MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

FIELD ASSESSMENT AND SUPPORT TEAM (FAST)

OPERATION AND MONITORING OF ELECTRICAL RESISTANCE HEATING (ERH) THERMAL REMEDIATION SYSTEM

General Chemical Site, Framingham, MA

MassDEP RTN 3-19174

Prepared by

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List of Acronyms	
μg/L	Microgram per liter
μg/m^3	Microgram per cubic meter
bgs	below ground surface
CAM	Compendium of Analytical Methods (MassDEP)
Cis-1,2-DCE	Cis-1,2-Dichloroethylene
CVOC	Chlorinated Volatile Organic Compound
1,1-DCE	1,1-Dichloroethylene
EBCT	Empty Bed Contact Time
ERH	Electrical Resistance Heating
eV	Electron-Volt
FAST	Field Assessment and Support Team (MassDEP)
FRP	Fiberglass Reinforced Polymer
GAC	Granular Activated Carbon
GC/FID	Gas Chromatograph/Flame Ionization Detector
GC/MS	Gas Chromatograph/Mass Spectrometer
GPM	Gallons per Minute
IR	Infrared
IRA	Immediate Response Action
kW	Kilowatt
kWh	Kilowatt hour (of electricity)
LC/MS/MS	Liquid Chromatography/Mass Spectrometer/Mass Spectrometer
LNAPL	Light Non-Aqueous Phase Liquid
LGAC	Liquid-phase Granular Activated Carbon
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan, 310 CMR 40.0000
NA	Not Available
NAPL	Non-Aqueous Phase Liquid
N.D.	Not Detected
ng/L	Nanograms per Liter
mL	Milliliters
PCE	Tetrachloroethylene (also known as Perchloroethylene)
PCU	Power Control Unit
PFAS	Per- and Polyfluoroalkyl Substances
PID	Photoionization Detector
ppbV	Parts per billion by volume
ppmV	Parts per million by volume
SCFM	Standard Cubic Feet per Minute
SVE	Soil Vapor Extraction
TA-1	Treatment Area 1
TA-2	Treatment Area 2
1,1,1-TCA	1,1,1-Trichloroethane
TCE	Trichloroethylene
UCM	Unresolved Complex Mixture
VGAC	Vapor-phase Granular Activated Carbon
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound

Summary

An Electrical Resistance Heating (ERH) thermal remediation system operated at the General Chemical site from August 2, 2021 to December 6, 2021. A total of 792,611 kWh of electricity were discharged through 28 electrodes installed in a 4750 square feet area of a heavily contaminated upgradient portion of the property, in order to vaporize and recover volatile organic compounds (VOCs) in a 2945 cubic yard treatment zone. An estimated 3400 pounds of VOCs were vaporized from the treatment zone and captured on 35,000 pounds of granular activated carbon, and an estimated 600 pounds of 1,1,1-Trichloroethane were hydrolyzed into acetic acid, bringing the total amount of VOC mass removal to approximately 4000 pounds.

Potential environmental impacts associated with thermal remedial operations were monitored by MassDEP scientists and engineers. During initial startup, VOC concentrations at the site fence line were continuously monitored in real-time using screening instruments, generating over 30,000 discrete data points over a four-day period. Screening data were confirmed and complemented by the on-site analysis of 26 ambient air and 14 soil vapor samples on a gas chromatograph/mass spectrometer (GC/MS) instrument within a mobile laboratory. No significant impacts to surrounding homes and the nearby Harmony Grove school were noted during startup operations.

Following system startup, agency personnel conducted on-site inspections at least 2 days per week, to screen vapor discharges and soil vapor monitoring points with a photoionization detector, and to obtain vapor recovery, soil gas vapor, ambient air, and indoor air samples for same or next-day analysis on a GC/MS instrument in the MassDEP regional office in Wilmington, MA.

After shutdown of the soil vapor extraction system on December 6, 2021, soil gas and indoor air samples continued to be obtained until January 27, 2022, to ensure that subsurface vapors were not migrating from the (cooling) treatment areas and impacting nearby buildings.

Over the entirety of the project, between August 2, 2021 and January 27, 2022, MassDEP obtained and analyzed:

- 126 vapor recovery samples;
- 84 condensate samples;
- 95 soil vapor samples;
- 115 ambient air samples; and
- 42 indoor air samples, including 27 samples from the Harmony Grove school.

Each of the above samples were analyzed on a GC/MS instrument for the presence of 35 specific VOC contaminants, producing over 16,000 discrete data points. In addition to the grab samples analyzed by MassDEP, three time-weighted indoor air samples were obtained in the Harmony Grove elementary school for analysis by a commercial laboratory.

On the basis of the above, while some minor and transient impacts were noted within ambient and indoor air during portions of the project, at no time were surrounding populations exposed to site contaminants at levels that would pose a significant health risk.

BACKGROUND

The former General Chemical facility (the site) is located at 133-135 Leland Street in Framingham, Massachusetts. Originally developed in the 1920s by Gulf Oil Company, operations at the site transitioned into the storage and distribution of chlorinated hydrocarbon solvents in 1960, when the General Chemical Corporation began leasing portions of the property. Another portion of the property continued to be used as a home heating fuel storage and distribution facility until 1978.

Releases of chlorinated volatile organic compounds (CVOCs), including tetrachloroethene (PCE), trichloroethylene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA) occurred on the property, and these chemicals and their degradation products are present in site soil and groundwater. While historical petroleum releases at the site have significantly impacted soils, there have in recent years been no measurable amounts of light non-aqueous phase liquids (LNAPL) in groundwater monitoring wells. PFAS contaminants detected at the site are believed to have originated from wastewater sludges historically stored at the facility, as well as the past operation of an on-site foam fire suppression system.

In March 2021, MassDEP prepared an Immediate Response Action (IRA) Plan for the site, outlining a proposal to remediate portions of the property using Electrical Resistance Heating (ERH). With an available budget of approximately 2.2 million dollars, it was not possible to remediate the entire property, so a decision was made to focus ERH remedial efforts on two of the most contaminated and hydraulically upgradient portions of the property: the former loading rack location (Treatment Area 1, TA-1), and the "Building 2" and tank farm area (Treatment Area 2, TA-2). The remedial objective, as communicated to site cleanup contractors, was to remove as much VOC mass from these areas as possible for the given budget.

SYSTEM DESIGN AND INSTALLATION

The ERH system was designed, installed, and operated by the TRS Group (TRS) of Longview, Washington. The two treatment areas, and the locations of key treatment components at the site, are presented in Figure 1.

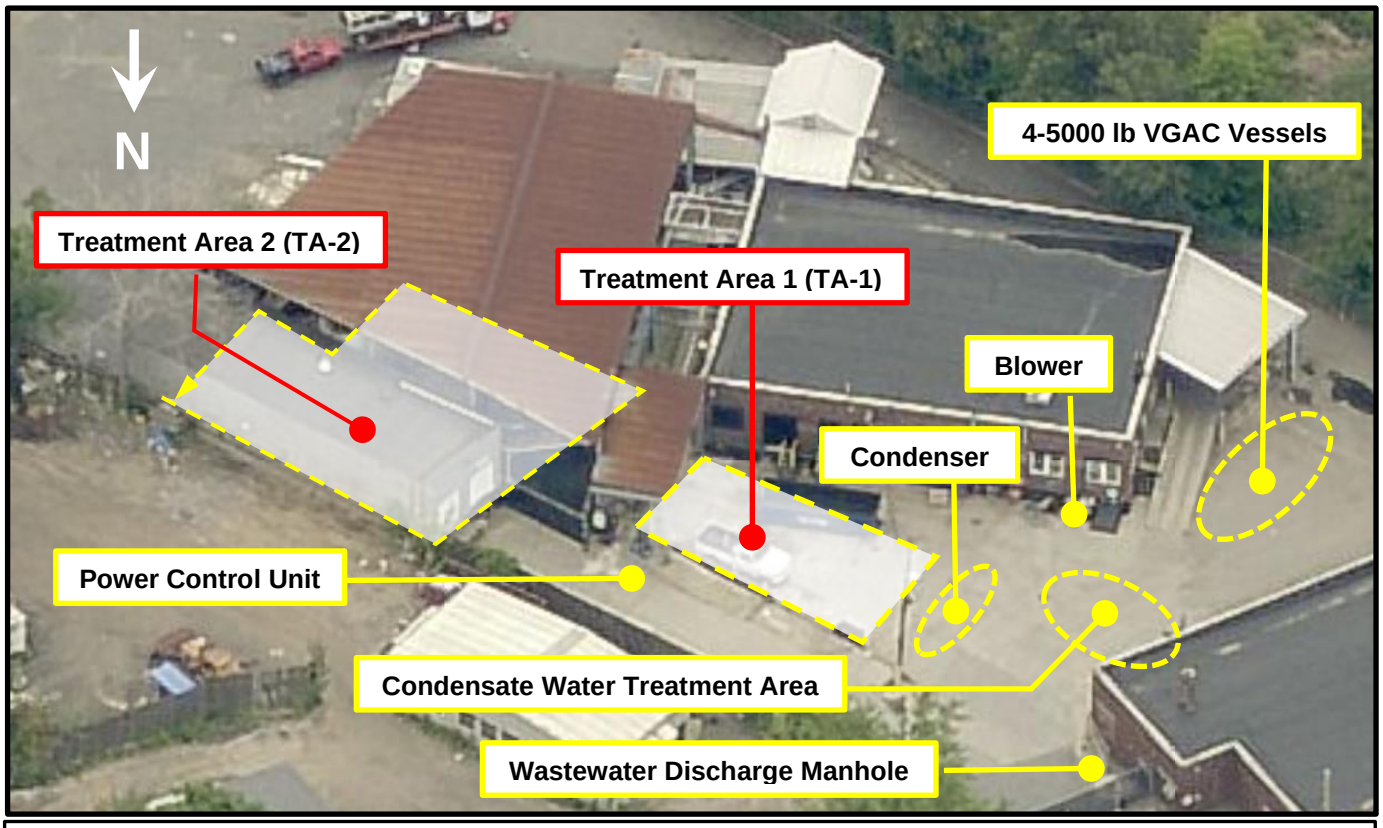

Figure 1 – ERH Thermal Remediation System at General Chemical Site

Treatment Area 1 was 1500 square feet in area, into which 8 electrodes were installed to depths of up to 12 feet below ground surface, with a design treatment volume of 780 yd^3. Treatment Area 2 was 3250 square feet in area, into which 20 electrodes were installed to depths of up to 32 feet below ground surface, with a design treatment volume of 2170 yd^3.

As depicted in Figure 2, electrode installations consisted of a metal conductor placed within a 12-inch diameter boring, surrounded by patented granular conductive backfill in the annular space. The electrodes were spaced approximately 10 to 15 feet apart and were installed to a depth that was 2 feet below the bottom of the design treatment volume, to ensure efficient heating of the lower treatment zone interval.

The electrode/borehole was also used to recover vapors created during the heating process, via the installation of a stainless steel/slotted vapor recovery screen, which, according to TRS, is specially designed to maximize steam recovery and minimize groundwater entrainment. The vapor recovery screen was connected to small diameter tubing, which discharge to a 1-inch to 4-inch diameter CPVC piping manifold network connected to a 25-hp blower.

A drip tube was installed at the top of each electrode to add water to the conductive backfill, to prevent "dry-out" and maintain moisture conditions for optimum electrical conductance.

