

Technical Memorandum

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Via Email: ronnie.lee@dec.ny.gov
To: Ronnie Lee, NYSDEC
From: Kevin McCarty
cc: Stacey Ng (GEI), Rasheed Lucas (NYCEDC), Sarah Quandt (NYSDEC)
Date: March 28, 2025
Re: 400 Food Center Drive (Krasdale) Interim Remedial Measure (IRM) – Preliminary Data
BCP Site No. C203101
Bronx, NY
Project No.: 2303627

GEI Consultants, Inc. (GEI) has prepared this memorandum on behalf of New York City Economic Development Corporation (NYCEDC) to provide preliminary results of soil sample data collected during implementation of the 400 Food Center Drive (FCD) Interim Remedial Measure (IRM) on March 22, 2025. IRM excavation and sampling activities were performed in accordance with the IRM Work Plan (IRMWP) approved by New York State Department of Environmental Conservation (NYSDEC) on November 18, 2024.

The specific issue that is subject to this IRM is the replacement of a completely corroded and unserviceable sanitary waste line that originates in a bathroom located in the elevated, second-story office area on-site. In addition to the second story bathroom plumbing that has completely failed, the restroom sanitary connection in one first floor bathroom has also failed due to the corrosion of the ductile iron piping. Currently, the entire second floor is not being utilized (and has not been able to be used for over a year) because there are no other restroom facilities available in that space, and this space is needed by the Krasdale team for day-to-day operations. Since performing the excavation in the first floor bathroom, this is also fully out of service.

The first floor bathroom required excavation beneath the floor in an area presumed to contain Manufactured Gas Plant (MGP) waste and this IRM sampling and monitoring effort was focused on gathering information and data while simultaneously completing the repair rather, than performing an investigation before the repair. This was necessary because all work was being performed in a very small area within the bathroom facilities. Therefore, the conditions being addressed under this IRM are considered emergency and essential to the continued operation of the facility, and are not elective, desired upgrades or repairs.

This memorandum specifically presents the data from the Area "A" Excavation (which was in the first floor bathroom area) as a significant amount of purifier waste was expected to be present and was confirmed in the bathroom area beginning at approximately 3 feet below the tiled floor surface. Sampling locations are provided in the Appendix A figure and an excavation/boring log is presented in Appendix C.

Data Summary

Data for all excavation “A” samples including the duplicate of sample “A6” are provided in Appendix B. At this time, only preliminary results for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), metals, and cyanide are included, as these are the primary constituents of concern (COCs) for the site. Analytical data for the excavation “B” samples as well as Polychlorinated Biphenyls (PCBs), pesticides and Per- and Polyfluoroalkyl Substances (PFAS) for all samples, will be provided in the IRM Summary Report.

Following review of the preliminary data, notes of importance are:

- SVOCs appear within the range of prior purifier waste samples collected within the larger 400 FCD site (outside of the building footprint). Historically, samples of waste material are typically less than 500 milligrams per kilogram (mg/kg) for Polycyclic Aromatic Hydrocarbons (PAHs).
- VOCs show typical carbon disulfide levels are present in single digit part per million (ppm), which also comports with the groundwater/drainage pipe data showing carbon disulfide present in the drain pipe at a concentration of 43 milligrams per liter (mg/l) while flushing was occurring during the tidal cycle (Site Characterization Report, Consolidated Edison Company, May 2013).
- Cyanide concentrations range from 200 to 5500 mg/kg. Samples were collected above the water table and have essentially been preserved with no rain or precipitation, air exchange, sunlight, etc.
- BAPE concentrations range from 17 mg/kg to 152 mg/kg.

