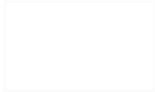


# **ISTR Operations Monthly Progress Report**

Reporting Period: 11/1/20 through 11/30/20



**Operable Unit 3 VOC Source Area Remedy  
Former Grumman Settling Ponds, Bethpage, NY**

NYSDEC Site No. 130003A

December 21, 2020

# In-Situ Thermal Remediation (ISTR) Operations Monthly Progress Report

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Prepared per Section 8.2 of the OU3 Remedial Action Work Plan (RAWP) and DER-10, Section 5.7(b):

1. Remedy Progress / Performance Monitoring
2. Ambient Air
3. Significant Activities
4. Schedule / Proposed Modifications
5. Pending RAWP Modifications
6. Data Tables

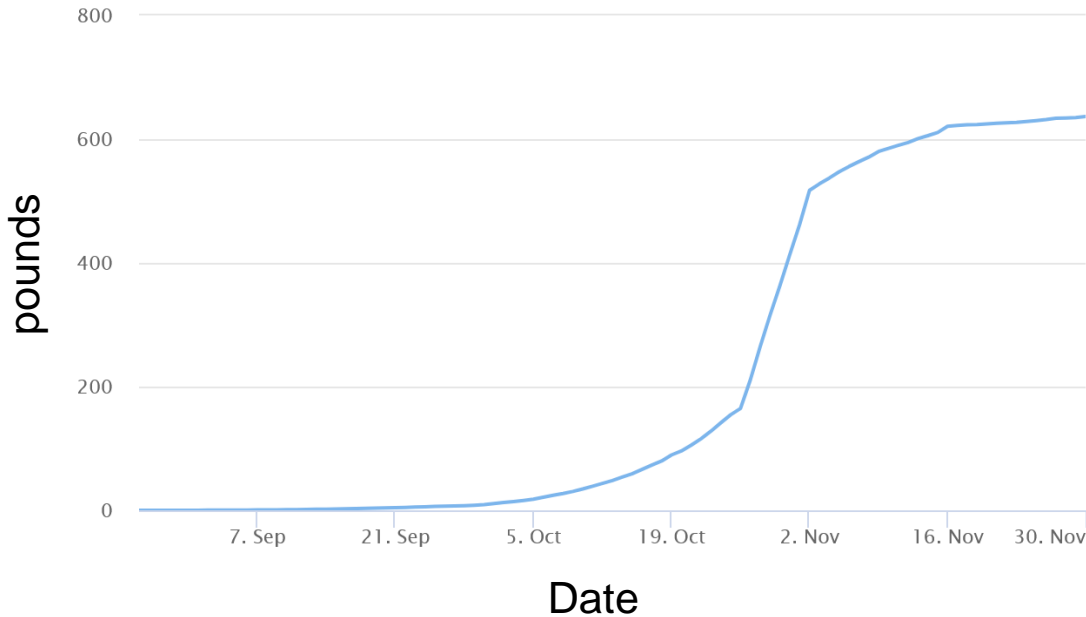
## ISTR Operations Summary

- Air emissions comply with effluent concentration limits specified in the RAWP
- No exceedances of NYSDEC Community Air Monitoring Plan (CAMP) PID action levels
- No validated ambient air monitoring results above target screening levels
- Liquid discharges comply with criteria specified in the RAWP

## Reporting Period: November 2020

System Startup	8/26/2020
Days of Operation Since Startup	96
Cumulative Mass Removed, lbs	637

### Cumulative TVOC Mass Removed

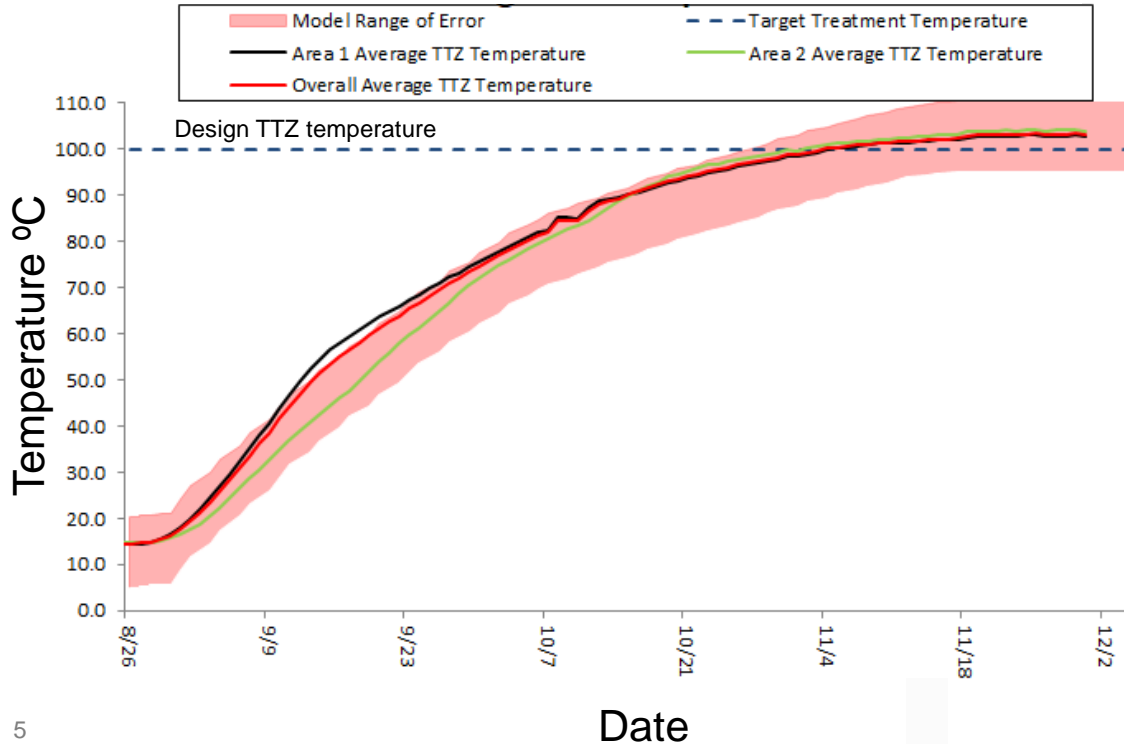


Estimated 637 lbs of total volatile organic compounds (TVOCs) removed through November 30

Cumulative TVOC mass is the sum of the following:

- Photoionization detector (PID) TVOC vapor mass
- Liquid TVOC mass
- Condensed non-aqueous phase liquid (NAPL) mass

### Cumulative Temperature Progression



Target treatment zone (TTZ) design temperature is 100°C

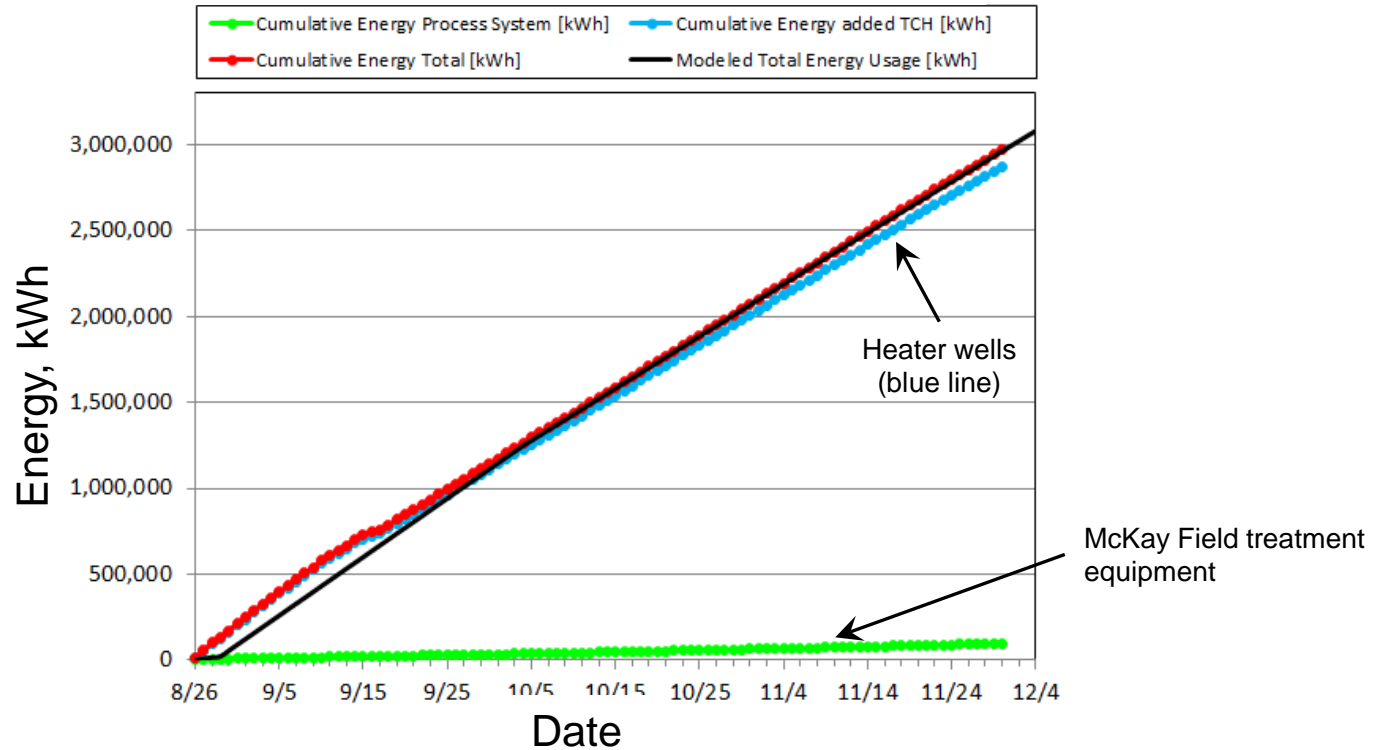
Average temperature through November 30:

