESTIGATOR: Jeffrey Cohen

LOCATION(S) SURVEYED: Throughout
SCOPE OF WORK: Limited Asbestos Inspection - Renovations
INSPECTOR: Keith Dalbon DATE(S) OF INSPECTION: 1/17/2024

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIAB	Asbestos %	Vermiculite* %
	01	24-61	3" Branch Pipe Mudded Elbow Insulation	North MER Room / Mechanical Space		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	NVD
	02		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	03		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	04		3" Branch Pipe Canvas Pipe Wrap	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Inc/NAD	NVD
	05		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	06		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	07		3" Branch Pipe Fiberglass Paper Wrap	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Inc/NAD	NVD
	08		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
	09		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓

PHYSICAL CONDITION ASSESSMENT

1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [signature] DATE: 1/18/24 TIME: 12:43
RECEIVED BY: Michael Gil DATE: 1/18/24 TIME: 12:43
ANALYZED BY: [signature] DATE: 1/24/24 TIME: 9:20Am
CHECKED BY: _____ DATE: _____ TIME: _____

FIELD NOTES:

ANALYZE: ☐ ALL ☒ STOP AT FIRST POSITIVE ☐ PLM ☐ TEM (if necessary)

NYSDOL INSPECTOR: J. Cohen 20-00448
NYCDEP INVESTIGATOR: J. Cohen 162138

TELEPHONE NO. : (718) 937-3720
ADDRESS: Airtek Environmental Corp.
39-37 29th Street, L.I.C., NY 11101

1. A visual determination of accessible suspect materials and condition.
2. Collect bulk samples of suspect building materials.
3. A physical "Hand Pressure" test for determining friability and condition.
4. Assessment of suspect friable and non-friable materials and locations.
5. Quantify the amount of suspect materials in their respective locations.
6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk Sample locations and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.
9. Any inconclusive result for a NOB must be confirmed by TEM or assumed ACM.

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☒ 24 HRS ☐ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO.: 23-0428
CLIENT: LV Sands Nassau Coliseum
PROJECT SITE: Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike, Uniondale, NY 11553
INVESTIGATOR: Jeffrey Cohen

LOCATION(S) SURVEYED: Throughout
SCOPE OF WORK: Limited Asbestos Inspection - Renovations
INSPECTOR: Keith Dalbon DATE(S) OF INSPECTION: 1/17/2024

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIAB	Asbestos %	Vermiculite* %
	10	24-61	2" Pipe Mudded Elbow Insulation	North MER Room / Mechanical Space		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	NVD
	11		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	/	/
	12		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	/	/
	13		1" Pipe Mudded Elbow Insulation	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	NVD
	14		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	/	/
	15		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	/	/
	16		2" Pipe Canvas Pipewrap	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Trace/NAD	NVD
	17		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	/	/
	18	↓	↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	/	/

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: _____ DATE: 1/18/24 TIME: 1245
RECEIVED BY: Michael Gill DATE: 1/18/24 TIME: 12:43
ANALYZED BY: _____ DATE: 1/24/24 TIME: 9:20 AM
CHECKED BY: _____ DATE: _____ TIME: _____

FIELD NOTES:

ANALYZE: ☐ ALL ☒ STOP AT FIRST POSITIVE ☐ PLM ☐ TEM (if necessary)

NYSDOL INSPECTOR: J. Cohen 20-00448
NYCDEP INVESTIGATOR: J. Cohen 162138

TELEPHONE NO. : (718) 937-3720
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39-37 29th Street, L.I.C., NY 11101

1. A visual determination of accessible suspect materials and condition.
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5. Quantify the amount of suspect materials in their respective locations.
6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk Sample locations and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.
9. Any inconclusive result for a NOB must be confirmed by TEM or assumed ACM.

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☒ 24 HRS ☐ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO.: 23-0428
CLIENT: LV Sands Nassau Coliseum
PROJECT SITE: Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike, Uniondale, NY 11553
INVESTIGATOR: Jeffrey Cohen

LOCATION(S) SURVEYED : Throughout
SCOPE OF WORK: Limited Asbestos Inspection - Renovations
INSPECTOR: Keith Dalbon DATE(S) OF INSPECTION: 1/17/2024

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIAB	Asbestos %	Vermiculite* %
	19	24-61	2" Pipe Fiberglass Paper Wrap	North MER Room / Mechanical Space		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	Inc/NAD	ND
	20		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	/	/
	21		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	/	/
	22		1" Pipe Canvas Pipe Wrap	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	Inc/NAD	ND
	23		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	/	/
	24		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	/	/
	25		1" Pipe Fiberglass Paper Wrap	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	Inc/NAD	ND
	26		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	/	/
	27		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y (N)	/	/

PHYSICAL CONDITION ASSESSMENT

1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY
TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: _____ DATE: 1/18/24 TIME: 1245
RECEIVED BY: Mdm [illegible] DATE: 1/18/24 TIME: 12:43
ANALYZED BY: [illegible] DATE: 1/24/24 TIME: 9:20 AM
CHECKED BY: _____ DATE: _____ TIME: _____

FIELD NOTES:

ANALYZE: ☐ ALL ☐ PLM ☑ STOP AT FIRST POSITIVE ☐ TEM (if necessary)

NYSDOL INSPECTOR: J. Cohen 20-00448
NYCDEP INVESTIGATOR: J. Cohen 162138
TELEPHONE N0. : (718) 937-3720
ADDRESS: Airtek Environmental Corp.
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6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk Sample locations and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.
9. Any inconclusive result for a NOB must be confirmed by TEM or assumed ACM.

TURN AROUND TIME:
☐ RUSH ☐ 6 HRS ☒ 24 HRS ☐ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO.: 23-0428
CLIENT: LV Sands Nassau Coliseum
PROJECT SITE: Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike, Uniondale, NY 11553
INVESTIGATOR: Jeffrey Cohen

LOCATION(S) SURVEYED: Throughout
SCOPE OF WORK: Limited Asbestos Inspection - Renovations
INSPECTOR: Keith Dalbon DATE(S) OF INSPECTION: 1/17/2024

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIAB	Asbestos %	Vermiculite* %
	28	24-61	AHU Branch Pipe Mudded Elbow Insulation	North MER Room / Mechanical Space		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	NVD
	29		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	|	|
	30		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	|	|
	31		Black Duct Vibration Damper	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	Trace/NAD	NVD
	32		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	|	|
	33		Grey Duct Insulation (1st Layer)	South MER Room / Mechanical Space		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	NVD
	34		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	|	|
	35		↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	|	|
	36		White Duct Insulation (2nd Layer)	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	NVD

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: _____ DATE: 1/18/24 TIME: 12:45
RECEIVED BY: _____ DATE: 1/18/24 TIME: 12:43
ANALYZED BY: _____ DATE: 1/24/24 TIME: 9:20AM
CHECKED BY: _____ DATE: _____ TIME: _____

FIELD NOTES:

ANALYZE: ☐ ALL ☒ STOP AT FIRST POSITIVE ☐ PLM ☐ TEM (if necessary)

NYSDOL INSPECTOR: J. Cohen 20-00448
NYCDEP INVESTIGATOR: J. Cohen 162138

TELEPHONE NO. : (718) 937-3720
ADDRESS: Airtek Environmental Corp.
39-37 29th Street, L.I.C., NY 11101

1. A visual determination of accessible suspect materials and condition.
2. Collect bulk samples of suspect building materials.
3. A physical "Hand Pressure" test for determining friability and condition.
4. Assessment of suspect friable and non-friable materials and locations.
5. Quantify the amount of suspect materials in their respective locations.
6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk Sample locations and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.
9. Any inconclusive result for a NOB must be confirmed by TEM or assumed ACM.

TURN AROUND TIME: ☐ RUSH ☐ 6 HRS ☒ 24 HRS ☐ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 5 OF 5

PROJECT NO.: 23-0428
CLIENT: LV Sands Nassau Coliseum
PROJECT SITE: Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike, Uniondale, NY 11553
INVESTIGATOR: Jeffrey Cohen

LOCATION(S) SURVEYED: Throughout
SCOPE OF WORK: Limited Asbestos Inspection - Renovations
INSPECTOR: Keith Dalbon DATE(S) OF INSPECTION: 1/17/2024

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND	ASSESSMENT FRIAB	Asbestos %	Vermiculite* %
	37	24-61	White Duct Insulation (2nd Layer)	South MER Room / Mechanical Space		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	NAD	NVD
	38	↓	↓	↓		1, 2, 3, 4, 5, 6, 7 G MD P	Y N	↓	↓
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		
						1, 2, 3, 4, 5, 6, 7 G MD P	Y N		

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
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4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE
Yes (Y)
No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: [signature] DATE: 1/18/24 TIME: 1245
RECEIVED BY: Melvin Cruz DATE: 1/18/24 TIME: 12:43
ANALYZED BY: [signature] DATE: 1/24/24 TIME: 9:20AM
CHECKED BY: DATE: TIME:

NYSDOL INSPECTOR: J. Cohen 20-00448
NYCDEP INVESTIGATOR: J. Cohen 162138
TELEPHONE NO. : (718) 937-3720
ADDRESS: Airtek Environmental Corp.
39-37 29th Street, L.I.C., NY 11101

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FIELD NOTES:

ANALYZE: ☐ ALL ☐ PLM ☒ STOP AT FIRST POSITIVE ☐ TEM (if necessary)

Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-61	Client	LV Sands Nassau C.	Project#	23-0428
Analyst	MI	Analysis Date	1/24/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H- High
M-Morphology: W - Wavy; S - Straight
S - Sign of Elongation: + Pos; - Neg
P - Pleochroism: Y - Yes; N - No
E - Extinction: P - Parallel; O - Oblique

Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Asb. Points/Total Points	Total Asb.	RI Oil	R||	R⊥	B	M	S	P	E
1	198.1	White	NVD	None Detected	0.0%	Fiberglass	5%	95.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
2	198.1	White	NVD	None Detected	0.0%	Fiberglass	5%	95.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
3	198.1	White	NVD	None Detected	0.0%	Fiberglass	8%	92.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
4	198.6	Beige/Grey	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
5	198.6	Beige/Grey	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
6	198.6	Beige/Grey	NVD	None Detected / INC	0.0%	Fiberglass	10%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
7	198.6	Silver/Beige	NVD	None Detected / INC	0.0%	Fiberglass	15%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
8	198.6	Silver/Beige	NVD	None Detected / INC	0.0%	Fiberglass	10%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
9	198.6	Silver/Beige	NVD	None Detected / INC	0.0%	Fiberglass	20%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
10	198.1	White	NVD	None Detected	0.0%	Fiberglass	20%	80.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
11	198.1	White	NVD	None Detected	0.0%	Fiberglass	25%	75.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
12	198.1	White	NVD	None Detected	0.0%	Fiberglass	24%	76.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
13	198.1	White	NVD	None Detected	0.0%	Fiberglass	28%	72.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								

*Disqualifying properties for non absestos fibrous materials: cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-61	Client	LV Sands Nassau C.	Project#	23-0428
Analyst	MI	Analysis Date	1/24/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H-High
M-Morphology: W - Wavy; S - Straight
S - Sign of Elongation: + Pos; - Neg
P - Pleochroism: Y - Yes; N - No
E - Extinction: P - Parallel; O - Oblique

Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Asb. Points/Total Points	Total Asb.	RI Oil	R||	R⊥	B	M	S	P	E
14	198.1	White	NVD	None Detected	0.0%	Fiberglass	24%	76.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
15	198.1	White	NVD	None Detected	0.0%	Fiberglass	26%	74.0%		0	0	0	0					0	0.0%								
		Non-Fibrous	Crushed							50	50	50	50					200									
		Homogeneous	0%																								
16	198.6	Grey/Beige	NVD	None Detected / INC	0.0%	Fiberglass	10%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
17	198.6	Grey/Beige	NVD	None Detected / INC	0.0%	Fiberglass	15%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
18	198.6	Grey/Beige	NVD	None Detected / INC	0.0%	Fiberglass	10%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
19	198.6	Silver/Beige	NVD	None Detected / INC	0.0%	Fiberglass	8%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
20	198.6	Grey/Beige	NVD	None Detected / INC	0.0%	Fiberglass	5%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
21	198.6	Grey/Beige	NVD	None Detected / INC	0.0%	Fiberglass	8%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
22	198.6	Grey/Beige	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
23	198.6	Grey/Beige	NVD	None Detected / INC	0.0%	Fiberglass	8/%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
24	198.6	Grey/Beige	NVD	None Detected / INC	0.0%	Fiberglass	6%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
25	198.6	Silver/Grey	NVD	None Detected / INC	0.0%	Fiberglass	10%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								
26	198.6	Silver/Grey	NVD	None Detected / INC	0.0%	Fiberglass	8%	Residue		0	0	0	0					0	0.0%								
		Non-Fibrous	NOB							50	50	50	50					200									
		Homogeneous	0%																								

*Disqualifying properties for non absestos fibrous materials: cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-61	Client	LV Sands Nassau C.	Project#	23-0428
Analyst	MI	Analysis Date	1/24/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H-High
M-Morphology: W - Wavy; S - Straight
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P - Pleochroism: Y - Yes; N - No
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Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Asb. Points/Total Points	Total Ash.	RI Oil	R||	R⊥	B	M	S	P	E
27	198.6	Silver/Grey	NVD	None Detected / INC	0.0%	Fiberglass	25%	Residue		0	0	0	0					0									
		Non-Fibrous	NOB							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
28	198.1	White	NVD	None Detected	0.0%	Fiberglass	10%	90.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
29	198.1	White	NVD	None Detected	0.0%	Fiberglass	15%	85.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
30	198.1	White	NVD	None Detected	0.0%	Fiberglass	12%	88.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
31	198.6	Black	NVD	None Detected / INC	0.0%	Fiberglass	11%	Residue		0	0	0	0					0									
		Non-Fibrous	NOB							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
32	198.6	Black	NVD	None Detected / INC	0.0%	Fiberglass	13%	Residue		0	0	0	0					0									
		Non-Fibrous	NOB							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
33	198.1	Grey	NVD	None Detected	0.0%	Fiberglass	26%	74.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
34	198.1	Grey	NVD	None Detected	0.0%	Fiberglass	25%	75.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
35	198.1	Grey	NVD	None Detected	0.0%	Fiberglass	27%	73.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
36	198.1	White	NVD	None Detected	0.0%	Fiberglass	18%	82.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
37	198.1	White	NVD	None Detected	0.0%	Fiberglass	24%	76.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
38	198.1	White	NVD	None Detected	0.0%	Fiberglass	25%	75.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								

*Disqualifying properties for non absestos fibrous materials: cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Airtek Environmental

PREP	20	PLM	20	TEM	20

GRAVIMETRIC (NOB) PREPARATION, NOB-PLM/TEM (198.6; 198.4) ANALYSIS SHEET

Client		LV Sands			Project #		23-0428			Oven ID&Temp			ATK2023-31					480°C				
NOB Prep & Date		MH	1/18/2024		LAB Batch #		24-61			Time ON		6:00PM	Time OFF					8:00PM				
NOB PLM Analyst & Date		MI	1/24/2024							NOB TEM PREP		MG	TEM Analyst & Date					EM	1/29/2024			

SAMPLE #	CRUC #	CRUC WT	CRUC WT & SAMPLE	SAMPLE WT	CRUC WT SAMPLE ASHED	PD WT & FILTER	PD WT FILTER & SAMPLE	NONASB RES %	Organic %	CaCO3 %	TOTAL RESIDUE %	NOB PLM ANALYSIS		NOB PLM Total ASB/ VER %	NOB TEM ANALYSIS							NOB TEM Total ASB / VER %
												%	ASB. TYPE		Grid Box	GRID ID	MORPH	SAED	EDX	%	ASB. TYPE	
4	35	12.6603	12.7745	0.1142	12.6967	8.1416	8.1611	17.1	68.1	14.8	17.1		NAD		138	3A				0	NAD	
5	46	9.4131	9.5716	0.1585	9.4663	8.1425	8.1720	18.6	66.4	15.0	18.6		NAD		138	3B				0	NAD	
6	83	11.9471	12.1523	0.2052	11.9963	8.1409	8.1871	22.5	76	1.5	22.5		NAD		138	3C				0	NAD	
7	149	13.5405	13.6642	0.1237	13.6088	8.1433	8.1939	40.9	44.8	14.3	40.9		NAD		138	3D				0	NAD	
8	183	12.0556	12.1412	0.0856	12.0912	8.1413	8.1695	32.9	58.4	8.7	32.9		NAD		138	3E				0	NAD	
9	58	12.7926	12.8788	0.0862	12.8480	8.1440	8.1950	59.2	35.7	5.1	59.2		NAD		138	4A				0	NAD	
16	117	11.5214	11.7222	0.2008	11.6007	8.1419	8.1855	21.7	60.5	17.8	21.7		NAD		138	4B				0	NAD	
17	98	13.7011	13.8724	0.1713	13.7658	8.1458	8.1926	27.3	62.2	10.5	27.3		NAD		138	4C				0	NAD	
18	191	12.9654	13.0775	0.1121	13.0175	8.1419	8.1684	23.6	53.5	22.9	23.6		NAD		138	4D				0	NAD	
19	185	12.6610	12.7410	0.0800	12.7039	8.1415	8.1844	53.6	46.4	0.0	53.6		NAD		138	4E				0	NAD	
20	116	11.7070	11.8097	0.1027	11.7635	8.1445	8.1587	13.8	45	41.2	13.8		NAD		138	5A				0	NAD	
21	173	12.2665	12.3993	0.1328	12.3378	8.1439	8.1666	17.1	46.3	36.6	17.1		NAD		138	5B				0	NAD	
22	192	12.8443	13.0377	0.1934	12.9049	8.1418	8.1764	17.9	68.7	13.4	17.9		NAD		138	5C				0	NAD	
23	27	13.8526	14.0220	0.1694	13.9655	8.1444	8.2029	34.5	33.4	32.1	34.5		NAD		138	5D				0	NAD	
24	137	12.6997	12.9071	0.2074	12.8074	8.1499	8.2047	26.4	48.1	25.5	26.4		NAD		138	5E				0	NAD	
25	138	12.0064	12.0999	0.0935	12.0617	8.1434	8.1511	8.2	40.9	50.9	8.2		NAD		138	6A				0	NAD	
26	189	12.9673	13.1214	0.1541	13.0550	8.1425	8.1623	12.8	43.1	44.1	12.8		NAD		138	6B				0	NAD	
27	162	13.3482	13.4879	0.1397	13.4500	8.1429	8.2360	66.6	27.1	6.3	66.6		NAD		138	6C				0	NAD	
31	93	11.7485	11.9993	0.2508	11.9249	8.1426	8.2735	52.2	29.7	18.1	52.2		NAD		138	6D				0	NAD	
32	249	13.3524	13.6370	0.2846	13.5612	8.1413	8.3300	66.3	26.6	7.1	66.3		NAD		138	6E				0	NAD	