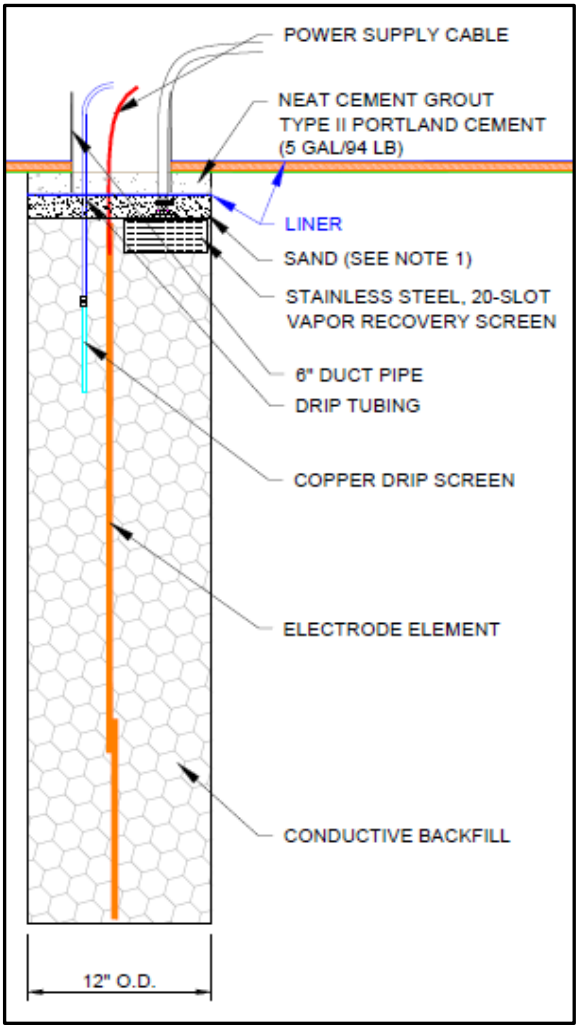

Figure 2 – Electrode Design (TRS)

The electrodes received electrical energy from a 700 kW Power Control Unit (PCU), which provided the ability to modify and adjust the distribution of power to the treatment areas. The system was designed to apply a total of 760,000 kWh of electricity to site electrodes, with 187,720 kWh directed to Treatment Area 1, and 572,280 kWh directed to Treatment Area 2.

A schematic of the ERH treatment process installed and operated at the site is provided in Figure 3. In brief, electricity was directed to the various electrodes to slowly raise and maintain subsurface temperatures within treatment zones. A vacuum was simultaneously applied to the vapor recovery screens in each borehole installation to collect volatilized contaminants, and transport them to a condenser unit, to cool and condense the vapor stream. The cooled vapor stream was then piped through "lead" and "lag" 5000-pound granulated activated carbon (GAC) vessels to remove vapor-phase VOCs. Liquids exiting the condenser unit were directed to an oil/water separator, to remove and recover petroleum liquids and other light NAPL products, and then to a storage tank. The aqueous wastewater was pumped from the storage tank through lead/lag liquid-phase activated carbon vessels (to remove VOCs) and then through lead/lag GAC/resin vessels (to remove PFAS contaminants). The treated aqueous effluent was then discharged to a 7000-gallon holding tank before being pumped to an on-site sanitary sewer manhole.

System installation occurred during the spring and early summer of 2021. Delays were experienced due to power supply issues and the need to obtain equipment and regulatory approval to treat and discharge PFAS contaminants in the condensate wastewater stream.

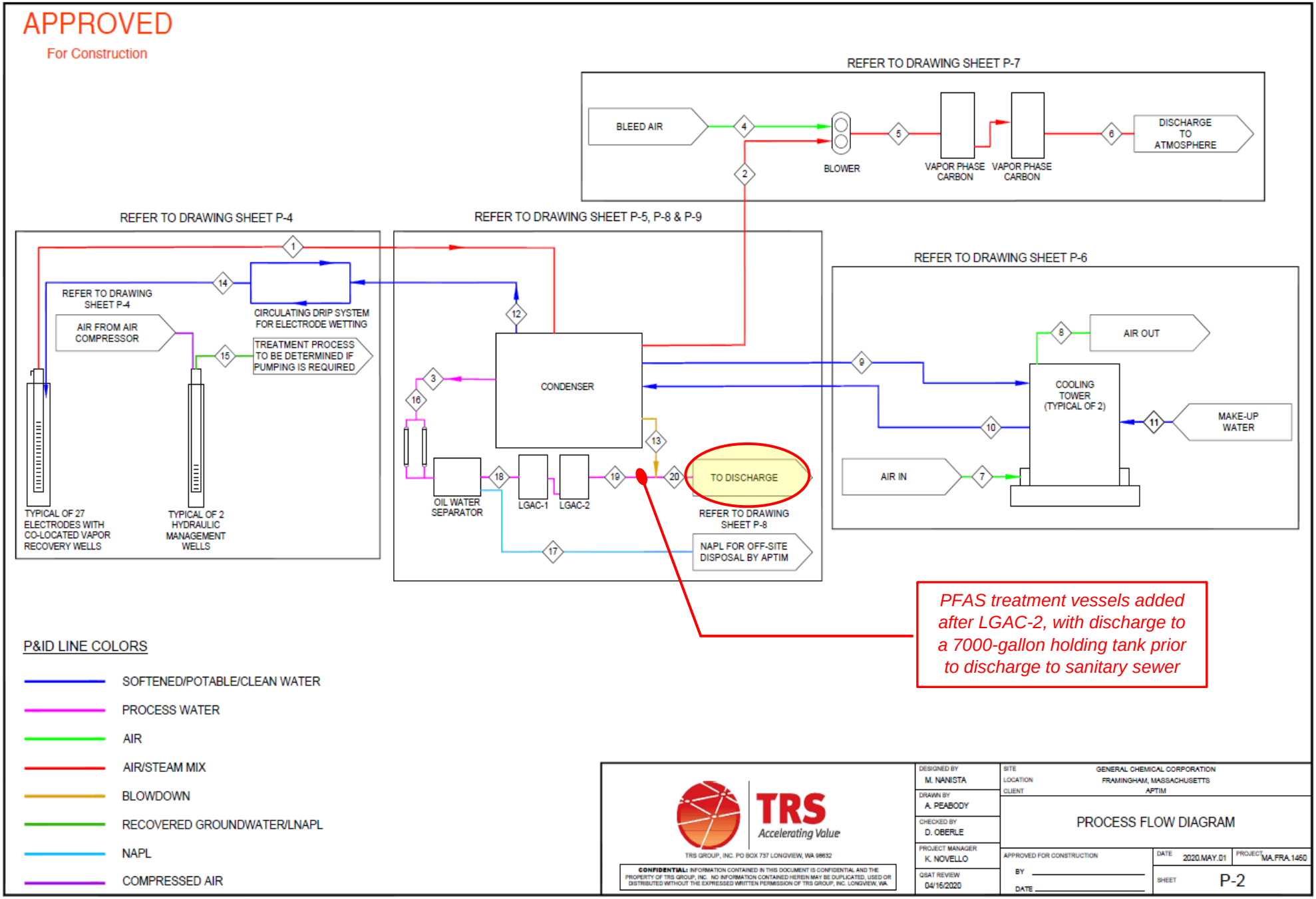

Figure 3 – ERH Thermal Remediation System Process Diagram (TRS and as amended)

SYSTEM OPERATION

The soil vapor extraction and treatment systems were activated on August 2, 2021 and shut down on December 6, 2021, continuously operating for 124 days. Energizing and operating system electrodes was more problematic:

- System electrodes were initially energized at about 5 PM on 8/2/21, only to be de-energized via an auto shutdown process at around midnight, after wiring and tubing melted on several electrode installations.
- Heating resumed at partial power on 8/11/21, but was again terminated on 8/20/21, after reaching full power, when additional vapor recovery lines melted.
- Electrodes were again energized on 8/27/21, only to be de-energized on 8/31/21.

Electrode operations resumed on 9/1/21, but only with reduced power to Treatment Area 1, where the bulk of the melting issues had occurred. This led to an increased allocation of power to the electrodes in Treatment Area 2, until the beginning of November, when power allocation to Treatment Area 2 was decreased, with a concomitant increase in the power allocation to Treatment Area 1. By November 15th, all power allocation to Treatment Area 2 was terminated, and all remaining power was directed to Treatment Area 1. This allocation of power is graphically displayed in Figure 4[1].

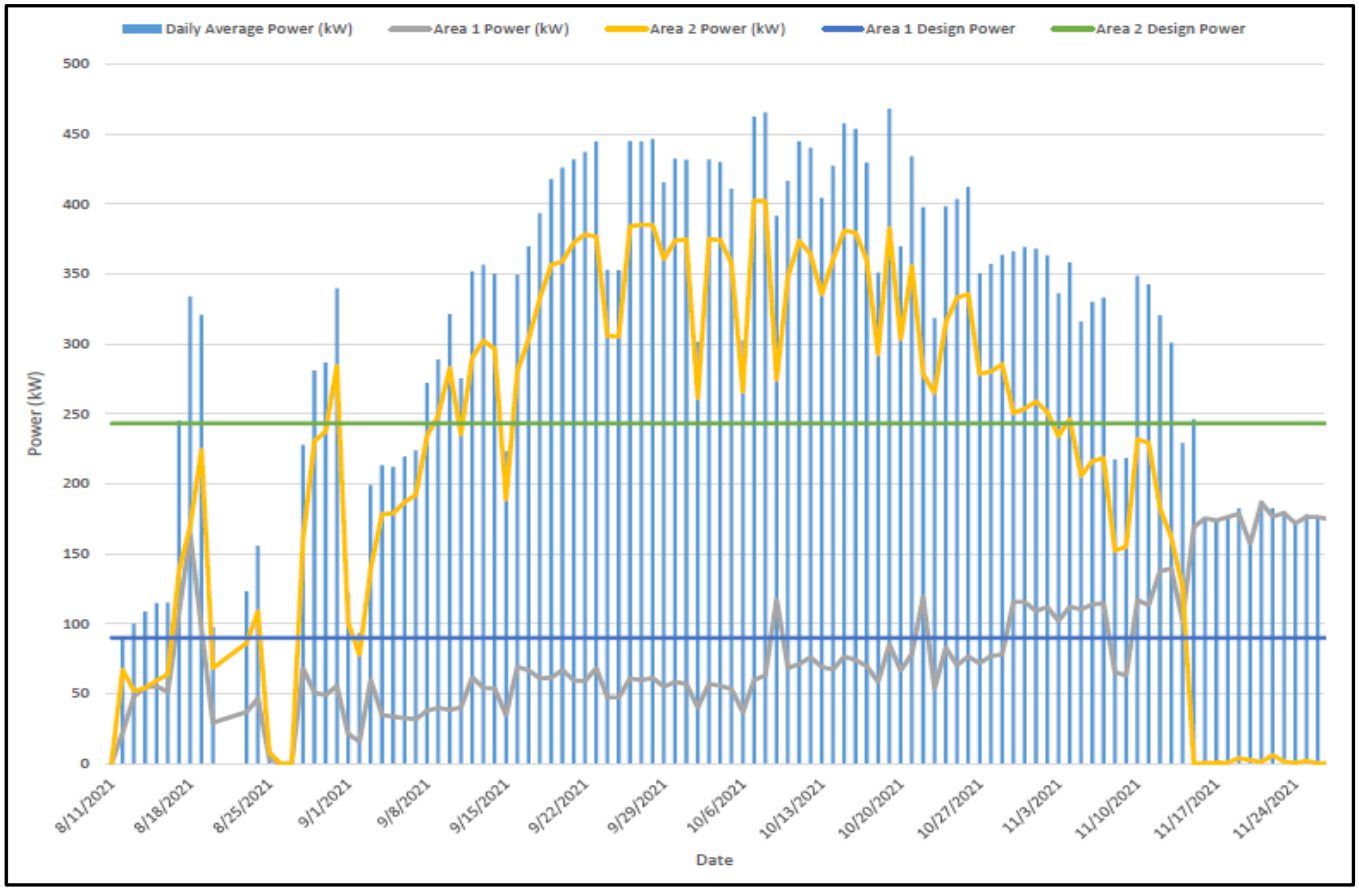

Figure 4 – Allocation of Power to Treatment Areas 1 and 2 (TRS)

Due to vendor contractual commitments, and impending winter/freezing conditions, power allocation to Treatment Area 1 was terminated on 11/29/21; the SVE continued to run until 12/6/21. This was several weeks longer than initially planned, due to the problems experienced with power allocation to the electrodes, and the lack of sustained high temperatures in Treatment Area 1. Ultimately, 220,223 kWh of

[1] Earlier figures provided by TRS indicated different values for TA-1 and TA-2 in August and September

electricity was delivered to Treatment Area 1, about 17% more than the design allocation of 187,720 kWh. Even with this extended allocation of power, however, it is not clear whether a sufficient degree of "steam stripping" occurred in Treatment Area 1 to maximize recovery of VOCs from this area of the site.

