March 10, 2020

Mr. Kevin Carpenter
Chief, Remedial Section B, Bureau C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014

RE: Hotel Engineering Controls Status Report
109 Marbledale Road, Tuckahoe, New York
Brownfield Cleanup Program No. C360143

Dear Mr. Carpenter:

On behalf of Bilwin Development Affiliates, LLC., this report is being submitted to provide a status update for the engineering controls associated with the hotel at the 109 Marbledale Road site managed under Brownfield Cleanup Program No. C360143.

The engineering controls associated with the hotel include:

1. A sub-slab depressurization system (SSDS) to protect indoor air from vapor impacts; and
2. A composite cover system to prevent exposure to contaminated soils via direct contact.

Hotel SSDS Status

Construction of the hotel SSDS has been completed. After activating the SSDS on February 12, 2020, a startup performance test was completed on February 13, 2020 and the testing demonstrated satisfactory operation according to the SSDS design. The SSDS remains in continuous operation.

Data collected during the SSDS startup test, including system operational data, sub-slab monitoring point readings from before and after startup of the system, and a site plan showing the monitoring point locations is included in **Attachment 1**. The monitoring results show that an induced vacuum of 0.025 inches of water (”H_2O) or greater is present beneath the hotel slab in all three areas of the SSDS (Hotel Systems 1, 2, and 3). In order to minimize unnecessary extraction of greenhouse gases from beneath the slab,

the system is currently operating using dilution air and the riser valves for each system were adjusted to provide the minimum vacuum.

The sub-slab monitoring point readings from before and after startup of the SSDS also show reductions in PID and FID readings and increases in oxygen levels with the SSDS in operation. This also indicates that the SSDS is providing sufficient influence to capture soil vapors beneath the slab and protect the indoor air.

The vapor treatment system for the SSDS was also monitored and sampled on February 13, 2020. The vapor treatment system consists of two parallel trains of carbon. Each train includes one Cabtrol G-10P activated carbon adsorbers with a 3-foot bed and 600 pounds of carbon, followed by two G-3S carbon units in series containing 140 pounds of carbon each. Summa canister air samples were collected from the vapor treatment system for laboratory analysis for volatile organic compounds (VOCs) by EPA Method TO-15. The laboratory analytical report and a tabular summary of the compounds detected are included in **Attachment 2**.

Samples collected for laboratory analysis included the influent air to each carbon train, a sample collected from the outlet of each of the G-10P carbon units, and a sample collected at the end of each carbon train. The analytical results show the G-10P units are reducing VOC concentrations for a majority of the target analytes detected. Freon 114, chloromethane, Freon 12, methyl methacrylate, and tetrahydrofuran were not effectively removed by the carbon, but the concentrations of each of these compounds were below the applicable Short-Term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs).

Emission rates of all individual VOCs were significantly less than 100 pounds per year (lb/year) in the SSDS blower exhaust, as the total emissions for all VOCs detected were 7.8 lb/year. Total VOC emissions from the SSDS were 0.00089 lb/hour, orders of magnitude less than the 0.5 lb/hour limit. In addition, none of the individual High Toxicity Air Contaminants (HTAC) listed in Part 212 were within an order of magnitude of the 0.1 lb/hour limit. No SGCs were exceeded in the exhaust air from the blower.

Of the compounds detected that are listed on the HTAC list, two VOCs were detected at concentrations that exceeded the AGCs at the blower exhaust: carbon tetrachloride and trichloroethylene (TCE). The mass emission limit for carbon tetrachloride is 100 lb/year, and the mass emission limit for TCE is 500 lb/year; the calculated emission rates of both compounds were less than 0.01 pounds per year. A toxic impact assessment (TIA) was completed for carbon tetrachloride and TCE using AERSCREEN. The TIA modeling results are included in **Attachment 3**, and show that the fenceline concentrations of carbon tetrachloride and TCE are orders of magnitude lower than the AGCs.

During the startup test on February 13, 2020, some punchlist items were identified

for the Hotel SSDS. The punchlist items and their status are presented in the following table:

Punchlist Item	Status
Install new direct-read vacuum gauges on the SSDS risers that are capable of showing the low range of vacuums that the system operates within.	Magnehelic gauges with a display range of 0 to 0.50 ”H_2O were installed on each SSDS riser on March 4, 2020 (see photos in **Attachment 4**).
Install signs on the SSDS risers indicating what vacuum the gauge should be displaying under normal operating conditions.	Signs were installed on March 6, 2020 (see photos in **Attachment 4**).
Install a sign near the SSDS controller that describes signs of an alarm condition occurring and provides information on whom to contact in the event of an alarm.	Sign was installed February 25, 2020 (see photos in **Attachment 4**).
Provide a procedures list for the hotel desk manager to refer to regarding normal SSDS operating conditions and what to do in the event of an alarm.	Procedures list was provided February 25, 2020 (see photos in **Attachment 4**).
Re-pipe SSDS riser on the hotel roof to provide separation between the SSDS dilution air intake and the SSDS exhaust pipe, and provide screen on the end of the pipe to prevent birds from entry.	The riser pipes for the SSDS dilution air and blower exhaust were separated by re-piping to the opposite sides of the elevator structure, providing approximately 19 feet of separation and a physical barrier between the two pipes (see photos in **Attachment 4**). Screens were installed on the open end of each riser pipe.

Composite Cover System

According to the approved RAWP, a composite cover system is required to be in place to prevent direct contact exposure to the contaminated soils on-site. The cover system includes building foundations, sidewalks, and paved parking areas, along with one foot of soil cover in landscaped vegetative areas. In landscaped vegetative areas of the site, the soil cover is required to include a minimum clay soil thickness of at least 6 inches, with the upper 6 inches of material being either clay or topsoil, making a total soil

cap thickness of at least 12 inches.

The soil cap thicknesses were evaluated in several places by exploration using hand tools during the site visit on February 13, 2020. The soil cap was found to contain less than 6 inches of clay in several areas (see **Attachment 5**). On the northern portion of the site, away from the hotel area, the composite cover system has not been completed yet; therefore, a fence has been installed to prevent direct contact with contaminated soils. The fence location is shown on the figure included in **Attachment 5**, and photographs of the fence are included in **Attachment 4**.

Retroactive placement of additional clay to provide the specified minimum thickness was completed on Monday, March 9, 2020. Photographs from the cap installation, a site plan showing the cap thickness measurement locations, and a tabulation of the installed clay/topsoil thicknesses are included in **Attachment 6**.

Summary

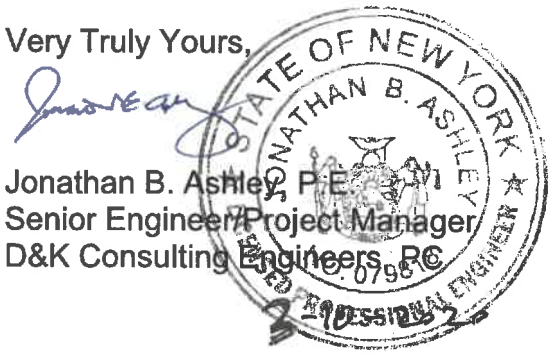
The hotel SSDS has been installed, tested, and made operational. The startup monitoring and testing results show that the system is operating according to the applicable performance requirements.

The composite cover system for the hotel area has also been completed, and a temporary fence has been installed to restrict access to the northern portion of the property where the composite cover system is not yet complete.

The necessary engineering controls for the hotel are now in place in accordance with the RAWP.

Please contact me if you have any questions regarding this update or need any additional information.

Very Truly Yours,



Jonathan B. Ashley, P.E.
Senior Engineer/Project Manager
D&K Consulting Engineers, PC

Attachments

cc: File, HES, HDR

DuBois & King inc.

Attachment 1

SSDS Start Up
System Monitoring Data

Project: 109 Marbledale Road Date: 2/13/2020
Tuckahoe, New York Personnel: PWM, JAR
Hotel SSDS Start Up Test

Air Flow

Location	All Systems Influent	All Systems Effluent
Temp. (°F)	72	57

Location	System 1	System 2	System 3
Vacuum (In WC)	0.42	0.01	0.09

	Left Carbon Train				Right Carbon Train				
Port	Influent	Mid. 1	Mid. 2	Effluent	Influent	Mid.1	Mid. 2	Effluent	Dilution Air
Vacuum (In WC)	4.40	4.20	5.20	5.00	3.60	4.20	4.60	5.40	--
Diff. Press. (In WC)	0.04	--	--	--	0.03	--	--	--	--
Velocity (ft/min)	803.5	--	--	--	695.9	--	--	--	5,000
Flow (cu.ft/min)	157.5	--	--	--	136.4	--	--	--	139

Air Quality

Port	PID (ppm)	FID (U) (ppm)	FID (F) (ppm)	O_2 (%)	LEL (%)	H_2S (ppm)
Inf. L	1.0	448.0	510.0	19.2	0.0	0.0
Mid. 1 L	0.2	2.0	2.0	20.9	0.0	0.0
Mid. 2 L	0.2	504.0	200.0	19.4	0.0	0.0
Eff. L	0.2	2.0	2.0	20.1	0.0	0.0
Inf. R	0.4	102.0	2.0	20.9	0.0	0.0
Mid. 1 R	0.1	428.0	1.3	19.2	0.0	0.0
Mid. 2 R	0.4	213.0	5.5	19.9	0.0	0.0
Eff. R	0.2	365.0	230.0	19.1	0.0	0.0
Blower Eff.	0.5	--	--	--	--	--

Notes:

System readings collected at approximatley 3pm.