- Area 1 = 103°C
- Area 2 = 104°C

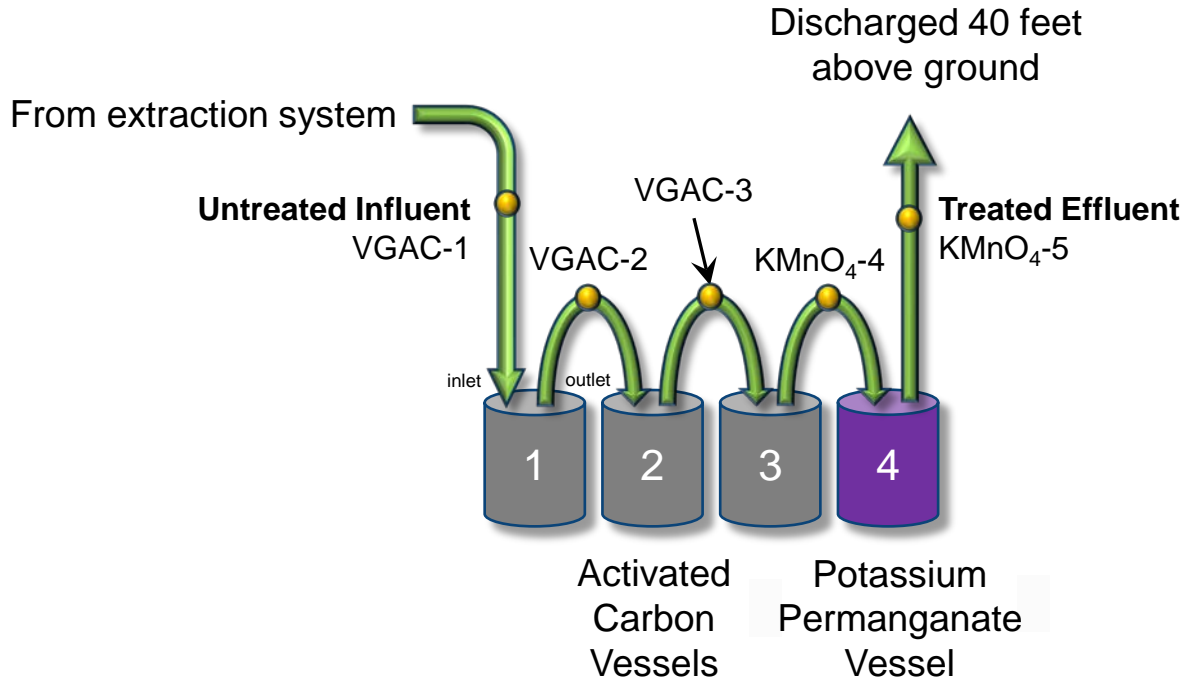
Days of treatment at 100°C through November 30:

- Area 1 = 26 days
- Area 2 = 28 days

### Energy Use



### Vapor Treatment System



● Vapor Treatment System Sampling Locations

## Vapor Treatment System

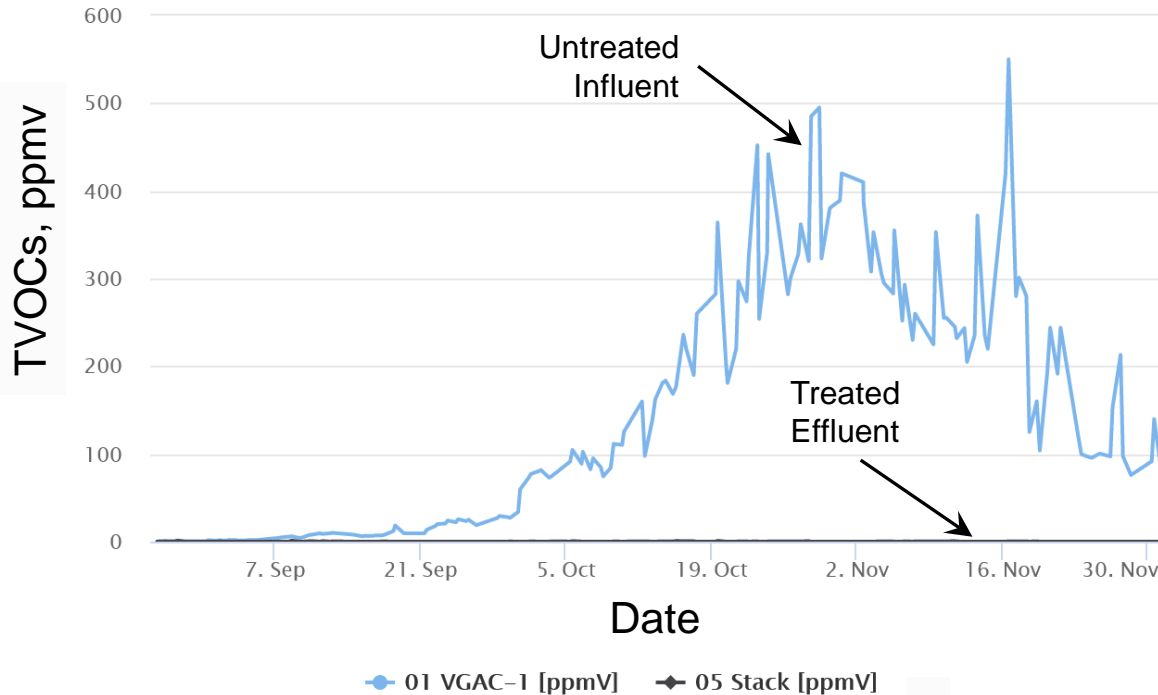
Air emissions meet treatment criteria in the RAWP:

- Stack concentrations less than 7.6 mg/m<sup>3</sup> for TCE and 1.9 mg/m<sup>3</sup> design limits for vinyl chloride throughout November.
- TCE and vinyl chloride concentrations in ambient air samples collected in November were all below target screening levels.

*Routine operations analytical results provided in Table 1*



### Vapor Treatment System (PID)



TVOC concentrations (PID) on November 30:

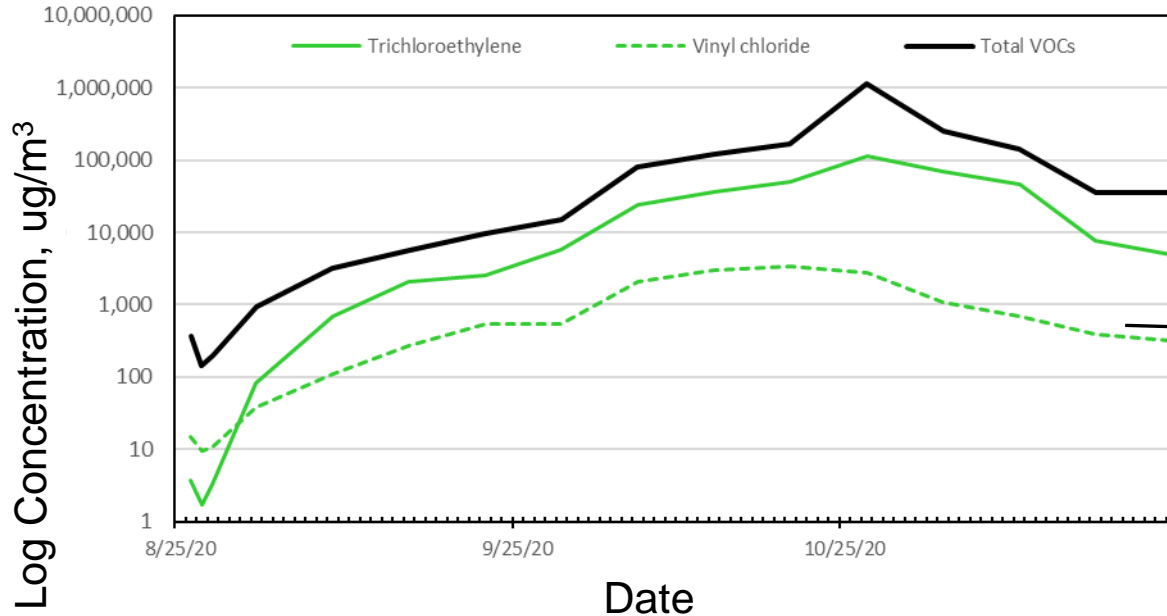
- Influent = 140 ppmv
- Effluent = 0 ppmv

Max TVOC concentrations (PID) during reporting period:

- Influent = 550 ppmv
- Effluent = max 0.5 ppmv

## Vapor Treatment System Influent (Summa)

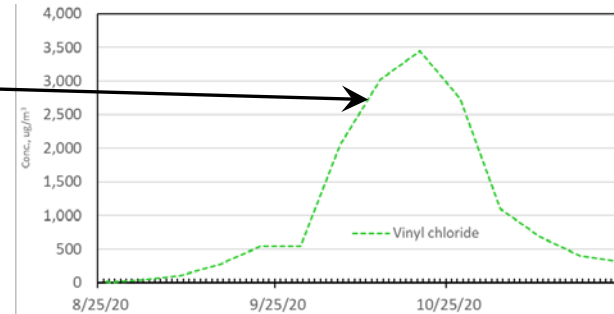
VGAC-1 (System Influent - Position 1)