Since system operations are proprietary, MassDEP was never privy to the details of exactly what caused the electrode problems in the early months of the project – or how these problems appeared to have been corrected in late October.

Mass Removal of VOCs

Influent to the Vapor-phase Granular Activated Carbon (VGAC) treatment system was sampled at least twice a week for the entire time the soil vapor extraction system was running (i.e., 18 weeks). This was accomplished by opening a sampling port on the PVC piping just before the "lead" 5000-pound VGAC vessel and allowing the positive pressure/flow to flush and fill an inverted 40-mL VOA vial for 45 to 60 seconds. The VOA vial was tightly capped and then analyzed for 35 target analyte VOCs on an Inficon HAPSITE gas chromatograph/mass spectrometer (GC/MS); during startup, analysis was conducted on-site in the MassDEP mobile laboratory, and then in a laboratory in MassDEP's Wilmington office. All samples were analyzed within 24 hours (and usually within 8 hours) of collection by piercing the septum of the VOA screw cap and withdrawing a small volume (usually 0.2-mL) of the gaseous sample for injection into the GC/MS unit. Extensive in-house studies had shown good correlation between the 40-mL vial samples and 0.5-L Kynar air sampling bags, and that sample integrity was maintained in the VOA vial for at least 24-hours.

The calibration range of target analytes in the VOC method run on the HAPSITE GC/MS units was 0.2 to 45 ppbV, and thus it was necessary in most cases to dilute these samples (with research-grade nitrogen gas) by a factor of 850 or more to approach the upper limit of this range (further dilution to get all analytes in-range would eliminate the ability to detect less concentrated contaminants). Analytes present above the linear range are generally quantified with a low bias (i.e., the true concentration is likely somewhat higher).

The mass of VOCs in each influent sample was calculated by multiplying the sample concentration by the influent flowrate, which was generally between 210 and 340 SCFM, with an average value of 275 SCFM. The total mass of VOC vaporized and removed from the treatment areas over time is graphically illustrated in Figure 5.

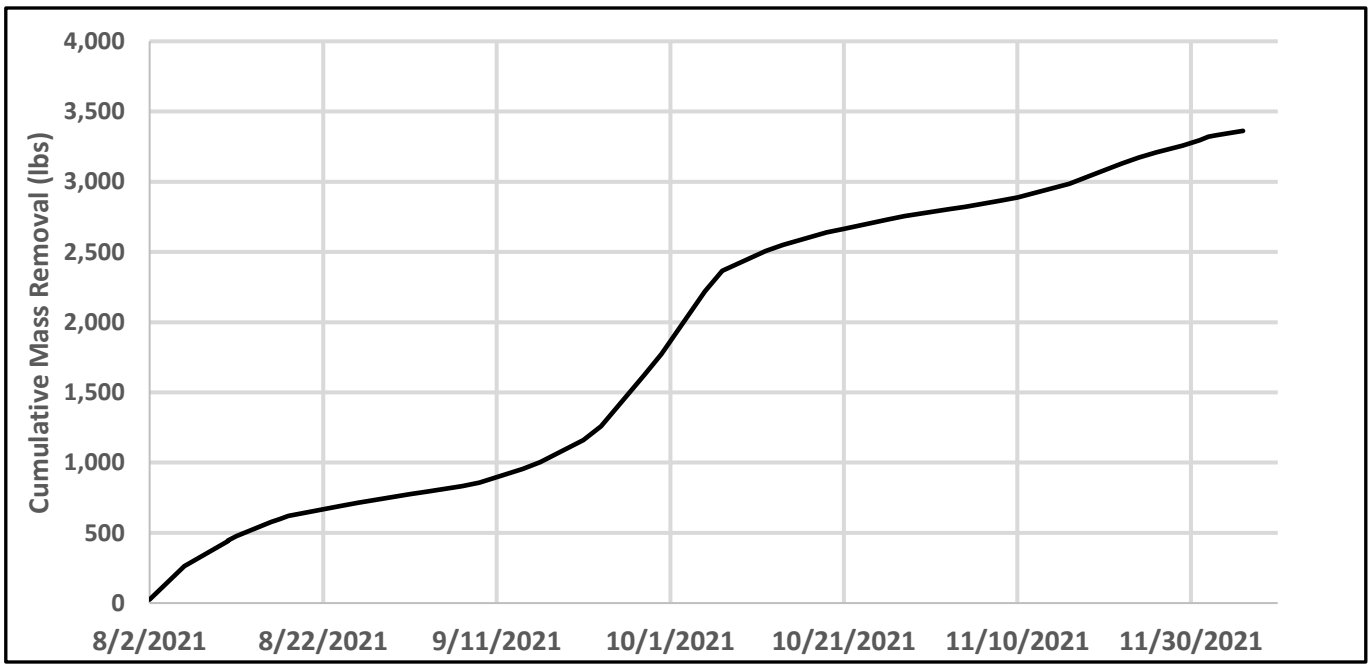

Figure 5 – Cumulative Total VOC Vapor Removal as a Function of Time

As can be seen in Figure 5, the estimated total mass of VOC vaporized from Treatment Areas 1 and 2 was 3400 pounds. This value should be thought of as a reasonable estimate, and the actual value could be higher or lower, likely by a factor of 20 or 30%, given sampling/dilution/analytical and data extrapolation uncertainties.

The most prevalent VOC vaporized from the site was PCE, which comprised about 60% of the total VOC mass. Collectively, PCE, TCE, and cis-1,2-DCE comprised almost 80% of the total VOC mass. Other contaminants of note were 1,1,2-Trichlorotrifluoroethane (Freon-113), Trichloromonofluoromethane (Freon-11), 1,1-Dichloroethane, and 1,1,1-Trichloroethane, as presented in Figure 6.

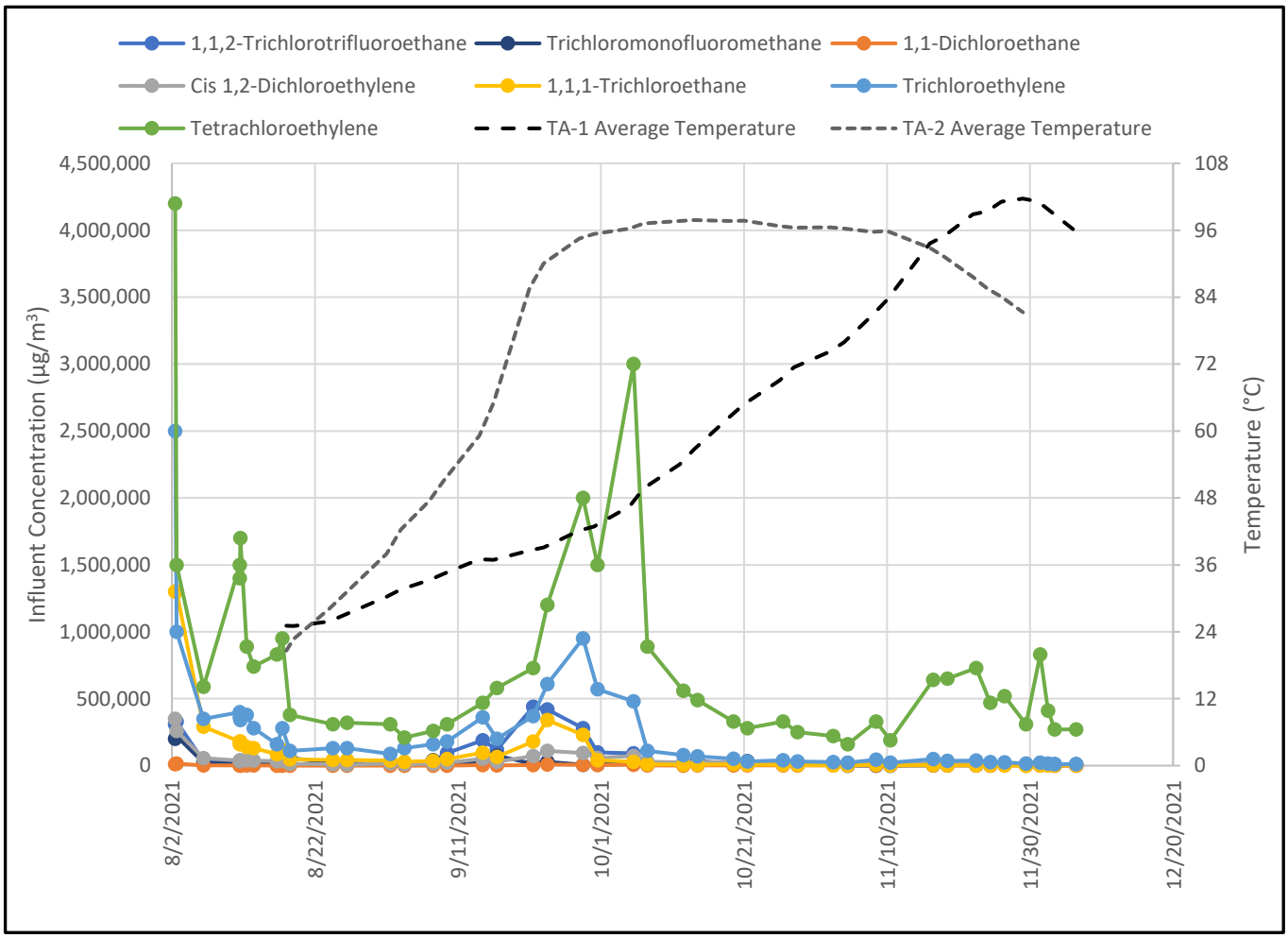

Figure 6 – Removal of Individual VOCs as a Function of Time and Temperature

Of interest in Figure 6 is the initial first-day concentration/recovery flux of PCE (green line). This occurred essentially as a soil vapor extraction effort prior to significant heating of the treatment areas and is reflective of a "slug" of PCE vapor in the vadose zone that had accumulated over decades. Also noteworthy is the trend in VOC concentrations and flux rate as a function of treatment area temperatures, which themselves were influenced by the starts and stops of electrode activations discussed previously. The peak in VOC influent concentrations (Figure 6) and sharp rise in the slope of the cumulative VOC removal (Figure 5) occurred at the beginning of October, shortly after a steep rise in TA-2 temperatures (Figure 6) following several weeks of high energy input into Treatment Area 2 (Figure 4).

Although the PCE/water azeotropic boiling point is 88°C, peak vapor concentration and flux rates occurred in Treatment Area 2 approximately 5 to 7 days after most of the saturated zone had reached boiling temperatures, during a presumed period of robust steam generation. This is likely due to the increased

subsurface turbulence created by steam generation and concomitant increase in vapor transport pathways and flowrates, as well as complicated azeotropic conditions between groundwater and the four NAPLs likely present at the site: PCE, TCE, 1,1,1-TCA, and fuel oil.