Vapor Point Monitoring Data

Project: 109 Marbledale Road Date: 2/12/2020

Tuckahoe, New York Personnel: PWM, JAR

Hotel SSDS Start Up Test

System Test	Vapor Point	Vacuum (In WC)	PID (ppm)	FID (U) (ppm)	FID (F) (ppm)	O_2 (%)	LEL (%)	H_2S (ppm)
Baseline (10am)	SS-101	-	4.5	15.3	11.2	20.4	0	0
	SS-102	-	5.8	14.1	11	20	0	0
	SS-103	-	2.3	12.2	11.4	20.9	0	0
	SS-104	-	28.2	22.4	10	20.9	0	0
	SS-105	-	38	25.3	12	20.9	0	0
	SS-106	-	6.5	15	13	20.9	0	0
	SS-107	-	7.7	27	11	14.7	0	0
	SS-108	-	6.1	23.7	12.5	18.5	0	0
	SS-109	-	5.2	18.8	16.5	20.4	0	0
	SS-110	-	5.3	13.4	11.7	20.3	0	0
Post Startup (1:30pm)	SS-101	0.03	2.7	1.9	0.1	20.9	0	0
	SS-102	0.025	3.8	0.4	0	20.9	0	0
	SS-103	0.06	1.2	0	0	20.9	0	0
	SS-104	0.07	25.8	9.2	0	20.9	0	0
	SS-105	0.05	21.9	1.9	0	20.9	0	0
	SS-106	0.125	1.3	0	0	20.9	0	0
	SS-107	0.16	1.5	0	0	20.9	0	0
	SS-108	0.09	0.9	0	0	20.9	0	0
	SS-109	0.03	0.9	0	0	20.9	0	0
	SS-110	0.03	1.1	0	0	20.9	0	0

Notes:

Vapor Point Monitoring Data

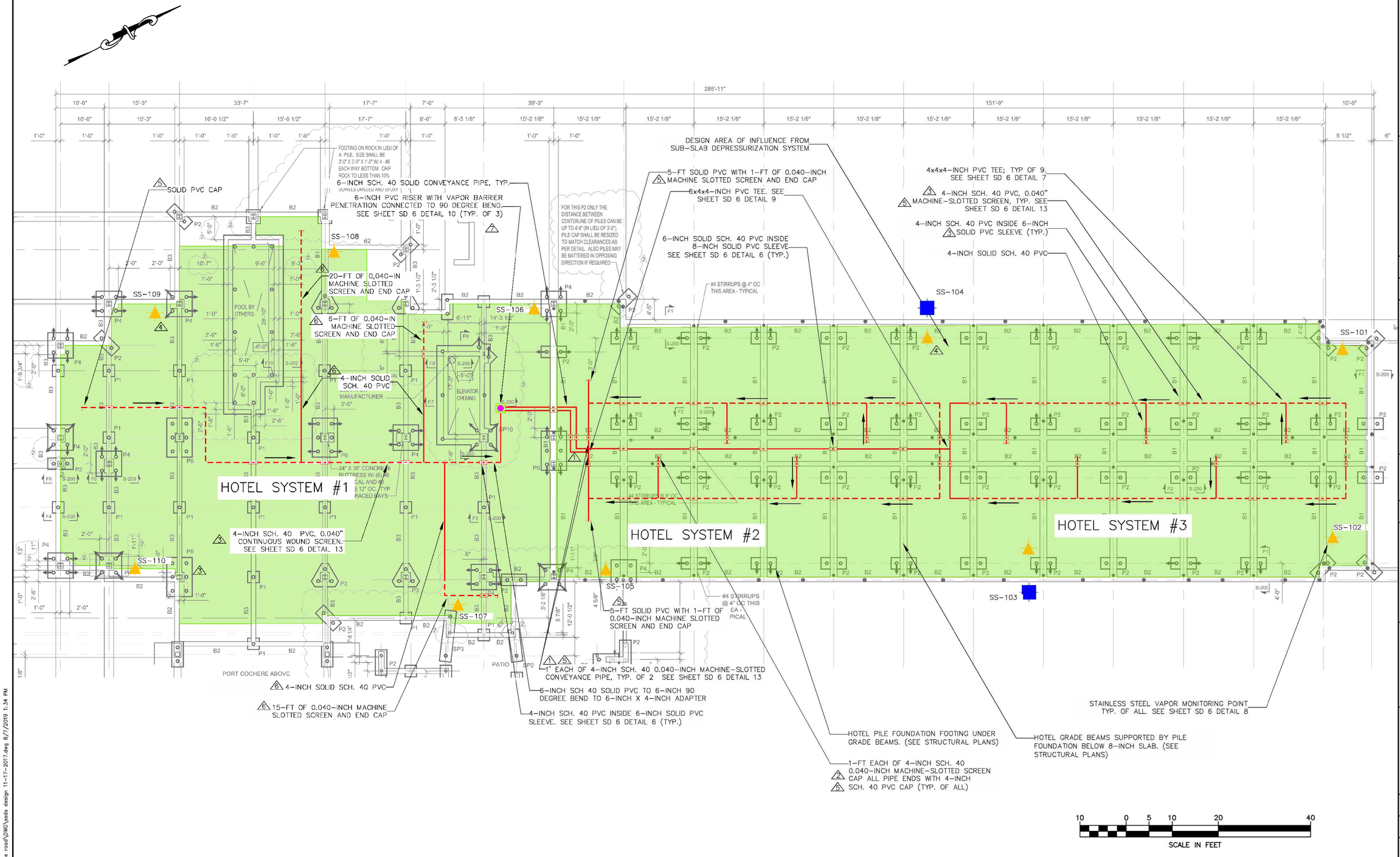
Project: 109 Marbledale Road Date: 2/13/2020

Tuckahoe, New York Personnel: PWM, JAR

Hotel SSDS Start Up Test

System Test	Vapor Point	Vacuum (In WC)	PID (ppm)	FID (U) (ppm)	FID (F) (ppm)	O_2 (%)	LEL (%)	H_2S (ppm)
Readings with System In Operation 4pm	SS-101	0.03	0.5	2	1.8	20.9	0	0
	SS-102	0.03	0.5	1.8	1.3	20.9	0	0
	SS-103	0.06	0.2	0	0	20.9	0	0
	SS-104	0.05	29.7	--	--	20.9	0	0
	SS-105	0.07	17.2	2.6	0	20.9	0	0
	SS-106	0.14	0.5	11	5	20.9	0	0
	SS-107	0.16	0.3	0	0	20.9	0	0
	SS-108	0.09	0.3	--	--	20.9	0	0
	SS-109	0.06	0.3	0	12.5	20.9	0	0
	SS-110	0.025	0.2	0	13.5	20.9	0	0

Notes:



NOTES:
SITE LAYOUT INFORMATION IN THIS PLAN ARE FROM "FOUNDATION PLAN – S-100" BY MICHAEL MACRI, P.E. OF MCSE, PC ON 02/03/2017, LAST REVISED ON 07/31/2017

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RANDOLPH, VT
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SPRINGFIE.D, VT
BEDFORD, NH
LACONIA, NH

PROFESSIONAL SEAL

STATE OF NEW YORK JONATHAN B. ASHLEY NO. 092918 LICENSED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY	CK'D
7	8-1-2019	REVISION FOR 1 BLOWER	RJL	JBA
6	12-14-2017	ADD LEGS TO HOTEL SYSTEM #1	CWJ	JBA
5	12-4-2017	REVISE SYSTEM-MACHINE-SLOTTED SCREEN	CWJ	JBA
4	9-6-2017	ADDED TWO VAPOR MONITORING POINTS	CWJ	JBA
3	8-29-17	REVISED NOTES	AJS	JBA
2	8-22-17	ADDED CAPS AT ALL PIPE ENDS	JBA	JBA
1	8-19-17	ADDED SLOTTED PIPING TO HOTEL SYST. #2	CWJ	JBA

HYDRO-ENVIRONMENTAL SOLUTIONS, INC.
ONE DEANS BRIDGE ROAD
SOMERS, NY 10589

109 MARBLEDALE ROAD
TUCKAHOE, NY

SHEET TITLE

SUB-SLAB DEPRESSURIZATION SYSTEM HOTEL FOUNDATION LAYOUT PLAN

DRAWN BY	DATE
TJD	NOV. 2018
CHECKED BY	D&K PROJECT #
WAC(HES)	223060
PROJ. ENG.	D&K ARCHIVE #
JBA	

SHEET NUMBER

SD 3

SHEET 4 OF 9

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Attachment 2

109 Marbledale Road
Tuckahoe, New York
BCP #C360143

Hotel SSDS Start Up Test February 13, 2020
TO-15 Sample Results

Sample ID		DAR-1 AGC/SGC Tables		Influent Left			Mid 1 Left			Percent Removal Influent to Mid Carbon	Effluent Left			Percent Removal Mid Carbon to Effluent	Percent Removal Influent to Effluent
York ID				20B0491-01		Contaminant Mass Flow Rate	20B0491-03		Contaminant Mass Flow Rate		20B0491-05		Contaminant Mass Flow Rate		
Sampling Date				2/13/2020			2/13/2020				2/13/2020				
Client Matrix				Vapor Extraction			Vapor Extraction				Vapor Extraction				
Compound		SGC	AGC	Result	Q		Result	Q			Result	Q			
Volatile Organics, EPA TO15 Full List		µg/m³	µg/m³	µg/m³		lb/day	µg/m³				µg/m³		lb/day		
Dilution Factor				1.73			15.66				1.624				
1,2,4-Trimethylbenzene		-	6.0	1.900	D	0.000027	0.850	D	55.3%		0.880	D	0.000012	-3.5%	53.7%
1,2-Dichlorotetrafluoroethane (Freon 114)		-	17,000.0	350	D	0.0050	670	D	-91.4%		500	D	0.0071	25.4%	-42.9%
1,3,5-Trimethylbenzene		-	6.0	0.850	D	0.000012	<0.770	U	100.0%		<0.800	U	--	100.0%	100.0%
2-Butanone (methyl ethyl ketone)		13,000.0	15,000.0	12	D	0.000170	5.500	D	54.2%		<0.480	U	--	100.0%	100.0%
4-Methyl-2-pentanone (methyl isobutyl ketone)		31,000.0	3,000.0	<0.710	U	--	<0.640	U	100.0%		0.730	D	0.000010	-14.1%	-2.8%
Acetone		180,000.0	30,000.0	130	D	0.0018	5.900	D	95.5%		7.700	D	0.00011	-30.5%	94.1%
Benzene		1,300.0	0.13	1.200	D	0.000017	<0.500	U	100.0%		<0.520	U	--	100.0%	100.0%
Carbon disulfide		150.0	14.7	1.200	D	0.000017	<0.490	U	100.0%		<0.510	U	--	100.0%	100.0%
Carbon tetrachloride		19,000.0	0.17	<0.270	U	--	<0.250	U	100.0%		0.610	D	0.0000086	-144.0%	-125.9%
Chloroform		150.0	14.7	2.800	D	0.000040	<0.760	U	100.0%		1.200	D	0.000017	100.0%	57.1%
Chloromethane		22,000.0	90.0	0.610	D	0.0000086	0.650	D	-6.6%		0.970	D	0.000014	-49.2%	-59.0%
cis-1,2-Dichloroethylene		-	63.0	<0.170	U	--	<0.160	U			<0.160	U	--		
Cyclohexane		-	6,000.0	3.300	D	0.000047	<0.540	U	100.0%		4.100	D	0.000058	100.0%	-24.2%
Dichlorodifluoromethane (Freon 12)		-	12,000.0	140	D	0.0020	150	D	-7.1%		130	D	0.0018	13.3%	7.1%
Ethyl acetate		-	3,400.0	14	D	0.00020	<1.100	U	100.0%		<1.200	U	--	100.0%	100.0%
Ethyl Benzene		-	1,000.0	3.800	D	0.000054	<0.680	U	100.0%		0.710	D	0.000010	100.0%	81.3%
Isopropanol (isopropyl alcohol)		98,000.0	7,000.0	4.900	D	0.000069	0.920	D	81.2%		3.500	D	0.000050	-280.4%	28.6%
Methyl Methacrylate		41,000.0	700.0	<0.710	U	--	0.900	D	-26.8%		4.600	D	0.000065	-411.1%	-547.9%
Methylene chloride (dichloromethane)		14,000.0	60.0	<1.200	U	--	<1.100	U			<1.100	U	--		
n-Hexane		-	700.0	3.500	D	0.000050	<0.550	U	100.0%		<0.570	U	--	100.0%	100.0%
o-Xylene		22,000.0	100.0	4.700	D	0.000067	0.750	D	84.0%		0.780	D	0.000011	-4.0%	83.4%
p- & m- Xylenes		22,000.0	100.0	15	D	0.00021	2.100	D	86.0%		2.300	D	0.000033	-9.5%	84.7%
p-Ethyltoluene		-	-	1.600	D	0.000023	<0.770	U	100.0%		0.800	D	0.000011	-3.9%	50.0%
Styrene		17,000.0	1,000.0	1.200	D	0.000017	<0.670	U	100.0%		<0.690	U	--	100.0%	100.0%
Tetrachloroethylene		300.0	4.0	8.100	D	0.00011	2.100	D	74.1%		2.200	D	0.000031	-4.8%	72.8%
Tetrahydrofuran		30,000.0	350.0	6.900	D	0.000098	12	D	-73.9%		19	D	0.00027	-58.3%	-175.4%
Toluene		37,000.0	5,000.0	4.200	D	0.000059	1.100	D	73.8%		6.200	D	0.000088	-463.6%	-47.6%
Trichloroethylene		20.0	0.20	0.930	D	0.000013	<0.210	U	100.0%		<0.220	U	--	100.0%	100.0%
Trichlorofluoromethane (Freon 11)		9,000.0	5,000.0	9.900	D	0.00014	1.600	D	83.8%		3.500	D	0.000050	-118.8%	64.6%
Totals				749		0.011					715		0.010		