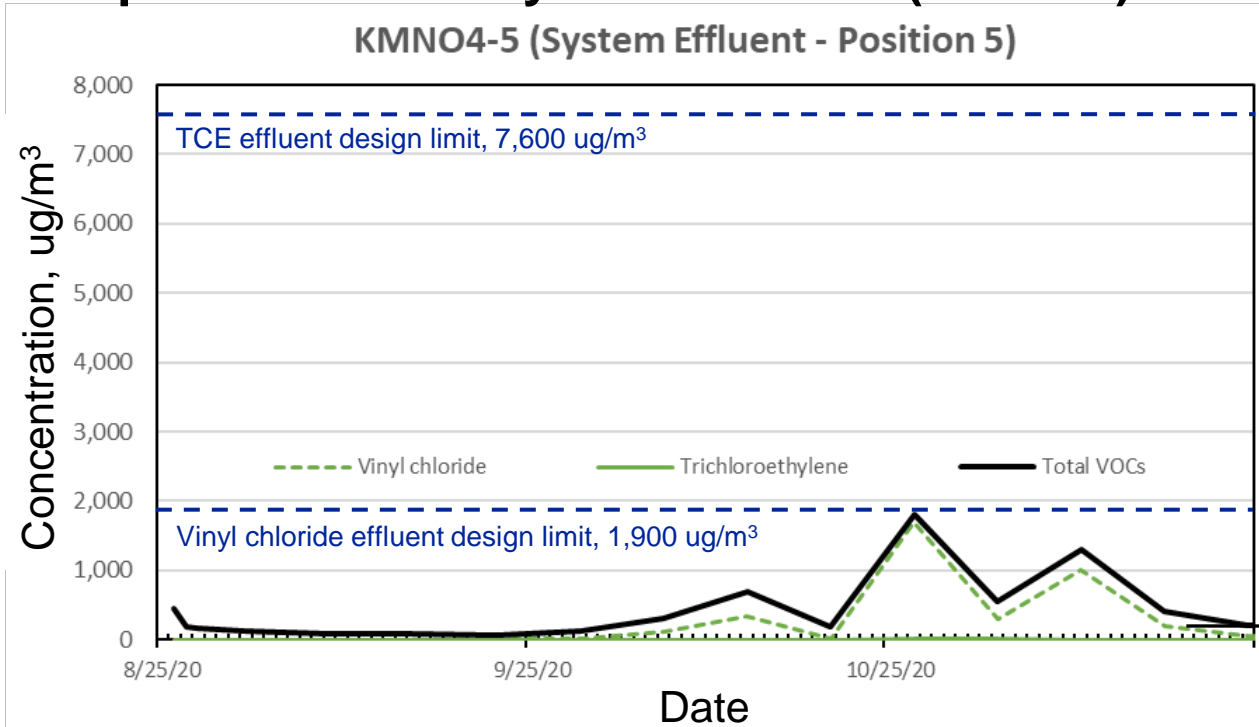
Influent concentrations (by Summa) on 11/24:

- TVOCs = 36,000 ug/m<sup>3</sup>
- TCE = 4,860 ug/m<sup>3</sup>
- Vinyl chloride = 312 ug/m<sup>3</sup>

Vinyl chloride

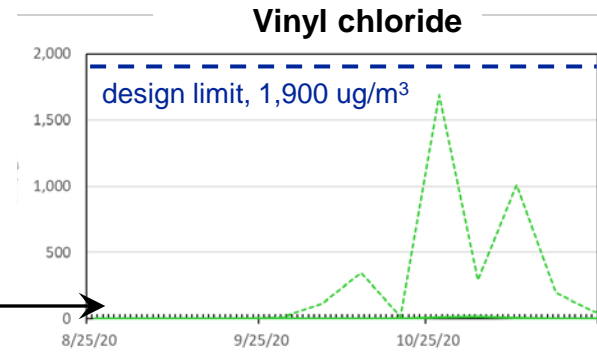


### Vapor Treatment System Effluent (Summa)



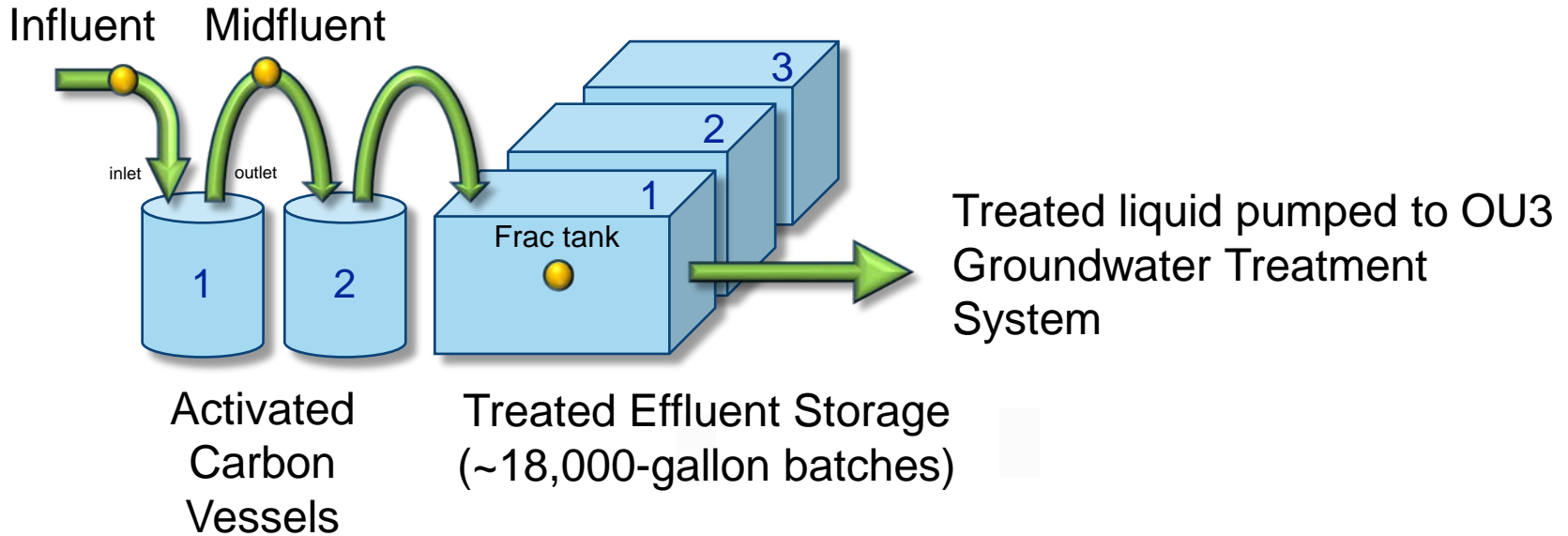
Effluent concentrations (by Summa) on 11/24:

- TVOCs = 200  $\mu\text{g}/\text{m}^3$
- TCE = <1  $\mu\text{g}/\text{m}^3$
- Vinyl chloride = 50  $\mu\text{g}/\text{m}^3$

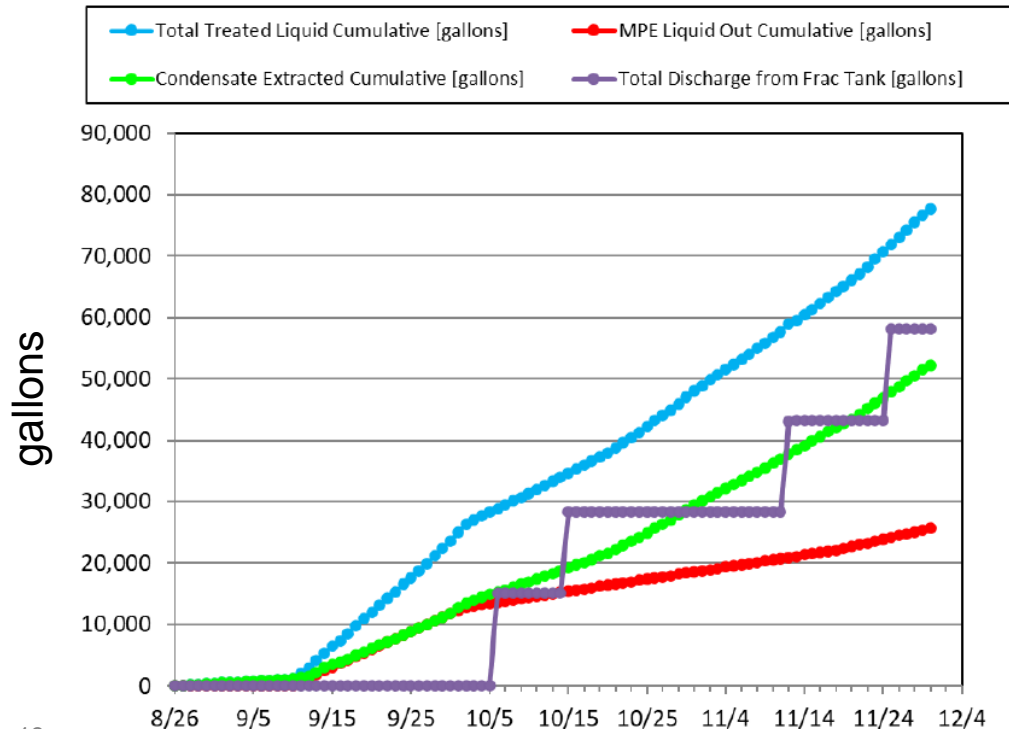


### Liquid Treatment System

● Liquid Treatment System Sampling Locations



### Cumulative Liquid Produced



58,220 gallons treated water discharged to OU3 groundwater treatment system in November:

- Frac tank 1 - sampled 11/3, discharged 11/12
- Frac tank 2 - sampled 11/17, discharged 11/25

*Analytical results provided in Table 2*

# Ambient Air PID Monitoring

PID levels comply with Community Air Monitoring Plan (CAMP) criteria in the RAWP:

- PID readings recorded continuously at locations AMP-1 through 4
- Results emailed daily to the State and Town of Oyster Bay (Monday through Saturday)
- PID monitoring results did not exceed NYSDEC's CAMP action level (5 ppm TVOCs for a 15-minute average)

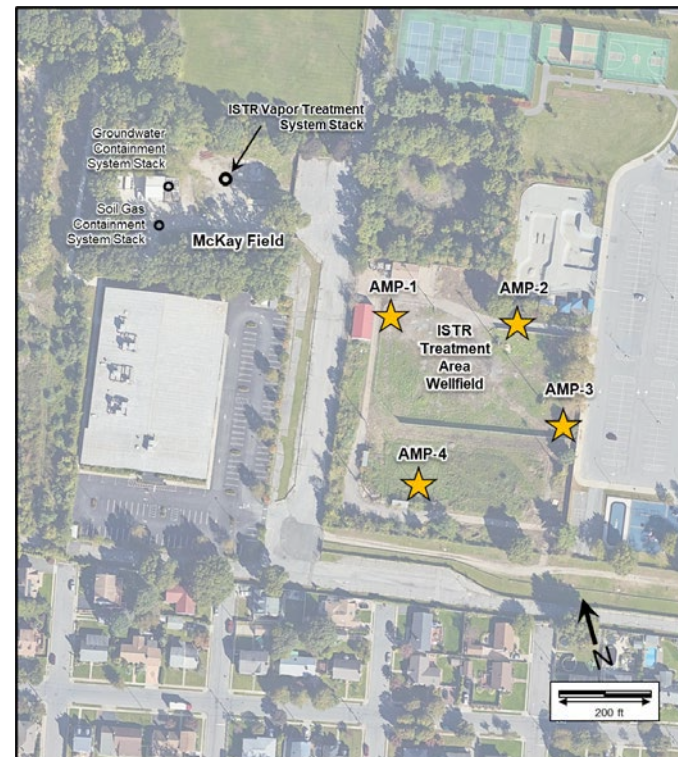


# Ambient Air Summa Canister Monitoring

Summa canister levels comply with ambient air criteria in the RAWP:

- Summa canister samples collected 11/3, 11/9, 11/14, 11/20, and 11/25
- Results emailed to the State and Town of Oyster Bay
- Summa canister validated results for compounds of interest (COIs) lower than target screening levels in the CAMP
- Summa canister validated results for non-COIs also lower than target screening levels calculated using CAMP-specified protocol

*Analytical results provided in Table 3*



# Significant Activities

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Major equipment repairs and significant downtime:

- No major equipment repairs or significant downtime

Other significant Activities:

- Potassium permanganate vessel changed out 11/19
- Primary vapor-phase carbon changed out 11/5, 11/11
- De-energized heater H-149 on 11/23 due to a malfunction; repair is pending

## Planned Significant Activities During Next Two Months

Continue routine system operations, monitoring, and maintenance



# Schedule

Activity	RAWP Schedule	Current Status
Remedial System Operation	Q3/20 – Q1/21	On schedule
Post-Treatment Confirmation Sampling	Q1/21	On schedule
Remedy Cool-down	Q1/21-Q2-21	On schedule
Equipment Removal & Site Restoration	Q2/21	On schedule

No significant delays or corrective actions required

No schedule modifications anticipated

# Pending RAWP Modifications

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**Frac tank discharge criteria**

# Data Tables

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**Table 1. Vapor Treatment System Air Sampling Results  
Routine Monitoring - November 2020**

Compound (ug/m <sup>3</sup> )	Sample ID:	VGAC-1	VGAC-3	KMNO4-5	Percent Removed		
	Lab Sample ID: Date Sampled:	JD15628-1 11/3/2020	JD15628-2 11/3/2020	JD15628-3 11/3/2020			
1,1,1-Trichloroethane	<	98	<	25	<	0.71	
1,1-Dichloroethane	<	25	<	6.5	<	0.19	
1,1-Dichloroethylene		<b>599</b>	<	9.1	<	0.27	
1,2,4-Trimethylbenzene	<	88	<	22	<	0.64	
1,3,5-Trimethylbenzene	<	88	<	22	<	0.64	
1,4-Dioxane*	<	100	<	25	<	0.76	
2,2,4-Trimethylpentane	<	56	<	14	<	0.41	
2-Hexanone	<	82	<	20	<	0.61	
4-Ethyltoluene	<	79	<	20	<	0.59	
Acetone*		<b>2,450</b>		<b>382</b>		<b>29.0</b>	
Benzene		<b>649</b>	<	5.1	<	0.15	
Bromoform	<	210	<	52	<	1.6	
Carbon disulfide	<	40	<	10	<	0.29	
Carbon tetrachloride	<	82	<	20	<	0.59	
Chloroethane	<	69	<	17	<	0.50	
Chloroform	<	54	<	13	<	0.39	
Chloromethane*	<	17	<	4.3		<b>25.4</b>	
cis-1,2-Dichloroethylene		<b>25,000</b>	<	6.3		<b>9.5</b>	
Cyclohexane		<b>850</b>		<b>63.3</b>	J	<	0.30
Dichlorodifluoromethane	<	44	<	11		<b>2.3</b>	J
Ethanol		<b>11,100</b>		<b>669</b>		<b>25.8</b>	
Ethyl acetate	<	72	<	18	<	0.54	
Ethylbenzene		<b>2,010</b>	<	8.7	<	0.26	
Heptane		<b>8,570</b>	<	9.8	<	0.29	
Hexane		<b>4,300</b>		<b>3,740</b>	<	0.15	
Isopropyl alcohol*		<b>22,000</b>		<b>13,800</b>	E	<b>23</b>	
m,p-Xylene		<b>4,780</b>		<b>122</b>	<	0.61	
m-Dichlorobenzene	<	60	<	16	<	0.46	
Methyl ethyl ketone		<b>301</b>	J	<	17	<	0.50
Methyl isobutyl ketone	<	78	<	20	<	0.57	
Methylene chloride*	<	27	<	6.9	<	0.20	
o-Xylene		<b>1,310</b>	<	10	<	0.30	
Propylene*		<b>474</b>		<b>557</b>		<b>120</b>	
Styrene	<	43	<	11	<	0.32	
Tertiary butyl alcohol	<	23	<	5.8	<	0.17	
Tetrachloroethylene		<b>244</b>		<b>97.0</b>	<	0.81	
Tetrahydrofuran	<	80	<	20	<	0.59	
Toluene		<b>90,400</b>		<b>167</b>		<b>8.7</b>	
trans-1,2-Dichloroethylene		<b>335</b>	J	<	3.9	<	0.11
Trichloroethylene		<b>70,400</b>		<b>65.6</b>		<b>15</b>	100%
Trichlorofluoromethane	<	84	<	21		<b>0.67</b>	J
Vinyl acetate	<	63	<	16	<	0.49	
Vinyl chloride*		<b>1,100</b>		<b>6,290</b>		<b>291</b>	
Xylenes (total)		<b>6,080</b>		<b>122</b>	<	0.30	
<b>TVOCs</b>		<b>247,000</b>		<b>25,400</b>		<b>550</b>	

Footnotes:

ug/mg<sup>3</sup> micrograms per cubic meter

\* Compound is poorly adsorbed by activated carbon.

< Compound was not detected at or above the indicated value.

J Detected concentration is less than the quantitation limit.

J1 One or more analytical issues noted.

E Detected concentration exceeded the highest calibration standard.

TVOCs Total volatile organic compounds

Detections are **bolded**.

**Table 1. Vapor Treatment System Air Sampling Results  
Routine Monitoring - November 2020**

Compound (ug/m <sup>3</sup> )	Sample ID:	VGAC-1	VGAC-3	KMNO4-5	Percent Removed		
	Lab Sample ID: Date Sampled:	JD15983-1 11/10/2020	JD15983-2 11/10/2020	JD15983-3 11/10/2020			
1,1,1-Trichloroethane	<	53	<	13	<	1.8	
1,1-Dichloroethane	<	14	<	3.4	<	0.49	
1,1-Dichloroethylene		<b>214</b>	J	<	4.8	<	0.67
1,2,4-Trimethylbenzene	<	48	<	12	<	1.6	
1,3,5-Trimethylbenzene	<	49	<	12	<	1.7	
1,4-Dioxane*	<	54	<	13	<	1.9	
2,2,4-Trimethylpentane		<b>1,270</b>	<	7.5	<	1.0	
2-Hexanone	<	45	<	11	<	1.5	
4-Ethyltoluene	<	43	<	10	<	1.5	
Acetone*		<b>1,210</b>		<b>589</b>		<b>46.6</b>	
Benzene		<b>390</b>	<	2.7	<	0.38	
Bromoform	<	110	<	28	<	3.8	
Carbon disulfide	<	22	<	5.3	<	0.75	
Carbon tetrachloride	<	44	<	11	<	1.5	
Chloroethane	<	37	<	9.2	<	1.3	
Chloroform	<	29	<	6.8	<	0.98	
Chloromethane*	<	9.3		<b>38.8</b>		<b>23.1</b>	
cis-1,2-Dichloroethylene		<b>12,700</b>	<	3.3	<	0.48	
Cyclohexane		<b>485</b>		<b>42.0</b>	J	<	0.76
Dichlorodifluoromethane	<	24	<	5.9	<	0.84	
Ethanol		<b>441</b>		<b>714</b>		<b>11</b>	
Ethyl acetate	<	40	<	9.7	<	1.4	
Ethylbenzene		<b>2,190</b>		<b>43</b>	J	<	0.65
Heptane		<b>5,200</b>		<b>46.7</b>	J	<	0.74
Hexane		<b>2,740</b>		<b>3,810</b>		<	0.39
Isopropyl alcohol*		<b>9,660</b>		<b>8,950</b>		<b>47.9</b>	
m,p-Xylene		<b>5,520</b>		<b>124</b>		<	1.5
m-Dichlorobenzene	<	34	<	8.4	<	1.1	
Methyl ethyl ketone		<b>192</b>		<b>54.3</b>		<b>4.1</b>	J
Methyl isobutyl ketone	<	45	<	11	<	1.5	
Methylene chloride*	<	15		<b>83.0</b>		<	0.52
o-Xylene		<b>1,570</b>		<b>43</b>	J	<	0.74
Propylene*		<b>565</b>		<b>395</b>		<b>143</b>	
Styrene	<	24		<b>44.3</b>	J	<	0.81
Tertiary butyl alcohol	<	12		<b>42.7</b>		<	0.42
Tetrachloroethylene		<b>214</b>		<b>64</b>		<	2.1
Tetrahydrofuran	<	44	<	11	<	1.5	
Toluene		<b>50,500</b>		<b>135</b>		<b>12</b>	
trans-1,2-Dichloroethylene		<b>235</b>	<	2.1	<	0.29	
Trichloroethylene		<b>45,500</b>		<b>20</b>		<b>4.0</b>	100%
Trichlorofluoromethane	<	47	<	11	<	1.6	
Vinyl acetate	<	35	<	8.4	<	1.2	
Vinyl chloride*		<b>688</b>		<b>5,730</b>		<b>1,010</b>	
Xylenes (total)		<b>7,080</b>		<b>166</b>		<	0.74
<b>TVOCs</b>		<b>141,474</b>		<b>20,968</b>		<b>1,302</b>	

Footnotes:

ug/mg<sup>3</sup> micrograms per cubic meter

\* Compound is poorly adsorbed by activated carbon.

< Compound was not detected at or above the indicated value.

J Detected concentration is less than the quantitation limit.

J1 One or more analytical issues noted.

E Detected concentration exceeded the highest calibration standard.

TVOCs Total volatile organic compounds

Detections are **bolded**.