EFREN MARTINEZ

39-37 29th Street, Long Island City, NY 11101 | Phone: (718) 937-3720 | www.airtekenv.com

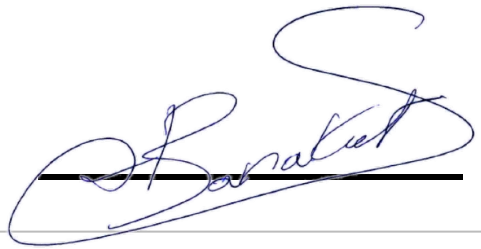
Test Report: Asbestos Analysis of Bulk Material

Project Address:	NVMC	**Airtek Client:**	LV Sands			**Date Sampled:**	1/26/2024
		Airtek Project #:	23-0428	**Lab Batch #:**	24-94	**Date Received:**	1/29/2024

Sample ID #	NYS ELAP Analysis Method	Sample Description & Location	Appearance	Fibrous Material	Non-Fibrous Material	PLM Result			TEM Result (198.4)		
						Asbestos Type	%	Total %	Asbestos Type	%	Total %
1	198.1	Pipe Elbow 10" - 300-Level Pipe Loop	FRIABLE White Homogeneous		Matrix 100%	**No Asbestos Detected**			**Not Analyzed**		
2		Spray-on - 300-Level 228	SMV Brown Homogeneous	**Vermiculite Detected. Not Analyzed - Not Enough Material for 198.8 Analysis**							
3	198.6	HVAC Door Caulk - 300-Level Air Handler	NOB Brown Homogeneous		Residue 22.8%	**Chrysotile**	**2.3%**	**2.3%**	**Not Analyzed**		
4	198.6	HVAC Door Caulk - 300-Level Air Handler	NOB Brown Homogeneous		Residue 28.1%	**Chrysotile**	**3.4%**	**3.4%**	**Not Analyzed**		
5	198.6	HVAC Door Caulk (White) - 300-Level Air Handler	NOB Brown Homogeneous		Residue 68.1%	**Chrysotile**	**5.1%**	**5.1%**	**Not Analyzed**		
6	198.6 198.4	Lower Caulk Red - 300-Level Air Handler	NOB Red Homogeneous		Residue 10.1%	**Inconclusive/ No Asbestos Detected**			**No Asbestos Detected**		

Analyst PLM 198.1 :	Mukhamed Ismoilov	Analysis Date:	1/30/2024
Analyst PLM 198.6:	Mukhamed Ismoilov	Analysis Date:	1/30/2024
Analyst TEM 198.4:	Azzeddine Barakat	Analysis Date:	2/5/2024
Analyst PLM 198.8:		Analysis Date:	

Approved By:
QA/QC Manager Azzeddine Barakat Date: 2/5/2024



Method: PLM with EPA 600/M4/82/020, ELAP 198.1 and ELAP 198.6; TEM by ELAP 198.4, Vermiculite by ELAP 198.8.
Methods of stratified point-counting or negative scanning are used on at least 4 mounts, as per 198.1 Polarized light microscopy is not consistently reliable in detecting asbestos in floor covering/non-friable organically bound materials (NOB's). NOB's should be analyzed by quantitative TEM. The above test report relates only to item tested.
Layered samples are analyzed by layer. Any positive layer will be reported separately. Asbetos percentage is based on point-counting rules described in ELAP 198.1.
*VERMICULTE NOTE DISCLAIMER: Samples that contain more than 10% vermiculite are re-analyzed by ELAP method 198.6. This method does not remove verimculite and may underestimate the level of asbestos containing greater than 10% vermiculite.
Attic fill, block fill or other loose bulk Vermiculite materials must be designated and treated as ACM per NYSDOH
All Surfacing Materials containing vermiculite must be analyzed by a laboratory approved for ELAP 198.8
Airtek collects samples in accordance with EPA 40 CFR Part 763.
This report should not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government and may not be reproduced, except in full, without written approval by Airtek.
Currently approved by ELAP (11040) for Asbestos in Friable Material item 198.1 and EPA 600/M4/82/020, asbestos in Non Friable Materials 198.6 (NOB by PLM) and asbestos in Non Friable Material 198.4 (TEM).
Currently accredited by the NVLAP lab code 102011-0 (Testing) for Bulk Asbestos Analysis (PLM) EPA 600/M4/82/020.
This report relates only to the samples reported above and must not be reproduced except in full with the approval of the laboratory.

JAN 29 '24 AM11:53

TURN AROUND TIME: ☒ RUSH ☐ 6 HRS ☐ 24 HRS ☐ OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 1 OF 1

PROJECT NO.: 23-0428
CLIENT: LV Sands
PROJECT SITE: NYMC
INVESTIGATOR:

LOCATION(S) SURVEYED: 300-Level Mechanical
SCOPE OF WORK: Demo
INSPECTOR: Informational DATE(S) OF INSPECTION: 1/26/24

HA	Sample #	Lab #	Material Description	Sample Location	QUANTITY (LF/SF)	ASSESSMENT COND (1,2,3,4,5,6,7 G MD P)	ASSESSMENT FRIABLE (Y N)	Asbestos %	Vermiculite* %
1	01	24-94	Pipe Elbow 10"	300-Level Pipe-loop			Y N	~~NA~~ NAD 1/30/24	~~NVD~~ Detected
2	02		Spray-on	300-Level 228			Y N	NA	Detected
3	03		HVAC Door Caulk	300-Level Air handler			Y N	2.3% CHR	NVD
3	04		11	11			Y N	3.4% CHR	
4	05		HVAC Door Caulk (white)	11			Y N	5.1% CHR	
5	06		Lower Caulk Red	11			Y N	Inc/NAD	
							Y N		
							Y N		
							Y N		

not Enough material for 198.8

PHYSICAL CONDITION ASSESSMENT
1 Damaged or Significantly Damaged Friable TSI
2 Damaged Friable Surfacing ACM
3 Significantly Damaged Friable Surfacing ACM
4 Damaged or Significantly Damaged Friable Misc. ACM
5 ACBM with potential for Damage
6 ACBM with potential for Significant Damage
7 Remaining Friable or Suspect ACBM
G – Good / MD – Minor Damage / P -Poor

FRIABLE: Yes (Y) No (N)

PLM - POLARIZED LIGHT MICROSCOPY TEM - TRANSMISSION ELECTRON MICROSCOPY

RELINQUISHED BY: _____ DATE: 1/29 TIME: 11 am
RECEIVED BY: Melissa Coby DATE: 1/29/24 TIME: 11:53
ANALYZED BY: _____ DATE: 1/30/24 TIME: 9:40
CHECKED BY: _____ DATE: _____ TIME: _____

NYSDOL INSPECTOR:
CERTIFICATE NO.:

TELEPHONE NO. : (718)937-3720
ADDRESS: Airtek Environmental Corp.
39-37 29th Street, L.I.C., NY 11101

1. A visual determination of accessible suspect materials and condition.
2. Collect bulk samples of suspect building materials.
3. A physical "Hand Pressure" test for determining friability and condition.
4. Assessment of suspect friable and non-friable materials and locations.
5. Quantify the amount of suspect materials in their respective locations.
6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk Sample locations and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.
9. Any inconclusive result for a NOB must be confirmed by TEM or assumed ACM.

ANALYZE: ☒ ALL ☐ PLM ☐ STOP AT FIRST POSITIVE ☐ TEM

Worksheets Analysis by PLM (ELAP 198.1, ELAP 198.6, EPA 600)

Form Ver. #3 11/13/2023

Airtek ENVIRONMENTAL

Batch #	24-94	Client	LV SANDS	Project#	23-0428
Analyst	MI	Analysis Date	1/30/2024	Room Temp	24°C

B-Birefringence: L - Low; M - Med; H-High
M-Morphology: W - Wavy; S - Straight
S - Sign of Elongation: + Pos; - Neg
P - Pleochroism: Y - Yes; N - No
E - Extinction: P - Parallel; O - Oblique

Sample #	Method	Appearance	Vermiculite Treatment	ASBESTOS		FIBROUS		Non-Fibrous Matrix Material %	Buttons	*EPA 600/M4/82/020 *ELAP Item 198.1, 198.6 point count methods										Asbestos Fibers Optical Properties							
			% Asb Stereo	Type	%	Type	%			Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Slide 6	Slide 7	Slide 8	Asb. Points/Total Points	Total Asb.	RI Oil	R||	R⊥	B	M	S	P	E
1	198.1	White	NVD	None Detected	0.0%			100.0%		0	0	0	0					0									
		Non-Fibrous	Crushed							50	50	50	50					200	0.0%								
		Homogeneous	0%																								
2		Brown	Detected	Not Analyzed (Not Enough Material for 198.8 Method)				100.0%										0									
		Non-Fibrous	Teased															0									
		Homogeneous																									
3	198.6	Brown	NVD	Chrysotile	2.3%			Residue		1	1	1	1					4		1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							10	10	10	10					40	10.0%								
		Homogeneous	0%																								
4	198.6	Brown	NVD	Chrysotile	3.4%			Residue		1	1	1	1					4		1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							7	8	8	10					33	12.1%								
		Homogeneous	0%																								
5	198.6	Brown	NVD	Chrysotile	5.1%			Residue		1	1	1	1					4		1.550	1.555	1.549	L	W	+	-	P
		Non-Fibrous	NOB							15	12	14	12					53	7.5%								
		Homogeneous	0%																								
6	198.6	Red	NVD	None Detected / INC	0.0%			Residue		0	0	0	0					0									
		Non-Fibrous	NOB							50	50	50	50					200	0.0%								
		Homogeneous	0%																								

*Disqualifying properties for non absestos fibrous materials: cellulose - undulose extinction; fiberglass - isotropic, hair - scales; wollastonite - +/- sign of elongation; other -

Airtek Environmental

PREP	4	PLM	4	TEM	1

GRAVIMETRIC (NOB) PREPARATION, NOB-PLM/TEM (198.6; 198.4) ANALYSIS SHEET

Client	LV Sands	Project #	23-0428	Oven ID&Temp	ATK2023-31	480°C
NOB Prep & Date	MH/MG 1/29/2024	LAB Batch #	24-94	Time ON	6:00PM	Time OFF	9:00PM
NOB PLM Analyst & Date	MI 1/30/2024			NOB TEM PREP	MG	TEM Analyst & Date	AB 2/5/2024

SAMPLE #	CRUC #	CRUC WT	CRUC WT & SAMPLE	SAMPLE WT	CRUC WT SAMPLE ASHED	PD WT & FILTER	PD WT FILTER & SAMPLE	NONASB RES %	Organic %	CaCO3 %	TOTAL RESIDUE %	NOB PLM ANALYSIS %	NOB PLM ANALYSIS ASB. TYPE	NOB PLM Total ASB/ VER %	NOB TEM ANALYSIS Grid Box	GRID ID	MORPH	SAED	EDX	%	ASB. TYPE	NOB TEM Total ASB / VER %
3	23	13.1533	13.4133	0.2600	13.2514	8.1252	8.1846	20.5	62.3	14.9	22.8	10	CHR	2.3								
4	44	11.4491	11.6172	0.1681	11.5246	8.1262	8.1734	24.7	55.1	16.8	28.1	12.1	CHR	3.4								
5	103	7.7353	8.0602	0.3249	7.9751	8.1866	8.4080	63.0	26.2	5.7	68.1	7.5	CHR	5.1								
6	242	11.8844	12.0542	0.1698	11.9813	8.1892	8.2064	10.1	42.9	47.0	10.1		NAD		144	1A				0	NAD	

APPENDIX E:

Historical Data and Documentation

Please find a selection of NVMC historical documents related to asbestos-containing materials at:

https://drive.google.com/drive/folders/1nfInbDAW7iL_fUNDWs2QwlVzbFkINxF6

APPENDIX F:

Licenses and Certifications

WE ARE YOUR DOL

NEW YORK STATE | Department of Labor

DIVISION OF SAFETY & HEALTH LICENSE AND CERTIFICATE UNIT, STATE OFFICE CAMPUS, BLDG. 12, ALBANY, NY 12226

ASBESTOS HANDLING LICENSE

Airtek Environmental, LLC
39-37 29th Street, Long Island City, NY, 11101

License Number: 28638
License Class: RESTRICTED
Date of Issue: 07/28/2023
Expiration Date: 07/31/2024
Duly Authorized Representative: Saad Zouak

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Amy Phillips, Director
For the Commissioner of Labor

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2024
Issued April 01, 2023
Revised August 30, 2023

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. SAAD ZOUAK
AIRTEK ENVIRONMENT, LLC
39-37 29TH STREET
LONG ISLAND CITY, NY 11101

NY Lab Id No: 11040

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual
Asbestos-Vermiculite-Containing Mate	Item 198.8 of Manual

Serial No.: 67988

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Airtek Environmental Corp.
39-37 29th Street
Long Island City, NY 11101
Mr. Saad Zouak
Phone: 718-937-3720 Fax: 718-937-3721
Email: mzouak@airtekenv.com
http://www.airtekenv.com

ASBESTOS FIBER ANALYSIS — NVLAP LAB CODE 102011-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 102011-0

Airtek Environmental Corp.

Long Island City, NY

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2023-04-01 through 2024-03-31

Effective Dates

For the National Voluntary Laboratory Accreditation Program

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

JEFFREY R COHEN
CLASS(EXPIRES)
C ATEC(05/24) D INSP(05/24)
H PM (05/24) I PD (05/24)

CERT# 20-00448

MUST BE CARRIED ON ASBESTOS PROJECTS

NYC DEP ASBESTOS CONTROL PROGRAM
ASBESTOS CERTIFICATE

COHEN,
JEFFREY
INVESTIGATOR
162138

EXPIRES: 05/18/2025
DOB:05/18/1997 M 5' 08"

MUST BE CARRIED ON ALL ASBESTOS PROJECTS

NYC DEP ASBESTOS CONTROL PROGRAM
ASBESTOS CERTIFICATE

DALBON,
KEITH
INVESTIGATOR
152940

EXPIRES: 08/31/2025
DOB:06/15/1993 M 6' 04"

MUST BE CARRIED ON ALL ASBESTOS PROJECTS

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

KEITH G DALBON
CLASS(EXPIRES)
D INSP(06/24)

CERT# 16-14838
DMV# 157337779

MUST BE CARRIED ON ASBESTOS PROJECTS

H2M architects + engineers
290 Broad Hollow Road, Ste 400E
Melville, NY 11747 | tel 631.756.8000

October 30, 2024

Mr. Daniel J. Baker
Shareholder
Greenberg Traurig, LLP
900 Stewart Avenue, 5th Floor
Garden City, New York 11530

Re: PFAS Groundwater Sampling
Nassau Veterans Memorial Coliseum
Town of Hempstead, New York
H2M Project No. GRBG2401

Dear Mr. Baker:

At the request of Greenberg Traurig, LLP, H2M architects + engineers (H2M) conducted groundwater monitoring well sampling and analysis for per- and polyfluoroalkyl (PFAS) compounds at the Nassau Veterans Memorial Coliseum ("Coliseum") site located within the hamlet of Uniondale, Town of Hempstead, Nassau County. The groundwater sampling was performed in support of proposed dewatering efforts as part of the Nassau Hub redevelopment project. The project site is comprised of Nassau County Tax Map Section 44, Block F, Lots 351, 411, 412, and 415.