Also telling in Figure 6 is the temperature trend line in Treatment Area 2 (rapid rise and prolonged period at 100°C in most of the saturated zone) vs Treatment Area 1 (slow rise with a short period of time at 100°C), which is reflective of the problems experienced with electrodes in Treatment Area 1. It is not clear if continued deployment of power into Treatment Area 1 could have sustained the concentration peak noted on 11/30/21, and meaningfully increased VOC mass removal in this area.

Finally, it is worth noting the difficulties in heating the shallow northeast quadrant of Treatment Area 2, where the temperature in monitoring probe B-10 never exceeded 54°C at the 2-foot below ground interval. In addition to potentially diminishing mass removal in this shallow (unsaturated) zone is a concern that the cooler temperature may have allowed for the condensation of VOCs transported to the vadose zone and vapor recovery points via steam stripping from deeper strata.

Peak Emissions of VOCs as a Function of Boiling Points

Of interest is the order in which peak emissions of VOCs occurred at the site, which was consistent with their boiling points, as displayed in Figure 7. The normal boiling point of each pure compound is shown in the figure legend.

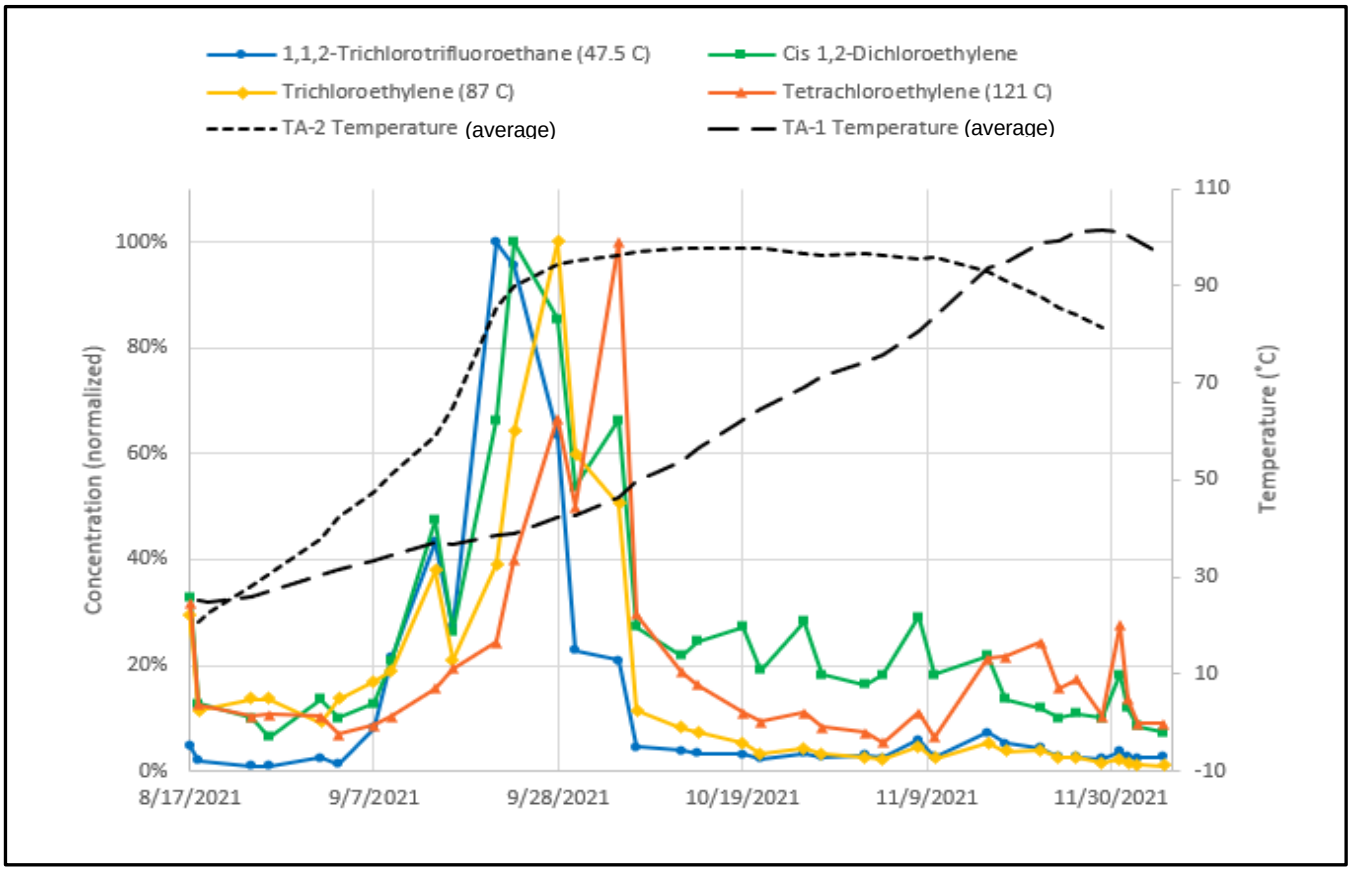

Figure 7 – Normalized VOC Removal as a Function of Time and Temperature

It is important to stress that the "y" axis in Figure 7 is the normalized peak concentration of that VOC, not the actual (µg/m^3) concentration. As notated in Figure 6, PCE was always the dominant compound in the VGAC influent samples. In Figure 7, it can be seen that the order in which the maximum (peak) concentration of a VOC occurred (i.e., 1,1,2-Trichlorotrifluoroethane - Cis-1,2-DCE – TCE – PCE) corresponded to their relative boiling points – as would be expected.

Hydrolysis of 1,1,1-TCA

Lastly, it is worth noting data and observations that confirm mass removal of 1,1,1-TCA from the treatment areas by hydrolysis.

The chemical hydrolysis of 1,1,1-TCA occurs via loss of a chlorine atom, which produces a chemical intermediate that can either (1) lose a hydrogen atom to produce 1,1-dichloroethene (1,1-DCE) (20%) or (2) undergo a series of substitution reactions to produce acetic acid (80%). The rate of reaction depends strongly on temperature, with the half-life decreasing from about 12 years at 10°C to 0.95 years at 20°C (McCarty 1994). At the TCA-water co-boiling point (65°C, Beyke and Fleming 2005), the TCA hydrolysis half-life is approximately 84 hours (Gauthier and Murphy 2003; based on data from Cline and Delfino 1989). Thus, at the elevated temperatures observed at this site, hydrolysis was potentially an important removal mechanism for 1,1,1-TCA.

Within Treatment Areas 1 and 2, prior to the initiation of ERH operations, 1,1,1-TCA was present at much higher concentrations in the groundwater and soil gas than 1,1-DCE. This included groundwater monitoring well AP-17, where 1,1,1-TCA was present at 29,000 µg/L, with 1,1-DCE at 620 µg/L; in another well (AP-10), 1,1,1-TCA was present at 27,000 µg/L, while 1,1-DCE was at 280 µg/L. In soil gas, after an initial pulse of 1,1-DCE in the VGAC influent in the first few days of SVE operation, 1.1-DCE concentrations dropped to relatively low levels (generally less than 1000 µg/m^3), while levels of 1,1,1-TCA were in the range of 40,000 to 100,000 µg/m^3.

Accordingly, the DCE/TCA ratio at the start of ERH operations was 0.15 or lower, as depicted in Figure 8, which reflects the starting soil gas composition and low rate of hydrolysis at ambient temperature.

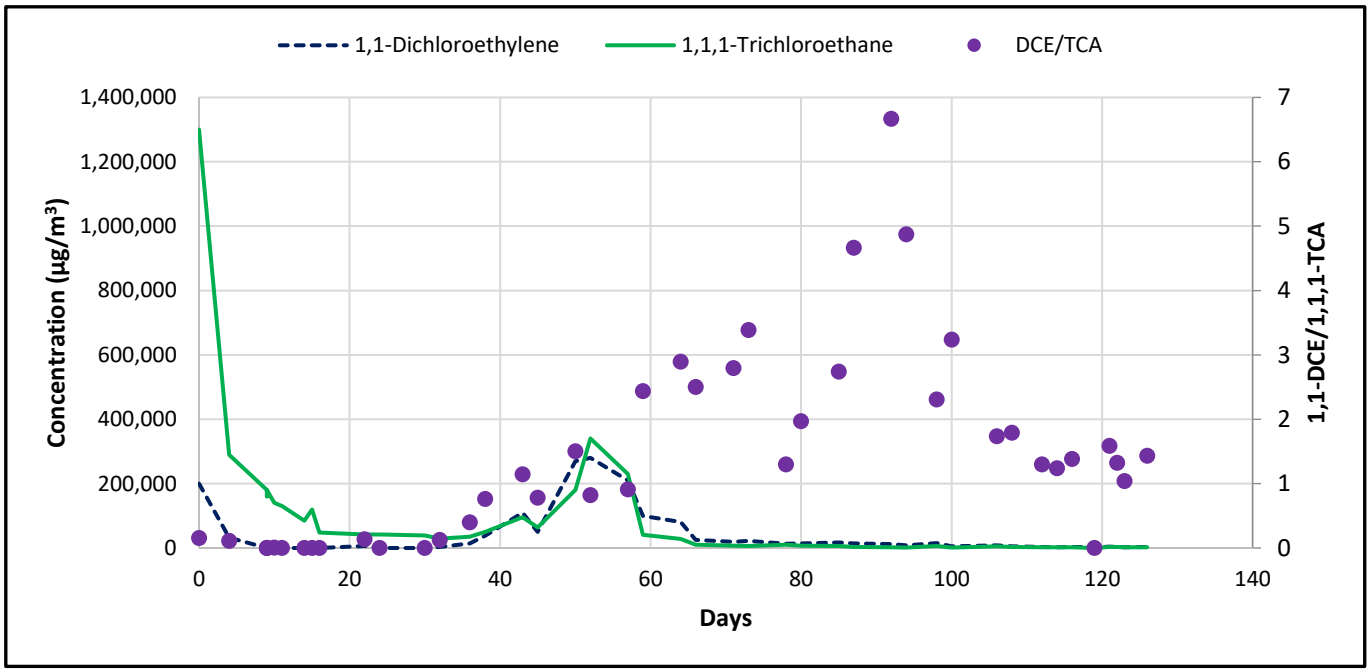

Figure 8 – Concentrations and Ratios of 1,1-DCE and 1,1,1-TCA in VGAC Influent Over Time.

The DCE/TCA ratio began to increase after day 30, as temperatures increased in the treatment areas, and by day 43, the VGAC inlet concentrations of 1,1-DCE and 1,1,1-TCA were approximately equal. After day 43, vapors extracted from the treatment areas contained predominantly 1,1-DCE.

In total, approximately 104 pounds of 1,1-DCE were extracted from the two treatment areas after heating operations were re-initiated on 8/11/21. Based on the expected distribution of hydrolysis products (i.e., 20% of 1,1,1-TCA hydrolyzes to 1,1-DCE, and 80% hydrolyzes to acetic acid), and the assumption that all 1,1-DCE recovered after 8/11/21 was produced via 1,1,1-TCA hydrolysis, it is estimated that 611 pounds of 1,1,1-TCA were hydrolyzed into acetic acid. For comparison, approximately 200 pounds of 1,1,1-TCA

were removed via volatilization. Hydrolysis of residual 1,1,1-TCA is expected to continue after cessation of ERH operation.

Operation of Soil Vapor Extraction System

The soil vapor extraction system removed vapors from the vadose zone and routed them to the vapor phase treatment system. As depicted in Figure 2, this system was comprised of slotted recovery screens installed at the top of each electrode boring (2 feet bgs), connected to a 25-hp blower by a network of 1-inch to 4-inch diameter CPVC piping. The blower could reportedly exert a vacuum of 54 inches of water column. Air bleeds were provided to control the system and strike the right balance: create and maintain sufficient negative pressures to ensure adequate recovery of VOC vapors from each electrode recovery screen, without creating excessive vacuum that would entrain groundwater. Reportedly, vacuum within the vapor extraction piping could be operated within a range of 10 to 40 inches of water column. MassDEP was not provided data on negative pressure conditions within the system and was unable to collect such data during remedial operations. Vacuum levels in 3 vacuum probes installed within the two treatment areas ranged from 0.2 to 2.0 inches of water column.