Sample ID		Influent Right			Mid 1 Right			Percent Removal Influent to Mid Carbon	Effluent Right			Percent Removal Mid Carbon to Effluent	Percent Removal Influent to Effluent	Blower Exhaust
York ID		20B0491-02		Contaminant Mass Flow Rate	20B0491-04				20B0491-06		Contaminant Mass Flow Rate			Combined
Sampling Date		2/13/2020			2/13/2020				2/13/2020					2/13/2020
Client Matrix		Vapor Extraction			Vapor Extraction				Vapor Extraction					Contaminant Mass Flow Rate
Compound		Result	Q		Result	Q			Result	Q				Calculation (see notes below)
Volatile Organics, EPA TO15 Full List		µg/m³		lb/day	µg/m³				µg/m³		lb/day			µg/m³
Dilution Factor		1.536			15.65				15.65					
1,2,4-Trimethylbenzene		1.900	D	0.000023	0.770	U	59.5%		1.600	D	0.000020	-107.8%	15.8%	0.824
1,2-Dichlorotetrafluoroethane (Freon 114)		390	D	0.0048	600	D	-53.8%		690	D	0.0085	-15.0%	-76.9%	399
1,3,5-Trimethylbenzene		<0.760	U	--	<0.770	U			<0.770	U	--			--
2-Butanone (methyl ethyl ketone)		11	D	0.00013	4.800	D	56.4%		<0.460	U	--	100.0%	100.0%	--
4-Methyl-2-pentanone (methyl isobutyl ketone)		3.200	D	0.000039	<0.640	U	100.0%		<0.640	U	--		100.0%	0.27
Acetone		130	D	0.0016	8.900	D	93.2%		9.500	D	0.00012	-6.7%	92.7%	5.79
Benzene		1.100	D	0.000013	<0.500	U	100.0%		<0.500	U	--		100.0%	--
Carbon disulfide		1.100	D	0.000013	<0.490	U	100.0%		0.490	D	0.0000060	0.0%	55.5%	0.15
Carbon tetrachloride		0.480	D	0.0000059	<0.250	U	100.0%		0.590	D	0.0000072	-136.0%	-22.9%	0.41
Chloroform		2.900	D	0.000036	1.100	D	62.1%		1.300	D	0.000016	-18.2%	55.2%	0.85
Chloromethane		0.600	D	0.0000074	0.610	D	-1.7%		0.420	D	0.0000052	31.1%	30.0%	0.49
cis-1,2-Dichloroethylene		<0.150	U	--	<0.160	U			1.200	D	0.000015	-650.0%	-700.0%	0.38
Cyclohexane		4.600	D	0.000056	<0.540	U	100.0%		4.500	D	0.000055	-733.3%	2.2%	2.9
Dichlorodifluoromethane (Freon 12)		160	D	0.0020	160	D	0.0%		180	D	0.0022	-12.5%	-12.5%	104
Ethyl acetate		14	D	0.00017	1.100	D	92.1%		<1.100	U	--		100.0%	--
Ethyl Benzene		3.800	D	0.000047	<0.680	U	100.0%		0.750	D	0.0000092	-10.3%	80.3%	0.49
Isopropanol (isopropyl alcohol)		4.900	D	0.000060	1	D	79.6%		2.600	D	0.000032	-160.0%	46.9%	2.1
Methyl Methacrylate		<0.630	U	--	<0.640	U			<0.640	U	--			1.7
Methylene chloride (dichloromethane)		1.700	D	0.000021	8.800	D	-417.6%		<1.100	U	--	100.0%	100.0%	--
n-Hexane		5.300	D	0.000065	7.200	D	-35.8%		0.720	D	0.0000088	90.0%	86.4%	0.23
o-Xylene		4.500	D	0.000055	<0.680	U	100.0%		1.000	D	0.000012	-47.1%	77.8%	0.60
p- & m- Xylenes		14	D	0.00017	1.500	D	89.3%		3.000	D	0.000037	-100.0%	78.6%	1.8
p-Ethyltoluene		1.500	D	0.000018	<0.770	U	100.0%		1.200	D	0.000015	-55.8%	20.0%	0.67
Styrene		1.100	D	0.000013	<0.670	U	100.0%		<0.670	U	--		100.0%	--
Tetrachloroethylene		4.300	D	0.000053	<1.100	U	100.0%		5.300	D	0.000065	-381.8%	-23.3%	2.5
Tetrahydrofuran		7	D	0.000086	14	D	-100.0%		24	D	0.00029	-71.4%	-242.9%	14.5
Toluene		3.800	D	0.000047	<0.590	U	100.0%		0.710	D	0.0000087	-20.3%	81.3%	2.5
Trichloroethylene		0.330	D	0.0000040	<0.210	U	100.0%		1.800	D	0.000022	-757.1%	-445.5%	0.57
Trichlorofluoromethane (Freon 11)		10	D	0.00012	1.400	D	86.0%		3.300	D	0.000040	-135.7%	67.0%	2.3
Totals		807		0.010							0.012			

			lb/year
			0.0000013
			0.00065
			--
			--
0.0038	0.00000043		
0.082	0.0000094		
			--
0.002	0.00000025		
0.006	0.00000066		
0.012	0.0000014		
0.007	0.00000079		
0.005	0.0000006		
0.041	0.0000047		
1.478	0.00017		
			--
0.007	0.00000080		
0.030	0.0000034		
0.024	0.0000027		
			--
0.0032	0.00000037		
0.0085	0.0000010		
0.025	0.0000029		
0.010	0.0000011		
			--
0.035	0.0000040		
0.21	0.000023		
0.035	0.0000040		
0.0081	0.00000092		
0.033	0.0000038		
7.8	0.00089		

NOTES:
Only target analytes that were detected in at least one sample above the method detection limits are summarized in this table.
Concentrations greater than the AGC are in bold and highlighted in yellow.
Concentrations greater than the SGC are in bold and highlighted in orange.
As noted by highlighting, some laboratory method detection limits for the analytical method exceed the AGC and are in bold and highlighted yellow; there is no indication from the data that the actual concentrations of these target analytes exceed the AGC.
Percent removals in red text denote an increase in concentration.

Left Train flow rate at the time of sampling =	157.5	cfm
Right Train flow rate at the time of sampling =	136.4	cfm
Dilution Air flow rate at the time of sampling =	139	cfm
Total =	432.9	cfm

Combined blower exhaust concentrations calculated using flow-weighted concentrations from each treatment train combined with dilution air flow.

Technical Report

prepared for:

Hydro Environmental Solutions
One Deans Bridge Road
Somers NY, 10589
Attention: Bill Canavan

Report Date: 02/19/2020
Client Project ID: 109 Marbledale Road, Tuckahoe, New York
York Project (SDG) No.: 20B0491

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

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: 02/19/2020
Client Project ID: 109 Marbledale Road, Tuckahoe, New York
York Project (SDG) No.: 20B0491

Hydro Environmental Solutions
One Deans Bridge Road
Somers NY, 10589
Attention: Bill Canavan

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 February 14, 2020 and listed below. The project was identified as your project: **109 Marbledale Road, Tuckahoe, New York**.