**Table 1. Vapor Treatment System Air Sampling Results  
Routine Monitoring - November 2020**

Compound (ug/m <sup>3</sup> )	Sample ID:	VGAC-1	VGAC-3	KMNO4-5	Percent Removed
	Lab Sample ID: Date Sampled:	JD16430-1 11/17/2020	JD16430-2 11/17/2020	JD16430-3 11/17/2020	
1,1,1-Trichloroethane	<	47	< 0.71	< 0.71	
1,1-Dichloroethane	<	12	< 0.19	< 0.19	
1,1-Dichloroethylene	<	17	< 0.27	< 0.27	
1,2,4-Trimethylbenzene	<	42	< 0.64	< 0.64	
1,3,5-Trimethylbenzene	<	43	< 0.64	< 0.64	
1,4-Dioxane*	<	47	< 0.76	< 0.76	
2,2,4-Trimethylpentane		<b>369</b>	< 0.41	< 0.41	
2-Hexanone	<	38	< 0.61	< 0.61	
4-Ethyltoluene	<	38	< 0.59	< 0.59	
Acetone*		<b>1,440</b>	<b>11</b>	<b>11</b>	
Benzene		<b>241</b>	< 0.15	< 0.15	
Bromoform	<	100	< 1.6	< 1.6	
Carbon disulfide	<	19	< 0.29	< 0.29	
Carbon tetrachloride	<	38	< 0.59	< 0.59	
Chloroethane	<	34	< 0.50	< 0.50	
Chloroform	<	25	< 0.39	< 0.39	
Chloromethane*	<	8.3	<b>22.9</b>	<b>27.7</b>	
cis-1,2-Dichloroethylene		<b>4,440</b>	<b>30</b>	< 0.19	
Cyclohexane		<b>125</b> J	< 0.30	< 0.30	
Dichlorodifluoromethane	<	21	<b>2.9</b> J	< 0.33	
Ethanol		<b>861</b>	<b>8.3</b>	<b>4.7</b>	
Ethyl acetate	<	35	<b>2.6</b> J	<b>3.4</b>	
Ethylbenzene		<b>184</b> J	< 0.26	< 0.26	
Heptane		<b>1,030</b>	< 0.29	< 0.29	
Hexane		<b>1,280</b>	< 0.15	< 0.15	
Isopropyl alcohol*		<b>4,470</b>	<b>20</b>	<b>39.1</b>	
m,p-Xylene		<b>434</b>	<b>2.7</b> J	< 0.61	
m-Dichlorobenzene	<	29	< 0.46	< 0.46	
Methyl ethyl ketone		<b>127</b> J	<b>5.0</b>	<b>3.2</b>	
Methyl isobutyl ketone	<	39	< 0.57	< 0.57	
Methylene chloride*	<	13	< 0.20	< 0.20	
o-Xylene		<b>177</b> J	< 0.30	< 0.30	
Propylene*		<b>478</b>	<b>476</b>	<b>132</b>	
Styrene	<	21	< 0.32	< 0.32	
Tertiary butyl alcohol	<	11	<b>3.6</b>	< 0.17	
Tetrachloroethylene		<b>109</b>	<b>2.7</b>	< 0.81	
Tetrahydrofuran	<	38	<b>2.6</b>	< 0.59	
Toluene		<b>12,200</b>	<b>6.4</b>	<b>2.3</b> J	
trans-1,2-Dichloroethylene		<b>139</b> J	< 0.11	< 0.11	
Trichloroethylene		<b>7,520</b>	<b>6.4</b>	< 0.41	100%
Trichlorofluoromethane	<	41	< 0.62	< 0.62	
Vinyl acetate	<	31	< 0.49	< 0.49	
Vinyl chloride*		<b>396</b>	<b>4,630</b>	<b>196</b>	
Xylenes (total)		<b>612</b>	<b>2.7</b> J	< 0.30	
<b>TVOCs</b>		<b>36,021</b>	<b>5,233</b>	<b>419</b>	

Footnotes:

ug/mg<sup>3</sup> micrograms per cubic meter

\* Compound is poorly adsorbed by activated carbon.

< Compound was not detected at or above the indicated value.

J Detected concentration is less than the quantitation limit.

J1 One or more analytical issues noted.

E Detected concentration exceeded the highest calibration standard.

TVOCs Total volatile organic compounds

Detections are **bolded**.

**Table 1. Vapor Treatment System Air Sampling Results  
Routine Monitoring - November 2020**

Compound (ug/m <sup>3</sup> )	Sample ID:	VGAC-1	VGAC-3	KMNO4-5	Percent Removed		
	Lab Sample ID:	JD16789-1	JD16789-2	JD16789-3			
	Date Sampled:	11/24/2020	11/24/2020	11/24/2020			
1,1,1-Trichloroethane	<	22	<	3.6	<	0.71	
1,1-Dichloroethane	<	5.7	<	0.93	<	0.19	
1,1-Dichloroethylene		<b>63.4</b>	J	<	1.3	<	0.27
1,2,4-Trimethylbenzene		<b>171</b>		<	3.2	<	0.64
1,3,5-Trimethylbenzene		<b>96.8</b>	J	<	3.3	<	0.64
1,4-Dioxane*	<	23	<	3.6	<	0.76	
2,2,4-Trimethylpentane		<b>207</b>		<	2.1	<	0.41
2-Hexanone	<	18	<	3.0		<b>3.4</b>	
4-Ethyltoluene	<	18	<	2.9	<	0.59	
Acetone*		<b>2540</b>		<b>75.3</b>		<b>66.8</b>	
Benzene		<b>278</b>	<	0.77	<	0.15	
Bromoform	<	48	<	7.8	<	1.6	
Carbon disulfide		<b>38.9</b>	J	<	1.5	<	0.29
Carbon tetrachloride	<	18	<	3.0	<	0.59	
Chloroethane	<	16	<	2.6	<	0.50	
Chloroform	<	12	<	2.0	<	0.39	
Chloromethane*		<b>52.5</b>		<b>27.7</b>		<b>23.7</b>	
cis-1,2-Dichloroethylene		<b>3,790</b>	<	0.91	<	0.19	
Cyclohexane		<b>91.6</b>	<	1.5	<	0.30	
Dichlorodifluoromethane	<	9.9	<	1.6		<b>3.2</b>	J
Ethanol		<b>1,160</b>		<b>11</b>	J	<b>8.5</b>	
Ethyl acetate	<	17	<	2.7		<b>12</b>	
Ethylbenzene		<b>526</b>	<	1.3	<	0.26	
Heptane		<b>566</b>	<	1.4	<	0.29	
Hexane		<b>2,250</b>	<	0.74	<	0.15	
Isopropyl alcohol*		<b>5,310</b>	<	3.2		<b>20</b>	
m,p-Xylene		<b>1,360</b>	<	3.0	<	0.61	
m-Dichlorobenzene	<	14	<	2.3	<	0.46	a
Methyl ethyl ketone		<b>246</b>	<	2.5		<b>5.6</b>	
Methyl isobutyl ketone		<b>54.9</b>	J	<	3.0	<	0.57
Methylene chloride*	<	6.3	<	1.0	<	0.20	
o-Xylene		<b>539</b>	<	1.5	<	0.30	
Propylene*		<b>594</b>		<b>529</b>	<	0.11	
Styrene		<b>116</b>	<	1.6	<	0.32	
Tertiary butyl alcohol		<b>110</b>		<b>7.6</b>	J	<b>6.7</b>	
Tetrachloroethylene		<b>114</b>	<	4.2	<	0.81	
Tetrahydrofuran	<	18	<	2.9		<b>2.5</b>	
Toluene		<b>10,300</b>		<b>7.2</b>	J	<b>1.7</b>	J
trans-1,2-Dichloroethylene		<b>146</b>	<	0.59	<	0.11	
Trichloroethylene		<b>4,860</b>	<	2.0	<	0.41	100%
Trichlorofluoromethane	<	20	<	3.1	<	0.62	
Vinyl acetate	<	15	<	2.4	<	0.49	
Vinyl chloride*		<b>312</b>		<b>1,690</b>		<b>49.3</b>	
Xylenes (total)		<b>1,890</b>	<	1.5	<	0.30	
<b>TVOCs</b>		<b>35,884</b>		<b>2,348</b>		<b>203</b>	

Footnotes:

ug/mg<sup>3</sup> micrograms per cubic meter

\* Compound is poorly adsorbed by activated carbon.

< Compound was not detected at or above the indicated value.

J Detected concentration is less than the quantitation limit.

TVOCs Total volatile organic compounds

Detections are **bolded**.