Entrainment of Groundwater

The depth to groundwater is approximately 3 to 3.5 feet below grade in Treatment Area 1, and 4 to 6 feet below grade in Treatment Area 2, so entrainment of groundwater was an identified concern in this project, especially in Treatment Area 1, and something to be avoided or minimized in order to reduce liquid-phase treatment costs. The most compelling line of evidence to suggest that significant quantities of groundwater were in fact entrained in the vapor recovery network is the detection of PFAS compounds in the condensate treatment system, which were not expected to vaporize in significant quantities given that their boiling points (120–189 °C) are higher than the temperatures achieved (see Table 1).

Table 1 – Concentrations of Most Prevalent PFAS Compounds in Groundwater/LGAC Influent

PFAS Compound ("MCP-6" in **Bold**)	Site Groundwater (ng/L)				LGAC Influent (ng/L)			
	AP-10	AP-12	AP-17	Avg	Avg	8/24/21	10/8/21	10/28/21
Perfluoropentanoic Acid	1230	361	523	705	292	451	233	192
6:2 FTS	1800	174	<1.72	660	261	NA	240	281
Perfluoroheptanoic Acid	797	202	365	455	238	363	177	174
Perfluorohexanoic Acid	564	154	250	323	154	232	121	108
Perfluorooctanoic Acid	353	88.6	242	228	124	156	89.6	125
8:2 FTS	543	54.2	57.2	218	279	479	171	188
Perfluorobutanoic Acid	300	87.1	166	184	170	238	76.4	196

All PFAS samples were analyzed by a contract laboratory (Alpha Analytical, Westborough, MA) using an LC/MS/MS Isotope Dilution method. The 3 groundwater monitoring wells in Table 1 (AP-10, 12, 17) are all located in Treatment Area 2, and were sampled on 4/14/21.

Of interest is the fact that the 7 PFAS compounds with the highest concentrations in site groundwater are also present in the LGAC influent water – *in roughly the same proportions* (i.e., Perfluoropentanoic Acid at the highest level, followed by the 6:2 FTS, etc.). This is a strong indication that the soil vapor extraction system entrained groundwater, given the expectation that there would not be significant vaporization of these compounds at the project temperatures (100ºC). Moreover, given the high concentrations of these PFAS compounds in the condensate/wastewater – between 40% and 100% of groundwater levels – it

appears that substantial quantities of groundwater may have been entrained by the soil vapor extraction system.[2]

Another line of evidence of groundwater entrainment is that the amount of condensate generated during the project was significantly higher than design expectations. In a March 2020 Work Pan document, Section 5.2.6, TRS provided an estimate of 48,000 gallons of condensate (excluding cooling tower blowdown). In the approved construction plans, Sheet P-3, an estimate was provided of 0.9 GPM condensate and 0.5 GPM of boiler blowdown, for a total of 1.4 GPM (2000 gallons per day) discharge to the sanitary sewer. Presumably, these were peak flowrate conditions to help size treatment systems.

A flow totalizer was installed at the site to record the total volume of wastewater discharged to the sewer system (i.e., condensate and blowdown). The total volume discharged at the end of the project (12/3/21) was 163,920 gallons. According to the system monitoring unit at the site, the cumulative volume of blowdown water discharged at that time was 614 gallons. Thus, the actual volume of condensate was more than three times greater than the estimated volume.

Flowrates of the condensate and blowdown discharge over the course of the project, and a plot of temperatures in each treatment area, are provided in Figure 9.

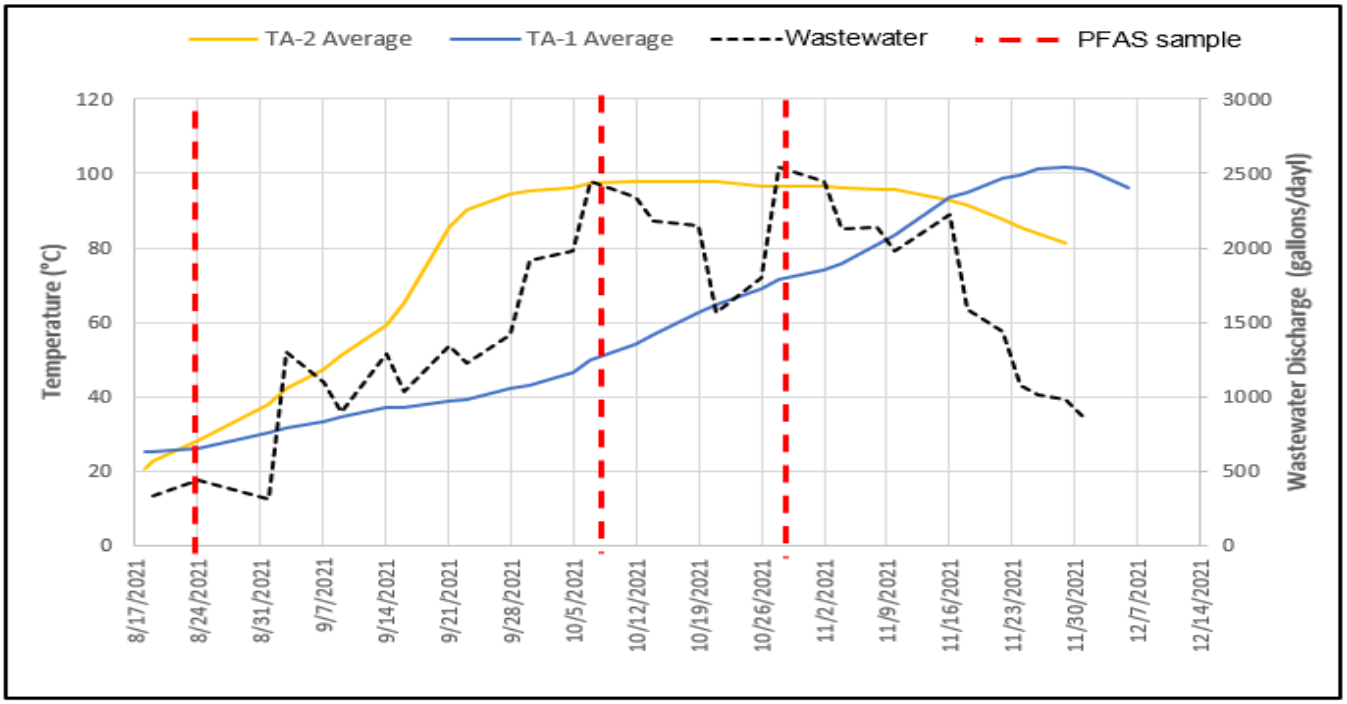

Figure 9 – Wastewater Flowrate vs Time

As can be seen, daily wastewater flowrates jumped to over 1000 gallons/day at the beginning of September, when temperatures were well below 100°C in both treatment areas. Flowrates spiked following steam stripping in Treatment Area 2, as would be expected. However, discharge rates of 2000 to 2500 gallons/day translate to 1.4 to 1.7 GPM. If the blowdown rate over the 151 days of project was in fact only 614 gallons, the 1.4 to 1.7 GPM flowrate would be mostly "condensate", well above the 0.9 GPM estimate in the approved construction plan, with the difference likely being entrained groundwater.

Figure 9 also illustrates how the sampling of the wastewater for PFAS constituents coincided (by chance) with one of the lowest flowrates (8/24/21) and two of the highest flowrates (10/8/21 and 10/28/21). Tellingly, the highest PFAS levels were on 8/24/21 when the temperatures within the treatment areas were less than 30°C and actual "condensate" production was very low or nonexistent — and water exiting the

[2] One potential exception is perfluorobutanoic acid (PFBA), the compound with the lowest boiling point, which was somewhat overrepresented in the LGAC influent relative to other PFAS compounds. It's possible that vaporization was a secondary source of PFBA to the waste stream, in addition to groundwater entrainment, particularly in the October samples.

condenser (400 gallons/day) was presumably mostly groundwater. Conversely, condensate was undoubtedly at peak production levels on 10/8/21 and 10/28/21 – with PFAS concentrations at about half of the 8/24/21 levels. However, even at half the initial levels, the detected concentrations were still a significant percentage of groundwater levels, indicating the likelihood that a significant amount of the "condensate" discharge was actually groundwater.

The last line of evidence suggesting the entrainment of groundwater in the soil vapor extraction system was the recovery of 440 gallons of LNAPL from the oil/water separator. Two GC/FID "fingerprint" analyses of the recovered material indicated that it was likely a weathered diesel/#2 fuel oil. (See Figure 17). It is questionable whether the chemical composition of this material could be explained by azeotropic distillation and condensation processes at the site, suggesting the primary means of collection was via the hydraulic extraction of (heated) groundwater containing LNAPL. Further discussion and information on this topic are provided in a later section of this report under "Operation of Liquid-Phase Treatment System".

A potentially contrary line of evidence is the relatively low concentrations of PCE (200 to 600 µg/L) in the LGAC influent in August and September, given the presumed high concentrations in groundwater. While it is unclear why this was the case, a preponderance of the evidence points towards a significant degree of groundwater entrainment into the soil vapor extraction system.

Capture of Subsurface VOC Vapors

While it appears likely that some portions of the SVE system entrained groundwater, it is clear that at least a section of the SVE system did not prevent the subsurface migration of VOC vapors away from the treatment area.

As part of its project monitoring and oversight operations, MassDEP installed three off-property soil vapor sentinel wells north of the treatment areas. One of these points, SV-03, was approximately 12 feet north of Treatment Area 2 (this probe was destroyed and replaced by SV-03R in June 2021).

Between 9/21/21 and 9/30/21, VOC concentrations in SV-03R, as measured by a gas chromatograph/mass spectrometer, increased by 3-orders of magnitude. Tellingly, 1,1-DCE, a thermal by-product of the hydrolysis of site contaminant 1,1,1-TCA, increased from Not Detected to an estimated 18,000,000 µg/m^3 on 9/30/21, following a steep increase in power allocation and temperature rise in Treatment Area 2.

MassDEP then commenced a subsurface soil gas survey north and easterly of SV-03R, on 155 Leland Street, to determine the extent of vapor migration and potential impacts on two surrounding homes and an elementary school. On 10/7/21, an air sample was obtained a few inches above the ground-level cover to potential hydraulic recovery well HMW-2 (see Figure 10). This sample contained very high concentrations of VOCs, including 11,000 µg/m^3 of PCE, 5900 µg/m^3 of TCE, and 3900 µg/m^3 of cis-1,2-Dichloroethylene. On 10/14/21, agency personnel first observed steam emissions emanating from the ground surface in this area, just west of a Conex box on 155 Leland Street. Over the next several weeks, attempts were made to cover and contain these emissions.

By 11/4/21, MassDEP had installed and sampled 11 temporary soil vapor probes and sampled permanent soil vapor probes SV-03R and SV-05, confirming vapor migration up to 60 feet from Treatment Area 2, with Freon-113 the most mobile contaminant, as would be expected (see Figure 10). This migration, and the steam emissions in this area, were eventually attenuated by the decrease in power input to Treatment Area 2 after 11/4/21.

Operation of Vapor Phase Treatment System

Vapors recovered from the treatment areas were passed through a condenser and then through vessels containing 5000 pounds of COC-A-60R granular activated carbon. Four such vessels were stationed on-site, though only two (lead and lag vessels) were in operation at any one time. Flexible hosing and quick-connect latches enabled fast changeouts to switch a lag to a lead vessel and make a vessel with new GAC a lag vessel. The outlet from the lag vessel was connected to a 4-inch diameter 14-foot high PVC stack to discharge the system effluent into ambient air.