Four (4) groundwater observation wells, identified as LB1A-01(OW), LB1A-06(OW), LB1B-05(OW), and LB1B-23(OW), were previously installed by others at the Coliseum site as part of subsurface investigations documented in Geotechnical Engineering Reports for Project Maximus Phases 1A and 1B, dated October 2023, prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) for Las Vegas Sands Corp. Wells LB1A-01(OW) and LB1A-06(OW) are located in the loading dock and lower level, respectively, of the current building. Wells LB1B-05(OW) and LB1B-23(OW) are located in the north parking lot of the Coliseum. The well locations are depicted in Figures 1a and 1b. According to the Geotechnical Engineering Reports, the wells were installed to approximately 40 feet below grade (bg), consisting of 10 feet of 2-inch diameter PVC screen and 30 feet of solid riser pipe. The following well data was measured during this recent groundwater sampling event:

Well ID	Depth to Water (feet)	Depth to Bottom (feet)
LB1A-01(OW)	8.00	40.05
LB1A-06(OW)	6.45	41.10
LB1B-05(OW)	27.23	36.70
LB1B-23(OW)	28.75	37.18

On October 22, 2024, H2M mobilized to the Coliseum to collect groundwater samples from the four wells for PFAS analysis. The groundwater samples were collected in compliance with the USEPA Low Stress (Low-Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (USEPA, September 2017) and NYSDEC Sampling, Analysis, and Assessment of PFAS Under NYSDEC's Part 375 Remedial Programs (NYSDEC, April 2023). The wells were purged and sampled using low-flow sampling methodologies with a PFAS-free bladder pump and high-density polyethylene (HDPE) tubing. The pump was lowered into the wells to depths within the well screen interval. Water quality measurements were monitored and logged during the low-flow purge until indicator field parameters (i.e., turbidity, dissolved oxygen, specific conductance, temperature, pH and oxidation/reduction potential) stabilized. Following stabilization, the groundwater samples were collected into laboratory-supplied glassware. To minimize the potential for cross-contamination of the groundwater samples, decontamination of the non-dedicated sampling equipment was performed in between each sample utilizing Alconox® detergent and PFAS-free water.

The groundwater was purged into 5-gallon buckets. Based on a Phase II Environmental Site Investigation completed at the site, report dated November 3, 2023, prepared by Langan for Las Vegas Sands Corp, groundwater sampling results were determined to be indicative of naturally occurring regional conditions, and off-site disposal of purged groundwater was not necessary. Since no petroleum-like sheen or odor was observed during this sampling event, the purged water was discharged to surface paving or media.

The groundwater samples were submitted under standard chain-of-custody protocol to a New York State Department of Health (NYSDOH) ELAP-certified laboratory. Additional QA/QC samples, including a field duplicate, matrix spike / matrix spike duplicate, and equipment blank, were collected as recommended by the NYSDEC PFAS Sampling Guidance. All groundwater samples and QA/QC samples were analyzed for PFAS by USEPA Method 1633.

Sampling results, summarized in Table 1, were compared to the NYSDEC TOGS 1.1.1 Class GA Ambient Water Quality Standards and Guidance Values (AWQS), which provides guidance values specifically for two PFAS compounds: perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). As shown in Table 1, all four groundwater well samples had detections of PFOS, ranging from 10.3 to 60.6 nanograms per liter (ng/L), above the guidance value of 2.7 ng/L. Three out of the four samples had detections of PFOA, ranging from 11.8 to 15.6 ng/L, above the guidance value of 6.7 ng/L. Based on these results, it is recommended that consideration be given to groundwater treatment options during the construction phase dewatering. The disposition of any dewatered groundwater should be managed in accordance with applicable local and regional regulations.

If you should have any questions regarding the above, please contact Joel Richardson at (631) 392-5394 or Lily Wu at (631) 392-5231.

Very truly yours,

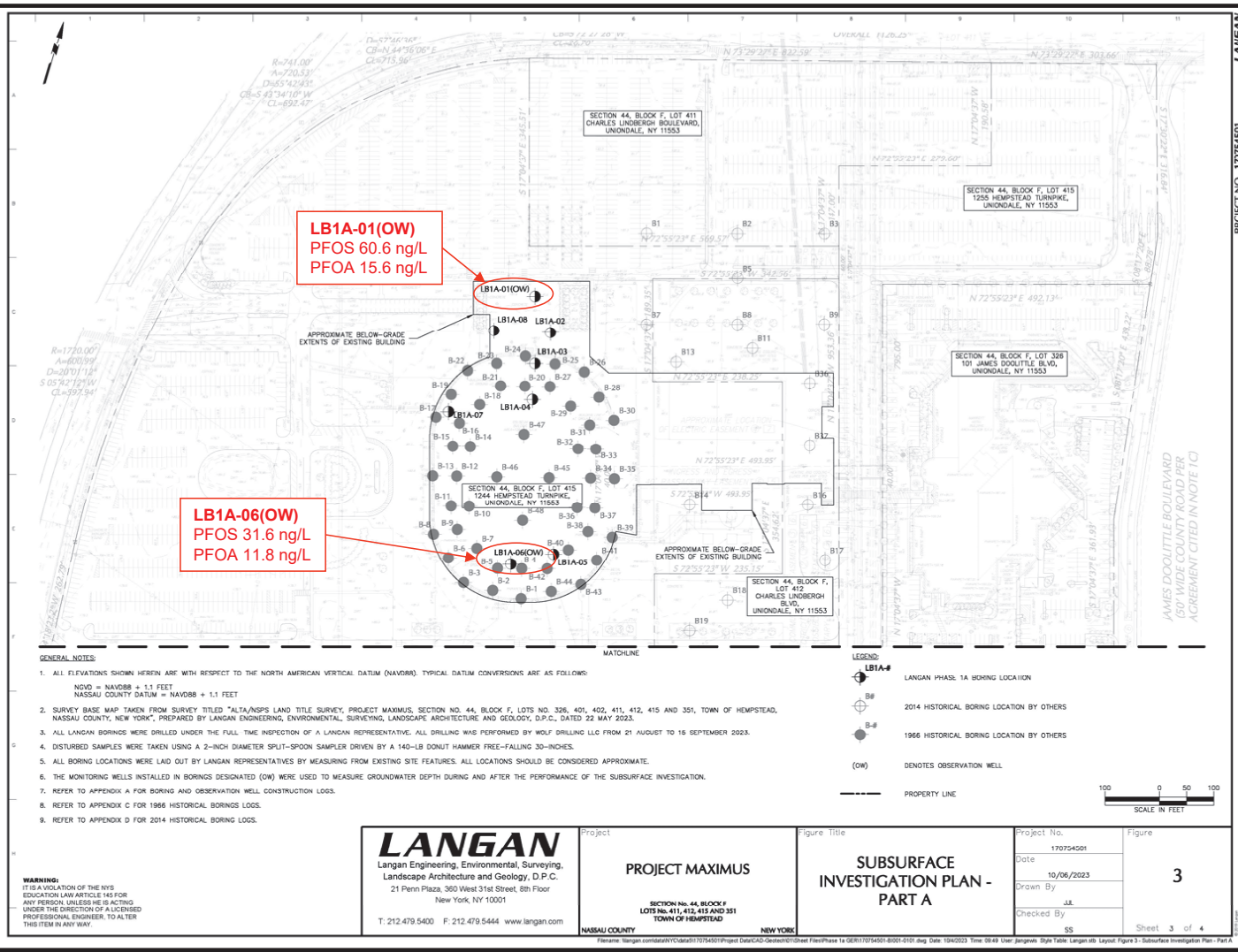
H2M architects + engineers

Kevin M. Taylor, P.E., P.G.
Vice President | Deputy Director | Environmental

Lily Wu, P.G.
Senior Project Scientist

Enclosures:
Figures 1a and 1b – Monitoring Well Locations and Summary of Exceedances
Table 1 – PFAS Groundwater Results
Attachment 1 – Laboratory Report

cc: RJR – H2M



GENERAL NOTES:

1. ALL ELEVATIONS SHOWN HEREIN ARE WITH RESPECT TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88). TYPICAL DATUM CONVERSIONS ARE AS FOLLOWS:
   NGVD = NAVD88 + 1.1 FEET
   NASSAU COUNTY DATUM = NAVD88 + 1.1 FEET
2. SURVEY BASE MAP TAKEN FROM SURVEY TITLED "ALTA/NSPS LAND TITLE SURVEY, PROJECT MAXIMUS, SECTION NO. 44, BLOCK F, LOTS NO. 326, 401, 402, 411, 412, 415 AND 351, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C., DATED 22 MAY 2023.
3. ALL LANGAN BORINGS WERE DRILLED UNDER THE FULL TIME INSPECTION OF A LANGAN REPRESENTATIVE. ALL DRILLING WAS PERFORMED BY WOLF DRILLING LLC FROM 21 AUGUST TO 15 SEPTEMBER 2023.
4. DISTURBED SAMPLES WERE TAKEN USING A 2-INCH DIAMETER SPLIT-SPOON SAMPLER DRIVEN BY A 140-LB DONUT HAMMER FREE-FALLING 30-INCHES.
5. ALL BORING LOCATIONS WERE LAID OUT BY LANGAN REPRESENTATIVES BY MEASURING FROM EXISTING SITE FEATURES. ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE.
6. THE MONITORING WELLS INSTALLED IN BORINGS DESIGNATED (OW) WERE USED TO MEASURE GROUNDWATER DEPTH DURING AND AFTER THE PERFORMANCE OF THE SUBSURFACE INVESTIGATION.
7. REFER TO APPENDIX A FOR BORING AND OBSERVATION WELL CONSTRUCTION LOGS.
8. REFER TO APPENDIX C FOR 1966 HISTORICAL BORINGS LOGS.
9. REFER TO APPENDIX D FOR 2014 HISTORICAL BORING LOGS.

LEGEND:

- LB1A-# — LANGAN PHASE 1A BORING LOCATION
- B# — 2014 HISTORICAL BORING LOCATION BY OTHERS
- B-# — 1966 HISTORICAL BORING LOCATION BY OTHERS
- (OW) — DENOTES OBSERVATION WELL
- PROPERTY LINE

SCALE IN FEET: 100 0 50 100

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com

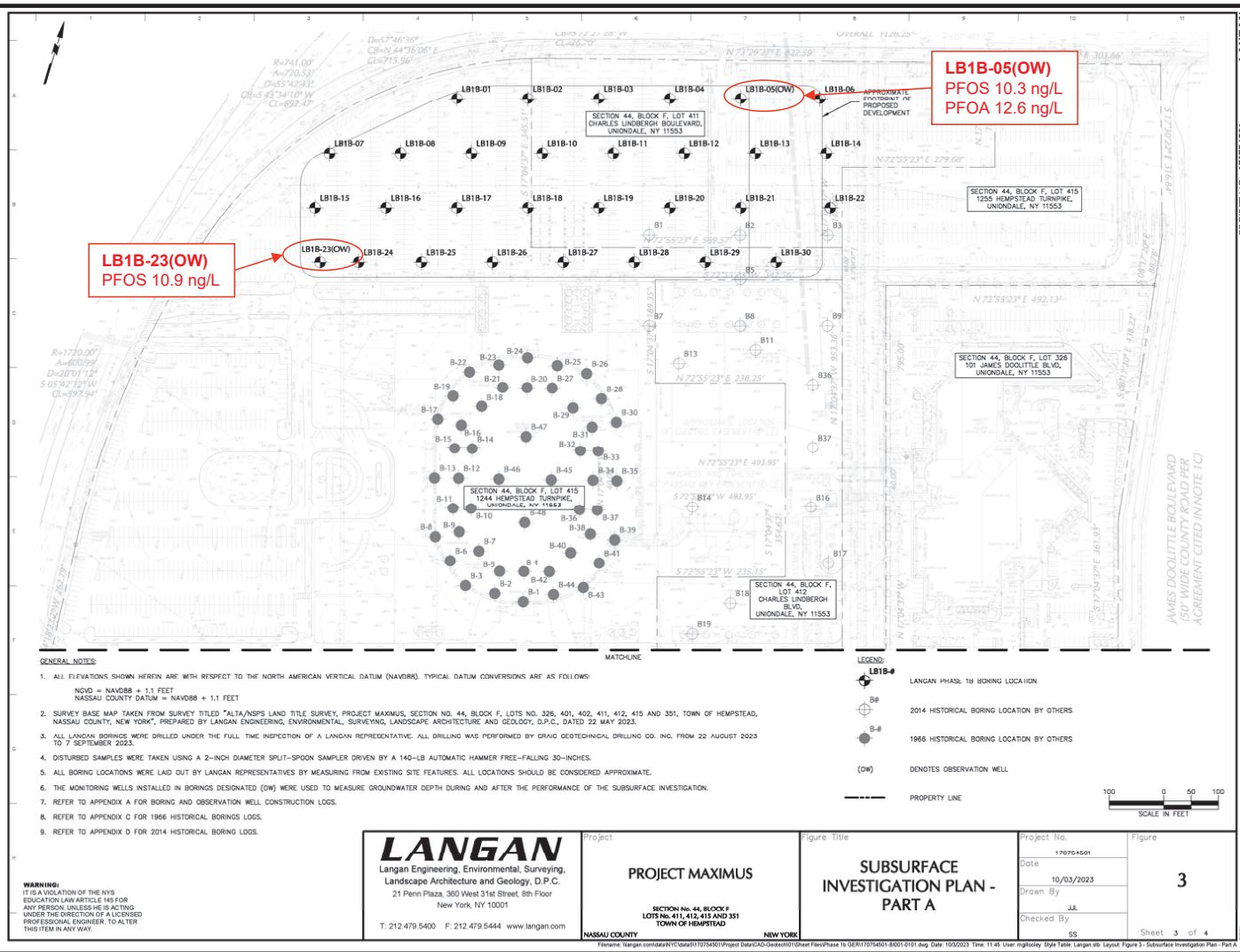
Project	Figure Title	Project No.	Figure
PROJECT MAXIMUS SECTION No. 44, BLOCK F LOTS No. 411, 412, 415 AND 351 TOWN OF HEMPSTEAD NASSAU COUNTY NEW YORK	SUBSURFACE INVESTIGATION PLAN - PART A	170754501 Date 10/06/2023 Drawn By JJL Checked By SS	3 Sheet 3 of 4

Filename: \\langan.com\data\NYC\data5\170754501\Project Data\CAD-Geotech\01\Sheet Files\Phase 1a GER\170754501-B001-0101.dwg Date: 10/4/2023 Time: 09:49 User: jangevis Style Table: Langan.stb Layout: Figure 3 - Subsurface Investigation Plan - Part A

Figure 1a. Monitoring Well Locations and Summary of Exceedances
Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike
Uniondale, New York 11553

Base Map Source:
Langan Geotechnical Engineering Report for Project Maximus, Phase 1A, Figure 3, October 6, 2023

H2M architects + engineers
290 Broad Hollow Road, Ste 400E
Melville, NY 11747 | tel 631.756.8000



GENERAL NOTES:

1. ALL ELEVATIONS SHOWN HEREIN ARE WITH RESPECT TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88). TYPICAL DATUM CONVERSIONS ARE AS FOLLOWS:
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2. SURVEY BASE MAP TAKEN FROM SURVEY TITLED "ALTA/NSPS LAND TITLE SURVEY, PROJECT MAXIMUS, SECTION NO. 44, BLOCK F, LOTS NO. 326, 401, 402, 411, 412, 415 AND 351, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C., DATED 22 MAY 2023.
3. ALL LANGAN BORINGS WERE DRILLED UNDER THE FULL TIME INSPECTION OF A LANGAN REPRESENTATIVE. ALL DRILLING WAS PERFORMED BY CRAIG GEOTECHNICAL DRILLING CO. INC. FROM 22 AUGUST 2023 TO 7 SEPTEMBER 2023.
4. DISTURBED SAMPLES WERE TAKEN USING A 2-INCH DIAMETER SPLIT-SPOON SAMPLER DRIVEN BY A 140-LB AUTOMATIC HAMMER FREE-FALLING 30-INCHES.
5. ALL BORING LOCATIONS WERE LAID OUT BY LANGAN REPRESENTATIVES BY MEASURING FROM EXISTING SITE FEATURES. ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE.
6. THE MONITORING WELLS INSTALLED IN BORINGS DESIGNATED (OW) WERE USED TO MEASURE GROUNDWATER DEPTH DURING AND AFTER THE PERFORMANCE OF THE SUBSURFACE INVESTIGATION.
7. REFER TO APPENDIX A FOR BORING AND OBSERVATION WELL CONSTRUCTION LOGS.
8. REFER TO APPENDIX C FOR 1966 HISTORICAL BORINGS LOGS.
9. REFER TO APPENDIX D FOR 2014 HISTORICAL BORING LOGS.