Analyte	Sample ID: Lab Sample ID: Date Sampled:	FRAC1-A2949- 20201103 JD15615-1 11/3/2020	LGAC-INF- 20201117 JD16412-3 / 3A 11/17/2020	LGAC-MID- 20201117 JD16412-2 / 2A 11/17/2020	FRAC2-A4272- 20201117 JD16412-1 / 1A 11/17/2020
<b>Volatile Organic Compounds (ug/L, detections only):</b>					
2-Butanone (MEK)	<	6.9	<b>66.0</b>	< 6.9	< 6.9
2-Hexanone	<	2.0	<b>2.3 J</b>	< 2.0	< 2.0
4-Methyl-2-pentanone (MIBK)	<	1.9	<b>3.8 J</b>	< 1.9	< 1.9
Acetone*	<	6.0	<b>437</b>	< 6.0	< 6.0
Benzene	<	0.43	<b>0.45 J</b>	< 0.43	< 0.43
cis-1,2-Dichloroethene	<	0.51	<b>32.9</b>	< 0.51	< 0.51
Ethylbenzene	<	0.60	<b>3.5</b>	< 0.60	< 0.60
m,p-Xylene	<	0.78	<b>12.8</b>	< 0.78	< 0.78
o-Xylene	<	0.59	<b>9.2</b>	< 0.59	< 0.59
Styrene	<	0.5	<b>0.91 J</b>	< 0.49	< 0.49
Toluene	<	0.53	<b>63.4</b>	< 0.53	< 0.53
Trichloroethene	<	0.53	<b>10.3</b>	< 0.53	< 0.53
Xylene (total)	<	0.59	<b>22.0</b>	< 0.59	< 0.59
TVOCs		0.0	<b>643</b>	0	0.0
TVOCs less poor adsorbers*		0.0	<b>640</b>	0	0.0
<b>Semivolatile Organic Compounds (ug/L, detections only):</b>					
1,4-Dioxane	<	0.73	<b>27.6</b>	< 0.64	< 0.64
2,4-Dimethylphenol	<	2.7	<b>342</b>	< 2.4	< 2.4
2-Methylnaphthalene	<	0.23	<b>2.5</b>	< 0.20	< 0.20
2-Methylphenol	<	0.99	<b>225</b>	< 0.87	< 0.87
3&4-Methylphenol	<	0.98	<b>963</b>	< 0.86	< 0.86
Acetophenone	<	0.23	<b>36.9</b>	< 0.20	< 0.20
Anthracene	<	0.23	<b>0.39 J</b>	< 0.21	< 0.21
Carbazole	<	0.25	<b>0.60 J</b>	< 0.22	< 0.22
Dimethyl phthalate	<	0.24	<b>5.8</b>	< 0.21	< 0.21
Fluoranthene	<	0.19	<b>0.45 J</b>	< 0.17	< 0.17
Naphthalene	<	0.26	<b>6.6</b>	< 0.23	< 0.23
Phenanthrene	<	0.19	<b>2.4</b>	< 0.17	< 0.17
Phenol	<	0.44	<b>327</b>	< 0.38	< 0.38
Pyrene	<	0.24	<b>0.24 J</b>	< 0.21	< 0.21
<b>Semivolatile Organic Compounds (SIM) (ug/L):</b>					
1,4-Dioxane	<	0.056	<b>25.9</b>	< 0.049	< 0.049
<b>Polychlorinated Biphenyls (ug/L):</b>					
Aroclor 1016	<	0.098	< 0.14	< 0.12	< 0.13
Aroclor 1221	<	0.21	< 0.30	< 0.26	< 0.27
Aroclor 1232	<	0.13	< 0.19	< 0.16	< 0.17
Aroclor 1242	<	0.11	< 0.16	< 0.14	< 0.15
Aroclor 1248	<	0.063	<b>1.5</b>	< 0.079	< 0.081
Aroclor 1254	<	0.21	<b>0.60</b>	< 0.26	< 0.27
Aroclor 1260	<	0.076	< 0.11	< 0.095	< 0.098
Aroclor 1262	<	0.097	< 0.14	< 0.12	< 0.12
Aroclor 1268	<	0.087	< 0.12	< 0.11	< 0.11
<b>Metals (mg/L):</b>					
Cadmium	<	3.0	< 3.0	< 3.0	< 3.0
Chromium	<	10	< 10	< 10	< 10
Iron (Method 6010)		-	-	-	-
Iron (Method 200.7)		<b>318</b>	<b>11300</b>	<b>766</b>	<b>358</b>
Manganese (Method 6010)		-	-	-	-
Manganese (Method 200.7)		<b>615</b>	<b>259</b>	<b>363</b>	<b>243</b>
Mercury (Method 6010)	<	0.20	< 0.20	< 0.20	< 0.20
<b>General Chemistry (mg/L):</b>					
Nitrogen, Nitrate	<	0.20	< 0.11	< 0.11	< 0.11
Nitrogen, Nitrate + Nitrite		<b>0.91</b>	< 0.10	< 0.10	< 0.10
Nitrogen, Nitrite		<b>0.89</b>	< 0.010	< 0.010	< 0.010
Nitrogen, Total Kjeldahl		<b>1.4</b>	<b>3.4</b>	<b>3.0</b>	<b>3.1</b>

**Footnotes:**

- ug/L            micrograms per liter
- mg/L            milligrams per liter
- \*                Poorly adsorbed on activated carbon.
- <                Analyte was not detected at or above the indicated value.
- J                Detected concentration is less than the laboratory quantitation limit.

TVOCs            Total volatile organic compounds  
Detections are **bolded**.



**Table 3: Ambient Air Laboratory Results (2020-10-28 through 2020-11-03)**

Analyte	Target Screening Level (µg/m <sup>3</sup> ) <sup>1,3</sup>	95% of Concentration Distribution NYSDOH Background Air (µg/m <sup>3</sup> ) <sup>2</sup>	Ambient Air Concentration (µg/m <sup>3</sup> )				
			Sample Location				
			AMP-01	AMP-02	AMP-03*	AMP-04*	AMP-03-DUP*
<b>Site-specific Compounds of Interest<sup>1</sup></b>							
1,1,1-Trichloroethane	520	0.7	< 0.15	< 0.16	< 0.17	< 0.16	< 0.17
1,1-Dichloroethane	45	< 0.25	< 0.11	< 0.12	< 0.13	< 0.12	< 0.13
1,1-Dichloroethene	8	<0.25	< 0.053	< 0.057	< 0.063	< 0.057	< 0.063
1,2-Dichloroethane	3	< 0.25	< 0.11	< 0.12	< 0.13	< 0.12	< 0.13
Benzene	8	5.8	<b>0.38</b>	<b>0.36</b>	<b>0.38</b>	<b>0.43</b>	<b>0.38</b>
Ethyl-benzene	29	1.9	<b>0.12</b>	< 0.12	< 0.14	<b>0.12</b>	< 0.14
m,p-Xylene	10	3.1	<b>0.36</b>	<b>0.31</b>	<b>0.31</b>	<b>0.36</b>	<b>0.31</b>
o-Xylene	10	2.3	<b>0.14</b>	< 0.12	< 0.14	<b>0.13</b>	< 0.14
Tetrachloroethene	30	1.6	< 0.18	< 0.20	< 0.22	<b>0.21</b>	< 0.22
Toluene	521	21	<b>0.80</b>	<b>0.76</b>	<b>0.71</b>	<b>0.73</b>	<b>0.72</b>
trans-1,2-Dichloroethene	82	NA2	< 0.53	< 0.57	< 0.63	< 0.57	< 0.63
Trichloroethene	2	0.5	< 0.14	<b>0.20</b>	<b>0.58</b>	<b>0.18</b>	<b>0.59</b>
Vinyl Chloride	8	< 0.25	< 0.034	< 0.037	< 0.041	< 0.036	< 0.041
<b>Other Compounds<sup>3</sup></b>							
1,1,2,2-Tetrachloroethane	1.3	< 0.25	< 0.18	< 0.20	< 0.22	< 0.20	< 0.22
1,1,2-Trichloroethane	0.21	< 0.25	< 0.15	< 0.16	< 0.17	< 0.16	< 0.17
1,2-Dibromoethane (EDB)	0.12	< 0.25	< 0.20	< 0.22	< 0.24	< 0.22	< 0.24
1,4-Dichlorobenzene	7	0.8	< 0.16 J	< 0.17 J	< 0.19 J	< 0.17 J	< 0.19 J
Carbon Tetrachloride	12	1	<b>0.46 J</b>	<b>0.45 J</b>	<b>0.45 J</b>	<b>0.48 J</b>	<b>0.47 J</b>
Chloroethane	417	0.4	< 0.18	< 0.19	< 0.21	< 0.19	< 0.21
Chloroform	3	0.5	< 0.13	< 0.14	< 0.16	< 0.14	< 0.16
Chloromethane	310	4.6	< 1.4	< 1.5	< 1.6	< 1.5	< 1.6
cis-1,2-Dichloroethene	NA1	< 0.25	< 0.11	< 0.11	< 0.13	< 0.11	< 0.13
Freon 114	NA1	1.3	< 0.19	< 0.20	< 0.22	< 0.20	< 0.22
Freon 12	100	11	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>
Methyl tert-butyl ether	260	NA2	< 0.48	< 0.52	< 0.57	< 0.52	< 0.57

**Notes:** µg/m<sup>3</sup> - micrograms per cubic meter

< - indicates not detected at or above the indicated value

J - indicates sample result is estimated

**Bold** - indicates detections

R - rejected after data validation

NA1 - no criteria given in the EPA RSL Calculator

NA2 - NYSDOH did not include this compound in the guidance document<sup>2</sup>

\*- sample collected over a 3-day period because of low vacuum

<sup>1</sup> Target Screening Levels for site-specific compounds of interest provided in Bethpage Ambient Air Monitoring Plan and are based on a one-year exposure duration (B&B Engineers & Geologists of New York, P.C., May 2020)

<sup>2</sup> NYSDOH Outdoor Air Background Values from Appendix C (Table C1) of Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)

<sup>3</sup> Target Screening Levels for other compounds calculated using the EPA RSL calculator with the same inputs as described in the Bethpage Ambient Air Monitoring Plan

**Table 3: Ambient Air Laboratory Results (2020-11-03 through 2020-11-09)**

Analyte	Target Screening Level (µg/m³) <sup>1,3</sup>	95% of Concentration Distribution NYSDOH Background Air (µg/m³) <sup>2</sup>	Ambient Air Concentration (µg/m³)				
			Sample Location				
			AMP-01	AMP-02	AMP-03	AMP-04	AMP-01-DUP
<b>Site-specific Compounds of Interest<sup>1</sup></b>							
1,1,1-Trichloroethane	520	0.7	< 0.24	< 0.20	< 0.21	< 0.20	< 0.24
1,1-Dichloroethane	45	< 0.25	< 0.18	< 0.15	< 0.15	< 0.15	< 0.18
1,1-Dichloroethene	8	< 0.25	< 0.088	< 0.073	< 0.076	< 0.073	< 0.088
1,2-Dichloroethane	3	< 0.25	< 0.18	< 0.15	< 0.15	< 0.15	< 0.18
Benzene	8	5.8	<b>0.93</b>	<b>0.92</b>	<b>0.89</b>	<b>0.95</b>	<b>0.93</b>
Ethyl-benzene	29	1.9	<b>0.47</b>	<b>0.45</b>	<b>0.41</b>	<b>0.46</b>	<b>0.47</b>
m,p-Xylene	10	3.1	<b>1.5</b>	<b>1.4</b>	<b>1.3</b>	<b>1.4</b>	<b>1.4</b>
o-Xylene	10	2.3	<b>0.60</b>	<b>0.58</b>	<b>0.54</b>	<b>0.58</b>	<b>0.62</b>
Tetrachloroethene	30	1.6	<b>0.34</b>	<b>0.36</b>	<b>0.35</b>	<b>0.36</b>	<b>0.35</b>
Toluene	521	21	<b>2.4</b>	<b>2.5</b>	<b>2.1</b>	<b>2.4</b>	<b>2.4</b>
trans-1,2-Dichloroethene	82	NA2	< 0.88	< 0.73	< 0.76	< 0.73	< 0.88
Trichloroethene	2	0.5	<b>0.24</b>	<b>0.28</b>	< 0.20	<b>0.21</b>	<b>0.24</b>
Vinyl Chloride	8	< 0.25	< 0.057	< 0.047	< 0.049	< 0.047	< 0.057
<b>Other Compounds<sup>3</sup></b>							
1,1,2,2-Tetrachloroethane	1.3	< 0.25	< 0.31	< 0.25	< 0.26	< 0.25	< 0.30
1,1,2-Trichloroethane	0.21	< 0.25	< 0.24	< 0.20	< 0.21	< 0.20	< 0.24
1,2-Dibromoethane (EDB)	0.12	< 0.25	< 0.34	< 0.28	< 0.29	< 0.28	< 0.34
1,4-Dichlorobenzene	7	0.8	< 0.27 J	< 0.22 J	< 0.23 J	< 0.22 J	< 0.27 J
Carbon Tetrachloride	12	1	<b>0.36 J</b>	<b>0.40 J</b>	<b>0.50 J</b>	<b>0.40 J</b>	<b>0.38 J</b>
Chloroethane	417	0.4	< 0.29	< 0.24	< 0.25	< 0.24	< 0.29
Chloroform	3	0.5	< 0.22	< 0.18	< 0.19	< 0.18	< 0.22
Chloromethane	310	4.6	< 2.3	< 1.9	< 2.0	< 1.9	< 2.3
cis-1,2-Dichloroethene	NA1	< 0.25	< 0.18	< 0.15	< 0.15	< 0.15	< 0.18
Freon 114	NA1	1.3	< 0.31	< 0.26	< 0.27	< 0.26	< 0.31
Freon 12	100	11	<b>1.9</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>1.9</b>
Methyl tert-butyl ether	260	NA2	< 0.80	< 0.67	< 0.69	< 0.67	< 0.80