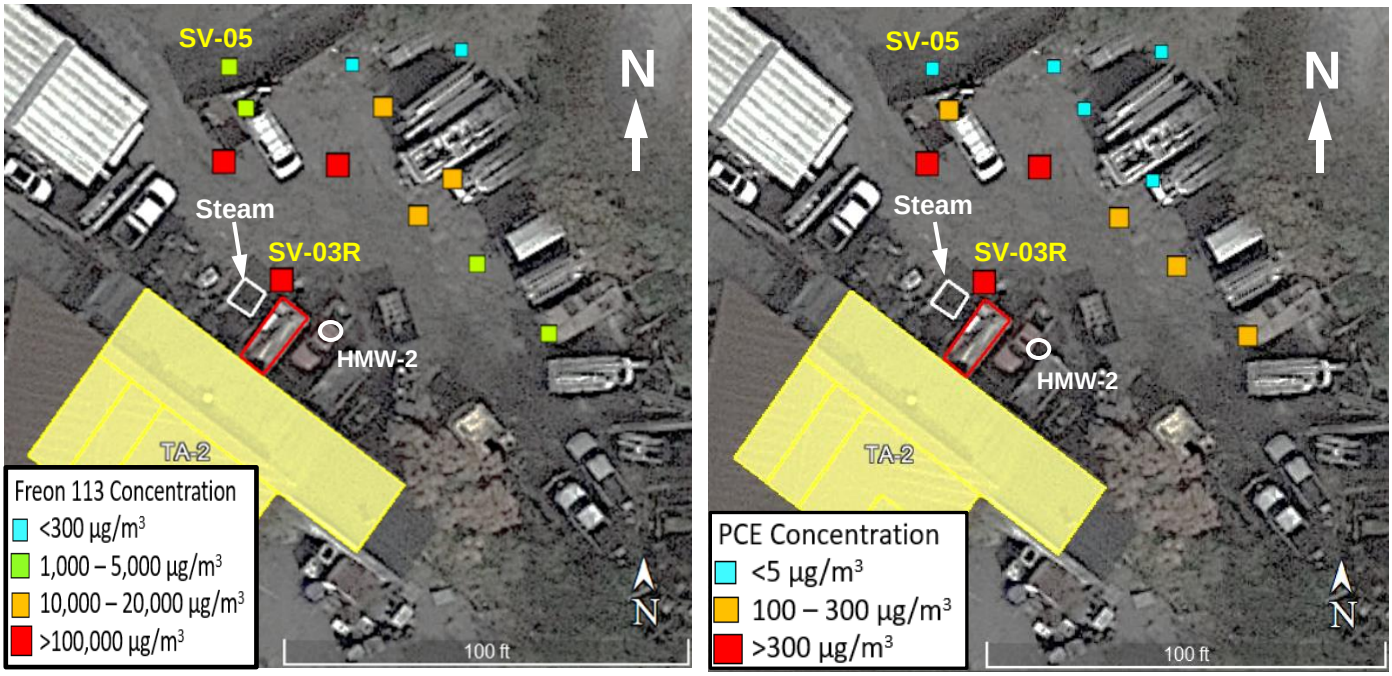

Figure 10 – Soil Vapor Survey North of Treatment Area 2

Percent Removal of VOCs

At least twice weekly, the influent and effluent from the lead vessel, and effluent from the lag vessel (i.e., (*influent – midpoint – effluent)* were sampled by MassDEP staff using stopcock sampling ports. All ports were initially sampled with a PID meter, and the influent piping to the lead vessel was also checked for temperature using an IR thermometer. Subsequently, a vapor sample was taken from the lag vessel effluent into a 0.5-L Kynar air sampling bag, allowing the pressure within the piping to slowly fill the bag. The effluent from the lead vessel ("midpoint" sample) was obtained either in a 40-mL VOA vial or 0.5-L Kynar bag (depending on the PID reading). The influent to the lead vessel was generally sampled using a 40-mL VOA vial; on four occasions, a split/duplicate sample was collected into a Kynar air sampling bag for comparison purposes. All samples were analyzed on a HAPSITE GC/MS within 24-hours of collection, and almost always within 8-hours of collection. Data from split bag/vial influent samples were found to be consistent (within 10% of each other).

Sampling and analysis in this manner enabled MassDEP to optimize use of the VGAC, by not switching out vessels prematurely (as might be the case if only a PID meter was used), while still meeting discharge limits. The breakthrough of specific VOCs from the lead vessel was often instructive in making this decision, along with an evaluation of historical trends. The evaluation of influent temperature was made to ensure proper functioning of the condenser unit and to evaluate whether excessive heat (>100°F) may lessen sorption of VOCs. Inlet temperatures were typically in the 85 °F to 90°F range in October and in the initial weeks of November 2021, with occasional exceedances up to 112 °F (e.g., on 10/14/21). Data on VGAC system performance and emission discharge concentrations are provided in Figure 11.

Under the MCP, remedial air emissions must be treated to ensure at least a 95% reduction between influent and effluent concentrations, unless evidence is presented to demonstrate that higher emission rates will not create a significant risk to downwind receptors. As can be seen in Figure 11, the 95% removal rate for VOCs was achieved on 38 of 41 days evaluated: with a removal rate approaching 100% on 34 of 41 days.

The most significant remedial emission occurred on 9/30/21, through an unfortunate combination of (i) a sample collection error and (ii) rapidly increasing VOC emission rates at the start of steam stripping in Treatment Area 2. This led to an influent/effluent VOC removal rate of only 85%, and emission of 366,000 µg/m^3 of VOCs. Notably, 98% of this discharge was just two compounds: 1,1,2-trichlorotrifluoroethane (Freon-113), at a concentration of 220,000 µg/m^3, and 1,1-Dichloroethylene (1,1-DCE), at a concentration of 140,000 µg/m^3. Neither PCE nor TCE were present above detection limits (about 5 µg/m^3). Such a condition is reflective of the sorption/desorption and breakthrough dynamics of the VOCs/GAC at the site.

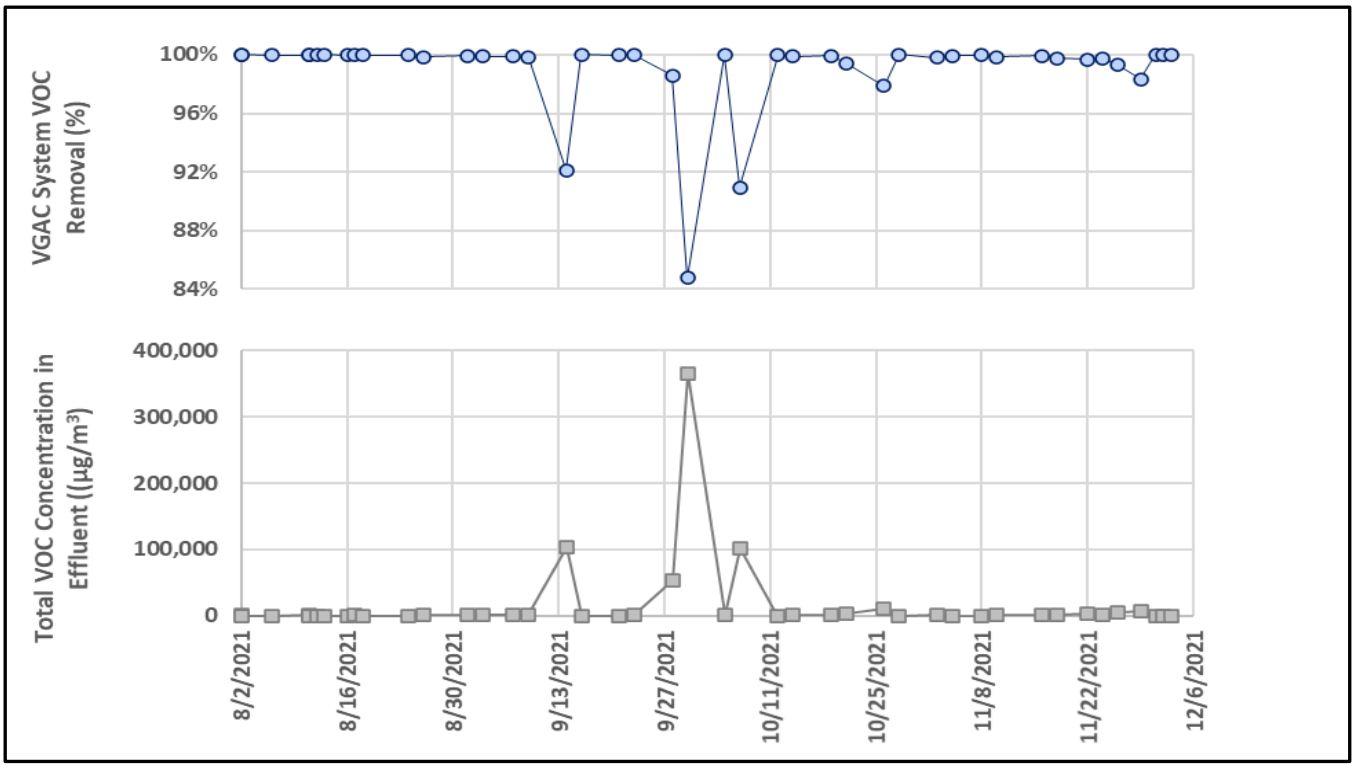

Figure 11 – VGAC System Performance and Emission Discharge Concentrations

While unfortunate, the 9/30/21 emission spike likely did not exceed regulatory limits (if the influent concentrations of petroleum vapors were considered), and, most importantly, did not create significant health risks for downwind receptors:

- Computer modeling was conducted by MassDEP to estimate worst-case downwind impacts from VGAC emissions during the ERH project. Using the EPA SCREEN model, predicted downwind concentrations were calculated for various emission rates. At the detected concentrations of Freon-113 and 1,1-DCE on 9/30/21, the estimated downwind fence concentration of Freon-113 would be about 200 µg/m^3, and 130 µg/m^3 for 1,1-DCE (Figure 12). The MassDEP risk-based fence line concentration limit for 1,1-DCE is 199 µg/m^3; although there are no available ambient air standards for Freon-113, a conservative value based upon available EPA oral-ingestion (Reference Dose) values would be well over 1000 µg/m^3.
- Weather records for Framingham indicated winds were blowing primarily to the south and southeast on 9/29/21 and 9/30/21, and thus not toward the nearby homes and school.
- Actual ambient air testing data from 9/30/21 on the General Chemical property at the downwind (southerly) fence line (within 150 feet of the VGAC discharge pipe) did in fact pick up elevated levels of both compounds: Freon-113 at 120 µg/m^3, and 1,1,1-DCE at 45 µg/m^3. Both of these values were (predictably) below the worst-case screening estimate, and most importantly, well below risk-based fence line screening concentrations.

VGAC Loading and Breakthrough

During the ERH effort, the lead 5000-pound VGAC vessel was removed from service due to breakthrough of site contaminants in the lag vessel a total of 5 times (i.e., there were 5 VGAC “changeouts”). During these changouts, the lead VGAC vessel was taken out of sevice; the lag vessel was re-piped to become the lead vessel, and the outlet from this now lead vessel was piped to a new (lag) vessel with new VGAC. Based upon an evaluation of inlet/outlet concentrations of target VOCs in a specific vessel (which may have started as a lag vessel prior to becoming a lead vessel), and system flowrate, the mass of VOCs sorbed onto each vessel was calculated.