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
20B0491-01	Influent Left	Vapor Extraction	02/13/2020	02/14/2020
20B0491-02	Influent Right	Vapor Extraction	02/13/2020	02/14/2020
20B0491-03	Mid 1 Left	Vapor Extraction	02/13/2020	02/14/2020
20B0491-04	Mid 1 Right	Vapor Extraction	02/13/2020	02/14/2020
20B0491-05	Effluent Left	Vapor Extraction	02/13/2020	02/14/2020
20B0491-06	Effluent Right	Vapor Extraction	02/13/2020	02/14/2020

General Notes for York Project (SDG) No.: 20B0491

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; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 02/19/2020

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: **Influent Left** **York Sample ID:** **20B0491-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.2	1.73	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 09:26	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.94	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.2	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.3	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.94	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.70	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.17	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.3	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**1.9**		ug/m³	0.85	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.3	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	1.0	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.70	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.80	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
76-14-2	**1,2-Dichlorotetrafluoroethane**	**350**		ug/m³	1.2	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
108-67-8	**1,3,5-Trimethylbenzene**	**0.85**		ug/m³	0.85	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.1	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	1.0	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.80	1.73	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 09:26	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	1.0	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	1.2	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
78-93-3	**2-Butanone**	**12**		ug/m³	0.51	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.4	1.73	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 09:26	LLJ

Sample Information

Client Sample ID: **Influent Left** **York Sample ID:** **20B0491-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m³	2.7	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.71	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
67-64-1	**Acetone**	**130**		ug/m³	0.82	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.38	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
71-43-2	**Benzene**	**1.2**		ug/m³	0.55	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.90	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	1.2	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
75-25-2	Bromoform	ND		ug/m³	1.8	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.67	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
75-15-0	**Carbon disulfide**	**1.2**		ug/m³	0.54	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.27	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.80	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.46	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
67-66-3	**Chloroform**	**2.8**		ug/m³	0.84	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
74-87-3	**Chloromethane**	**0.61**		ug/m³	0.36	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.17	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.79	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
110-82-7	**Cyclohexane**	**3.3**		ug/m³	0.60	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	1.5	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
75-71-8	**Dichlorodifluoromethane**	**140**		ug/m³	0.86	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
141-78-6	*** Ethyl acetate**	**14**		ug/m³	1.2	1.73	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 09:26	LLJ
100-41-4	**Ethyl Benzene**	**3.8**		ug/m³	0.75	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.8	1.73	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 09:26	LLJ

Sample Information

Client Sample ID: **Influent Left** **York Sample ID:** **20B0491-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-63-0	**Isopropanol**	**4.9**		ug/m³	0.85	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
80-62-6	Methyl Methacrylate	ND		ug/m³	0.71	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.62	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	Methylene chloride	ND		ug/m³	1.2	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	0.71	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	**n-Hexane**	**3.5**		ug/m³	0.61	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**4.7**		ug/m³	0.75	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**15**		ug/m³	1.5	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	*** p-Ethyltoluene**	**1.6**		ug/m³	0.85	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.30	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications:			
100-42-5	**Styrene**	**1.2**		ug/m³	0.74	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**8.1**		ug/m³	1.2	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	*** Tetrahydrofuran**	**6.9**		ug/m³	1.0	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications:			
108-88-3	**Toluene**	**4.2**		ug/m³	0.65	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.69	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.79	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**0.93**		ug/m³	0.23	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	**Trichlorofluoromethane (Freon 11)**	**9.9**		ug/m³	0.97	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	0.61	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	0.76	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	0.11	1.73	EPA TO-15	02/17/2020 16:56	02/18/2020 09:26	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.5 %*	*70-130*

Sample Information

Client Sample ID: **Influent Left** **York Sample ID:** **20B0491-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Sample Information

Client Sample ID: **Influent Right** **York Sample ID:** **20B0491-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List **Log-in Notes:** **Sample Notes:** TO-VAC

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.536	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 10:18	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.84	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.84	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.62	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**1.9**		ug/m³	0.76	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.92	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.62	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.71	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
76-14-2	**1,2-Dichlorotetrafluoroethane**	**390**		ug/m³	1.1	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.76	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.92	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.71	1.536	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 10:18	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.92	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ

Sample Information

Client Sample ID: **Influent Right** **York Sample ID:** **20B0491-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
78-93-3	**2-Butanone**	**11**		ug/m³	0.45	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.536	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 10:18	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
108-10-1	**4-Methyl-2-pentanone**	**3.2**		ug/m³	0.63	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
67-64-1	**Acetone**	**130**		ug/m³	0.73	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.33	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
71-43-2	**Benzene**	**1.1**		ug/m³	0.49	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.80	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
75-25-2	Bromoform	ND		ug/m³	1.6	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.60	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
75-15-0	**Carbon disulfide**	**1.1**		ug/m³	0.48	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
56-23-5	**Carbon tetrachloride**	**0.48**		ug/m³	0.24	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.71	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.41	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
67-66-3	**Chloroform**	**2.9**		ug/m³	0.75	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
74-87-3	**Chloromethane**	**0.60**		ug/m³	0.32	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.70	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
110-82-7	**Cyclohexane**	**4.6**		ug/m³	0.53	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ
75-71-8	**Dichlorodifluoromethane**	**160**		ug/m³	0.76	1.536	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 10:18	LLJ

Sample Information

Client Sample ID: **Influent Right** **York Sample ID:** **20B0491-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	*** Ethyl acetate**	**14**		ug/m³	1.1	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:			
100-41-4	**Ethyl Benzene**	**3.8**		ug/m³	0.67	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**4.9**		ug/m³	0.76	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.63	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.55	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.7**		ug/m³	1.1	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.63	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**5.3**		ug/m³	0.54	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**4.5**		ug/m³	0.67	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**14**		ug/m³	1.3	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.5**		ug/m³	0.76	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.26	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:			
100-42-5	**Styrene**	**1.1**		ug/m³	0.65	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**4.3**		ug/m³	1.0	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**7.0**		ug/m³	0.91	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:			
108-88-3	**Toluene**	**3.8**		ug/m³	0.58	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.61	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.70	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.33**		ug/m³	0.21	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**10**		ug/m³	0.86	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	0.54	1.536	EPA TO-15	02/17/2020 16:56	02/18/2020 10:18	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **Influent Right** **York Sample ID:** **20B0491-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
593-60-2	Vinyl bromide	ND		ug/m³	0.67	1.536	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 10:18	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.098	1.536	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 10:18	LLJ

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*97.6 %*	*70-130*

Sample Information

Client Sample ID: **Mid 1 Left** **York Sample ID:** **20B0491-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.566	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 11:10	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.85	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**0.85**		ug/m³	0.77	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.94	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ

Sample Information

Client Sample ID: **Mid 1 Left** **York Sample ID:** **20B0491-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-14-2	**1,2-Dichlorotetrafluoroethane**	**670**		ug/m³	11	15.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/17/2020 23:44	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.77	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.94	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.566	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 11:10	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.94	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
78-93-3	**2-Butanone**	**5.5**		ug/m³	0.46	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.566	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 11:10	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	2.5	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.64	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
67-64-1	**Acetone**	**5.9**		ug/m³	0.74	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
71-43-2	Benzene	ND		ug/m³	0.50	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.81	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
75-25-2	Bromoform	ND		ug/m³	1.6	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.61	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.49	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.25	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.72	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.41	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ
67-66-3	Chloroform	ND		ug/m³	0.76	1.566	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 11:10	LLJ

Sample Information

Client Sample ID: **Mid 1 Left** **York Sample ID:** **20B0491-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	**Chloromethane**	**0.65**		ug/m³	0.32	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.16	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	0.54	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-71-8	**Dichlorodifluoromethane**	**150**		ug/m³	0.77	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.68	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**0.92**		ug/m³	0.77	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
80-62-6	**Methyl Methacrylate**	**0.90**		ug/m³	0.64	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	0.64	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	0.55	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**0.75**		ug/m³	0.68	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**2.1**		ug/m³	1.4	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.77	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.27	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.67	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**2.1**		ug/m³	1.1	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	*** Tetrahydrofuran**	**12**		ug/m³	0.92	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications:			
108-88-3	**Toluene**	**1.1**		ug/m³	0.59	1.566	EPA TO-15	02/17/2020 16:56	02/18/2020 11:10	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **Mid 1 Left** **York Sample ID:** **20B0491-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.21	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.6**		ug/m³	0.88	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.69	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.566	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 11:10	LLJ

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.0 %*	*70-130*

Sample Information

Client Sample ID: **Mid 1 Right** **York Sample ID:** **20B0491-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:02	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.85	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ

Sample Information

Client Sample ID: **Mid 1 Right** **York Sample ID:** **20B0491-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.77	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.94	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
76-14-2	**1,2-Dichlorotetrafluoroethane**	**600**		ug/m³	11	15.65	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 00:29	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.77	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.94	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:02	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.94	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
78-93-3	**2-Butanone**	**4.8**		ug/m³	0.46	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:02	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.64	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
67-64-1	**Acetone**	**8.9**		ug/m³	0.74	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
71-43-2	Benzene	ND		ug/m³	0.50	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.81	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
75-25-2	Bromoform	ND		ug/m³	1.6	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.61	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ

Sample Information

Client Sample ID: **Mid 1 Right** **York Sample ID:** **20B0491-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-15-0	Carbon disulfide	ND		ug/m³	0.49	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.25	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.72	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.41	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
67-66-3	**Chloroform**	**1.1**		ug/m³	0.76	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
74-87-3	**Chloromethane**	**0.61**		ug/m³	0.32	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.16	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.54	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
75-71-8	**Dichlorodifluoromethane**	**160**		ug/m³	0.77	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
141-78-6	*** Ethyl acetate**	**1.1**		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:02	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.68	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
67-63-0	**Isopropanol**	**1.0**		ug/m³	0.77	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
80-62-6	Methyl Methacrylate	ND		ug/m³	0.64	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
75-09-2	**Methylene chloride**	**8.8**		ug/m³	1.1	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.64	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
110-54-3	**n-Hexane**	**7.2**		ug/m³	0.55	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.68	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
179601-23-1	**p- & m- Xylenes**	**1.5**		ug/m³	1.4	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:02	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.77	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:02	LLJ

Sample Information

Client Sample ID: **Mid 1 Right** **York Sample ID:** **20B0491-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
115-07-1	* Propylene	ND		ug/m³	0.27	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:02	LLJ
100-42-5	Styrene	ND		ug/m³	0.67	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
109-99-9	*** Tetrahydrofuran**	**14**		ug/m³	0.92	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:02	LLJ
108-88-3	Toluene	ND		ug/m³	0.59	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.21	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.4**		ug/m³	0.88	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:02	LLJ

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*95.3 %*	*70-130*

Sample Information

Client Sample ID: **Effluent Left** **York Sample ID:** **20B0491-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.624	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:54	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.89	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ

Sample Information

Client Sample ID: **Effluent Left** **York Sample ID:** **20B0491-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.89	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.66	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**0.88**		ug/m³	0.80	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.98	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.66	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.75	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
76-14-2	**1,2-Dichlorotetrafluoroethane**	**500**		ug/m³	1.1	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.80	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.1	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.98	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.75	1.624	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:54	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.98	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	1.2	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
78-93-3	2-Butanone	ND		ug/m³	0.48	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.624	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:54	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	2.5	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
108-10-1	**4-Methyl-2-pentanone**	**0.73**		ug/m³	0.67	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
67-64-1	**Acetone**	**7.7**		ug/m³	0.77	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.35	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ

Sample Information

Client Sample ID: **Effluent Left** **York Sample ID:** **20B0491-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/m³	0.52	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.84	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-25-2	Bromoform	ND		ug/m³	1.7	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.63	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.51	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
56-23-5	**Carbon tetrachloride**	**0.61**		ug/m³	0.26	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.75	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.43	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
67-66-3	**Chloroform**	**1.2**		ug/m³	0.79	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
74-87-3	**Chloromethane**	**0.97**		ug/m³	0.34	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.16	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.74	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
110-82-7	**Cyclohexane**	**4.1**		ug/m³	0.56	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-71-8	**Dichlorodifluoromethane**	**130**		ug/m³	0.80	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	1.2	1.624	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:54	LLJ
100-41-4	**Ethyl Benzene**	**0.71**		ug/m³	0.71	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
67-63-0	**Isopropanol**	**3.5**		ug/m³	0.80	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
80-62-6	**Methyl Methacrylate**	**4.6**		ug/m³	0.66	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.59	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.624	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 12:54	LLJ

Sample Information

Client Sample ID: **Effluent Left** **York Sample ID:** **20B0491-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
142-82-5	n-Heptane	ND		ug/m³	0.67	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.57	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
95-47-6	**o-Xylene**	**0.78**		ug/m³	0.71	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
179601-23-1	**p- & m- Xylenes**	**2.3**		ug/m³	1.4	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
622-96-8	*** p-Ethyltoluene**	**0.80**		ug/m³	0.80	1.624	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:54	LLJ
115-07-1	* Propylene	ND		ug/m³	0.28	1.624	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:54	LLJ
100-42-5	Styrene	ND		ug/m³	0.69	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
127-18-4	**Tetrachloroethylene**	**2.2**		ug/m³	1.1	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
109-99-9	*** Tetrahydrofuran**	**19**		ug/m³	0.96	1.624	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 12:54	LLJ
108-88-3	**Toluene**	**6.2**		ug/m³	0.61	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.64	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.74	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.22	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**3.5**		ug/m³	0.91	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.57	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.71	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.624	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 12:54	LLJ

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*97.7 %*	*70-130*

Sample Information

Client Sample ID: **Effluent Right** **York Sample ID:** **20B0491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Sample Information

Client Sample ID: **Effluent Right** **York Sample ID:** **20B0491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 14:14	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.85	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**1.6**		ug/m³	0.77	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.94	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
76-14-2	**1,2-Dichlorotetrafluoroethane**	**690**		ug/m³	11	15.65	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 02:01	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.77	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.94	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 14:14	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.94	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
78-93-3	2-Butanone	ND		ug/m³	0.46	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 14:14	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ

Sample Information

Client Sample ID: **Effluent Right** **York Sample ID:** **20B0491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.64	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
67-64-1	**Acetone**	**9.5**		ug/m³	0.74	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
71-43-2	Benzene	ND		ug/m³	0.50	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.81	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
75-25-2	Bromoform	ND		ug/m³	1.6	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.61	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
75-15-0	**Carbon disulfide**	**0.49**		ug/m³	0.49	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
56-23-5	**Carbon tetrachloride**	**0.59**		ug/m³	0.25	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.72	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.41	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
67-66-3	**Chloroform**	**1.3**		ug/m³	0.76	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
74-87-3	**Chloromethane**	**0.42**		ug/m³	0.32	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
156-59-2	**cis-1,2-Dichloroethylene**	**1.2**		ug/m³	0.16	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
110-82-7	**Cyclohexane**	**4.5**		ug/m³	0.54	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
75-71-8	**Dichlorodifluoromethane**	**180**		ug/m³	0.77	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 14:14	LLJ
100-41-4	**Ethyl Benzene**	**0.75**		ug/m³	0.68	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ
67-63-0	**Isopropanol**	**2.6**		ug/m³	0.77	1.565	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/17/2020 16:56	02/18/2020 14:14	LLJ

Sample Information

Client Sample ID: **Effluent Right** **York Sample ID:** **20B0491-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20B0491	109 Marbledale Road, Tuckahoe, New York	Vapor Extraction	February 13, 2020 12:00 am	02/14/2020

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.64	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.64	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
110-54-3	**n-Hexane**	**0.72**		ug/m³	0.55	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
95-47-6	**o-Xylene**	**1.0**		ug/m³	0.68	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
179601-23-1	**p- & m- Xylenes**	**3.0**		ug/m³	1.4	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
622-96-8	*** p-Ethyltoluene**	**1.2**		ug/m³	0.77	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 14:14	LLJ
115-07-1	* Propylene	ND		ug/m³	0.27	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 14:14	LLJ
100-42-5	Styrene	ND		ug/m³	0.67	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
127-18-4	**Tetrachloroethylene**	**5.3**		ug/m³	1.1	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
109-99-9	*** Tetrahydrofuran**	**24**		ug/m³	0.92	1.565	EPA TO-15 Certifications:	02/17/2020 16:56	02/18/2020 14:14	LLJ
108-88-3	**Toluene**	**0.71**		ug/m³	0.59	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
79-01-6	**Trichloroethylene**	**1.8**		ug/m³	0.21	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**3.3**		ug/m³	0.88	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ
75-01-4	**Vinyl Chloride**	**0.24**		ug/m³	0.10	1.565	EPA TO-15 Certifications:	02/17/2020 16:56 NELAC-NY12058,NJDEP-Queens	02/18/2020 14:14	LLJ

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*95.4 %*	*70-130*

Analytical Batch Summary

Batch ID: BB00724 **Preparation Method:** EPA TO15 PREP **Prepared By:** LLJ

YORK Sample ID	Client Sample ID	Preparation Date
20B0491-01	Influent Left	02/17/20
20B0491-02	Influent Right	02/17/20
20B0491-03	Mid 1 Left	02/17/20
20B0491-03RE1	Mid 1 Left	02/17/20
20B0491-04	Mid 1 Right	02/17/20
20B0491-04RE1	Mid 1 Right	02/17/20
20B0491-05	Effluent Left	02/17/20
20B0491-06	Effluent Right	02/17/20
20B0491-06RE1	Effluent Right	02/17/20
BB00724-BLK1	Blank	02/17/20
BB00724-BS1	LCS	02/17/20
BB00724-DUP1	Duplicate	02/17/20

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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BB00724 - EPA TO15 PREP											
Blank (BB00724-BLK1)											Prepared & Analyzed: 02/17/2020
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								

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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BB00724 - EPA TO15 PREP											
Blank (BB00724-BLK1)									Prepared & Analyzed: 02/17/2020		
n-Heptane	ND	0.41	ug/m³								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.064	"								
Surrogate: SURR: p-Bromofluorobenzene	*8.72*		*ppbv*	*10.0*		*87.2*	*70-130*				
LCS (BB00724-BS1)									Prepared & Analyzed: 02/17/2020		
1,1,1,2-Tetrachloroethane	9.63		ppbv	10.0		96.3	70-130				
1,1,1-Trichloroethane	10.5		"	10.0		105	70-130				
1,1,2,2-Tetrachloroethane	9.10		"	10.0		91.0	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.1		"	10.0		111	70-130				
1,1,2-Trichloroethane	9.40		"	10.0		94.0	70-130				
1,1-Dichloroethane	9.72		"	10.0		97.2	70-130				
1,1-Dichloroethylene	10.3		"	10.0		103	70-130				
1,2,4-Trichlorobenzene	9.87		"	10.0		98.7	70-130				
1,2,4-Trimethylbenzene	9.53		"	10.0		95.3	70-130				
1,2-Dibromoethane	9.66		"	10.0		96.6	70-130				
1,2-Dichlorobenzene	10.6		"	10.0		106	70-130				
1,2-Dichloroethane	9.93		"	10.0		99.3	70-130				
1,2-Dichloropropane	8.59		"	10.0		85.9	70-130				
1,2-Dichlorotetrafluoroethane	10.3		"	10.0		103	70-130				
1,3,5-Trimethylbenzene	9.58		"	10.0		95.8	70-130				
1,3-Butadiene	10.3		"	10.0		103	70-130				
1,3-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,3-Dichloropropane	8.90		"	10.0		89.0	70-130				
1,4-Dichlorobenzene	10.9		"	10.0		109	70-130				
1,4-Dioxane	8.51		"	10.0		85.1	70-130				
2-Butanone	8.94		"	10.0		89.4	70-130				
2-Hexanone	8.32		"	10.0		83.2	70-130				
3-Chloropropene	9.43		"	10.0		94.3	70-130				
4-Methyl-2-pentanone	8.41		"	10.0		84.1	70-130				
Acetone	10.0		"	10.0		100	70-130				
Acrylonitrile	9.22		"	10.0		92.2	70-130				
Benzene	9.72		"	10.0		97.2	70-130				
Benzyl chloride	11.9		"	10.0		119	70-130				
Bromodichloromethane	9.33		"	10.0		93.3	70-130				
Bromoform	10.7		"	10.0		107	70-130				

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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BB00724 - EPA TO15 PREP											
LCS (BB00724-BS1)								Prepared & Analyzed: 02/17/2020			
Bromomethane	10.4		ppbv	10.0		104	70-130				
Carbon disulfide	10.3		"	10.0		103	70-130				
Carbon tetrachloride	10.7		"	10.0		107	70-130				
Chlorobenzene	9.23		"	10.0		92.3	70-130				
Chloroethane	10.8		"	10.0		108	70-130				
Chloroform	10.2		"	10.0		102	70-130				
Chloromethane	9.07		"	10.0		90.7	70-130				
cis-1,2-Dichloroethylene	9.32		"	10.0		93.2	70-130				
cis-1,3-Dichloropropylene	9.39		"	10.0		93.9	70-130				
Cyclohexane	9.50		"	10.0		95.0	70-130				
Dibromochloromethane	10.1		"	10.0		101	70-130				
Dichlorodifluoromethane	10.3		"	10.0		103	70-130				
Ethyl acetate	10.5		"	10.0		105	70-130				
Ethyl Benzene	8.76		"	10.0		87.6	70-130				
Hexachlorobutadiene	10.8		"	10.0		108	70-130				
Isopropanol	10.7		"	10.0		107	70-130				
Methyl Methacrylate	8.51		"	10.0		85.1	70-130				
Methyl tert-butyl ether (MTBE)	9.82		"	10.0		98.2	70-130				
Methylene chloride	10.0		"	10.0		100	70-130				
n-Heptane	9.35		"	10.0		93.5	70-130				
n-Hexane	9.44		"	10.0		94.4	70-130				
o-Xylene	8.91		"	10.0		89.1	70-130				
p- & m- Xylenes	18.1		"	20.0		90.4	70-130				
p-Ethyltoluene	9.30		"	10.0		93.0	70-130				
Propylene	10.8		"	10.0		108	70-130				
Styrene	9.65		"	10.0		96.5	70-130				
Tetrachloroethylene	9.37		"	10.0		93.7	70-130				
Tetrahydrofuran	8.99		"	10.0		89.9	70-130				
Toluene	9.01		"	10.0		90.1	70-130				
trans-1,2-Dichloroethylene	10.1		"	10.0		101	70-130				
trans-1,3-Dichloropropylene	9.21		"	10.0		92.1	70-130				
Trichloroethylene	8.63		"	10.0		86.3	70-130				
Trichlorofluoromethane (Freon 11)	10.3		"	10.0		103	70-130				
Vinyl acetate	8.61		"	10.0		86.1	70-130				
Vinyl bromide	11.3		"	10.0		113	70-130				
Vinyl Chloride	8.39		"	10.0		83.9	70-130				
Surrogate: SURR: p-Bromofluorobenzene	*9.69*		*"*	*10.0*		*96.9*	*70-130*				

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

York Analytical Laboratories, Inc.