**Notes:**

µg/m³ - micrograms per cubic meter

**Bold** - indicates detections

R - rejected after data validation

< - indicates not detected at or above the indicated value

NA1 - no criteria given in the EPA RSL Calculator

J - indicates sample result is estimated

NA2 - NYSDOH did not include this compound in the guidance document<sup>2</sup>

<sup>1</sup> Target Screening Levels for site-specific compounds of interest provided in Bethpage Ambient Air Monitoring Plan and are based on a one-year exposure duration (B&B Engineers & Geologists of New York, P.C., May 2020)

<sup>2</sup> NYSDOH Outdoor Air Background Values from Appendix C (Table C1) of Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)

<sup>3</sup> Target Screening Levels for other compounds calculated using the EPA RSL calculator with the same inputs as described in the Bethpage Ambient Air Monitoring Plan

**Table 3: Ambient Air Laboratory Results (2020-11-09 through 2020-11-14)**

Analyte	Target Screening Level (µg/m³) <sup>1,3</sup>	95% of Concentration Distribution NYSDOH Background Air (µg/m³) <sup>2</sup>	Ambient Air Concentration (µg/m³)				
			Sample Location				
			AMP-01	AMP-02	AMP-03	AMP-04	AMP-01-DUP
<b>Site-specific Compounds of Interest<sup>1</sup></b>							
1,1,1-Trichloroethane	520	0.7	< 0.24	< 1.2	< 0.42	< 0.36	< 0.24
1,1-Dichloroethane	45	< 0.25	< 0.18	< 0.93	< 0.31	< 0.27	< 0.18
1,1-Dichloroethene	8	< 0.25	< 0.088	< 0.46	< 0.15	< 0.13	< 0.088
1,2-Dichloroethane	3	< 0.25	< 0.18	< 0.93	< 0.31	< 0.27	< 0.18
Benzene	8	5.8	<b>0.58</b>	< 1.8	< 0.61	<b>0.60</b>	<b>0.48</b>
Ethyl-benzene	29	1.9	< 0.19	< 1.0	< 0.33	< 0.29	<b>0.25</b>
m,p-Xylene	10	3.1	<b>0.54</b>	< 2.0	< 0.66	< 0.58	<b>0.48</b>
o-Xylene	10	2.3	<b>0.19</b>	< 1.0	< 0.33	< 0.29	< 0.19
Tetrachloroethene	30	1.6	< 0.30	< 1.6	< 0.52	< 0.45	< 0.30
Toluene	521	21	<b>1.5</b>	< 2.2	<b>1.1</b>	<b>1.2</b>	<b>1.1</b>
trans-1,2-Dichloroethene	82	NA2	< 0.88	< 4.6	< 1.5	< 1.3	< 0.88
Trichloroethene	2	0.5	< 0.24	< 1.2	< 0.41	< 0.36	< 0.24
Vinyl Chloride	8	< 0.25	< 0.057	< 0.29	< 0.098	< 0.086	< 0.057
<b>Other Compounds<sup>3</sup></b>							
1,1,2,2-Tetrachloroethane	1.3	< 0.25	< 0.31	< 1.6	< 0.52	< 0.46	< 0.31
1,1,2-Trichloroethane	0.21	< 0.25	< 0.24	< 1.2	< 0.42	< 0.36	< 0.24
1,2-Dibromoethane (EDB)	0.12	< 0.25	< 0.34	< 1.8	< 0.59	< 0.51	< 0.34
1,4-Dichlorobenzene	7	0.8	< 0.27	< 1.4	< 0.46	< 0.40	< 0.27
Carbon Tetrachloride	12	1	<b>0.62</b>	< 1.4	< 0.48	<b>0.45</b>	<b>0.45</b>
Chloroethane	417	0.4	< 0.29	< 1.5	< 0.50	<b>0.51</b>	< 0.29
Chloroform	3	0.5	< 0.22	< 1.1	< 0.37	< 0.33	< 0.22
Chloromethane	310	4.6	< 2.3	< 12	< 4.0	< 3.4	< 2.3
cis-1,2-Dichloroethene	NA1	< 0.25	< 0.18	< 0.91	< 0.30	< 0.26	< 0.18
Freon 114	NA1	1.3	< 0.31	< 1.6	< 0.54	< 0.47	< 0.31
Freon 12	100	11	<b>3.4 J</b>	<b>2.0</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4 J</b>
Methyl tert-butyl ether	260	NA2	< 0.80	< 4.1	< 1.4	< 1.2	< 0.80

**Notes:**

µg/m³ - micrograms per cubic meter

**Bold** - indicates detections

R - rejected after data validation

< - indicates not detected at or above the indicated value

NA1 - no criteria given in the EPA RSL Calculator

J - indicates sample result is estimated

NA2 - NYSDOH did not include this compound in the guidance document<sup>2</sup>

<sup>1</sup> Target Screening Levels for site-specific compounds of interest provided in Bethpage Ambient Air Monitoring Plan and are based on a one-year exposure duration (B&B Engineers & Geologists of New York, P.C., May 2020)

<sup>2</sup> NYSDOH Outdoor Air Background Values from Appendix C (Table C1) of Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)

<sup>3</sup> Target Screening Levels for other compounds calculated using the EPA RSL calculator with the same inputs as described in the Bethpage Ambient Air Monitoring Plan

**Table 3: Ambient Air Laboratory Results (2020-11-14 through 2020-11-20)**

Analyte	Target Screening Level (µg/m <sup>3</sup> ) <sup>1,3</sup>	95% of Concentration Distribution NYSDOH Background Air (µg/m <sup>3</sup> ) <sup>2</sup>	Ambient Air Concentration (µg/m <sup>3</sup> )				
			Sample Location				
			AMP-01	AMP-02	AMP-03	AMP-04	AMP-04-DUP
<b>Site-specific Compounds of Interest<sup>1</sup></b>							
1,1,1-Trichloroethane	520	0.7	< 0.18	< 0.19	< 0.20	< 0.18	< 0.18
1,1-Dichloroethane	45	< 0.25	< 0.14	< 0.14	< 0.15	< 0.13	< 0.13
1,1-Dichloroethene	8	<0.25	< 0.067	< 0.069	< 0.072	< 0.064	< 0.064
1,2-Dichloroethane	3	< 0.25	<b>0.14</b>	< 0.14	< 0.15	< 0.13	< 0.13
Benzene	8	5.8	<b>0.90</b>	<b>0.62</b>	<b>0.66</b>	<b>0.60</b>	<b>0.59</b>
Ethyl-benzene	29	1.9	<b>0.22</b>	< 0.15	< 0.16	< 0.14	<b>0.15</b>
m,p-Xylene	10	3.1	<b>0.63</b>	<b>0.37</b>	<b>0.36</b>	<b>0.37</b>	<b>0.37</b>
o-Xylene	10	2.3	<b>0.24</b>	< 0.15	< 0.16	<b>0.14</b>	<b>0.16</b>
Tetrachloroethene	30	1.6	< 0.23	< 0.24	< 0.25	< 0.22	< 0.22
Toluene	521	21	<b>1.8</b>	<b>1.2</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>
trans-1,2-Dichloroethene	82	NA2	< 0.67	< 0.69	< 0.72	< 0.64	< 0.64
Trichloroethene	2	0.5	< 0.18	< 0.19	< 0.20	< 0.17	< 0.17
Vinyl Chloride	8	< 0.25	< 0.043	< 0.045	< 0.047	< 0.041	< 0.041
<b>Other Compounds<sup>3</sup></b>							
1,1,2,2-Tetrachloroethane	1.3	< 0.25	< 0.23	< 0.24	< 0.25	< 0.22	< 0.22
1,1,2-Trichloroethane	0.21	< 0.25	< 0.18	< 0.19	< 0.20	< 0.18	< 0.18
1,2-Dibromoethane (EDB)	0.12	< 0.25	< 0.26	< 0.27	< 0.28	< 0.25	< 0.25
1,4-Dichlorobenzene	7	0.8	< 0.20	< 0.21	< 0.22	< 0.19	< 0.19
Carbon Tetrachloride	12	1	<b>0.69</b>	<b>0.47</b>	<b>0.50</b>	<b>0.48</b>	<b>0.48</b>
Chloroethane	417	0.4	< 0.22	< 0.23	< 0.24	< 0.21	< 0.21
Chloroform	3	0.5	<b>0.18</b>	< 0.17	< 0.18	<b>0.16</b>	< 0.16
Chloromethane	310	4.6	<b>1.8</b>	< 1.8	< 1.9	< 1.7	< 1.7
cis-1,2-Dichloroethene	NA1	< 0.25	< 0.13	< 0.14	< 0.14	< 0.13	< 0.13
Freon 114	NA1	1.3	< 0.23	< 0.24	< 0.26	< 0.22	< 0.22
Freon 12	100	11	<b>3.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>
Methyl tert-butyl ether	260	NA2	< 0.60	< 0.63	< 0.66	< 0.58	< 0.58