Recommended Actions

Due to the significant presence of purifier waste and odors that were encountered during excavation, GEI recommends that the excavation is backfilled and re-sealed with concrete as soon as possible. While the excavation is currently lined and sealed with plastic sheeting, and no odors or detections of VOCs, hydrogen cyanide (HCN) or hydrogen sulfide (H₂S) have been noted since sealing of the excavation and keeping the fume extractor/fan running continuously in the bathroom, a more permanent seal is necessary. It should be noted that during the actual excavation, monitoring was performed continuously and readings were not noted to be above actionable levels. This waste material has been sequestered beneath the floor since the building was constructed in and around 1970, and so the conditions are likely to show purifier waste in something that could be considered close to original condition since no rain or precipitation has fallen on it, and it has not been exposed to the atmosphere since the floor was poured approximately 55 years ago.

The plumbing repairs were completed on March 25, 2025, and the excavation is ready to be backfilled in order to bring the bathroom back in operable service. Restoration of the floor will re-establish a more permanent seal, thus reducing the risk of potentially exposing Krasdale employees to gases/vapors. The preliminary data indicates the presence of VOCs, SVOCs, metals, and cyanide in exceedance of Part 375 Commercial and/or Protection of Groundwater Soil Cleanup Objectives (SCOs) in the sampled purifier waste, which further supports the recommendation to close the excavation. Given that the excavation is located within a pile supported operating food distribution warehouse and office space, it is not feasible to further expand the excavation, remove additional material and/or delineate the waste material. The waste was anticipated to be beneath the floor in this area based on the evaluation of historical aerials

combined with multiple field investigations and delineation efforts for both the adjacent Parcel D Brownfield Cleanup Program (BSP) site, as well as the 400 FCD BCP site.

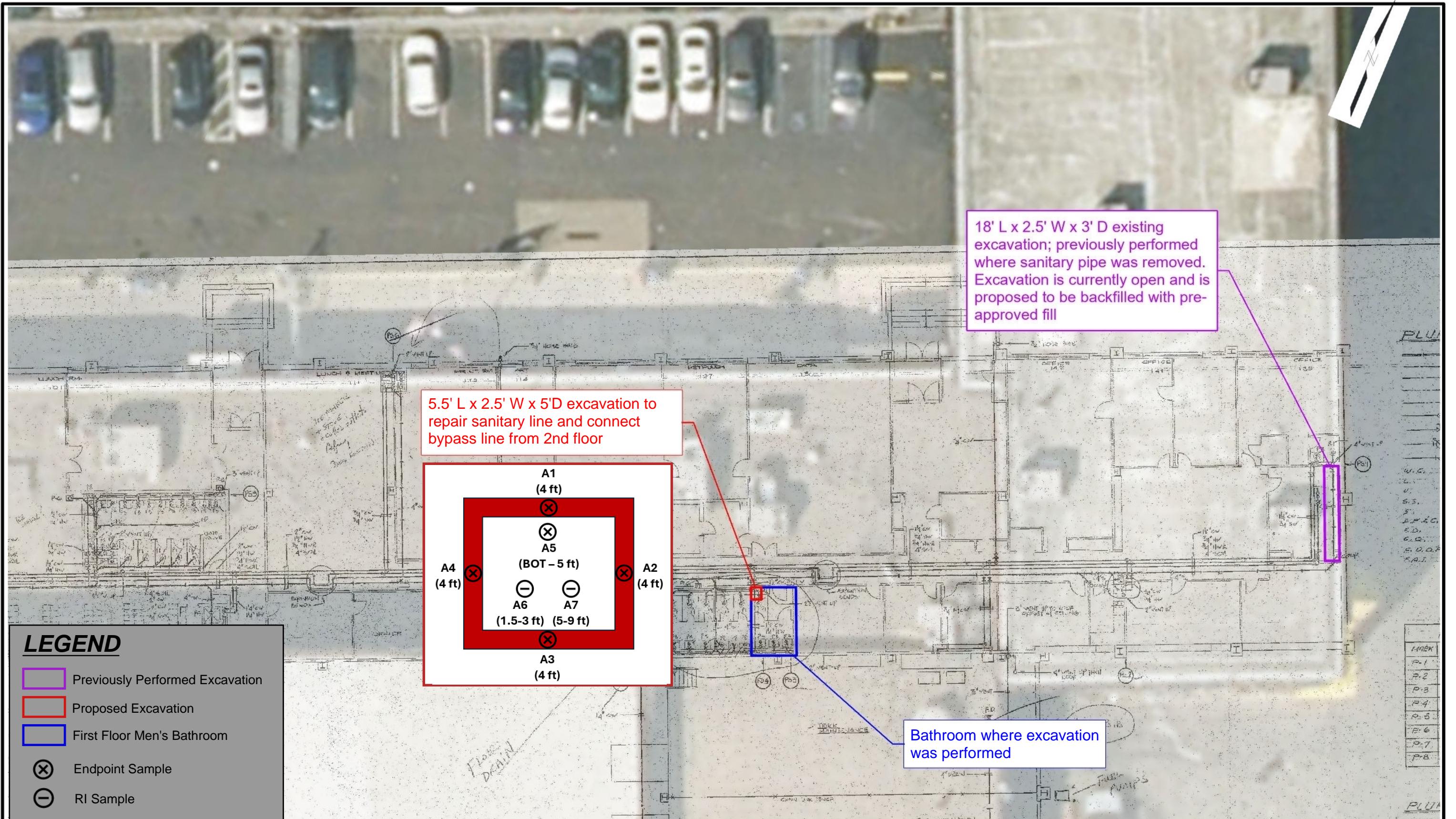
GEI also recommends repouring the concrete floor with the addition of multiple poly liners being placed within the current excavation area. This will replace the floor that has been 100% effective in preventing vapors and odors from entering the building since they were originally constructed. While the vapors that were monitored during the excavation did not exceed action levels, the odor is very noticeable and could create a worker exposure concern should the floor be temporarily covered and if that cover was tampered with. GEI considers this as human health and exposure prevention.