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

Batch BB00724 - EPA TO15 PREP

Duplicate (BB00724-DUP1) *Source sample: 20B0491-02 (Influent Right) Prepared: 02/17/2020 Analyzed: 02/18/2020

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	0.55	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	0.69	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"		ND					25	
1,1,2-Trichloroethane	ND	0.55	"		ND					25	
1,1-Dichloroethane	ND	0.40	"		ND					25	
1,1-Dichloroethylene	ND	0.099	"		ND					25	
1,2,4-Trichlorobenzene	ND	0.74	"		ND					25	
1,2,4-Trimethylbenzene	1.2	0.49	"		1.9				46.2	25	Non-dir.
1,2-Dibromoethane	ND	0.77	"		ND					25	
1,2-Dichlorobenzene	ND	0.60	"		ND					25	
1,2-Dichloroethane	ND	0.40	"		ND					25	
1,2-Dichloropropane	ND	0.46	"		ND					25	
1,2-Dichlorotetrafluoroethane	200	0.70	"		390				66.7	25	Non-dir.
1,3,5-Trimethylbenzene	ND	0.49	"		0.68					25	
1,3-Butadiene	ND	0.66	"		ND					25	
1,3-Dichlorobenzene	ND	0.60	"		ND					25	
1,3-Dichloropropane	ND	0.46	"		ND					25	
1,4-Dichlorobenzene	ND	0.60	"		ND					25	
1,4-Dioxane	ND	0.72	"		ND					25	
2-Butanone	7.2	0.29	"		11				46.1	25	Non-dir.
2-Hexanone	ND	0.82	"		ND					25	
3-Chloropropene	ND	1.6	"		ND					25	
4-Methyl-2-pentanone	2.1	0.41	"		3.2				42.3	25	Non-dir.
Acetone	82	0.48	"		130				44.5	25	Non-dir.
Acrylonitrile	ND	0.22	"		ND					25	
Benzene	0.80	0.32	"		1.1				34.2	25	Non-dir.
Benzyl chloride	ND	0.52	"		ND					25	
Bromodichloromethane	ND	0.67	"		ND					25	
Bromoform	ND	1.0	"		ND					25	
Bromomethane	ND	0.39	"		ND					25	
Carbon disulfide	0.69	0.31	"		1.1				46.5	25	Non-dir.
Carbon tetrachloride	0.31	0.16	"		0.48				42.3	25	Non-dir.
Chlorobenzene	ND	0.46	"		ND					25	
Chloroethane	ND	0.26	"		ND					25	
Chloroform	1.9	0.49	"		2.9				44.7	25	Non-dir.
Chloromethane	0.25	0.21	"		0.60				83.4	25	Non-dir.
cis-1,2-Dichloroethylene	ND	0.099	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.45	"		ND					25	
Cyclohexane	2.5	0.34	"		4.6				57.4	25	Non-dir.
Dibromochloromethane	ND	0.85	"		ND					25	
Dichlorodifluoromethane	89	0.49	"		160				54.6	25	Non-dir.
Ethyl acetate	8.7	0.72	"		14				46.1	25	Non-dir.
Ethyl Benzene	2.5	0.43	"		3.8				42.3	25	Non-dir.
Hexachlorobutadiene	ND	1.1	"		ND					25	
Isopropanol	2.9	0.49	"		4.9				51.4	25	Non-dir.
Methyl Methacrylate	ND	0.41	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	0.36	"		ND					25	
Methylene chloride	1.0	0.69	"		1.7				45.4	25	Non-dir.
n-Heptane	ND	0.41	"		ND					25	

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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BB00724 - EPA TO15 PREP											
Duplicate (BB00724-DUP1)	*Source sample: 20B0491-02 (Influent Right)								Prepared: 02/17/2020 Analyzed: 02/18/2020		
n-Hexane	3.3	0.35	ug/m³		5.3				45.3	25	Non-dir.
o-Xylene	3.0	0.43	"		4.5				39.5	25	Non-dir.
p- & m- Xylenes	9.6	0.87	"		14				41.0	25	Non-dir.
p-Ethyltoluene	0.98	0.49	"		1.5				42.3	25	Non-dir.
Propylene	ND	0.17	"		ND					25	
Styrene	0.72	0.43	"		1.1				42.3	25	Non-dir.
Tetrachloroethylene	6.3	0.68	"		4.3				38.5	25	Non-dir.
Tetrahydrofuran	4.4	0.59	"		7.0				45.4	25	Non-dir.
Toluene	2.4	0.38	"		3.8				42.3	25	Non-dir.
trans-1,2-Dichloroethylene	ND	0.40	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.45	"		ND					25	
Trichloroethylene	0.48	0.13	"		0.33				37.7	25	Non-dir.
Trichlorofluoromethane (Freon 11)	6.5	0.56	"		10				43.9	25	Non-dir.
Vinyl acetate	ND	0.35	"		ND					25	
Vinyl bromide	ND	0.44	"		ND					25	
Vinyl Chloride	ND	0.064	"		ND					25	
Surrogate: SURR: p-Bromofluorobenzene	*10.1*		*ppbv*	*10.0*		*101*	*70-130*				

Sample and Data Qualifiers Relating to This Work Order

TO-VAC	The final vacuum in the canister was less than -2 inches Hg vacuum. The time integrated sampling may be affected and not reflect proper sampling over the time period. The data user should take note.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615 — 132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

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

YORK Project No. 20B0491

Page _____ of _____

YOUR Information	Report To:	Invoice To:	YOUR Project Number
Company: HES	Company: SAME	Company: SAME	
Address: 1 Deans Bridge Road, Somers NY	Address:	Address:	**YOUR Project Name:** 109 Marbledale Road, Tuckahoe, New York
Phone: 914-276-3500	Phone:	Phone:	
Contact: Patti Chase	Contact:	Contact:	
E-mail: pchase@hesny.com	E-mail:	E-mail:	**YOUR PO#:**

Turn-Around Time

- RUSH - Next Day ☐
- RUSH - Two Day ☐
- RUSH - Three Day ☐
- RUSH - Four Day ☐
- **Standard (5-7 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.

Patrick Montuori

Samples Collected by: (print your name above and sign below)

[signature]

Air Matrix Codes

- AI - Indoor Ambient Air
- AO - Outdoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From

- New York ☒
- New Jersey ☐
- Connecticut ☐
- Pennsylvania ☐
- Other ☐

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced Deliv.	(NYSDEC EQuIS) — circled
(NY ASP B Package) — circled	NJDKQP	NJDEP SRP HazSite
Other:		

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

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ ✓ ppbv ✓ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
Influent Left	2-13-2020	AE	-30	-6	28311		TO-15
Influent Right				-5	28307		
Mid Left				-5	24117		
Mid Right				-5	20949		
Effluent Left				-6	28836		
Effluent Right				-5	23155		

Comments:

Detection Limits Required

≤ 1 ug/m³ _____ NYSDEC V1 Limits _____
Routine Survey _____ Other _____

Sampling Media

- 6 Liter Canister ☒
- Tedlar Bag ☐

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
[signature]	2-14-20 7:45	[signature]	2-14-20 7:45	[signature]	2-14-20

Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
[signature] 2-14-20 1501		J. Gale / YORK	2-14-20 / 2006	K Barhydt	2/14/20 2006

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
K Barhydt	2/17/20 7:40pm	Queens Save Room	2/17/20 7:40pm	[signature]	2/18/20 @ 0900

Attachment 3

TITLE: 223060_4

********** STACK PARAMETERS **********

SOURCE EMISSION RATE:	0.112E-03	g/s	0.889E-03	lb/hr
STACK HEIGHT:	22.56	meters	74.00	feet
STACK INNER DIAMETER:	0.152	meters	6.00	inches
PLUME EXIT TEMPERATURE:	287.0	K	57.0	Deg F
PLUME EXIT VELOCITY:	11.200	m/s	36.75	ft/s
STACK AIR FLOW RATE:	433	ACFM		
RURAL OR URBAN:	RURAL			

INITIAL PROBE DISTANCE = 25. meters 82. feet

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

NO BUILDING DOWNWASH HAS BEEN REQUESTED FOR THIS ANALYSIS

********** PROBE ANALYSIS **********

25 meter receptor spacing: 1. meters - 25. meters

Zo SECTOR	ROUGHNESS LENGTH	1-HR CONC (ug/m3)	DIST (m)	TEMPORAL PERIOD
1*	1.000	0.2488E-01	25.0	SUM

* = worst case flow sector

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

MIN/MAX TEMPERATURE: 251.5 / 313.7 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE: Average Moisture
DOMINANT SEASON: Summer

ALBEDO: 0.16
BOWEN RATIO: 2.00
ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	02	16	16	12

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
335.07	0.193	1.800	0.020	671.	195.	-2.1	1.000	2.00	0.16	0.50

HT	REF TA	HT
10.0	313.7	2.0

WIND SPEED AT STACK HEIGHT (non-downwash): 0.6 m/s
STACK-TIP DOWNWASH ADJUSTED STACK HEIGHT: 22.6 meters
ESTIMATED FINAL PLUME RISE (non-downwash): 8.2 meters
ESTIMATED FINAL PLUME HEIGHT (non-downwash): 30.8 meters

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	02	11	16	12

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
296.85	0.196	1.800	0.020	607.	200.	-2.0	1.000	1.00	0.14	0.50

HT	REF TA	HT
10.0	251.5	2.0

WIND SPEED AT STACK HEIGHT (non-downwash): 0.6 m/s

STACK-TIP DOWNWASH ADJUSTED STACK HEIGHT: 22.6 meters
ESTIMATED FINAL PLUME RISE (non-downwash): 8.2 meters
ESTIMATED FINAL PLUME HEIGHT (non-downwash): 30.8 meters