LANGAN
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Project	Figure Title	Project No.	Figure
PROJECT MAXIMUS SECTION No. 44, BLOCK F LOTS No. 411, 412, 415 AND 351 TOWN OF HEMPSTEAD NASSAU COUNTY NEW YORK	SUBSURFACE INVESTIGATION PLAN - PART A	170754501 Date 10/03/2023 Drawn By JJL Checked By SS	3 Sheet 3 of 4

Filename: \\langan.com\data\NYC\data5\170754501\Project Data\CAD-Geotech\01\Sheet Files\Phase 1b GER\170754501-B001-0101.dwg Date: 10/3/2023 Time: 11:45 User: mgilooley Style Table: Langan.stb Layout: Figure 3 - Subsurface Investigation Plan - Part A

Figure 1b. Monitoring Well Locations and Summary of Exceedances
Nassau Veterans Memorial Coliseum
1255 Hempstead Turnpike
Uniondale, New York 11553

Base Map Source:
Langan Geotechnical Engineering Report for Project Maximus, Phase 1B, Figure 3, October 3, 2023

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290 Broad Hollow Road, Ste 400E
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TABLE 1
PFAS Groundwater Results
Nassau Veterans Memorial Coliseum
Uniondale, Town of Hempstead, New York

Sample ID		NYSDEC TOGS Standards and Guidance Values - GA[1]	LB1A-01(OW)		LB1A-06(OW)		LB1B-05(OW)		LB1B-33(OW)		Duplicate		Equipment Blank	
York ID			24J1491-01		24J1491-04		24J1491-02		24J1491-03		24J1491-05		24J1491-06	
Sampling Date			10/22/2024 10:20:00 AM		10/22/2024 5:35:00 PM		10/22/2024 1:50:00 PM		10/22/2024 3:45:00 PM		10/22/2024 3:00:00 PM		10/22/2024 2:05:00 PM	
Client Matrix			Ground Water		Ground Water		Ground Water		Ground Water		Ground Water		Ground Water	
Compound	CAS Number		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
PFAS, EPA 1633 Target List		ng/L	ng/L		ng/L		ng/L		ng/L		ng/L		ng/L	
Dilution Factor			1		1		1		1		1		1	
11Cl-PF3OUdS	83329-89-9	~	1.230	U	1.270	U	1.230	U	13.800	U	1.230	U	1.350	U
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	~	1.830	U	1.890	U	1.830	U	20.500	U	1.820	U	2	U
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	757124-72-4	~	1.600	U	1.650	U	1.600	U	17.900	U	1.590	U	1.750	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	27619-97-2	~	0.948	U	0.976	U	0.945	U	10.600	U	0.941	U	1.040	U
3-Perfluoroheptyl propanoic acid (FHpPA)	812-70-4	~	8.470	U	8.720	U	8.440	U	94.700	U	8.410	U	9.250	U
3-Perfluoropentyl propanoic acid (FPePA)	914637-49-3	~	6.560	U	6.750	U	6.530	U	73.300	U	6.510	U	7.160	U
3-Perfluoropropyl propanoic acid (FPrPA)	356-02-5	~	1.820	U	1.870	U	1.810	U	20.300	U	1.800	U	1.980	U
9Cl-PF3ONS	756426-58-1	~	0.626	U	0.645	U	0.624	U	7	U	0.622	U	0.684	U
ADONA	919005-14-4	~	0.474	U	0.488	U	0.472	U	5.300	U	0.471	U	0.518	U
HFPO-DA (Gen-X)	13252-13-6	~	2.890	U	2.970	U	2.880	U	32.300	U	2.870	U	3.150	U
N-EtFOSA	4151-50-2	~	1.610	U	1.660	U	1.600	U	18	U	1.600	U	1.760	U
N-EtFOSAA	2991-50-6	~	0.921	U	0.948	U	0.918	U	10.300	U	0.915	U	1.010	U
N-EtFOSE	1691-99-2	~	3.570	U	3.670	U	3.560	U	39.900	U	3.540	U	3.900	U
N-MeFOSA	31506-32-8	~	1.410	U	1.450	U	1.410	U	15.800	U	1.400	U	1.540	U
N-MeFOSAA	2355-31-9	~	0.707	U	0.727	U	0.704	U	7.900	U	0.702	U	0.771	U
N-MeFOSE	24448-09-7	~	3.570	U	3.670	U	3.560	U	39.900	U	3.540	U	3.900	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	113507-82-7	~	0.447	U	0.460	U	0.446	U	5	U	0.444	U	0.488	U
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	~	1.180	U	1.220	U	1.180	U	13.200	U	1.170	U	1.290	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	~	1.300	J	0.838	U	0.811	U	9.100	U	1.570	J	0.889	U
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	~	0.769	U	0.792	U	0.766	U	8.600	U	0.764	U	0.840	U
Perfluoro-1-octanesulfonamide (FOSA)	754-91-6	~	0.787	U	0.810	U	0.784	U	8.800	U	0.782	U	0.859	U
Perfluoro-1-pentanesulfonate (PFPeS)	2706-91-4	~	9.490		2.530		0.677	U	7.600	U	8.850		0.742	U
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	151772-58-6	~	1.910	U	1.970	U	1.910	U	21.400	U	1.900	U	2.090	U
Perfluoro-4-oxapentanoic acid (PFMPA)	377-73-1	~	0.224	U	0.230	U	0.223	U	2.500	U	0.222	U	0.244	U
Perfluoro-5-oxahexanoic acid (PFMBA)	863090-89-5	~	0.331	U	0.341	U	0.330	U	3.700	U	0.329	U	0.361	U
Perfluorobutanesulfonic acid (PFBS)	375-73-5	~	8.630		2.660		1.360	J	4.700	U	8.100		0.459	U
Perfluorodecanoic acid (PFDA)	335-76-2	~	0.707	J	1.220	J	0.668	U	7.500	U	0.766	J	0.732	U
Perfluorododecanesulfonic acid (PFDoS)	79780-39-5	~	0.832	U	0.856	U	0.829	U	9.300	U	0.826	U	0.908	U
Perfluorododecanoic acid (PFDoA)	307-55-1	~	0.787	U	0.810	U	0.784	U	8.800	U	0.782	U	0.859	U
Perfluoroheptanoic acid (PFHpA)	375-85-9	~	11.200		5.600		4.500		7.100	U	10.500		0.693	U
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	~	52		17.700		6.220		6.800	U	51.100		0.664	U
Perfluorohexanoic acid (PFHxA)	307-24-4	~	16.200		6.420		8.610		3.870	J	16		0.342	U
Perfluoro-n-butanoic acid (PFBA)	375-22-4	~	8.970		6.630	J	0.294	U	3.300	U	8.780		0.322	U
Perfluorononanoic acid (PFNA)	375-95-1	~	2.660		1.870		1.250	J	5.200	U	2.430		0.508	U
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	2.7	**60.600**		**31.600**		**10.300**		**10.900**	J	**58.300**		0.801	U
Perfluorooctanoic acid (PFOA)	335-67-1	6.7	**15.600**		**11.800**		**12.600**		5.840	J	**15.400**		0.410	U
Perfluoropentanoic acid (PFPeA)	2706-90-3	~	16.900		6.480		11.500		5.250	J	16.600		0.225	U
Perfluorotetradecanoic acid (PFTA)	376-06-7	~	0.617	U	0.635	U	0.615	U	6.900	U	0.613	U	0.674	U
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	~	0.662	U	0.681	U	0.660	U	7.400	U	0.657	U	0.723	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	~	1.010	U	1.040	U	1.010	U	11.300	U	1	U	1.100	U

NOTES:
1 - New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA
Any Regulatory Exceedences are color coded by Regulation
Duplicate sample was collected from LB1A-01(OW).

Q is the Qualifier Column with definitions as follows:
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
~=this indicates that no regulatory limit has been established for this analyte

Technical Report

prepared for:

H2M architects + engineers
290 Broad Hollow Rd
Melville NY, 11747
Attention: Lily Wu

Report Date: 10/30/2024
Client Project ID: Nassau Coliseum/ GRBG2401
York Project (SDG) No.: 24J1491

Revision No. 1.0

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

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

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 10/30/2024
Client Project ID: Nassau Coliseum/ GRBG2401
York Project (SDG) No.: 24J1491

H2M architects + engineers
290 Broad Hollow Rd
Melville NY, 11747
Attention: Lily Wu

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on October 23, 2024 and listed below. The project was identified as your project: **Nassau Coliseum/ GRBG2401**.

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

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

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

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

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

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
24J1491-01	LB1A-01(OW)	Ground Water	10/22/2024	10/23/2024
24J1491-02	LB1B-05(OW)	Ground Water	10/22/2024	10/23/2024
24J1491-03	LB1B-23(OW)	Ground Water	10/22/2024	10/23/2024
24J1491-04	LB1A-06(OW)	Ground Water	10/22/2024	10/23/2024
24J1491-05	Duplicate	Ground Water	10/22/2024	10/23/2024
24J1491-06	Equipment Blank	Ground Water	10/22/2024	10/23/2024

General Notes for York Project (SDG) No.: 24J1491

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

Approved By: Cassie L. Mosher

Cassie L. Mosher
Laboratory Manager

Date: 10/30/2024

Sample Information

Client Sample ID: LB1A-01(OW)

York Sample ID: 24J1491-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 10:20 am	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**8.63**		ng/L	0.420	1.58	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**16.2**		ng/L	0.313	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
375-85-9	**Perfluoroheptanoic acid (PFHpA)**	**11.2**	PF-CCV-H	ng/L	0.635	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
355-46-4	**Perfluorohexanesulfonic acid (PFHxS)**	**52.0**		ng/L	0.608	1.64	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
335-67-1	**Perfluorooctanoic acid (PFOA)**	**15.6**		ng/L	0.376	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
1763-23-1	**Perfluorooctanesulfonic acid (PFOS)**	**60.6**		ng/L	0.733	1.66	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
375-95-1	**Perfluorononanoic acid (PFNA)**	**2.66**		ng/L	0.465	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
335-76-2	**Perfluorodecanoic acid (PFDA)**	**0.707**	J	ng/L	0.671	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.01	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.787	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.662	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.617	1.79	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.707	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.921	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**16.9**		ng/L	0.206	3.58	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.787	1.79	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
375-92-8	*** Perfluoro-1-heptanesulfonic acid (PFHpS)**	**1.30**	J	ng/L	0.814	1.71	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.18	1.73	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	0.948	6.80	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.83	6.87	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**8.97**		ng/L	0.295	7.16	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM

Sample Information

Client Sample ID: LB1A-01(OW) **York Sample ID:** 24J1491-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 10:20 am	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.447	3.18	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/28/2024 23:33	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.91	3.58	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/28/2024 23:33	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.224	3.58	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/28/2024 23:33	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.331	3.58	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/28/2024 23:33	AM
2706-91-4	**Perfluoro-1-pentanesulfonate (PFPeS)**	**9.49**		ng/L	0.680	1.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.60	6.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.89	7.16	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
83329-89-9	11CL-PF3OUdS	ND		ng/L	1.23	6.76	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.626	6.69	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
919005-14-4	ADONA	ND		ng/L	0.474	6.76	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.832	1.74	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.769	1.72	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/28/2024 23:33	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.82	4.47	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	6.56	22.4	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	8.47	22.4	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.57	17.9	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.41	1.79	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.57	17.9	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.61	1.79	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/28/2024 23:33	AM

	Surrogate Recoveries	Result	Acceptance Range
M3PFBS	*Surrogate: M3PFBS*	*101 %*	*25-150*
13C5PFHXA	*Surrogate: M5PFHxA*	*104 %*	*25-150*
13C4PFHPA	*Surrogate: M4PFHpA*	*90.6 %*	*25-150*
13C3PFHXS	*Surrogate: M3PFHxS*	*103 %*	*25-150*
13C8PFOA	*Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)*	*120 %*	*25-150*
13C6PFDA	*Surrogate: M6PFDA*	*105 %*	*25-150*

Sample Information

Client Sample ID: LB1A-01(OW) **York Sample ID:** 24J1491-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 10:20 am	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
13C7PFUNA	*Surrogate: M7PFUdA*	*99.5 %*			*25-150*						
960315-52-0	*Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)*	*75.3 %*			*25-150*						
13C2PFTEDA	*Surrogate: M2PFTeDA*	*59.1 %*			*10-150*						
13C4PFBA	*Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)*	*79.8 %*			*25-150*						
13C8PFOS	*Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)*	*99.5 %*			*25-150*						
2283397-79-3	*Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)*	*99.6 %*			*25-150*						
13C8FOSA	*Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)*	*92.8 %*			*10-150*						
D3-NMEFOSAA	*Surrogate: d3-N-MeFOSAA*	*78.7 %*			*25-150*						
D5-NETFOSAA	*Surrogate: d5-N-EtFOSAA*	*89.2 %*			*25-150*						
M2-6:2FTS	*Surrogate: M2-6:2 FTS*	*64.8 %*			*25-200*						
M2-8:2FTS	*Surrogate: M2-8:2 FTS*	*72.2 %*			*25-200*						
13C9PFNA	*Surrogate: M9PFNA*	*100 %*			*25-150*						
M2-4:2FTS	*Surrogate: M2-4:2 FTS*	*71.8 %*			*25-150*						
d-N-MeFOSA	*Surrogate: d-N-MeFOSA*	*60.4 %*			*25-150*						
d-N-EtFOSA	*Surrogate: d-N-EtFOSA*	*51.1 %*			*25-150*						
M3HFPO-DA	*Surrogate: M3HFPO-DA*	*92.6 %*			*25-150*						
D9-NETPFOSAI	*Surrogate: d9-N-EtFOSE*	*86.9 %*			*25-150*						
D7-NMEPFOSA	*Surrogate: d7-N-MeFOSE*	*101 %*			*25-150*						

Sample Information

Client Sample ID: LB1B-05(OW) **York Sample ID:** 24J1491-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 1:50 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**1.36**	J	ng/L	0.419	1.58	1	EPA 1633 Draft 3	10/26/2024 10:44	10/29/2024 00:22	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**8.61**		ng/L	0.312	1.78	1	EPA 1633 Draft 3	10/26/2024 10:44	10/29/2024 00:22	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
375-85-9	**Perfluoroheptanoic acid (PFHpA)**	**4.50**	PF-CCV-H	ng/L	0.633	1.78	1	EPA 1633 Draft 3	10/26/2024 10:44	10/29/2024 00:22	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			

Sample Information

Client Sample ID: LB1B-05(OW) **York Sample ID:** 24J1491-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 1:50 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
355-46-4	**Perfluorohexanesulfonic acid (PFHxS)**	**6.22**		ng/L	0.606	1.63	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
335-67-1	**Perfluorooctanoic acid (PFOA)**	**12.6**		ng/L	0.374	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
1763-23-1	**Perfluorooctanesulfonic acid (PFOS)**	**10.3**		ng/L	0.731	1.66	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
375-95-1	**Perfluorononanoic acid (PFNA)**	**1.25**	J	ng/L	0.463	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.668	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.01	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.784	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.660	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.615	1.78	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.704	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.918	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**11.5**		ng/L	0.205	3.57	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.784	1.78	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.811	1.70	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.18	1.72	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	0.945	6.77	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.83	6.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.294	7.13	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.446	3.17	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:22	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.91	3.57	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:22	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.223	3.57	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:22	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.330	3.57	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:22	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.677	1.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM

Sample Information

Client Sample ID: LB1B-05(OW) **York Sample ID:** 24J1491-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 1:50 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.60	6.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.88	7.13	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
83329-89-9	11CL-PF3OUdS	ND		ng/L	1.23	6.74	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.624	6.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
919005-14-4	ADONA	ND		ng/L	0.472	6.74	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.829	1.73	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.766	1.71	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:22	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.81	4.46	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	6.53	22.3	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	8.44	22.3	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.56	17.8	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.41	1.78	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.56	17.8	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.60	1.78	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:22	AM

	Surrogate Recoveries	Result		Acceptance Range
M3PFBS	*Surrogate: M3PFBS*	*105 %*		*25-150*
13C5PFHXA	*Surrogate: M5PFHxA*	*115 %*		*25-150*
13C4PFHPA	*Surrogate: M4PFHpA*	*114 %*		*25-150*
13C3PFHXS	*Surrogate: M3PFHxS*	*110 %*		*25-150*
13C8PFOA	*Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)*	*108 %*		*25-150*
13C6PFDA	*Surrogate: M6PFDA*	*135 %*		*25-150*
13C7PFUNA	*Surrogate: M7PFUdA*	*115 %*		*25-150*
960315-52-0	*Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)*	*80.9 %*		*25-150*
13C2PFTEDA	*Surrogate: M2PFTeDA*	*63.2 %*		*10-150*
13C4PFBA	*Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)*	*11.3 %*	PFSu-L	*25-150*
13C8PFOS	*Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)*	*102 %*		*25-150*

Sample Information

Client Sample ID: LB1B-05(OW) **York Sample ID:** 24J1491-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 1:50 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2283397-79-3	*Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)*	*102 %*			*25-150*						
13C8FOSA	*Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)*	*102 %*			*10-150*						
D3-NMEFOSAA	*Surrogate: d3-N-MeFOSAA*	*85.9 %*			*25-150*						
D5-NETFOSAA	*Surrogate: d5-N-EtFOSAA*	*96.7 %*			*25-150*						
M2-6:2FTS	*Surrogate: M2-6:2 FTS*	*70.4 %*			*25-200*						
M2-8:2FTS	*Surrogate: M2-8:2 FTS*	*77.5 %*			*25-200*						
13C9PFNA	*Surrogate: M9PFNA*	*122 %*			*25-150*						
M2-4:2FTS	*Surrogate: M2-4:2 FTS*	*86.0 %*			*25-150*						
d-N-MeFOSA	*Surrogate: d-N-MeFOSA*	*68.0 %*			*25-150*						
d-N-EtFOSA	*Surrogate: d-N-EtFOSA*	*54.1 %*			*25-150*						
M3HFPO-DA	*Surrogate: M3HFPO-DA*	*106 %*			*25-150*						
D9-NETPFOSA	*Surrogate: d9-N-EtFOSE*	*71.6 %*			*25-150*						
D7-NMEPFOSA	*Surrogate: d7-N-MeFOSE*	*87.2 %*			*25-150*						

Sample Information

Client Sample ID: LB1B-23(OW) **York Sample ID:** 24J1491-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 3:45 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	4.70	17.7	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**3.87**	J	ng/L	3.50	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	7.10	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	6.80	18.3	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
335-67-1	**Perfluorooctanoic acid (PFOA)**	**5.84**	J	ng/L	4.20	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
1763-23-1	**Perfluorooctanesulfonic acid (PFOS)**	**10.9**	J	ng/L	8.20	18.6	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	5.20	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	7.50	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM

Sample Information

Client Sample ID: LB1B-23(OW) **York Sample ID:** 24J1491-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 3:45 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	11.3	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	8.80	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	7.40	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	6.90	20.0	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
2355-31-9	N-MeFOSAA	ND		ng/L	7.90	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
2991-50-6	N-EtFOSAA	ND		ng/L	10.3	20.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**5.25**	J	ng/L	2.30	40.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	8.80	20.0	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	9.10	19.1	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	13.2	19.3	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	10.6	76.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	20.5	76.8	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	3.30	80.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	5.00	35.6	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/27/2024 10:44	10/28/2024 17:22	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	21.4	40.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/27/2024 10:44	10/28/2024 17:22	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	2.50	40.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/27/2024 10:44	10/28/2024 17:22	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	3.70	40.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/27/2024 10:44	10/28/2024 17:22	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	7.60	18.8	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	17.9	75.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	32.3	80.0	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
83329-89-9	11CL-PF3OUdS	ND		ng/L	13.8	75.6	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	7.00	74.8	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
919005-14-4	ADONA	ND		ng/L	5.30	75.6	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM

Sample Information

Client Sample ID: LB1B-23(OW) **York Sample ID:** 24J1491-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 3:45 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	9.30	19.4	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	8.60	19.2	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/27/2024 10:44	10/28/2024 17:22	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	20.3	50.0	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	73.3	250	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	94.7	250	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM
24448-09-7	* N-MeFOSE	ND		ng/L	39.9	200	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM
31506-32-8	* N-MeFOSA	ND		ng/L	15.8	20.0	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM
1691-99-2	* N-EtFOSE	ND		ng/L	39.9	200	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM
4151-50-2	* N-EtFOSA	ND		ng/L	18.0	20.0	1	EPA 1633 Draft 3 Certifications:	10/27/2024 10:44	10/28/2024 17:22	AM

	Surrogate Recoveries	Result		Acceptance Range
M3PFBS	*Surrogate: M3PFBS*	*94.8 %*		*25-150*
13C5PFHXA	*Surrogate: M5PFHxA*	*110 %*		*25-150*
13C4PFHPA	*Surrogate: M4PFHpA*	*110 %*		*25-150*
13C3PFHXS	*Surrogate: M3PFHxS*	*121 %*		*25-150*
13C8PFOA	*Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)*	*136 %*		*25-150*
13C6PFDA	*Surrogate: M6PFDA*	*133 %*		*25-150*
13C7PFUNA	*Surrogate: M7PFUdA*	*95.9 %*		*25-150*
960315-52-0	*Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)*	*52.6 %*		*25-150*
13C2PFTEDA	*Surrogate: M2PFTeDA*	*28.8 %*		*10-150*
13C4PFBA	*Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)*	*12.4 %*	PFSu-L	*25-150*
13C8PFOS	*Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)*	*103 %*		*25-150*
2283397-79-3	*Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)*	*63.4 %*		*25-150*
13C8FOSA	*Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)*	*110 %*		*10-150*
D3-NMEFOSAA	*Surrogate: d3-N-MeFOSAA*	*69.8 %*		*25-150*
D5-NETFOSAA	*Surrogate: d5-N-EtFOSAA*	*77.1 %*		*25-150*
M2-6:2FTS	*Surrogate: M2-6:2 FTS*	*38.8 %*		*25-200*
M2-8:2FTS	*Surrogate: M2-8:2 FTS*	*62.1 %*		*25-200*
13C9PFNA	*Surrogate: M9PFNA*	*121 %*		*25-150*
M2-4:2FTS	*Surrogate: M2-4:2 FTS*	*27.8 %*		*25-150*

Sample Information

Client Sample ID: LB1B-23(OW) **York Sample ID:** 24J1491-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 3:45 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
d-N-MeFOSA	*Surrogate: d-N-MeFOSA*	*64.3 %*			*25-150*						
d-N-EtFOSA	*Surrogate: d-N-EtFOSA*	*41.0 %*			*25-150*						
M3HFPO-DA	*Surrogate: M3HFPO-DA*	*92.2 %*			*25-150*						
D9-NETPFOSAI	*Surrogate: d9-N-EtFOSE*	*43.3 %*			*25-150*						
D7-NMEPFOSA	*Surrogate: d7-N-MeFOSE*	*56.7 %*			*25-150*						

Sample Information

Client Sample ID: LB1A-06(OW) **York Sample ID:** 24J1491-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 5:35 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**2.66**		ng/L	0.433	1.63	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**6.42**		ng/L	0.322	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
375-85-9	**Perfluoroheptanoic acid (PFHpA)**	**5.60**	PF-CCV-H	ng/L	0.654	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
355-46-4	**Perfluorohexanesulfonic acid (PFHxS)**	**17.7**		ng/L	0.626	1.69	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
335-67-1	**Perfluorooctanoic acid (PFOA)**	**11.8**		ng/L	0.387	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
1763-23-1	**Perfluorooctanesulfonic acid (PFOS)**	**31.6**		ng/L	0.755	1.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
375-95-1	**Perfluorononanoic acid (PFNA)**	**1.87**		ng/L	0.479	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
335-76-2	**Perfluorodecanoic acid (PFDA)**	**1.22**	J	ng/L	0.691	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.04	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.810	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.681	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.635	1.84	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.727	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM

Sample Information

Client Sample ID: LB1A-06(OW) **York Sample ID:** 24J1491-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 5:35 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2991-50-6	N-EtFOSAA	ND		ng/L	0.948	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**6.48**		ng/L	0.212	3.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.810	1.84	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.838	1.76	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.22	1.78	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	0.976	7.00	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.89	7.07	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**6.63**	J	ng/L	0.304	7.37	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.460	3.28	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:38	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.97	3.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:38	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.230	3.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:38	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.341	3.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:38	AM
2706-91-4	**Perfluoro-1-pentanesulfonate (PFPeS)**	**2.53**		ng/L	0.700	1.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.65	6.91	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.97	7.37	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
83329-89-9	11CL-PF3OUdS	ND		ng/L	1.27	6.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.645	6.89	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
919005-14-4	ADONA	ND		ng/L	0.488	6.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.856	1.79	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.792	1.77	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:38	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.87	4.60	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	6.75	23.0	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	8.72	23.0	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM

Sample Information

Client Sample ID: LB1A-06(OW) **York Sample ID:** 24J1491-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 5:35 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
24448-09-7	* N-MeFOSE	ND		ng/L	3.67	18.4	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.45	1.84	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.67	18.4	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.66	1.84	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:38	AM

	Surrogate Recoveries	Result	Acceptance Range
M3PFBS	*Surrogate: M3PFBS*	*99.9 %*	*25-150*
13C5PFHXA	*Surrogate: M5PFHxA*	*113 %*	*25-150*
13C4PFHPA	*Surrogate: M4PFHpA*	*96.5 %*	*25-150*
13C3PFHXS	*Surrogate: M3PFHxS*	*104 %*	*25-150*
13C8PFOA	*Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)*	*104 %*	*25-150*
13C6PFDA	*Surrogate: M6PFDA*	*103 %*	*25-150*
13C7PFUNA	*Surrogate: M7PFUdA*	*91.2 %*	*25-150*
960315-52-0	*Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)*	*72.8 %*	*25-150*
13C2PFTEDA	*Surrogate: M2PFTeDA*	*59.7 %*	*10-150*
13C4PFBA	*Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)*	*65.0 %*	*25-150*
13C8PFOS	*Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)*	*99.4 %*	*25-150*
2283397-79-3	*Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)*	*105 %*	*25-150*
13C8FOSA	*Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)*	*99.1 %*	*10-150*
D3-NMEFOSAA	*Surrogate: d3-N-MeFOSAA*	*78.5 %*	*25-150*
D5-NETFOSAA	*Surrogate: d5-N-EtFOSAA*	*89.5 %*	*25-150*
M2-6:2FTS	*Surrogate: M2-6:2 FTS*	*64.3 %*	*25-200*
M2-8:2FTS	*Surrogate: M2-8:2 FTS*	*69.8 %*	*25-200*
13C9PFNA	*Surrogate: M9PFNA*	*101 %*	*25-150*
M2-4:2FTS	*Surrogate: M2-4:2 FTS*	*73.6 %*	*25-150*
d-N-MeFOSA	*Surrogate: d-N-MeFOSA*	*56.9 %*	*25-150*
d-N-EtFOSA	*Surrogate: d-N-EtFOSA*	*51.1 %*	*25-150*
M3HFPO-DA	*Surrogate: M3HFPO-DA*	*105 %*	*25-150*
D9-NETPFOSAI	*Surrogate: d9-N-EtFOSE*	*69.4 %*	*25-150*
D7-NMEPFOSA	*Surrogate: d7-N-MeFOSE*	*82.1 %*	*25-150*

Sample Information

Client Sample ID: **Duplicate** **York Sample ID:** **24J1491-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 3:00 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**8.10**		ng/L	0.417	1.57	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**16.0**		ng/L	0.311	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
375-85-9	**Perfluoroheptanoic acid (PFHpA)**	**10.5**	PF-CCV-H	ng/L	0.631	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
355-46-4	**Perfluorohexanesulfonic acid (PFHxS)**	**51.1**		ng/L	0.604	1.63	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
335-67-1	**Perfluorooctanoic acid (PFOA)**	**15.4**		ng/L	0.373	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
1763-23-1	**Perfluorooctanesulfonic acid (PFOS)**	**58.3**		ng/L	0.728	1.65	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
375-95-1	**Perfluorononanoic acid (PFNA)**	**2.43**		ng/L	0.462	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
335-76-2	**Perfluorodecanoic acid (PFDA)**	**0.766**	J	ng/L	0.666	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.00	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.782	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.657	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.613	1.78	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.702	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.915	1.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**16.6**		ng/L	0.204	3.55	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.782	1.78	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
375-92-8	*** Perfluoro-1-heptanesulfonic acid (PFHpS)**	**1.57**	J	ng/L	0.808	1.70	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.17	1.71	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	0.941	6.75	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.82	6.82	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**8.78**		ng/L	0.293	7.10	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.444	3.16	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:54	AM

Sample Information

Client Sample ID: **Duplicate** **York Sample ID:** **24J1491-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 3:00 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.90	3.55	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:54	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.222	3.55	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:54	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.329	3.55	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 00:54	AM
2706-91-4	**Perfluoro-1-pentanesulfonate (PFPeS)**	**8.85**		ng/L	0.675	1.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.59	6.66	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.87	7.10	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
83329-89-9	11CL-PF3OUdS	ND		ng/L	1.23	6.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.622	6.64	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
919005-14-4	ADONA	ND		ng/L	0.471	6.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.826	1.72	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.764	1.71	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 00:54	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.80	4.44	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	6.51	22.2	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	8.41	22.2	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.54	17.8	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.40	1.78	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.54	17.8	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.60	1.78	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 00:54	AM

	Surrogate Recoveries	Result	Acceptance Range
M3PFBS	*Surrogate: M3PFBS*	*97.2 %*	*25-150*
13C5PFHXA	*Surrogate: M5PFHxA*	*109 %*	*25-150*
13C4PFHPA	*Surrogate: M4PFHpA*	*95.1 %*	*25-150*
13C3PFHXS	*Surrogate: M3PFHxS*	*99.6 %*	*25-150*
13C8PFOA	*Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)*	*120 %*	*25-150*
13C6PFDA	*Surrogate: M6PFDA*	*130 %*	*25-150*
13C7PFUNA	*Surrogate: M7PFUdA*	*114 %*	*25-150*

Sample Information

Client Sample ID: **Duplicate** **York Sample ID:** **24J1491-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 3:00 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
960315-52-0	*Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)*	*72.5 %*			*25-150*						
13C2PFTEDA	*Surrogate: M2PFTeDA*	*69.4 %*			*10-150*						
13C4PFBA	*Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)*	*76.3 %*			*25-150*						
13C8PFOS	*Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)*	*109 %*			*25-150*						
2283397-79-3	*Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)*	*100 %*			*25-150*						
13C8FOSA	*Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)*	*104 %*			*10-150*						
D3-NMEFOSAA	*Surrogate: d3-N-MeFOSAA*	*83.1 %*			*25-150*						
D5-NETFOSAA	*Surrogate: d5-N-EtFOSAA*	*90.2 %*			*25-150*						
M2-6:2FTS	*Surrogate: M2-6:2 FTS*	*65.5 %*			*25-200*						
M2-8:2FTS	*Surrogate: M2-8:2 FTS*	*72.1 %*			*25-200*						
13C9PFNA	*Surrogate: M9PFNA*	*115 %*			*25-150*						
M2-4:2FTS	*Surrogate: M2-4:2 FTS*	*78.7 %*			*25-150*						
d-N-MeFOSA	*Surrogate: d-N-MeFOSA*	*63.6 %*			*25-150*						
d-N-EtFOSA	*Surrogate: d-N-EtFOSA*	*55.4 %*			*25-150*						
M3HFPO-DA	*Surrogate: M3HFPO-DA*	*94.1 %*			*25-150*						
D9-NETPFOSA	*Surrogate: d9-N-EtFOSE*	*82.2 %*			*25-150*						
D7-NMEPFOSA	*Surrogate: d7-N-MeFOSE*	*98.9 %*			*25-150*						

Sample Information

Client Sample ID: **Equipment Blank** **York Sample ID:** **24J1491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 2:05 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	0.459	1.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		ng/L	0.342	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.693	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.664	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM

Sample Information

Client Sample ID: **Equipment Blank** **York Sample ID:** **24J1491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 2:05 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
335-67-1	Perfluorooctanoic acid (PFOA)	ND		ng/L	0.410	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.801	1.82	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.508	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.732	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.10	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.859	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.723	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.674	1.95	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.771	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
2991-50-6	N-EtFOSAA	ND		ng/L	1.01	1.95	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		ng/L	0.225	3.91	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.859	1.95	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.889	1.87	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.29	1.88	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	1.04	7.42	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	2.00	7.50	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.322	7.81	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.488	3.48	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 01:10	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	2.09	3.91	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 01:10	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.244	3.91	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 01:10	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.361	3.91	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	10/26/2024 10:44	10/29/2024 01:10	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.742	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.75	7.32	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM

Sample Information

Client Sample ID: **Equipment Blank** **York Sample ID:** **24J1491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 2:05 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	3.15	7.81	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
83329-89-9	11CL-PF3OUdS	ND		ng/L	1.35	7.38	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.684	7.30	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
919005-14-4	ADONA	ND		ng/L	0.518	7.38	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.908	1.89	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.840	1.88	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	10/26/2024 10:44	10/29/2024 01:10	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.98	4.88	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	7.16	24.4	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	9.25	24.4	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.90	19.5	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.54	1.95	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.90	19.5	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.76	1.95	1	EPA 1633 Draft 3 Certifications:	10/26/2024 10:44	10/29/2024 01:10	AM

	Surrogate Recoveries	Result		Acceptance Range
M3PFBS	*Surrogate: M3PFBS*	*108 %*		*25-150*
13C5PFHXA	*Surrogate: M5PFHxA*	*123 %*		*25-150*
13C4PFHPA	*Surrogate: M4PFHpA*	*105 %*		*25-150*
13C3PFHXS	*Surrogate: M3PFHxS*	*110 %*		*25-150*
13C8PFOA	*Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)*	*143 %*		*25-150*
13C6PFDA	*Surrogate: M6PFDA*	*132 %*		*25-150*
13C7PFUNA	*Surrogate: M7PFUdA*	*128 %*		*25-150*
960315-52-0	*Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)*	*94.3 %*		*25-150*
13C2PFTEDA	*Surrogate: M2PFTeDA*	*68.8 %*		*10-150*
13C4PFBA	*Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)*	*7.96 %*	PFSu-L	*25-150*
13C8PFOS	*Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)*	*111 %*		*25-150*
2283397-79-3	*Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)*	*90.6 %*		*25-150*

Sample Information

Client Sample ID: **Equipment Blank** **York Sample ID:** **24J1491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1491	Nassau Coliseum/ GRBG2401	Ground Water	October 22, 2024 2:05 pm	10/23/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
13C8FOSA	*Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)*	*112 %*			*10-150*						
D3-NMEFOSAA	*Surrogate: d3-N-MeFOSAA*	*92.4 %*			*25-150*						
D5-NETFOSAA	*Surrogate: d5-N-EtFOSAA*	*96.9 %*			*25-150*						
M2-6:2FTS	*Surrogate: M2-6:2 FTS*	*67.1 %*			*25-200*						
M2-8:2FTS	*Surrogate: M2-8:2 FTS*	*75.7 %*			*25-200*						
13C9PFNA	*Surrogate: M9PFNA*	*111 %*			*25-150*						
M2-4:2FTS	*Surrogate: M2-4:2 FTS*	*66.5 %*			*25-150*						
d-N-MeFOSA	*Surrogate: d-N-MeFOSA*	*77.0 %*			*25-150*						
d-N-EtFOSA	*Surrogate: d-N-EtFOSA*	*59.7 %*			*25-150*						
M3HFPO-DA	*Surrogate: M3HFPO-DA*	*110 %*			*25-150*						
D9-NETPFOSAI	*Surrogate: d9-N-EtFOSE*	*79.9 %*			*25-150*						
D7-NMEPFOSA	*Surrogate: d7-N-MeFOSE*	*99.1 %*			*25-150*						