SN/KM
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Appendices

- Appendix A Figure
- Appendix B Laboratory Data Tables
- Appendix C "A" Excavation/Boring Log

Appendix A Figure



Appendix B Laboratory Data Tables

B.1. Excavation “A” Sample Data – VOCs, SVOCs, Metals and Cyanide

B.2. Benzo(a)pyrene Equivalent (BAPE)

Table 1. Excavation "A" Sample Data - VOCs, SVOCs, Metals and Cyanide

Could Not evaluate result... Verify manually														
Result exceeds at least one criterion														
Positive result detected below all criteria														
TestCode	CAS#	Analyte	Part07s Restricted	Commercial	Protection of Ground-Water	Part07s Unrestricted	Result	RL	Result	RL	Result	RL	Result	RL
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg	
VO-8260	71-55-6	1,1,1-Trichloroethane	100	500	0.68	0.68	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	79-34-5	1,1,2-Tetrachloroethane	NA	NA	0.6	NA	ND	0.19	ND	0.034	ND	0.19	ND	0.27
VO-8260	79-35-6	1,1,2,2-Tetrachloroethane	NA	NA	5	NA	ND	0.19	ND	0.034	ND	0.19	ND	0.27
VO-8260	79-40-5	1,1,2,2-Tetrachloroethene	NA	NA	NA	NA	ND	0.097	ND	0.034	ND	0.077	ND	0.095
VO-8260	79-34-3	1,1-Dichloroethane	26	240	0.27	0.27	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	97-11-7	1,1-Dichloroethene	100	500	0.33	0.33	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	120-82-1	1,2-Dichlorobenzene	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	96-12-8	1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	106-93-4	1,2-Dibromoethane	NA	NA	NA	NA	ND	0.19	ND	0.017	ND	0.15	ND	0.27
VO-8260	95-50-1	1,2-Dibromopropane	100	500	11	11	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	107-06-2	1,2-Dichloropropane	31	30	0.02	0.02	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	78-75-7	1,2-Dichloropropane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	541-73-1	1,3-Dichlorobenzene	49	280	2.4	2.4	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	542-67-6	1,3-Dichloropropene (Total)	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	75-25-2	Dibromochloromethane	NA	NA	NA	NA	ND	0.097	ND	0.034	ND	0.095	ND	0.14
VO-8260	78-83-9	Bromodifluoromethane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	123-81-1	1,4-Dioxane	13	130	0.1	0.1	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	78-93-3	2-Butanone	100	500	0.12	0.12	ND	0.19	0.039	0.034	ND	0.15	ND	0.27
VO-8260	591-78-6	2-Hexanone	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	160-10-1	4-Methyl-2-pentanone	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	67-60-1	Acetone	100	500	0.05	0.05	ND	0.19	0.017	0.017	ND	0.15	ND	0.27
VO-8260	714-32-2	Benzene	4.8	44	0.06	0.06	ND	0.097	ND	0.034	ND	0.15	ND	0.27
VO-8260	74-97-5	Bromochloromethane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	75-27-4	Bromochloroethane	NA	NA	NA	NA	ND	0.097	ND	0.034	ND	0.095	ND	0.14
VO-8260	75-25-2	Bromodifluoromethane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	74-83-9	Bromomethane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	75-15-0	Carbon disulfide	NA	NA	2.7	NA	ND	0.19	0.042	0.085	0.52	0.85	0.19	0.27
VO-8260	56-23-5	Carbon tetrachloride	2.4	22	0.76	0.76	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	160-07-0	Chloroethane	100	500	11	11	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	59-09-3	Chloroethene	NA	NA	1.9	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	67-66-3	Chlorofrom	49	350	0.37	0.37	ND	0.19	0.097	0.034	ND	0.77	ND	0.14
VO-8260	74-67-3	Chloromethane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	120-59-2	cis-1,2-Dichloroethene	100	500	0.25	0.25	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	110-82-7	Cyclohexane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	124-48-1	Dibromochloromethane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	75-17-8	Dichlorodifluoromethane	NA	NA	NA	NA	ND	0.19	ND	0.034	ND	0.15	ND	0.27