********** AERSCREEN AUTOMATED DISTANCES **********

OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.000	15.85	0.1421E-01
5.00	0.6671E-06	20.00	0.2329E-01
10.00	0.1524E-02	25.00	0.2488E-01

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

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.2511E-01	0.2511E-01	0.2260E-01	0.1507E-01	0.2511E-02

DISTANCE FROM SOURCE 23.00 meters

IMPACT AT THE AMBIENT BOUNDARY	0.000	0.000	0.000	0.000	0.000

DISTANCE FROM SOURCE 1.00 meters

Max Modeled 1-hr Impact Conc. @ 1 lb/hr ERP (µg/m^3) =	0.014
Max Modeled Annual Impact Conc. @ 1 lb/hr ERP (µg/m^3) =	0.003

					Emission Point			Scaled Max Impact Conc. (µg/m3)				ERP	Actual	Initial	ER
CAS NUMBER	CHEMICAL NAME	SGC (µg/m^3)	AGC (µg/m^3)	Toxicity	ERP (lb/hr)	ERP (lb/yr)	annual (lb/yr)	1-hr	Annual-ERP	Annual-Actual	%SGC	%AGC	%AGC	ER	Adjustment
00056-23-5	CARBON TETRACHLORIDE	1900	0.17	H	0.00000066	0.0057816	0.005782	9.4E-09	0.00	0.00	0.0%	0.0%	0.0%	A	None
00079-01-6	TRICHLOROETHYLENE	20	0.21	H	0.00000092	0.0080592	0.008059	1.3E-08	0.00	0.00	0.0%	0.0%	0.0%	A	None
0															
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Attachment 4

DuBois & King, Inc.

PHOTOGRAPHIC LOG

Project Name:	Site Location:	Project No.:
109 Marbledale Road	Tuckahoe, NY	223060

Photo No.:	Date:
1	03/04/2020

Description:

Magnehelic gauge installed on Hotel SSDS Riser No. 1

Photo No.:	Date:
2	03/04/2020

Description:
Magnehelic gauges installed on Hotel SSDS Risers No. 2 and 3.

DuBois & King, Inc.	PHOTOGRAPHIC LOG

Project Name:	Site Location:	Project No.:
109 Marbledale Road	Tuckahoe, NY	223060

Photo No.: 3	Date: 02/25/2020

Description:
Signage for Hotel SSDS.

Photo No.: 4	Date: 02/25/2020

Description:
Signage for Hotel SSDS.

DuBois & King, Inc.

PHOTOGRAPHIC LOG

Project Name:	Site Location:	Project No.:
109 Marbledale Road	Tuckahoe, NY	223060

Photo No.:	Date:
5	02/25/2020

Description:
Signage and procedures for Hotel SSDS.

Photo No.:	Date:
6	02/25/2020

Description:
Bird screen on Hotel SSDS pipe (on roof).

DuBois & King, Inc.	PHOTOGRAPHIC LOG

Project Name:	Site Location:	Project No.:
109 Marbledale Road	Tuckahoe, NY	223060

Photo No.: 7	Date: 02/25/2020

Description:
Hotel SSDS exhaust and dilution air risers.

Photo No.: 8	Date: 02/25/2020

Description:
Hotel SSDS riser re-piped to opposite side of elevator structure.

DuBois & King, Inc.	PHOTOGRAPHIC LOG

Project Name:	Site Location:	Project No.:
109 Marbledale Road	Tuckahoe, NY	223060

Photo No.: 9	Date: 02/25/2020

Description:
Hotel SSDS riser re-piped to opposite side of elevator structure.

Photo No.: 10	Date: 03/4/2020

Description:
Fence segregating hotel area from northern portion of property.

DuBois & King, Inc.	PHOTOGRAPHIC LOG

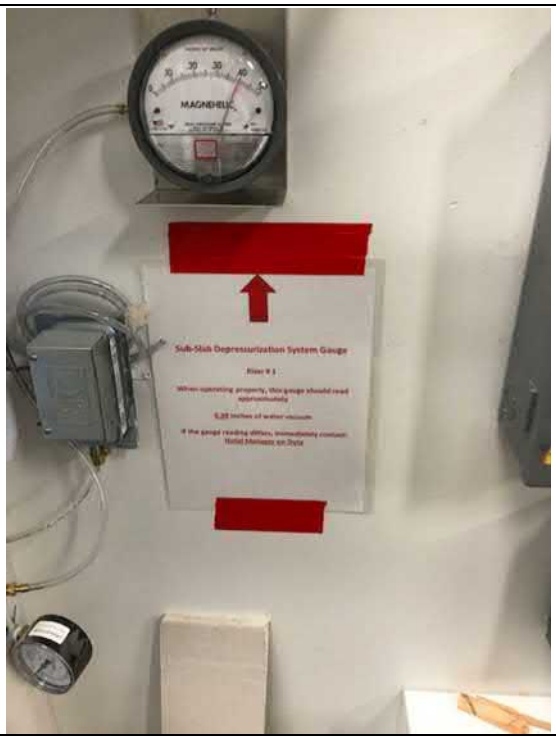
Project Name:	Site Location:	Project No.:
109 Marbledale Road	Tuckahoe, NY	223060

Photo No.: 11	Date: 03/4/2020

Description:
Fence segregating hotel area from northern portion of property.

Photo No.: 12	Date: 03/6/2020

Description:
SSDS Riser No. 1 Signage



DuBois & King, Inc.

PHOTOGRAPHIC LOG

Project Name:	Site Location:	Project No.:
109 Marbledale Road	Tuckahoe, NY	223060

Photo No.:	Date:
13	03/6/2020

Description:
SSDS Riser No. 2 Signage

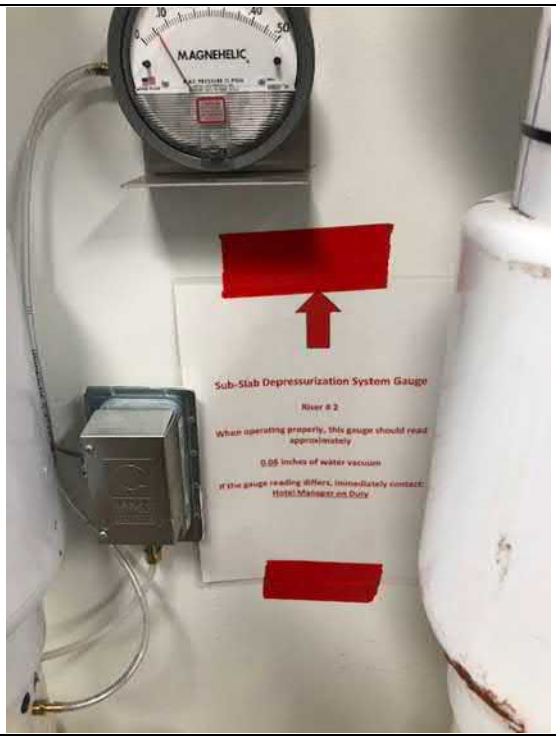
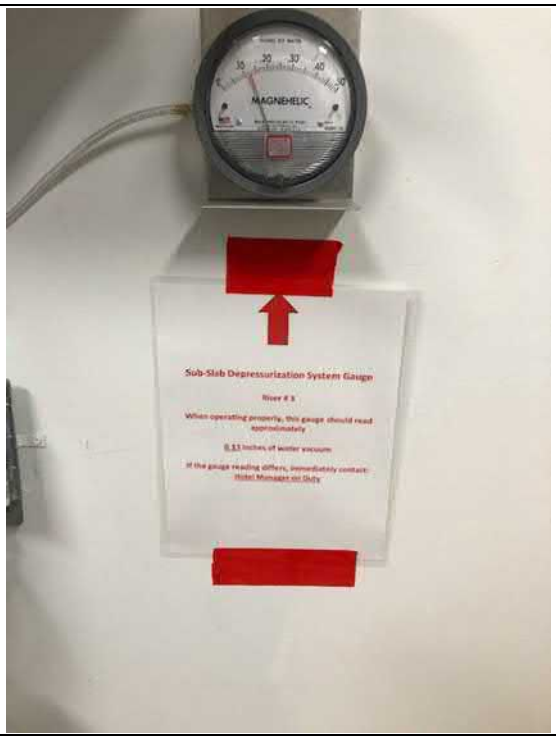


Photo No.:	Date:
14	03/6/2020

Description:
SSDS Riser No. 3 Signage



Attachment 5

SITE PLAN

SCALE: 1" = 30'

109-125 MARBLEDALE ROAD
TUCKAHOE, NEW YORK

SITE ENGINEERING CONTROLS

Hand Auger Locations

HydroEnvironmental SOLUTIONS, INC
One Deans Bridge Road
Somers, New York 10589

Clay Cap Inspection

Project:	109 Marbledale Road	**Inspection Date:**	2/13/2020
	Tuckahoe, New York	**HES Personnel:**	MJS, JAR