Analytical Batch Summary

Batch ID: BJ41805 **Preparation Method:** EPA 1633 Prep **Prepared By:** MPR

YORK Sample ID	Client Sample ID	Preparation Date
24J1491-01	LB1A-01(OW)	10/26/24
24J1491-02	LB1B-05(OW)	10/26/24
24J1491-03	LB1B-23(OW)	10/26/24
24J1491-04	LB1A-06(OW)	10/26/24
24J1491-05	Duplicate	10/26/24
24J1491-06	Equipment Blank	10/26/24
BJ41805-BLK1	Blank	10/26/24
BJ41805-BS1	LCS	10/26/24
BJ41805-BS2	LCS	10/26/24
BJ41805-MS1	Matrix Spike	10/26/24
BJ41805-MSD1	Matrix Spike Dup	10/26/24

Batch ID: BJ41825 **Preparation Method:** EPA 1633 Prep **Prepared By:** MPR

YORK Sample ID	Client Sample ID	Preparation Date
24J1491-03RE1	LB1B-23(OW)	10/27/24
BJ41825-BLK1	Blank	10/27/24
BJ41825-BS1	LCS	10/27/24
BJ41825-BS2	LCS	10/27/24

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41805 - EPA 1633 Prep											
Blank (BJ41805-BLK1)									Prepared: 10/26/2024 Analyzed: 10/28/2024		
Perfluorobutanesulfonic acid (PFBS)	ND	1.77	ng/L								
Perfluorohexanoic acid (PFHxA)	ND	2.00	"								
Perfluoroheptanoic acid (PFHpA)	ND	2.00	"								
Perfluorohexanesulfonic acid (PFHxS)	ND	1.83	"								
Perfluorooctanoic acid (PFOA)	ND	2.00	"								
Perfluorooctanesulfonic acid (PFOS)	ND	1.86	"								
Perfluorononanoic acid (PFNA)	ND	2.00	"								
Perfluorodecanoic acid (PFDA)	ND	2.00	"								
Perfluoroundecanoic acid (PFUnA)	ND	2.00	"								
Perfluorododecanoic acid (PFDoA)	ND	2.00	"								
Perfluorotridecanoic acid (PFTrDA)	ND	2.00	"								
Perfluorotetradecanoic acid (PFTA)	ND	2.00	"								
N-MeFOSAA	ND	2.00	"								
N-EtFOSAA	ND	2.00	"								
Perfluoropentanoic acid (PFPeA)	ND	4.00	"								
Perfluoro-1-octanesulfonamide (FOSA)	ND	2.00	"								
Perfluoro-1-heptanesulfonic acid (PFHpS)	ND	1.91	"								
Perfluoro-1-decanesulfonic acid (PFDS)	ND	1.93	"								
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND	7.60	"								
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND	7.68	"								
Perfluoro-n-butanoic acid (PFBA)	ND	8.00	"								
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	3.56	"								
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.00	"								
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.00	"								
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.00	"								
Perfluoro-1-pentanesulfonate (PFPeS)	ND	1.88	"								
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND	7.50	"								
HFPO-DA (Gen-X)	ND	8.00	"								
11CL-PF3OUdS	ND	7.56	"								
9CL-PF3ONS	ND	7.48	"								
ADONA	ND	7.56	"								
Perfluorododecanesulfonic acid (PFDoS)	ND	1.94	"								
Perfluoro-1-nonanesulfonic acid (PFNS)	ND	1.92	"								
3-Perfluoropropyl propanoic acid (FPrPA)	ND	5.00	"								
3-Perfluoropentyl propanoic acid (FPePA)	ND	25.0	"								
3-Perfluoroheptyl propanoic acid (FHpPA)	ND	25.0	"								
N-MeFOSE	ND	20.0	"								
N-MeFOSA	ND	2.00	"								
N-EtFOSE	ND	20.0	"								
N-EtFOSA	ND	2.00	"								
Surrogate: M3PFBS	*23.1*		"	*23.3*		*99.3*	*25-150*				
Surrogate: M5PFHxA	*27.5*		"	*25.0*		*110*	*25-150*				
Surrogate: M4PFHpA	*24.5*		"	*25.0*		*97.9*	*25-150*				
Surrogate: M3PFHxS	*23.8*		"	*23.7*		*101*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*30.7*		"	*25.0*		*123*	*25-150*				
Surrogate: M6PFDA	*14.8*		"	*12.5*		*119*	*25-150*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41805 - EPA 1633 Prep											
Blank (BJ41805-BLK1)								Prepared: 10/26/2024 Analyzed: 10/28/2024			
Surrogate: M7PFUdA	*12.0*		*ng/L*	*12.5*		*95.8*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*9.48*		*"*	*12.5*		*75.8*	*25-150*				
Surrogate: M2PFTeDA	*6.69*		*"*	*12.5*		*53.5*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*5.41*		*"*	*100*		*5.41*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*25.5*		*"*	*24.0*		*107*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*32.7*		*"*	*50.0*		*65.4*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*22.3*		*"*	*25.0*		*89.3*	*10-150*				
Surrogate: d3-N-MeFOSAA	*41.9*		*"*	*50.0*		*83.8*	*25-150*				
Surrogate: d5-N-EtFOSAA	*46.3*		*"*	*50.0*		*92.7*	*25-150*				
Surrogate: M2-6:2 FTS	*12.0*		*"*	*47.6*		*25.2*	*25-200*				
Surrogate: M2-8:2 FTS	*24.5*		*"*	*48.0*		*51.1*	*25-200*				
Surrogate: M9PFNA	*12.4*		*"*	*12.5*		*99.0*	*25-150*				
Surrogate: M2-4:2 FTS	*9.84*		*"*	*46.9*		*21.0*	*25-150*				
Surrogate: d-N-MeFOSA	*7.13*		*"*	*25.0*		*28.5*	*25-150*				
Surrogate: d-N-EtFOSA	*5.11*		*"*	*25.0*		*20.5*	*25-150*				
Surrogate: M3HFPO-DA	*26.6*		*"*	*100*		*26.6*	*25-150*				
Surrogate: d9-N-EtFOSE	*119*		*"*	*250*		*47.7*	*25-150*				
Surrogate: d7-N-MeFOSE	*162*		*"*	*250*		*65.0*	*25-150*				
LCS (BJ41805-BS1)								Prepared: 10/26/2024 Analyzed: 10/28/2024			
Perfluorobutanesulfonic acid (PFBS)	34.7	1.77	ng/L	35.4		98.0	50-150				
Perfluorohexanoic acid (PFHxA)	37.0	2.00	"	40.0		92.4	50-150				
Perfluoroheptanoic acid (PFHpA)	50.0	2.00	"	40.0		125	50-150				
Perfluorohexanesulfonic acid (PFHxS)	32.4	1.83	"	36.6		88.6	50-150				
Perfluorooctanoic acid (PFOA)	34.1	2.00	"	40.0		85.3	50-150				
Perfluorooctanesulfonic acid (PFOS)	37.3	1.86	"	37.2		100	50-150				
Perfluorononanoic acid (PFNA)	45.9	2.00	"	40.0		115	50-150				
Perfluorodecanoic acid (PFDA)	33.5	2.00	"	40.0		83.6	50-150				
Perfluoroundecanoic acid (PFUnA)	51.5	2.00	"	40.0		129	50-150				
Perfluorododecanoic acid (PFDoA)	36.9	2.00	"	40.0		92.2	50-150				
Perfluorotridecanoic acid (PFTrDA)	40.9	2.00	"	40.0		102	50-150				
Perfluorotetradecanoic acid (PFTA)	39.3	2.00	"	40.0		98.3	50-150				
N-MeFOSAA	42.2	2.00	"	40.0		106	50-150				
N-EtFOSAA	41.7	2.00	"	40.0		104	50-150				
Perfluoropentanoic acid (PFPeA)	86.5	4.00	"	80.0		108	50-150				
Perfluoro-1-octanesulfonamide (FOSA)	34.3	2.00	"	40.0		85.7	50-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	37.3	1.91	"	38.2		97.6	50-150				
Perfluoro-1-decanesulfonic acid (PFDS)	43.3	1.93	"	38.6		112	50-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	147	7.60	"	152		96.6	50-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	156	7.68	"	154		101	50-150				
Perfluoro-n-butanoic acid (PFBA)	170	8.00	"	160		106	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	71.3	3.56	"	71.2		100	50-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	75.1	4.00	"	80.0		93.9	50-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	25.6	4.00	"	80.0		32.0	50-150	Low Bias			
Perfluoro-5-oxahexanoic acid (PFMBA)	99.3	4.00	"	80.0		124	50-150				

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41805 - EPA 1633 Prep											
LCS (BJ41805-BS1)								Prepared: 10/26/2024 Analyzed: 10/28/2024			
Perfluoro-1-pentanesulfonate (PFPeS)	41.1	1.88	ng/L	37.6		109	50-150				
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	140	7.50	"	150		93.4	50-150				
HFPO-DA (Gen-X)	151	8.00	"	80.0		189	50-150	High Bias			
11CL-PF3OUdS	383	7.56	"	75.6		507	50-150	High Bias			
9CL-PF3ONS	407	7.48	"	74.8		544	50-150	High Bias			
ADONA	370	7.56	"	75.6		489	50-150	High Bias			
Perfluorododecanesulfonic acid (PFDoS)	31.8	1.94	"	38.8		82.0	50-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	41.3	1.92	"	38.4		108	50-150				
3-Perfluoropropyl propanoic acid (FPrPA)	48.6	5.00	"	160		30.4	50-150	Low Bias			
3-Perfluoropentyl propanoic acid (FPePA)	481	25.0	"	800		60.1	50-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	653	25.0	"	800		81.7	50-150				
N-MeFOSE	377	20.0	"	400		94.3	50-150				
N-MeFOSA	42.7	2.00	"	40.0		107	50-150				
N-EtFOSE	429	20.0	"	400		107	50-150				
N-EtFOSA	28.1	2.00	"	40.0		70.2	50-150				
Surrogate: M3PFBS	*25.8*		"	*23.3*		*111*	*25-150*				
Surrogate: M5PFHxA	*30.9*		"	*25.0*		*124*	*25-150*				
Surrogate: M4PFHpA	*25.4*		"	*25.0*		*102*	*25-150*				
Surrogate: M3PFHxS	*27.0*		"	*23.7*		*114*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*33.7*		"	*25.0*		*135*	*25-150*				
Surrogate: M6PFDA	*18.3*		"	*12.5*		*146*	*25-150*				
Surrogate: M7PFUdA	*15.3*		"	*12.5*		*123*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*13.9*		"	*12.5*		*111*	*25-150*				
Surrogate: M2PFTeDA	*11.5*		"	*12.5*		*91.9*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*6.26*		"	*100*		*6.26*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*25.7*		"	*24.0*		*107*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*47.9*		"	*50.0*		*95.9*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*22.6*		"	*25.0*		*90.5*	*10-150*				
Surrogate: d3-N-MeFOSAA	*45.9*		"	*50.0*		*91.9*	*25-150*				
Surrogate: d5-N-EtFOSAA	*51.0*		"	*50.0*		*102*	*25-150*				
Surrogate: M2-6:2 FTS	*16.4*		"	*47.6*		*34.5*	*25-200*				
Surrogate: M2-8:2 FTS	*31.7*		"	*48.0*		*66.1*	*25-200*				
Surrogate: M9PFNA	*12.6*		"	*12.5*		*100*	*25-150*				
Surrogate: M2-4:2 FTS	*12.7*		"	*46.9*		*27.1*	*25-150*				
Surrogate: d-N-MeFOSA	*6.93*		"	*25.0*		*27.7*	*25-150*				
Surrogate: d-N-EtFOSA	*7.73*		"	*25.0*		*30.9*	*25-150*				
Surrogate: M3HFPO-DA	*26.2*		"	*100*		*26.2*	*25-150*				
Surrogate: d9-N-EtFOSE	*170*		"	*250*		*68.1*	*25-150*				
Surrogate: d7-N-MeFOSE	*206*		"	*250*		*82.5*	*25-150*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41805 - EPA 1633 Prep											
LCS (BJ41805-BS2)								Prepared: 10/26/2024 Analyzed: 10/28/2024			
Perfluorobutanesulfonic acid (PFBS)	7.10	1.77	ng/L	7.08		100	50-150				
Perfluorohexanoic acid (PFHxA)	8.12	2.00	"	8.00		102	50-150				
Perfluoroheptanoic acid (PFHpA)	10.3	2.00	"	8.00		128	50-150				
Perfluorohexanesulfonic acid (PFHxS)	8.13	1.83	"	7.32		111	50-150				
Perfluorooctanoic acid (PFOA)	7.17	2.00	"	8.00		89.6	50-150				
Perfluorooctanesulfonic acid (PFOS)	6.68	1.86	"	7.44		89.8	50-150				
Perfluorononanoic acid (PFNA)	8.55	2.00	"	8.00		107	50-150				
Perfluorodecanoic acid (PFDA)	7.06	2.00	"	8.00		88.3	50-150				
Perfluoroundecanoic acid (PFUnA)	9.48	2.00	"	8.00		119	50-150				
Perfluorododecanoic acid (PFDoA)	7.30	2.00	"	8.00		91.3	50-150				
Perfluorotridecanoic acid (PFTrDA)	10.6	2.00	"	8.00		132	50-150				
Perfluorotetradecanoic acid (PFTA)	8.65	2.00	"	8.00		108	50-150				
N-MeFOSAA	8.89	2.00	"	8.00		111	50-150				
N-EtFOSAA	8.40	2.00	"	8.00		105	50-150				
Perfluoropentanoic acid (PFPeA)	16.5	4.00	"	16.0		103	50-150				
Perfluoro-1-octanesulfonamide (FOSA)	6.92	2.00	"	8.00		86.5	50-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	6.32	1.91	"	7.64		82.7	50-150				
Perfluoro-1-decanesulfonic acid (PFDS)	6.76	1.93	"	7.72		87.6	50-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.7	7.60	"	30.4		104	50-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	37.3	7.68	"	30.7		122	50-150				
Perfluoro-n-butanoic acid (PFBA)	30.5	8.00	"	32.0		95.2	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	15.4	3.56	"	14.2		108	50-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	17.1	4.00	"	16.0		107	50-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	3.33	4.00	"	16.0		20.8	50-150	Low Bias			
Perfluoro-5-oxahexanoic acid (PFMBA)	23.7	4.00	"	16.0		148	50-150				
Perfluoro-1-pentanesulfonate (PFPeS)	8.65	1.88	"	7.52		115	50-150				
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	27.8	7.50	"	30.0		92.7	50-150				
HFPO-DA (Gen-X)	32.0	8.00	"	16.0		200	50-150	High Bias			
11CL-PF3OUdS	64.3	7.56	"	15.1		425	50-150	High Bias			
9CL-PF3ONS	71.7	7.48	"	15.0		479	50-150	High Bias			
ADONA	65.3	7.56	"	15.1		432	50-150	High Bias			
Perfluorododecanesulfonic acid (PFDoS)	5.49	1.94	"	7.76		70.8	50-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	7.17	1.92	"	7.68		93.4	50-150				
3-Perfluoropropyl propanoic acid (FPrPA)	8.51	5.00	"	32.0		26.6	50-150	Low Bias			
3-Perfluoropentyl propanoic acid (FPePA)	102	25.0	"	160		64.0	50-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	143	25.0	"	160		89.2	50-150				
N-MeFOSE	79.1	20.0	"	80.0		98.8	50-150				
N-MeFOSA	9.02	2.00	"	8.00		113	50-150				
N-EtFOSE	89.5	20.0	"	80.0		112	50-150				
N-EtFOSA	8.86	2.00	"	8.00		111	50-150				
Surrogate: M3PFBS	*23.6*		"	*23.3*		*101*	*25-150*				
Surrogate: M5PFHxA	*26.9*		"	*25.0*		*108*	*25-150*				
Surrogate: M4PFHpA	*25.5*		"	*25.0*		*102*	*25-150*				
Surrogate: M3PFHxS	*24.5*		"	*23.7*		*103*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*32.9*		"	*25.0*		*132*	*25-150*				
Surrogate: M6PFDA	*14.8*		"	*12.5*		*119*	*25-150*				
Surrogate: M7PFUdA	*12.8*		"	*12.5*		*103*	*25-150*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41805 - EPA 1633 Prep											
LCS (BJ41805-BS2)											Prepared: 10/26/2024 Analyzed: 10/28/2024
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*11.8*		*ng/L*	*12.5*		*94.2*	*25-150*				
Surrogate: M2PFTeDA	*8.98*		*"*	*12.5*		*71.9*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*3.69*		*"*	*100*		*3.69*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*29.4*		*"*	*24.0*		*123*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*32.0*		*"*	*50.0*		*64.0*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*20.8*		*"*	*25.0*		*83.3*	*10-150*				
Surrogate: d3-N-MeFOSAA	*40.4*		*"*	*50.0*		*80.8*	*25-150*				
Surrogate: d5-N-EtFOSAA	*49.1*		*"*	*50.0*		*98.1*	*25-150*				
Surrogate: M2-6:2 FTS	*12.9*		*"*	*47.6*		*27.2*	*25-200*				
Surrogate: M2-8:2 FTS	*26.2*		*"*	*48.0*		*54.6*	*25-200*				
Surrogate: M9PFNA	*13.5*		*"*	*12.5*		*108*	*25-150*				
Surrogate: M2-4:2 FTS	*10.6*		*"*	*46.9*		*22.6*	*25-150*				
Surrogate: d-N-MeFOSA	*7.68*		*"*	*25.0*		*30.7*	*25-150*				
Surrogate: d-N-EtFOSA	*7.03*		*"*	*25.0*		*28.1*	*25-150*				
Surrogate: M3HFPO-DA	*29.1*		*"*	*100*		*29.1*	*25-150*				
Surrogate: d9-N-EtFOSE	*167*		*"*	*250*		*66.9*	*25-150*				
Surrogate: d7-N-MeFOSE	*191*		*"*	*250*		*76.4*	*25-150*				
Matrix Spike (BJ41805-MS1)	*Source sample: 24J1491-01 (LB1A-01(OW))										Prepared: 10/26/2024 Analyzed: 10/28/2024
Perfluorobutanesulfonic acid (PFBS)	41.7	1.77	ng/L	35.4	8.63	93.5	25-150				
Perfluorohexanoic acid (PFHxA)	58.3	2.00	"	40.0	16.2	105	25-150				
Perfluoroheptanoic acid (PFHpA)	68.0	2.00	"	40.0	11.2	142	25-150				
Perfluorohexanesulfonic acid (PFHxS)	91.4	1.83	"	36.6	52.0	108	25-150				
Perfluorooctanoic acid (PFOA)	51.3	2.00	"	40.0	15.6	89.4	25-150				
Perfluorooctanesulfonic acid (PFOS)	95.6	1.86	"	37.2	60.6	94.1	25-150				
Perfluorononanoic acid (PFNA)	37.6	2.00	"	40.0	2.66	87.4	25-150				
Perfluorodecanoic acid (PFDA)	32.9	2.00	"	40.0	ND	82.1	25-150				
Perfluoroundecanoic acid (PFUnA)	34.9	2.00	"	40.0	ND	87.2	25-150				
Perfluorododecanoic acid (PFDoA)	30.9	2.00	"	40.0	ND	77.2	25-150				
Perfluorotridecanoic acid (PFTrDA)	34.4	2.00	"	40.0	ND	85.9	25-150				
Perfluorotetradecanoic acid (PFTA)	34.0	2.00	"	40.0	ND	85.0	25-150				
N-MeFOSAA	35.9	2.00	"	40.0	ND	89.8	25-150				
N-EtFOSAA	33.2	2.00	"	40.0	ND	82.9	25-150				
Perfluoropentanoic acid (PFPeA)	102	4.00	"	80.0	16.9	106	25-150				
Perfluoro-1-octanesulfonamide (FOSA)	31.9	2.00	"	40.0	ND	79.8	25-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	37.9	1.91	"	38.2	1.30	95.7	25-150				
Perfluoro-1-decanesulfonic acid (PFDS)	23.1	1.93	"	38.6	ND	60.0	25-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	166	7.60	"	152	ND	109	25-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	130	7.68	"	154	ND	84.9	25-150				
Perfluoro-n-butanoic acid (PFBA)	171	8.00	"	160	8.97	102	25-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	80.4	3.56	"	71.2	ND	113	25-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	77.3	4.00	"	80.0	ND	96.6	25-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	67.1	4.00	"	80.0	ND	83.8	25-150				
Perfluoro-5-oxahexanoic acid (PFMBA)	82.8	4.00	"	80.0	ND	104	25-150				
Perfluoro-1-pentanesulfonate (PFPeS)	48.1	1.88	"	37.6	9.49	103	25-150				