**Notes:**

µg/m<sup>3</sup> - micrograms per cubic meter

**Bold** - indicates detections

R - rejected after data validation

< - indicates not detected at or above the indicated value

NA1 - no criteria given in the EPA RSL Calculator

J - indicates sample result is estimated

NA2 - NYSDOH did not include this compound in the guidance document<sup>2</sup>

<sup>1</sup> Target Screening Levels for site-specific compounds of interest provided in Bethpage Ambient Air Monitoring Plan and are based on a one-year exposure duration (B&B Engineers & Geologists of New York, P.C., May 2020)

<sup>2</sup> NYSDOH Outdoor Air Background Values from Appendix C (Table C1) of Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)

<sup>3</sup> Target Screening Levels for other compounds calculated using the EPA RSL calculator with the same inputs as described in the Bethpage Ambient Air Monitoring Plan

**Table 3: Ambient Air Laboratory Results (2020-11-20 through 2020-11-25)**

Analyte	Target Screening Level (µg/m³) <sup>1,3</sup>	95% of Concentration Distribution NYSDOH Background Air (µg/m³) <sup>2</sup>	Ambient Air Concentration (µg/m³)				
			Sample Location				
			AMP-01	AMP-02	AMP-03	AMP-04	AMP-02-DUP
<b>Site-specific Compounds of Interest<sup>1</sup></b>							
1,1,1-Trichloroethane	520	0.7	< 0.24	< 0.24	< 0.32	< 0.30	< 0.24 R
1,1-Dichloroethane	45	< 0.25	< 0.18	< 0.18	< 0.24	< 0.22	< 0.18 R
1,1-Dichloroethene	8	<0.25	< 0.089	< 0.088	< 0.12	< 0.11	< 0.088 R
1,2-Dichloroethane	3	< 0.25	< 0.18	< 0.18	< 0.24	< 0.22	< 0.18 R
Benzene	8	5.8	<b>0.59</b>	<b>0.57</b>	<b>0.59</b>	<b>0.60</b>	<b>0.78 R</b>
Ethyl-benzene	29	1.9	< 0.20	<b>0.34</b>	< 0.26	< 0.24	<b>1.2 R</b>
m,p-Xylene	10	3.1	<b>0.59</b>	<b>2.6</b>	< 0.52	< 0.47	<b>12 R</b>
o-Xylene	10	2.3	<b>0.24</b>	<b>1.3</b>	< 0.26	< 0.24	<b>5.6 R</b>
Tetrachloroethene	30	1.6	< 0.30	< 0.30	< 0.40	<b>5.5</b>	<b>1.1</b>
Toluene	521	21	<b>0.99</b>	<b>1.1</b>	<b>0.99</b>	<b>0.86</b>	<b>2.6 R</b>
trans-1,2-Dichloroethene	82	NA2	< 0.89	< 0.88	< 1.2	< 1.1	< 0.88 R
Trichloroethene	2	0.5	< 0.24	< 0.24	< 0.32	<b>0.40</b>	<b>0.97 R</b>
Vinyl Chloride	8	< 0.25	< 0.058	< 0.057	< 0.076	< 0.07	< 0.057 R
<b>Other Compounds<sup>3</sup></b>							
1,1,2,2-Tetrachloroethane	1.3	< 0.25	< 0.31	< 0.30	< 0.41	< 0.37	< 0.31 R
1,1,2-Trichloroethane	0.21	< 0.25	< 0.24	< 0.24	< 0.32	< 0.30	< 0.24 R
1,2-Dibromoethane (EDB)	0.12	< 0.25	< 0.34	< 0.34	< 0.46	< 0.42	< 0.34 R
1,4-Dichlorobenzene	7	0.8	< 0.27	< 0.27	< 0.36	< 0.33	< 0.27 R
Carbon Tetrachloride	12	1	<b>0.47</b>	<b>0.43</b>	<b>0.46</b>	<b>0.42</b>	<b>0.46 R</b>
Chloroethane	417	0.4	< 0.30	< 0.29	< 0.39	< 0.36	< 0.29 R
Chloroform	3	0.5	< 0.22	< 0.22	< 0.29	< 0.26	< 0.22 R
Chloromethane	310	4.6	< 2.3	< 2.3	< 3.1	< 2.8	< 2.3 R
cis-1,2-Dichloroethene	NA1	< 0.25	< 0.18	< 0.18	< 0.24	< 0.22	<b>0.42 R</b>
Freon 114	NA1	1.3	< 0.31	< 0.31	< 0.42	< 0.38	< 0.31 R
Freon 12	100	11	<b>2.4</b>	<b>2.1</b>	<b>2.5</b>	<b>2.1</b>	<b>2.2 R</b>
Methyl tert-butyl ether	260	NA2	< 0.81	< 0.8	< 1.1	< 0.98	< 0.8 R

**Notes:**

µg/m³ - micrograms per cubic meter

**Bold** - indicates detections

R - rejected after data validation

< - indicates not detected at or above the indicated value

NA1 - no criteria given in the EPA RSL Calculator

J - indicates sample result is estimated

NA2 - NYSDOH did not include this compound in the guidance document<sup>2</sup>

<sup>1</sup> Target Screening Levels for site-specific compounds of interest provided in Bethpage Ambient Air Monitoring Plan and are based on a one-year exposure duration (B&B Engineers & Geologists of New York, P.C., May 2020)

<sup>2</sup> NYSDOH Outdoor Air Background Values from Appendix C (Table C1) of Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)

<sup>3</sup> Target Screening Levels for other compounds calculated using the EPA RSL calculator with the same inputs as described in the Bethpage Ambient Air Monitoring Plan

**Table 3: Ambient Air Laboratory Results (2020-11-25 through 2020-12-01)**

Analyte	Target Screening Level (µg/m <sup>3</sup> ) <sup>1,3</sup>	95% of Concentration Distribution NYSDOH Background Air (µg/m <sup>3</sup> ) <sup>2</sup>	Ambient Air Concentration (µg/m <sup>3</sup> )				
			Sample Location				
			AMP-01	AMP-02	AMP-03	AMP-04	AMP-04-DUP
<b>Site-specific Compounds of Interest<sup>1</sup></b>							
1,1,1-Trichloroethane	520	0.7	< 0.46	< 0.27	< 0.26	< 0.22	< 0.22
1,1-Dichloroethane	45	< 0.25	< 0.34	< 0.2	< 0.19	< 0.16	< 0.16
1,1-Dichloroethene	8	<0.25	< 0.17	< 0.1	< 0.094	< 0.08	< 0.08
1,2-Dichloroethane	3	< 0.25	< 0.34	< 0.2	< 0.19	< 0.16	< 0.16
Benzene	8	5.8	<b>1.0</b>	<b>0.88</b>	<b>0.80</b>	<b>0.81</b>	<b>0.82</b>
Ethyl-benzene	29	1.9	<b>0.38</b>	<b>0.30</b>	<b>0.26</b>	<b>0.33</b>	<b>0.47</b>
m,p-Xylene	10	3.1	<b>1.2 J</b>	<b>0.98 J</b>	<b>0.78 J</b>	<b>1.6 J</b>	<b>2.7 J</b>
o-Xylene	10	2.3	<b>0.59 J</b>	<b>0.41 J</b>	<b>0.33 J</b>	<b>0.75 J</b>	<b>1.3 J</b>
Tetrachloroethene	30	1.6	< 0.57	< 0.34	< 0.32	< 0.27	< 0.27
Toluene	521	21	<b>2.7</b>	<b>2.1</b>	<b>2.0</b>	<b>1.7</b>	<b>2.0</b>
trans-1,2-Dichloroethene	82	NA2	< 1.7	< 1.0	< 0.94	< 0.80	< 0.80
Trichloroethene	2	0.5	< 0.45	< 0.27	< 0.25	< 0.22	< 0.22
Vinyl Chloride	8	< 0.25	< 0.11	< 0.064	< 0.06	< 0.051	< 0.051
<b>Other Compounds<sup>3</sup></b>							
1,1,2,2-Tetrachloroethane	1.3	< 0.25	< 0.58	< 0.34	< 0.32	< 0.28	< 0.28
1,1,2-Trichloroethane	0.21	< 0.25	< 0.46	< 0.27	< 0.26	< 0.22	< 0.22
1,2-Dibromoethane (EDB)	0.12	< 0.25	< 0.65	< 0.38	< 0.36	< 0.31	< 0.31
1,4-Dichlorobenzene	7	0.8	< 0.51	< 0.30	< 0.28	< 0.24	< 0.24
Carbon Tetrachloride	12	1	< 0.53	<b>0.49</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>
Chloroethane	417	0.4	< 0.56	< 0.33	< 0.31	< 0.26	< 0.26
Chloroform	3	0.5	< 0.41	< 0.24	< 0.23	< 0.2	< 0.2
Chloromethane	310	4.6	< 4.4 J	< 2.6 J	< 2.4 J	< 2.1 J	< 2.1 J
cis-1,2-Dichloroethene	NA1	< 0.25	< 0.34	< 0.2	< 0.19	< 0.16	< 0.16
Freon 114	NA1	1.3	< 0.59	< 0.35	< 0.33	< 0.28	< 0.28
Freon 12	100	11	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>
Methyl tert-butyl ether	260	NA2	< 1.5	< 0.9	< 0.85	< 0.72	< 0.72

**Notes:**

µg/m<sup>3</sup> - micrograms per cubic meter

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<sup>1</sup> Target Screening Levels for site-specific compounds of interest provided in Bethpage Ambient Air Monitoring Plan and are based on a one-year exposure duration (B&B Engineers & Geologists of New York, P.C., May 2020)

<sup>2</sup> NYSDOH Outdoor Air Background Values from Appendix C (Table C1) of Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006)

<sup>3</sup> Target Screening Levels for other compounds calculated using the EPA RSL calculator with the same inputs as described in the Bethpage Ambient Air Monitoring Plan