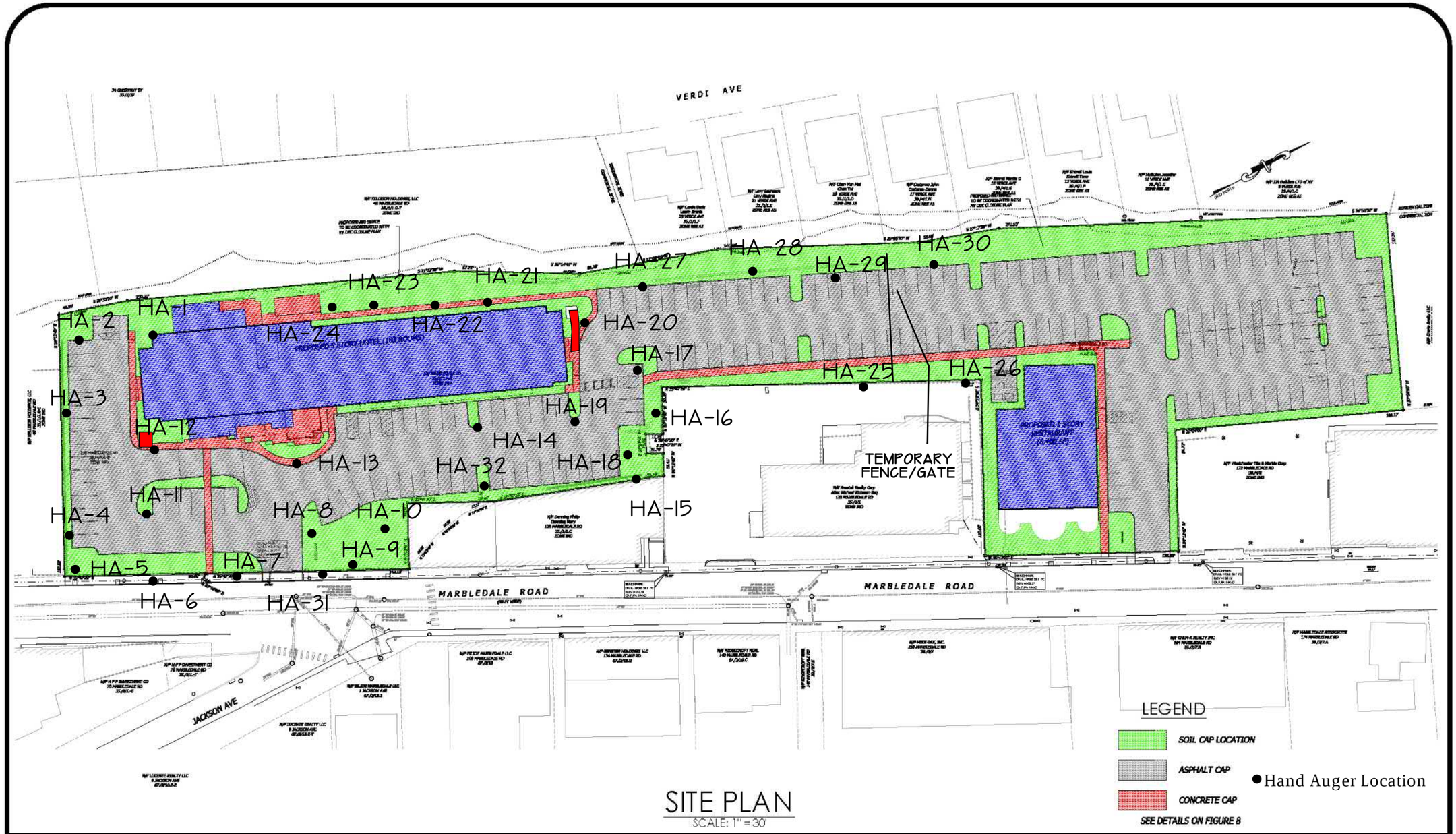
Auger Hole ID	Cap Thickness (Inches)	Demarcation Layer Present (Y / N)
1	1	Y
2	7.5	Y
3	8	Y
4	6	Y
5	1.5	N
6	8.5	Y
7	--	Y
8	--	Y
9	9.5	Y
10	--	Y
11	6.5	Y
12	12	Y
13	0	N
14	2	Y
15	--	Y
16	--	Y
17	12	Y
18	13	Y
19	13	Y
20	10	Y

Auger Hole ID	Cap Thickness (Inches)	Demarcation Layer Present (Y / N)
21	3	Y
22	2	Y
23	--	Y
24	--	Y
25	12	Y
26	--	Y
27	--	Y
28	--	Y
29	--	Y
30	6	Y
31	8	Y
32	8	Y

-- = Not Tested

Notes: Auger holes were performed in the field using a spade planting shovel. Holes were installed to the completion depth of native on-site soil and cap thickness was recorded from demarcation layer to grade.

HES, Siteworks, NYSDEC and NYSDOH personnel were present during the cap inspection.



SITE PLAN
SCALE: 1" = 30'

109-125 MARBLEDALE ROAD
TUCKAHOE, NEW YORK

SITE ENGINEERING CONTROLS

Hand Auger Locations

HydroEnvironmental SOLUTIONS, INC
One Deans Bridge Road
Somers, New York 10589

Attachment 6

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Mulch being removed prior to cap restoration

Clay (foreground) and topsoil (background) stockpiles

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Mulch and soil being removed from area prior to cap installation

Smaller plants were removed (and not re-planted) in some areas in need of cap install

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Clay installed in area behind pool

Topsoil installed in area behind pool

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Clay installed in area behind hotel, prior to removal and re-installation of storm drain

Storm drain behind the hotel following re-installation

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Storm drain behind the hotel following installation of clay and topsoil

Soil removed around plants before clay install

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Clay installation at property boundary with Phoenix Fitness

Inspection of clay layer thickness

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Northeast corner of hotel following topsoil install

Clay installation at the site's eastern property boundary

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Demarcation layer installation in area behind hotel

Demarcation layer installation in area behind hotel

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Demarcation layer installation in area behind hotel


Clay installation behind hotel

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Clay installation behind hotel

Clay and demarcation layer installation behind the hotel

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

An area behind the hotel prepped for cap installation

Demarcation layer installation behind the hotel

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Clay layer thickness inspection

Area behind the hotel following clay installation

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Slope on eastern property boundary following mulch removal

Slope on eastern property boundary following demarcation layer installation

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Clay installation on eastern property boundary slope

Clay installation on eastern property boundary slope

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Demarcation layer installed at top of slope

Filter fabric installed atop clay layer on slope

Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Erosion control matting installation over topsoil on slope

Cap installation at site's western boundary

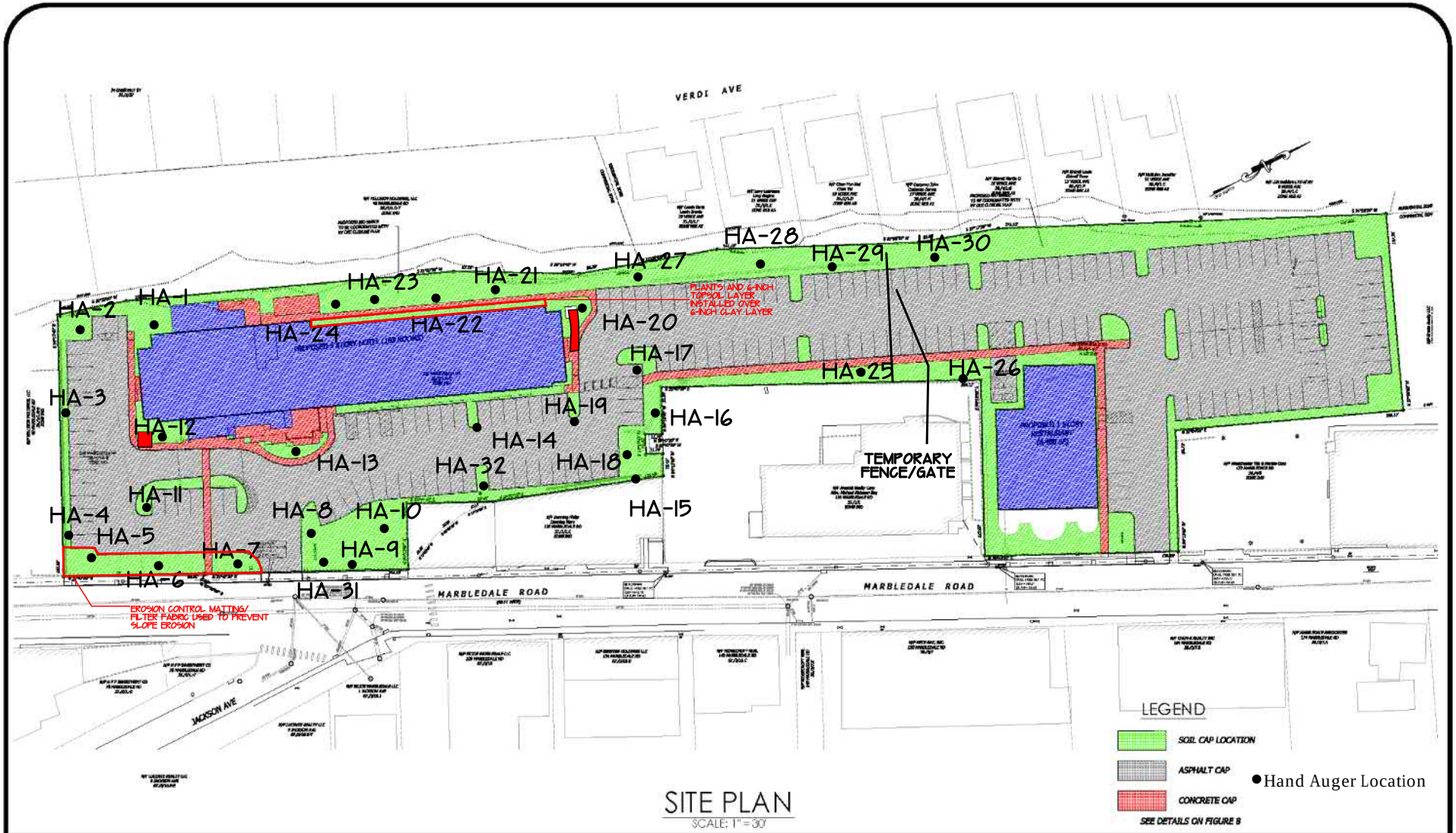
Photographs taken during Vegetated Cap Installation February – March 2020.
HydroEnvironmental Solutions, Inc., One Deans Bridge Road, Somers, New York 10589

PHOTOGRAPHIC LOG

109 Marbledale Road
Tuckahoe, New York

VEGETATED CAP INSTALLATION

Location of temporary fence



SITE PLAN
SCALE: 1" = 30'

109-125 MARBLEDALE ROAD TUCKAHOE, NEW YORK	SITE ENGINEERING CONTROLS	SITEWIDE CAP HAND AUGER LOCATIONS	HydroEnvironmental SOLUTIONS, INC One Deans Bridge Road Somers, New York 10589

Vegetated
Cap Inspection

Project: 109 Marbledale Road
Tuckahoe, New York

Date: 3/9/2020
HES Personnel: JAR

Auger Hole ID (HA-#)	Final Clay Thickness (Inches)	Final Topsoil Thickness (Inches)
1	6.0	6
2	7.5	5
3	8.0	4
4	6.0	6
5	6.0	6
6	6.0	6
7	6.0	6
8	7.0	5
9	9.5	4
10	7.0	7
11	6.5	6
12	12.0	0
13	6.0	6
14	6.0	6
15	6.0	6
16	6.0	6
17	12.0	0
18	13.0	0
19	13.0	0
20	10.0	2

Auger Hole ID (HA-#)	Final Clay Thickness (Inches)	Final Topsoil Thickness (Inches)
21	6.0	6
22	6.0	6
23	6.0	6
24	6.0	6
25	12.0	0
26	12.0	0
27	6.0	6
28	6.0	6
29	6.0	6
30	6.0	6
31	8.0	4
32	8.0	4

Notes: Locations measured during cap installation. Locations HA-26 and HA-30 measured in incomplete area beyond temporary fence. HES onsite during all installation activities. Hand boring locations designated during initial cap inpection on 2/13/2020.