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41805 - EPA 1633 Prep											
Matrix Spike (BJ41805-MS1)	*Source sample: 24J1491-01 (LB1A-01(OW))							Prepared: 10/26/2024 Analyzed: 10/28/2024			
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	134	7.50	ng/L	150	ND	89.1	25-150				
HFPO-DA (Gen-X)	95.5	8.00	"	80.0	ND	119	25-150				
11CL-PF3OUdS	61.2	7.56	"	75.6	ND	81.0	25-150				
9CL-PF3ONS	87.1	7.48	"	74.8	ND	116	25-150				
ADONA	95.3	7.56	"	75.6	ND	126	25-150				
Perfluorododecanesulfonic acid (PFDoS)	19.6	1.94	"	38.8	ND	50.5	25-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	31.1	1.92	"	38.4	ND	80.9	25-150				
3-Perfluoropropyl propanoic acid (FPrPA)	149	5.00	"	160	ND	93.2	25-150				
3-Perfluoropentyl propanoic acid (FPePA)	865	25.0	"	800	ND	108	25-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	905	25.0	"	800	ND	113	25-150				
N-MeFOSE	315	20.0	"	400	ND	78.7	25-150				
N-MeFOSA	35.6	2.00	"	40.0	ND	88.9	25-150				
N-EtFOSE	341	20.0	"	400	ND	85.2	25-150				
N-EtFOSA	25.9	2.00	"	40.0	ND	64.7	25-150				
Surrogate: M3PFBS	*26.0*		"	*23.3*		*111*	*25-150*				
Surrogate: M5PFHxA	*30.5*		"	*25.0*		*122*	*25-150*				
Surrogate: M4PFHpA	*24.1*		"	*25.0*		*96.2*	*25-150*				
Surrogate: M3PFHxS	*26.6*		"	*23.7*		*112*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*32.7*		"	*25.0*		*131*	*25-150*				
Surrogate: M6PFDA	*14.0*		"	*12.5*		*112*	*25-150*				
Surrogate: M7PFUdA	*13.9*		"	*12.5*		*111*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*10.6*		"	*12.5*		*84.5*	*25-150*				
Surrogate: M2PFTeDA	*7.93*		"	*12.5*		*63.4*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*74.2*		"	*100*		*74.2*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*30.6*		"	*24.0*		*128*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*56.3*		"	*50.0*		*113*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*29.3*		"	*25.0*		*117*	*10-150*				
Surrogate: d3-N-MeFOSAA	*47.5*		"	*50.0*		*94.9*	*25-150*				
Surrogate: d5-N-EtFOSAA	*50.7*		"	*50.0*		*101*	*25-150*				
Surrogate: M2-6:2 FTS	*34.0*		"	*47.6*		*71.4*	*25-200*				
Surrogate: M2-8:2 FTS	*40.7*		"	*48.0*		*84.9*	*25-200*				
Surrogate: M9PFNA	*16.0*		"	*12.5*		*128*	*25-150*				
Surrogate: M2-4:2 FTS	*40.8*		"	*46.9*		*87.0*	*25-150*				
Surrogate: d-N-MeFOSA	*15.5*		"	*25.0*		*62.1*	*25-150*				
Surrogate: d-N-EtFOSA	*16.0*		"	*25.0*		*64.1*	*25-150*				
Surrogate: M3HFPO-DA	*106*		"	*100*		*106*	*25-150*				
Surrogate: d9-N-EtFOSE	*244*		"	*250*		*97.6*	*25-150*				
Surrogate: d7-N-MeFOSE	*270*		"	*250*		*108*	*25-150*				

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Batch BJ41805 - EPA 1633 Prep

Matrix Spike Dup (BJ41805-MSD1) *Source sample: 24J1491-01 (LB1A-01(OW)) Prepared: 10/26/2024 Analyzed: 10/29/2024

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Perfluorobutanesulfonic acid (PFBS)	42.8	1.77	ng/L	35.4	8.63	96.6	25-150		2.59	35	
Perfluorohexanoic acid (PFHxA)	56.2	2.00	"	40.0	16.2	100	25-150		3.62	35	
Perfluoroheptanoic acid (PFHpA)	64.2	2.00	"	40.0	11.2	133	25-150		5.83	35	
Perfluorohexanesulfonic acid (PFHxS)	87.9	1.83	"	36.6	52.0	98.0	25-150		3.93	35	
Perfluorooctanoic acid (PFOA)	48.5	2.00	"	40.0	15.6	82.3	25-150		5.67	35	
Perfluorooctanesulfonic acid (PFOS)	106	1.86	"	37.2	60.6	123	25-150		10.6	35	
Perfluorononanoic acid (PFNA)	46.4	2.00	"	40.0	2.66	109	25-150		21.0	35	
Perfluorodecanoic acid (PFDA)	31.0	2.00	"	40.0	ND	77.4	25-150		5.93	35	
Perfluoroundecanoic acid (PFUnA)	34.8	2.00	"	40.0	ND	87.1	25-150		0.137	35	
Perfluorododecanoic acid (PFDoA)	34.5	2.00	"	40.0	ND	86.2	25-150		11.0	35	
Perfluorotridecanoic acid (PFTrDA)	39.9	2.00	"	40.0	ND	99.6	25-150		14.8	35	
Perfluorotetradecanoic acid (PFTA)	46.7	2.00	"	40.0	ND	117	25-150		31.4	35	
N-MeFOSAA	38.5	2.00	"	40.0	ND	96.4	25-150		7.10	35	
N-EtFOSAA	40.0	2.00	"	40.0	ND	99.9	25-150		18.6	35	
Perfluoropentanoic acid (PFPeA)	102	4.00	"	80.0	16.9	107	25-150		0.421	35	
Perfluoro-1-octanesulfonamide (FOSA)	33.8	2.00	"	40.0	ND	84.6	25-150		5.90	35	
Perfluoro-1-heptanesulfonic acid (PFHpS)	41.1	1.91	"	38.2	1.30	104	25-150		8.11	35	
Perfluoro-1-decanesulfonic acid (PFDS)	26.7	1.93	"	38.6	ND	69.3	25-150		14.5	35	
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	142	7.60	"	152	ND	93.3	25-150		15.7	35	
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	135	7.68	"	154	ND	87.7	25-150		3.20	35	
Perfluoro-n-butanoic acid (PFBA)	191	8.00	"	160	8.97	114	25-150		11.0	35	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	80.9	3.56	"	71.2	ND	114	25-150		0.608	30	
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	98.8	4.00	"	80.0	ND	124	25-150		24.5	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	74.3	4.00	"	80.0	ND	92.9	25-150		10.3	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	87.4	4.00	"	80.0	ND	109	25-150		5.37	30	
Perfluoro-1-pentanesulfonate (PFPeS)	48.7	1.88	"	37.6	9.49	104	25-150		1.24	30	
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	151	7.50	"	150	ND	100	25-150		12.0	30	
HFPO-DA (Gen-X)	85.6	8.00	"	80.0	ND	107	25-150		10.9	30	
11CL-PF3OUdS	64.0	7.56	"	75.6	ND	84.7	25-150		4.50	30	
9CL-PF3ONS	80.2	7.48	"	74.8	ND	107	25-150		8.32	30	
ADONA	86.5	7.56	"	75.6	ND	114	25-150		9.74	30	
Perfluorododecanesulfonic acid (PFDoS)	23.2	1.94	"	38.8	ND	59.9	25-150		17.0	30	
Perfluoro-1-nonanesulfonic acid (PFNS)	35.1	1.92	"	38.4	ND	91.4	25-150		12.2	30	
3-Perfluoropropyl propanoic acid (FPrPA)	155	5.00	"	160	ND	96.9	25-150		3.86	30	
3-Perfluoropentyl propanoic acid (FPePA)	861	25.0	"	800	ND	108	25-150		0.373	30	
3-Perfluoroheptyl propanoic acid (FHpPA)	937	25.0	"	800	ND	117	25-150		3.46	30	
N-MeFOSE	321	20.0	"	400	ND	80.4	25-150		2.12	30	
N-MeFOSA	36.9	2.00	"	40.0	ND	92.2	25-150		3.65	30	
N-EtFOSE	387	20.0	"	400	ND	96.6	25-150		12.6	30	
N-EtFOSA	31.8	2.00	"	40.0	ND	79.4	25-150		20.4	30	
Surrogate: M3PFBS	*24.4*		"	*23.3*		*105*	*25-150*				
Surrogate: M5PFHxA	*29.8*		"	*25.0*		*119*	*25-150*				
Surrogate: M4PFHpA	*25.2*		"	*25.0*		*101*	*25-150*				
Surrogate: M3PFHxS	*25.5*		"	*23.7*		*108*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*32.9*		"	*25.0*		*132*	*25-150*				
Surrogate: M6PFDA	*16.7*		"	*12.5*		*133*	*25-150*				
Surrogate: M7PFUdA	*12.7*		"	*12.5*		*102*	*25-150*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41805 - EPA 1633 Prep											
Matrix Spike Dup (BJ41805-MSD1)	*Source sample: 24J1491-01 (LB1A-01(OW))								Prepared: 10/26/2024 Analyzed: 10/29/2024		
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*9.93*		*ng/L*	*12.5*		*79.4*	*25-150*				
Surrogate: M2PFTeDA	*7.77*		*"*	*12.5*		*62.1*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*59.0*		*"*	*100*		*59.0*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*25.6*		*"*	*24.0*		*107*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*55.4*		*"*	*50.0*		*111*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*27.8*		*"*	*25.0*		*111*	*10-150*				
Surrogate: d3-N-MeFOSAA	*39.9*		*"*	*50.0*		*79.7*	*25-150*				
Surrogate: d5-N-EtFOSAA	*45.0*		*"*	*50.0*		*90.0*	*25-150*				
Surrogate: M2-6:2 FTS	*37.5*		*"*	*47.6*		*78.8*	*25-200*				
Surrogate: M2-8:2 FTS	*39.0*		*"*	*48.0*		*81.2*	*25-200*				
Surrogate: M9PFNA	*12.7*		*"*	*12.5*		*101*	*25-150*				
Surrogate: M2-4:2 FTS	*38.0*		*"*	*46.9*		*81.0*	*25-150*				
Surrogate: d-N-MeFOSA	*14.4*		*"*	*25.0*		*57.6*	*25-150*				
Surrogate: d-N-EtFOSA	*11.7*		*"*	*25.0*		*46.8*	*25-150*				
Surrogate: M3HFPO-DA	*111*		*"*	*100*		*111*	*25-150*				
Surrogate: d9-N-EtFOSE	*212*		*"*	*250*		*85.0*	*25-150*				
Surrogate: d7-N-MeFOSE	*246*		*"*	*250*		*98.4*	*25-150*				
Batch BJ41825 - EPA 1633 Prep											
Blank (BJ41825-BLK1)									Prepared: 10/27/2024 Analyzed: 10/28/2024		
Perfluorobutanesulfonic acid (PFBS)	ND	1.77	ng/L								
Perfluorohexanoic acid (PFHxA)	ND	2.00	"								
Perfluoroheptanoic acid (PFHpA)	ND	2.00	"								
Perfluorohexanesulfonic acid (PFHxS)	ND	1.83	"								
Perfluorooctanoic acid (PFOA)	ND	2.00	"								
Perfluorooctanesulfonic acid (PFOS)	ND	1.86	"								
Perfluorononanoic acid (PFNA)	ND	2.00	"								
Perfluorodecanoic acid (PFDA)	ND	2.00	"								
Perfluoroundecanoic acid (PFUnA)	ND	2.00	"								
Perfluorododecanoic acid (PFDoA)	ND	2.00	"								
Perfluorotridecanoic acid (PFTrDA)	ND	2.00	"								
Perfluorotetradecanoic acid (PFTA)	ND	2.00	"								
N-MeFOSAA	ND	2.00	"								
N-EtFOSAA	ND	2.00	"								
Perfluoropentanoic acid (PFPeA)	ND	4.00	"								
Perfluoro-1-octanesulfonamide (FOSA)	ND	2.00	"								
Perfluoro-1-heptanesulfonic acid (PFHpS)	ND	1.91	"								
Perfluoro-1-decanesulfonic acid (PFDS)	ND	1.93	"								
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND	7.60	"								
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND	7.68	"								
Perfluoro-n-butanoic acid (PFBA)	ND	8.00	"								
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	3.56	"								
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.00	"								
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.00	"								