VO-8260	100-54-4	Dimethyl ether	41	300	1	1	ND	0.19	0.007	0.007	ND	0.095	ND	0.14
VO-8260	98-82-8	Isopropylbenzene	NA	NA	2.3	NA	ND	0.19	0.008	0.007	ND	0.095	ND	0.14
VO-8260	179901-23-1	m,p-Xylenes	100	500	0.26	0.26	ND	0.19	0.025	0.024	ND	0.15	ND	0.27
VO-8260	79-20-9	Methyl Acetate	NA	NA	NA	NA	ND	0.19	0.019	0.019	ND	0.15	ND	0.27
VO-8260	106-20-2	Methyl chloroformate	NA	NA	NA	NA	ND	0.19	0.019	0.019	ND	0.15	ND	0.27
VO-8260	75-09-2	Methylene chloride	100	500	0.05	0.05	ND	0.19	0.017	0.017	ND	0.15	ND	0.27
VO-8260	163-04-4	Methyl-t-butyl-ether	100	500	0.93	0.93	ND	0.10	0.017	0.017	ND	0.10	0.094	ND
VO-8260	95-47-8	o-Xylene	100	500	1.6	0.26	ND	0.19	0.007	0.007	ND	0.15	ND	0.27
VO-8260	100-55-3	Styrene	NA	NA	NA	NA	ND	0.19	0.019	0.019	ND	0.15	ND	0.27
VO-8260	127-19-4	Tetrahydroethene	19	150	1.3	1.3	ND	0.19	0.017	0.017	ND	0.15	ND	0.27
VO-8260	108-89-3	Toluene	100	500	0.7	0.7	ND	0.19	0.034	0.034	ND	0.15	ND	0.27
VO-8260	156-60-5	trans-1,2-Dichloroethene	100	500	0.19	0.19	ND	0.19	0.019	0.019	ND	0.15	ND	0.27
VO-8260	106-01-24	trans-1,3-Dichloropropene	NA	NA	NA	NA	ND	0.19	0.019	0.019	ND	0.15	ND	0.27
VO-8260	79-14-6	Trichloroethene	100	500	0.47	0.47	ND	0.19	0.019	0.019	ND	0.15	ND	0.27
VO-8260	83-02-7	Trichlorofluoromethane	NA	NA	NA	NA	ND	0.19	0.019	0.019	ND	0.15	ND	0.27
VO-8260	75-01-4	Vinyl chloride	0.9	13	0.02	0.02	ND	0.19	0.017	0.017	ND	0.15	ND	0.27
VO-8260	133-20-7	Xylenes (Total)	100	500	1.6	0.26	ND	0.19	0.007	0.007	ND	0.15	ND	0.27
Solvent														
BNA-8270	95-11-7	1,1,1,2-Tetrachlorobenzene	NA	NA	NA	NA	ND	0.04	0.48	3.2	2.6	ND	1.5	3.3
BNA-8270	95-94-3	1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	ND	0.04	ND	1.2	ND	2.6	ND	0.94
BNA-8270	123-91-1	1,4-Dioxane	13	130	0.1	0.1	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	58-92-2	2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	95-07-2	2,4,4,6-Tetrachlorophenol	NA	NA	0.1	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	104-06-2	2,4,5-Trichlorophenol	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	120-83-2	2,4-Dichlorophenol	NA	NA	0.4	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	51-07-2	2,4-Dimethoxyphenol	NA	NA	0.2	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	120-77-2	2,4-Dinitrophenol	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	62-06-2	2-Dinitroethene	NA	NA	0.17	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	91-58-7	2-Chlorophenol	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	87-74-4	2-Chloronaphthalene	NA	NA	0.22	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	7005-72-3	2-Chlorophenylbenzene	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	191-24-1	2-Chlorophenylbenzene	100	500	1.00	1.00	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	207-08-9	2-Benzyl-1-propanol	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	111-91-1	bis(2-Chloroethyl)ether	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	108-80-1	1,1-Dichloroethane	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	117-87-1	bis(2-Ethoxy)phthalate	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	821-67-7	Butylbenzyl-bis(2-Ethoxy)phthalate	NA	NA	122	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	105-60-2	Caprolactam	NA	NA	NA	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	218-01-9	Chrysene	3.9	56	1	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	53-64-3	Dibenz(a,h)anthracene	0.33	1,000	0.33	3.4	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	132-64-9	Dibenzofuran	59	350	6.2	7	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	84-67-3	Dibenzofurans	NA	NA	71	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	131-11-3	Dimethylphthalate	NA	NA	27	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	84-74-2	Di-n-butylphthalate	NA	NA	8.1	NA	ND	0.04	ND	0.17	ND	2.6	ND	0.94
BNA-8270	117-84-0	Di-n-octylphthalate	NA	NA	120									