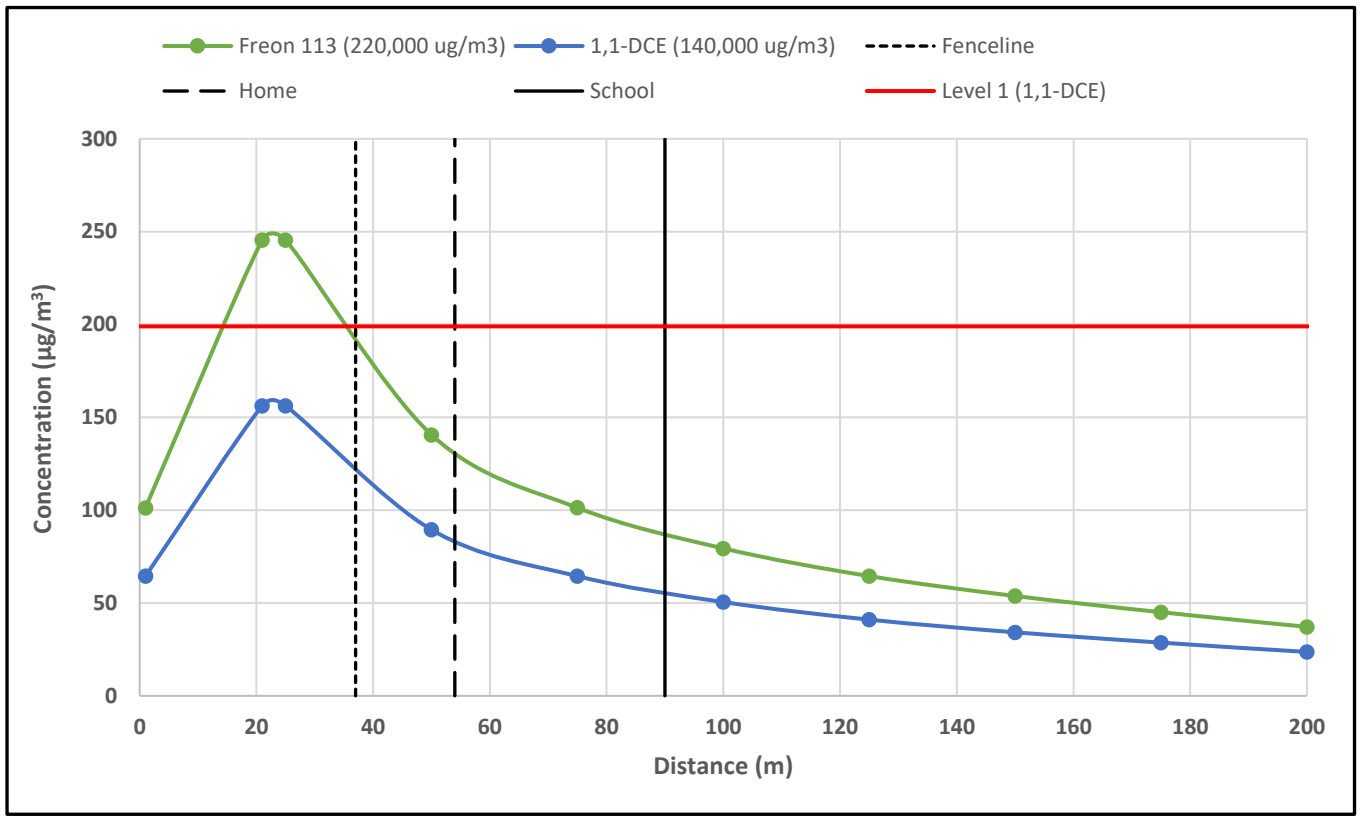

Figure 12 – Modeled Downwind Concentrations of VGAC System Emissions

For the first 3 changeouts the mass of VOC adsorbed on the lead vessel was 745, 734, and 721 pounds per vessel. Mass removal dropped to 460 and 550 pounds for the last two changeouts, most likely due to the sorption of petroleum hydrocarbons, which displaced lighter VOCs. An additional 170 pounds of VOCs were removed on the last lead-lag vessels in operation at project termination, bringing the total to 3380 pounds of VOCs adsorbed onto the granular activated carbon. Breakthrough concentrations of VGAC effluent emissions (precipitating vessel changeouts) are presented in Figure 13.

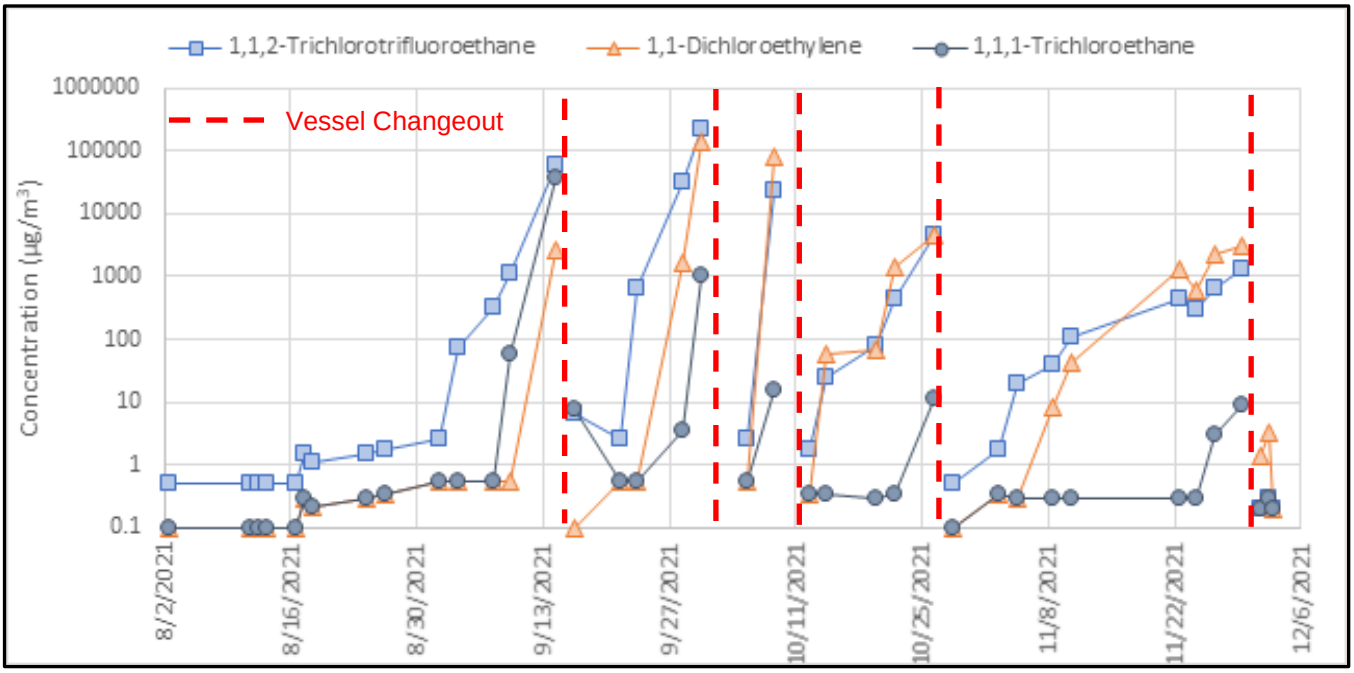

Figure 13 – Breakthrough of VOCs in VGAC Effluent (Discharge from Lag Vessel)

As can be seen, three poorly-sorbing compounds (1,1,2-trichlorotrifluoroethane, 1,1,-Dichloroethylene, and 1,1,1-Trichloroethane) were the first site contaminants to break through the VGAC vessels, and controlled decisions on when to remove a lead vessel from service (i.e., when the percent removal of total VOCs from the inlet to the lead vessel and outlet to the lag vessel was dropping towards 95%).

It is interesting to note the decreasing trend in the concentrations of these 3 compounds in the last two changeouts. The decrease is substantial, at two orders of magnitude, and is attributable to the loss of these lightweight compounds from the treatment areas over time as well as the substantial decrease in the influent concentration of total VOCs after the early October peak (see Figure 6). As previously mentioned, the performance standard for Remedial Air Emissions under the MCP is a relative metric (95% influent/effluent removal), and thus a function of influent concentrations.

A total of seven 5000-pound VGAC vessels were used during this project. The spent carbon was classified as a hazardous waste by listing (waste solvents) and characteristic (TCLP failure) and was removed from the site by a licensed hazardous waste hauler for transport to a reactivation facility in Pennsylvania.

Recovery and Treatment of Petroleum Vapors

Although the objective of the ERH project was to remove chlorinated hydrocarbons, the site was formerly used as a bulk oil storage facility (diesel/#2 fuel oil), and there was concern that heating of the treatment areas would liberate petroleum vapors that would take up or even saturate sorptive sites in the VGAC vessels, accelerate breakthrough of target contaminants, and lead to more frequent changeouts and higher remediation costs. While on-site monitoring wells did not show measurable amounts of LNAPL, soils were known to be highly contaminated with hydrocarbons.

A review of total ion chromatograms for influent samples to the VGAC system indicates that oil vapors suddenly became significant on 10/5/21, during the intensive heating period of Treatment Area 2 (See Figures 5 through 7). Oil vapor concentrations decreased sharply by 10/14/21 but remained significant into November (see Figure 14).

In reviewing Figure 14, it is important to note that the chromatographic images are normalized to the highest peak (in this case, PCE), with all other peaks displayed as a proportion of the highest peak. As such, though the visual appearance of the C_9-C_{12}+ Unresolved Complex Mixture (UCM) is lowest in the 10/5/21 chromatogram, the actual mass of hydrocarbon represented by these peaks is significantly higher than the UCM peaks displayed in the 10/14/21 and 11/2/21 chromatograms. This is because of the very high concentration of PCE in the 10/5/21 sample (3,000,000 µg/m^3), compared to lower levels of PCE in the 10/14/21 (490,000 µg/m^3) and 11/2/21 (220,000 µg/m^3) samples. A better visual comparison is to compare the UCM to the height of the indicated Internal Standard peak in each chromatogram.

Total ion chromatograms for samples discharging from the lead VGAC vessel (i.e., the “midpoint”) did not contain an oil UCM, and thus, not surprisingly, all vaporized oil was retained on the lead vessel (as changeouts were controlled by the breakthrough of lower molecular weight compounds). How much oil was retained on the lead VGAC vessels? If the peaks in the UCMs had the same MS response at 1,2,4-Trimethylbenzene (a target analyte in the MassDEP VOC testing method), the collective area of UCM peaks were at a concentration of approximately 800,000 µg/m^3 in the 10/5/21 chromatogram, 240,000 µg/m^3 in the 10/14/21 chromatogram, and 95,000 µg/m^3 in the 11/2/21 chromatogram. Using 240,000 µg/m^3 as an average UCM concentration, and 300 SCFM as an average VGAC system flowrate, this equates to about 6.5 pounds per day, the majority of which was presumably petroleum hydrocarbons, along with other heavy molecular weight compounds, including petroleum breakdown products.

As previously discussed, VGAC lead vessel VOC removal decreased from about 730 pounds/vessel at the beginning of the project to removal rates of less than 600 pounds per vessel for the last two changeouts. This reduction in VOC removal coincided with the appearance of the UCM on the total ion chromatograms on 10/5/21, which was just prior to the third changeout of the lead vessel on 10/7/21. The fourth and fifth changeouts occurred on 10/26/21 and 11/29/21, covering 53 days of oil emissions, with estimated VOC removal values of 460 and 550 pounds, respectively. The sudden drop to 460 pounds, and then modest rebound to 550 pounds, corresponds to the sudden appearance of a robust UCM (10/5/21), followed by a precipitous decline 9 days later (10/14/21), and gradual decline into November (11/2/21).