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41825 - EPA 1633 Prep											
Blank (BJ41825-BLK1)									Prepared: 10/27/2024 Analyzed: 10/28/2024		
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.00	ng/L								
Perfluoro-1-pentanesulfonate (PFPeS)	ND	1.88	"								
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND	7.50	"								
HFPO-DA (Gen-X)	ND	8.00	"								
11CL-PF3OUdS	ND	7.56	"								
9CL-PF3ONS	ND	7.48	"								
ADONA	ND	7.56	"								
Perfluorododecanesulfonic acid (PFDoS)	ND	1.94	"								
Perfluoro-1-nonanesulfonic acid (PFNS)	ND	1.92	"								
3-Perfluoropropyl propanoic acid (FPrPA)	ND	5.00	"								
3-Perfluoropentyl propanoic acid (FPePA)	ND	25.0	"								
3-Perfluoroheptyl propanoic acid (FHpPA)	ND	25.0	"								
N-MeFOSE	ND	20.0	"								
N-MeFOSA	ND	2.00	"								
N-EtFOSE	ND	20.0	"								
N-EtFOSA	ND	2.00	"								
Surrogate: M3PFBS	*27.5*		*"*	*23.3*		*118*	*25-150*				
Surrogate: M5PFHxA	*28.8*		*"*	*25.0*		*115*	*25-150*				
Surrogate: M4PFHpA	*26.5*		*"*	*25.0*		*106*	*25-150*				
Surrogate: M3PFHxS	*30.2*		*"*	*23.7*		*127*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*30.6*		*"*	*25.0*		*122*	*25-150*				
Surrogate: M6PFDA	*15.6*		*"*	*12.5*		*125*	*25-150*				
Surrogate: M7PFUdA	*12.7*		*"*	*12.5*		*102*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*11.5*		*"*	*12.5*		*91.9*	*25-150*				
Surrogate: M2PFTeDA	*9.48*		*"*	*12.5*		*75.8*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*3.02*		*"*	*100*		*3.02*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*30.6*		*"*	*24.0*		*128*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*32.5*		*"*	*50.0*		*65.0*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*28.9*		*"*	*25.0*		*116*	*10-150*				
Surrogate: d3-N-MeFOSAA	*57.0*		*"*	*50.0*		*114*	*25-150*				
Surrogate: d5-N-EtFOSAA	*67.4*		*"*	*50.0*		*135*	*25-150*				
Surrogate: M2-6:2 FTS	*16.0*		*"*	*47.6*		*33.7*	*25-200*				
Surrogate: M2-8:2 FTS	*32.4*		*"*	*48.0*		*67.6*	*25-200*				
Surrogate: M9PFNA	*16.5*		*"*	*12.5*		*132*	*25-150*				
Surrogate: M2-4:2 FTS	*12.6*		*"*	*46.9*		*26.9*	*25-150*				
Surrogate: d-N-MeFOSA	*12.2*		*"*	*25.0*		*48.9*	*25-150*				
Surrogate: d-N-EtFOSA	*10.5*		*"*	*25.0*		*42.2*	*25-150*				
Surrogate: M3HFPO-DA	*59.0*		*"*	*100*		*59.0*	*25-150*				
Surrogate: d9-N-EtFOSE	*274*		*"*	*250*		*109*	*25-150*				
Surrogate: d7-N-MeFOSE	*361*		*"*	*250*		*144*	*25-150*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41825 - EPA 1633 Prep											
LCS (BJ41825-BS1)								Prepared: 10/27/2024 Analyzed: 10/28/2024			
Perfluorobutanesulfonic acid (PFBS)	33.5	1.77	ng/L	35.4		94.5	50-150				
Perfluorohexanoic acid (PFHxA)	39.5	2.00	"	40.0		98.8	50-150				
Perfluoroheptanoic acid (PFHpA)	48.4	2.00	"	40.0		121	50-150				
Perfluorohexanesulfonic acid (PFHxS)	38.4	1.83	"	36.6		105	50-150				
Perfluorooctanoic acid (PFOA)	36.1	2.00	"	40.0		90.2	50-150				
Perfluorooctanesulfonic acid (PFOS)	35.0	1.86	"	37.2		94.1	50-150				
Perfluorononanoic acid (PFNA)	34.8	2.00	"	40.0		87.1	50-150				
Perfluorodecanoic acid (PFDA)	26.4	2.00	"	40.0		65.9	50-150				
Perfluoroundecanoic acid (PFUnA)	45.8	2.00	"	40.0		114	50-150				
Perfluorododecanoic acid (PFDoA)	34.5	2.00	"	40.0		86.1	50-150				
Perfluorotridecanoic acid (PFTrDA)	43.5	2.00	"	40.0		109	50-150				
Perfluorotetradecanoic acid (PFTA)	41.8	2.00	"	40.0		105	50-150				
N-MeFOSAA	39.2	2.00	"	40.0		97.9	50-150				
N-EtFOSAA	38.8	2.00	"	40.0		97.0	50-150				
Perfluoropentanoic acid (PFPeA)	80.9	4.00	"	80.0		101	50-150				
Perfluoro-1-octanesulfonamide (FOSA)	36.7	2.00	"	40.0		91.7	50-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	37.7	1.91	"	38.2		98.7	50-150				
Perfluoro-1-decanesulfonic acid (PFDS)	42.1	1.93	"	38.6		109	50-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	166	7.60	"	152		109	50-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	163	7.68	"	154		106	50-150				
Perfluoro-n-butanoic acid (PFBA)	138	8.00	"	160		86.2	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	74.8	3.56	"	71.2		105	50-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	89.3	4.00	"	80.0		112	50-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	13.7	4.00	"	80.0		17.2	50-150	Low Bias			
Perfluoro-5-oxahexanoic acid (PFMBA)	120	4.00	"	80.0		150	50-150				
Perfluoro-1-pentanesulfonate (PFPeS)	38.7	1.88	"	37.6		103	50-150				
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	135	7.50	"	150		90.2	50-150				
HFPO-DA (Gen-X)	96.4	8.00	"	80.0		121	50-150				
11CL-PF3OUdS	157	7.56	"	75.6		207	50-150	High Bias			
9CL-PF3ONS	167	7.48	"	74.8		224	50-150	High Bias			
ADONA	159	7.56	"	75.6		211	50-150	High Bias			
Perfluorododecanesulfonic acid (PFDoS)	34.9	1.94	"	38.8		90.1	50-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	43.0	1.92	"	38.4		112	50-150				
3-Perfluoropropyl propanoic acid (FPrPA)	56.4	5.00	"	160		35.3	50-150	Low Bias			
3-Perfluoropentyl propanoic acid (FPePA)	617	25.0	"	800		77.2	50-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	735	25.0	"	800		91.9	50-150				
N-MeFOSE	344	20.0	"	400		86.0	50-150				
N-MeFOSA	48.7	2.00	"	40.0		122	50-150				
N-EtFOSE	380	20.0	"	400		95.0	50-150				
N-EtFOSA	30.2	2.00	"	40.0		75.5	50-150				
Surrogate: M3PFBS	*28.5*		"	*23.3*		*122*	*25-150*				
Surrogate: M5PFHxA	*29.7*		"	*25.0*		*119*	*25-150*				
Surrogate: M4PFHpA	*27.1*		"	*25.0*		*108*	*25-150*				
Surrogate: M3PFHxS	*31.7*		"	*23.7*		*134*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*36.5*		"	*25.0*		*146*	*25-150*				
Surrogate: M6PFDA	*21.6*		"	*12.5*		*173*	*25-150*				
Surrogate: M7PFUdA	*18.2*		"	*12.5*		*146*	*25-150*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41825 - EPA 1633 Prep											
LCS (BJ41825-BS1)								Prepared: 10/27/2024 Analyzed: 10/28/2024			
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*16.1*		*ng/L*	*12.5*		*129*	*25-150*				
Surrogate: M2PFTeDA	*12.8*		*"*	*12.5*		*102*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*2.96*		*"*	*100*		*2.96*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*31.5*		*"*	*24.0*		*131*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*30.0*		*"*	*50.0*		*60.0*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*30.4*		*"*	*25.0*		*122*	*10-150*				
Surrogate: d3-N-MeFOSAA	*61.6*		*"*	*50.0*		*123*	*25-150*				
Surrogate: d5-N-EtFOSAA	*73.8*		*"*	*50.0*		*148*	*25-150*				
Surrogate: M2-6:2 FTS	*18.8*		*"*	*47.6*		*39.5*	*25-200*				
Surrogate: M2-8:2 FTS	*36.8*		*"*	*48.0*		*76.8*	*25-200*				
Surrogate: M9PFNA	*16.5*		*"*	*12.5*		*132*	*25-150*				
Surrogate: M2-4:2 FTS	*15.4*		*"*	*46.9*		*32.8*	*25-150*				
Surrogate: d-N-MeFOSA	*13.7*		*"*	*25.0*		*54.8*	*25-150*				
Surrogate: d-N-EtFOSA	*14.2*		*"*	*25.0*		*56.7*	*25-150*				
Surrogate: M3HFPO-DA	*63.3*		*"*	*100*		*63.3*	*25-150*				
Surrogate: d9-N-EtFOSE	*308*		*"*	*250*		*123*	*25-150*				
Surrogate: d7-N-MeFOSE	*388*		*"*	*250*		*155*	*25-150*				
LCS (BJ41825-BS2)								Prepared: 10/27/2024 Analyzed: 10/28/2024			
Perfluorobutanesulfonic acid (PFBS)	7.52	1.77	ng/L	7.08		106	50-150				
Perfluorohexanoic acid (PFHxA)	7.92	2.00	"	8.00		99.1	50-150				
Perfluoroheptanoic acid (PFHpA)	10.1	2.00	"	8.00		126	50-150				
Perfluorohexanesulfonic acid (PFHxS)	8.25	1.83	"	7.32		113	50-150				
Perfluorooctanoic acid (PFOA)	6.73	2.00	"	8.00		84.2	50-150				
Perfluorooctanesulfonic acid (PFOS)	7.59	1.86	"	7.44		102	50-150				
Perfluorononanoic acid (PFNA)	8.99	2.00	"	8.00		112	50-150				
Perfluorodecanoic acid (PFDA)	6.00	2.00	"	8.00		75.0	50-150				
Perfluoroundecanoic acid (PFUnA)	9.56	2.00	"	8.00		119	50-150				
Perfluorododecanoic acid (PFDoA)	6.80	2.00	"	8.00		85.0	50-150				
Perfluorotridecanoic acid (PFTrDA)	9.34	2.00	"	8.00		117	50-150				
Perfluorotetradecanoic acid (PFTA)	8.83	2.00	"	8.00		110	50-150				
N-MeFOSAA	8.75	2.00	"	8.00		109	50-150				
N-EtFOSAA	8.45	2.00	"	8.00		106	50-150				
Perfluoropentanoic acid (PFPeA)	16.7	4.00	"	16.0		105	50-150				
Perfluoro-1-octanesulfonamide (FOSA)	7.89	2.00	"	8.00		98.6	50-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	7.45	1.91	"	7.64		97.5	50-150				
Perfluoro-1-decanesulfonic acid (PFDS)	10.3	1.93	"	7.72		133	50-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	32.4	7.60	"	30.4		107	50-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	31.5	7.68	"	30.7		103	50-150				
Perfluoro-n-butanoic acid (PFBA)	30.3	8.00	"	32.0		94.7	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	15.4	3.56	"	14.2		108	50-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	21.4	4.00	"	16.0		134	50-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	3.04	4.00	"	16.0		19.0	50-150	Low Bias			
Perfluoro-5-oxahexanoic acid (PFMBA)	21.7	4.00	"	16.0		136	50-150				
Perfluoro-1-pentanesulfonate (PFPeS)	7.63	1.88	"	7.52		101	50-150				

PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41825 - EPA 1633 Prep											
LCS (BJ41825-BS2)								Prepared: 10/27/2024 Analyzed: 10/28/2024			
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.5	7.50	ng/L	30.0		102	50-150				
HFPO-DA (Gen-X)	21.2	8.00	"	16.0		133	50-150				
11CL-PF3OUdS	26.2	7.56	"	15.1		174	50-150	High Bias			
9CL-PF3ONS	28.4	7.48	"	15.0		190	50-150	High Bias			
ADONA	26.5	7.56	"	15.1		175	50-150	High Bias			
Perfluorododecanesulfonic acid (PFDoS)	7.12	1.94	"	7.76		91.8	50-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	9.21	1.92	"	7.68		120	50-150				
3-Perfluoropropyl propanoic acid (FPrPA)	11.5	5.00	"	32.0		35.8	50-150	Low Bias			
3-Perfluoropentyl propanoic acid (FPePA)	123	25.0	"	160		77.2	50-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	147	25.0	"	160		91.7	50-150				
N-MeFOSE	77.6	20.0	"	80.0		97.0	50-150				
N-MeFOSA	10.3	2.00	"	8.00		128	50-150				
N-EtFOSE	77.5	20.0	"	80.0		96.9	50-150				
N-EtFOSA	7.71	2.00	"	8.00		96.4	50-150				
Surrogate: M3PFBS	*24.9*		"	*23.3*		*107*	*25-150*				
Surrogate: M5PFHxA	*28.2*		"	*25.0*		*113*	*25-150*				
Surrogate: M4PFHpA	*24.2*		"	*25.0*		*96.8*	*25-150*				
Surrogate: M3PFHxS	*28.6*		"	*23.7*		*121*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*32.4*		"	*25.0*		*130*	*25-150*				
Surrogate: M6PFDA	*17.4*		"	*12.5*		*139*	*25-150*				
Surrogate: M7PFUdA	*14.4*		"	*12.5*		*115*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*13.9*		"	*12.5*		*111*	*25-150*				
Surrogate: M2PFTeDA	*10.7*		"	*12.5*		*85.9*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*3.19*		"	*100*		*3.19*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*26.3*		"	*24.0*		*110*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*38.7*		"	*50.0*		*77.5*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*25.0*		"	*25.0*		*99.9*	*10-150*				
Surrogate: d3-N-MeFOSAA	*48.8*		"	*50.0*		*97.5*	*25-150*				
Surrogate: d5-N-EtFOSAA	*60.3*		"	*50.0*		*121*	*25-150*				
Surrogate: M2-6:2 FTS	*14.6*		"	*47.6*		*30.8*	*25-200*				
Surrogate: M2-8:2 FTS	*28.4*		"	*48.0*		*59.2*	*25-200*				
Surrogate: M9PFNA	*12.6*		"	*12.5*		*100*	*25-150*				
Surrogate: M2-4:2 FTS	*12.0*		"	*46.9*		*25.7*	*25-150*				
Surrogate: d-N-MeFOSA	*11.5*		"	*25.0*		*45.9*	*25-150*				
Surrogate: d-N-EtFOSA	*10.7*		"	*25.0*		*42.7*	*25-150*				
Surrogate: M3HFPO-DA	*69.0*		"	*100*		*69.0*	*25-150*				
Surrogate: d9-N-EtFOSE	*292*		"	*250*		*117*	*25-150*				
Surrogate: d7-N-MeFOSE	*329*		"	*250*		*132*	*25-150*				

Sample and Data Qualifiers Relating to This Work Order

PFSu-L	The isotopically labeled surrogate recovered below lab control limits due to a matrix effect. Isotope Dilution was applied.
PFSu-H	The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied.
PF-CCV-H	The CCV recovery for this PFAS compound was above control limits.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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

Revision Description: This report has been revised to report results in a QA/QC report format.

Field Chain-of-Custody Record

YORK ANALYTICAL LABORATORIES INC

York Analytical Laboratories, Inc. (YORK)'s Standard Terms & Conditions are listed on the back side of this document. This legal document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

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YORK Project Number: 24J1491

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YOUR Project Name / Number: Nassau Coliseum / GRBG-2401

PO Number: GRBG-2401

Samples Collected From: NY [X] NJ [ ] CT [ ] PA [ ] Other: (please specify)

Turn-Around Time

- RUSH - Next Day [ ]
- RUSH - Two Day [ ]
- RUSH - Three Day [ ]
- RUSH - Four Day [X]
- RUSH - Five Day [ ]
- Standard (6-9 Day) [ ]
- PFAS Standard 7-10 Day [ ]

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

Paul Kuster

Paul Kuster

Samples Collected by: (print AND sign your name)

Matrix Codes

S - soil/solid/sludge
GW - groundwater
DW - drinking water
SW - surface water
WW - wastewater
O - Oil
Other

Preservative (please list number of containers)

Analyses Requested

Sample Identification	Date	Time	Matrix	Unpreserved	HCl (hydrochloric acid)	MeOH (methanol)	HNO_3 (nitric acid)	H_2SO_4 (sulfuric acid)	NaOH (sodium hydroxide)	$Na_2S_2O_3$ (sodium thio.)	Trizma	Ammonium Acetate	Other:	PFAS (EPA 1633)	Grab or Comp. G/C
LB1A-01 (OW)	10/22/24	1070	GW	2										X	G
LB1B-05 (OW)		1350		2										X	G
LB1B-23 (OW)		1545		2										X	G
LB1A-06 (OW)		1735		2										X	G
LB1A-01 (OW) - MS		1070		2										X	G
LB1A-01 (OW) - MSD		1070		2										X	G
Duplicate		—		2										X	G
Equipment Blank		1405	PFAS Water	2										X	G

Report Type (circle)

- QA Report
- Summary (Results Only)
- NY ASP B Package
- NJ Reduced
- NJ DKQP
- NJ Full
- CT RCP

EDD Type (circle)

- EQuIS (standard)
- NYSDEC EQuIS
- NJDEP SRP Haz Site
- Standard Excel
- CMDP
- Other:

Regulatory Comparative

Compared to the following Regulation(s): (please fill in)

- Field Filtered [ ]
- Lab Filtered [ ]

Comments:

Lab Sample Receiving Checklist (to be completed by the receiving laboratory only) Circle Y / N

Custody Seals: Y / N Containers Intact: Y / N COC/Labels Agree: Y / N Preservation Confirmed: Y / N
COC Complete: Y / N COC Received: Y / N Appropriate Sample Volumes: Y / N Appropriate Sample Containers: Y / N
Cooler Temperature Confirmed: Y / N Samples Submitted within Holding Times: Y / N Corrective Action Form Required: Y / N

Samples iced/chilled at time of lab pickup? circle Yes or No

1. Samples Relinquished by / Company	Date/Time	1. Samples Received by / Company	Date/Time	2. Samples Relinquished by / Company	Date/Time
Paul Kuster / H2M	10/23/24 930 AM	KBarberyork	10/23/24 930 AM	KBarberyork	10/23/24 1700
2. Samples Received by / Company	Date/Time	3. Samples Relinquished by / Company	Date/Time	3. Samples Received by / Company	Date/Time
4. Samples Relinquished by / Company	Date/Time	4. Samples Received by / Company	Date/Time	Samples Received in LAB by: NCA	Date/Time: 10/23/24 1700

Temperature: 2.1 Degrees C