Table 2. Benzo(a)pyrene Equivalent (BAPE)

		CLIENT ID: LAB ID: COLLECTION DATE: SAMPLE MATRIX: SAMPLE UNITS:	A1 AD50474-015 3/22/2025 Soil mg/Kg	A2 AD50474-014 3/22/2025 Soil mg/Kg	A3 AD50474-013 3/22/2025 Soil mg/Kg	A4 AD50474-012 3/22/2025 Soil mg/Kg	A5 AD50474-011 3/22/2025 Soil mg/Kg	A6 AD50474-008 3/22/2025 Soil mg/Kg	DUP AD50474-010 3/22/2025 Soil mg/Kg	A7 AD50474-009 3/22/2025 Soil mg/Kg				
CAS#	Analyte		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
56-55-3	Benz(a)anthracene		21	0.94	5.4	0.17	42	2.6	36	1.6	20	0.56	32	1.5
50-32-8	Benz(a)pyrene		14	0.94	3.7	0.17	23	2.6	26	1.6	12	0.56	19	1.5
205-99-2	Benz(b)fluoranthene		26	0.94	6.8	0.17	49	2.6	44	1.6	24	0.56	37	1.5
207-08-9	Benz(j)fluoranthene		11	0.94	2.2	0.17	17	2.6	17	1.6	10	0.56	15	1.5
218-09-7	Chrysene		21	0.94	5.9	0.17	42	2.6	36	1.6	22	0.56	32	1.5
53-70-3	Dibenz(a,h)anthracene		3.4	0.94	0.91	0.17	5.7	2.6	5.8	1.6	3.7	0.56	4.4	1.5
193-39-5	Indeno(1,2,3-cd)pyrene		11	0.94	3.0	0.17	18	2.6	17	1.6	11	0.56	16	1.5
	BAPE		68		17		117		114		63		95	

Benzo(a)pyrene (BAP) equivalent is calculated using the following formula: BAPE= 1 x conc. Benzo(a)pyrene + 0.1 x [conc. Benz(a)anthracene + conc. Benz(b)fluoranthene + conc. Benz(j)fluoranthene + conc. Dibenz(a,h)anthracene + conc. Indeno(1,2,3-cd)pyr

Appendix C “A” Excavation/Boring Log



GEI Consultants, Inc.
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CLIENT: NYCEDC
PROJECT: 400 Food Center Drive
CITY/STATE: Bronx, NY
GEI PROJECT NUMBER: 2303627

EXCAVATION/BORING
LOG
PAGE A
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GROUND SURFACE ELEVATION (FT):		--	LOCATION:	400 Food Center Drive
NORTHING:	--	EASTING:	--	TOTAL LENGTH: 5.5'
OBSERVED BY:	Carole Lakrout			TOTAL WIDTH: 2.5'
CHECKED BY:	Stacey Ng			TOTAL DEPTH: 5'
EQUIPMENT:	Jack Hammer, Shovel, Hand Auger		DATUM VERT. / HORZ.:	--
WEATHER:	Sunny, High 60F, S 5 mph		DATE START / END	3/22/2025

DEPTH FT.	PID (ppm)	ANALYZED SAMPLE ID	SOIL DESCRIPTION
0.8	0.0		(0.0 - 0.8') CONCRETE.
1.4	0.0		(0.8' - 1.4') Air, gap/void between bottom of concrete slab and top of soil/fill.
2.91	0.0	A6, DUP	(1.4' - 2.9") Clayey sand with fine to coarse gravel; brown to black; wet; no odor.
3.83			(2.9' - 3.83") Purifier waste with coal ash; gray-brown fine to medium wood chips; 10% fine black coal ash; wet; strong sulfur odor.
5	0.0	A1, A2, A3, A4 (Sidewall Samples at approx. 4 ft bgs) A5 (Bottom Sample at 5 ft bgs)	(3.83' - 5.0') Purifier waste with coal ash; gray-brown fine to medium wood chips; 10% fine black coal ash; wet; strong sulfur odor.
9.0	5.3	A7 (Collected via hand auger/boring)	(5.0' - 9.0') Purifier waste with coal ash; dark gray to black, fine to medium wood chips; moist to wet; strong sulfur odor.

NOTES:

PID = photoionization detector

ppm = parts per million

ft = feet

bgs = below ground surface



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CLIENT:	NYCEDC	EXCAVATION/BORING LOG	
PROJECT:	400 Food Center Drive	PAGE	A
CITY/STATE:	Bronx, NY		
GEI PROJECT NUMBER:	2303627	2 of 2	

GROUND SURFACE ELEVATION (FT):	--	LOCATION:	400 Food Center Drive
NORTHING:	--	EASTING:	--
OBSERVED BY:	Carole Lakrout	TOTAL LENGTH:	5.5'
CHECKED BY:	Stacey Ng	TOTAL WIDTH:	2.5'
EQUIPMENT:	Jack Hammer, Shovel, Hand Auger	TOTAL DEPTH:	5'
WEATHER:	Sunny, High 60F, S 5 mph	DATUM VERT. / HORZ.:	--
		DATE START / END	3/22/2025

PHOTOGRAPH

Photo 1: Purifier Waste (5-9 ft bgs)



NOTES:

PID = photoionization detector

ppm = parts per million

ft = feet

bgs = below ground surface