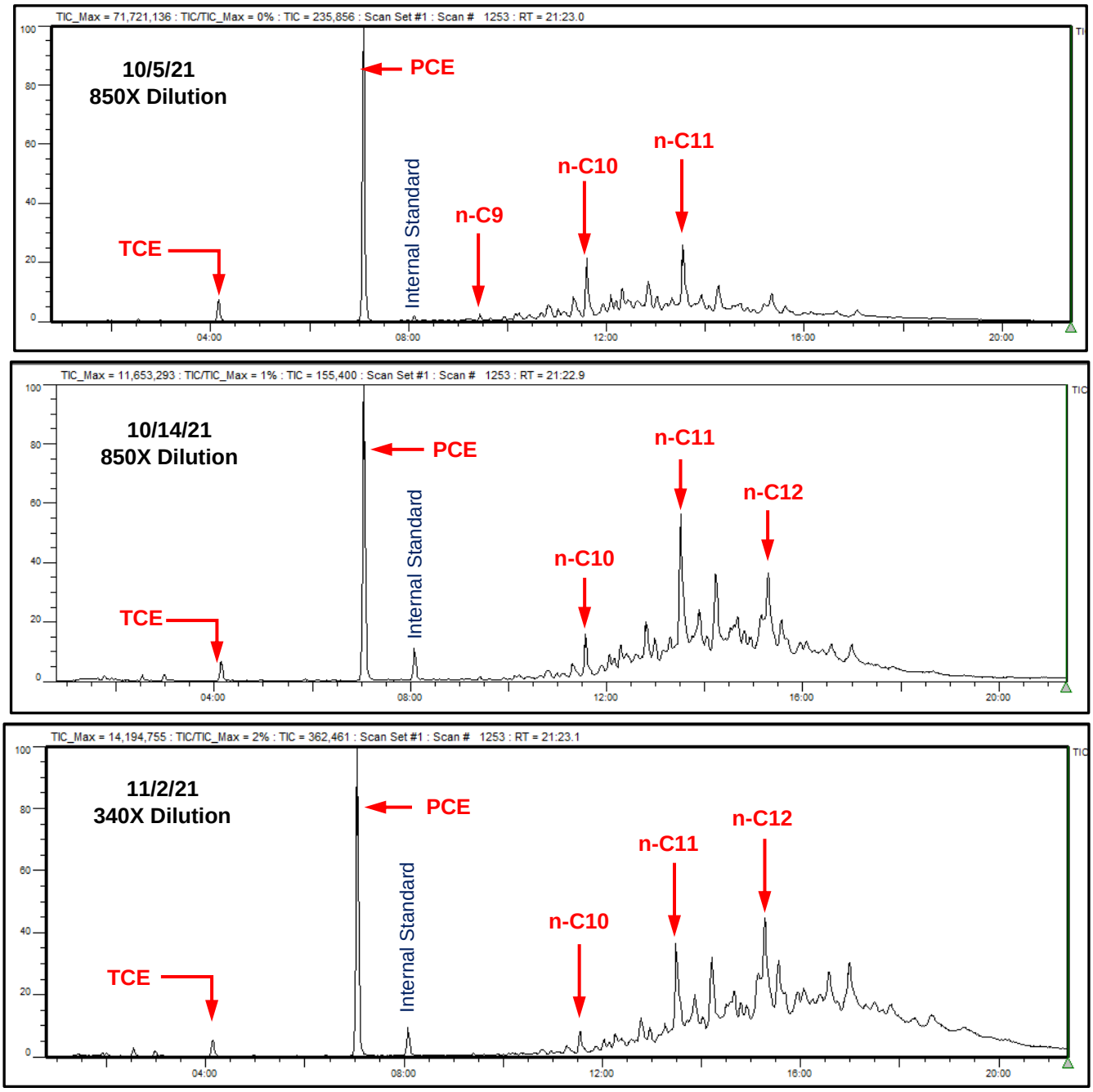

Figure 14 – Total Ion Chromatograms of VGAC Influent Samples Showing Petroleum UCM

This suggests that vaporized fuel oil hydrocarbons were taking up sorption sites during this later period; if the initial removal rate of about 730 pounds per vessel would have continued, the lower values represent a reduction of 440 pounds of adsorbate. At 6.5 pounds per day of petroleum vapors, 53 days represent about 350 pounds, which would be a significant percentage of this difference, which includes other factors and considerations, including compound-specific adsorption affinities, the changing chemistry of VOCs vaporizing from the treatment areas over time, decreasing VOC inlet concentrations, and the varying percent removal status at a given changeout.

Quantitatively, the removal of 730 pounds of VOCs per 5000 pounds of VGAC represents 0.146 pounds site VOCs/pound VGAC; at this loading rate, about 22,000 pounds of VGAC would be needed to remove the 3210 pounds of VOCs on the first 5 lead vessels - about 3000 pounds less than the 25,000 pounds that were ultimately needed. This suggests the petroleum/breakdown products vapors may have increased carbon usage by up to 3000 pounds, increasing carbon usage by about a factor of 10 to 15%.

Monitoring of VGAC System with a Photoionization Detector (PID)

An Ion Science 10.6 eV Tiger PID (calibrated to an Isobutylene response standard) was used to monitor the influent, midpoint, and discharge of the VGAC system, to provide immediate real-time data to help determine operational conditions and predict when a vessel changeout may be needed (subject to confirmation by GC/MS analyses).

A 10.6 eV PID meter is well suited to detect and quantify chlorinated ethenes such as PCE, TCE, and DCE, which made up the bulk of the VOCs entering the VGAC system. At this particular site, however, 1,1,2-Trichlorotrifluoroethane (Freon-113) was also present at significant concentrations, and its ionization energy (12 eV) is too high to be detected on typical PID meters. Another non-responding site contaminant was 1,1,1-Trichloroethane, with an ionization energy of 11.0 eV. This was not a major issue when sampling influent vapors, as these compounds were a relatively small percentage of the VOC mixture, but it was problematic in the midpoint and especially system discharge samples, where these poorly-sorbing compounds dominated sample chemistry. Ultimately, the mass of Freon-113 and 1,1,1-TCA constituted about 13% of the 3400 pounds of VOCs removed from the treatment areas.

A plot of PID readings vs total VOC concentrations in the influent samples is provided in Figure 15.

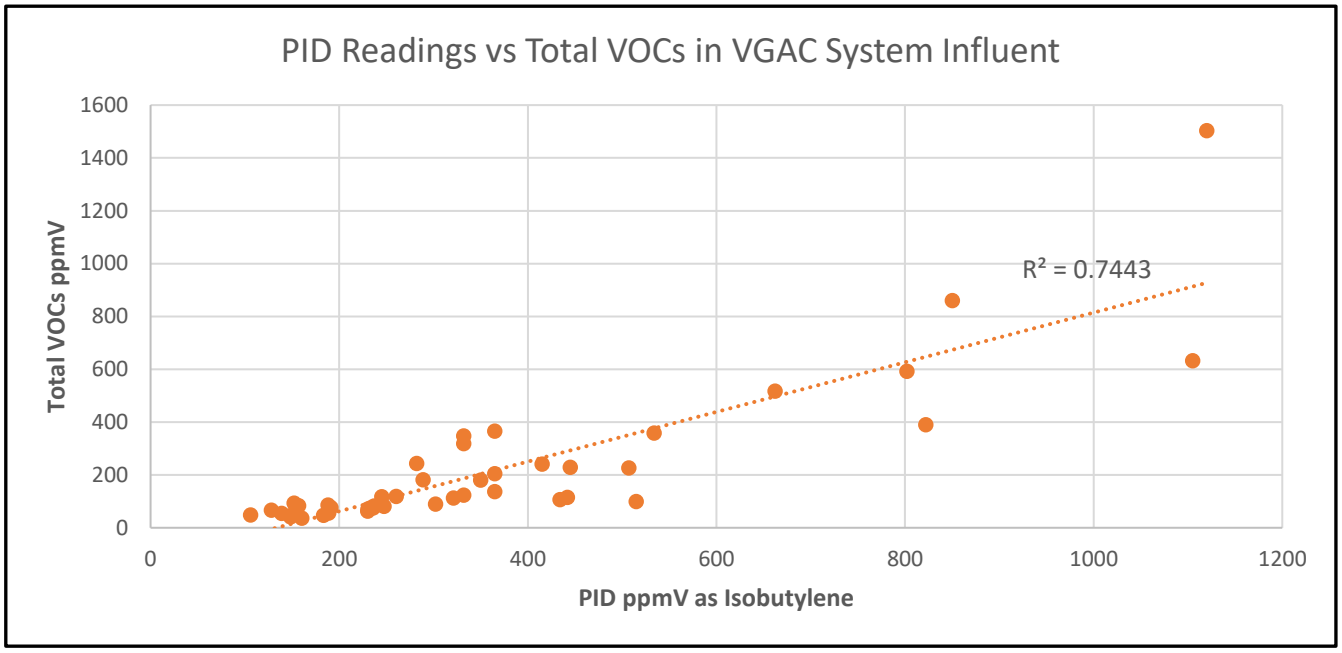

Figure 15 – Correlation of PID Readings and Total VOCs per GC/MS in VGAC Influent

In Figure 15, a total VOC value was calculated by the summation of the 12 highest concentration VOCs in samples analyzed on the HAPSITE GC/MS units (constituting over 97% of all VOCs in each sample). The PID reading was based upon an Isobutylene response; this is a conservative quantitation metric for the influent samples, given the preponderance of chlorinated ethenes in these samples with better response characteristics than isobutylene.

As can be seen, there is a reasonable overall correlation between the PID data and GC/MS data, with a few outliers. The biggest limitations to achieving a better correlation are (1) the presence of compounds like Freon-113 that do not respond on the PID, and, conversely, (2) the presence of compounds that elicit a response on the PID but are not within the universe of VOC compounds quantified on the HAPSITE GC/MS VOC method. The most likely offender in the latter category at this site are the hydrocarbon vapors emanating from fuel oil contaminants in the soil and groundwater. The combination of non-VOC compounds and use of an isobutylene response factor resulted in a conservative bias in PID readings in the influent samples, where total VOCs (by GC/MS) were unlikely to exceed PID concentration data.

The PID readings from the midpoint sampling port (i.e., discharge from lead vessel) were used to help predict when a changeout of a lag vessel may be needed, with a correlation established with the first two changeouts. During this project, midpoint PID concentrations greater than 100 ppmV would suggest that a vessel changeout was imminent (with confirmation provided by GC/MS data). PID readings from the VGAC effluent (i.e., discharge from lag vessel) were generally less than 1 ppmV (as isobutylene), and during this project levels much above that value suggested a vessel changeout was imminent. However, as noted above, the need for vessel changeouts was generally driven by compounds with ionization energies above the detection threshold of the PID meter.

In summary, while PID data provided a useful line of evidence in helping to understand VGAC system operations, the use of GC/MS data allowed for less conservative and more cost-effective decisions on vessel changeouts and GAC usage, while also allowing for more protective operations by quantifying emissions of VOC (e.g., Freon-113) that are not detected on common PID meters.

Operation of Liquid-Phase Treatment System

Condensate and groundwater exiting the condenser were first passed through bag filters, to remove particulates, and then discharged to an oil/water separator with six coalescing packs. LNAPL recovered from the separator flowed to a tank and then into 55-gallon drums. Water exiting the separator was discharged to a storage tank and then pumped through two treatment trains, to remove VOCs and PFAS contaminants, prior to discharge to a municipal sewer. Over the course of remediation, 163,920 gallons of condensate/groundwater were treated and discharged in this manner.

Recovered LNAPL

The recovery of LNAPL was not a remedial objective of this project, but an oil/water separator system was included as a contingency. Significant quantities of LNAPL were not recovered from the condenser discharge until the end of September. This corresponded to a rise in the temperatures in the treatment areas in the LNAPL smear zones (3 to 5 feet below grade in Treatment Area 1; 4 to 6 feet below grade in Treatment Area 2) during September 2021, as presented in Figure 16, for the single temperature probe in Treatment Area 1, and the probe in Treatment Area 2 where depth to groundwater was shallowest.

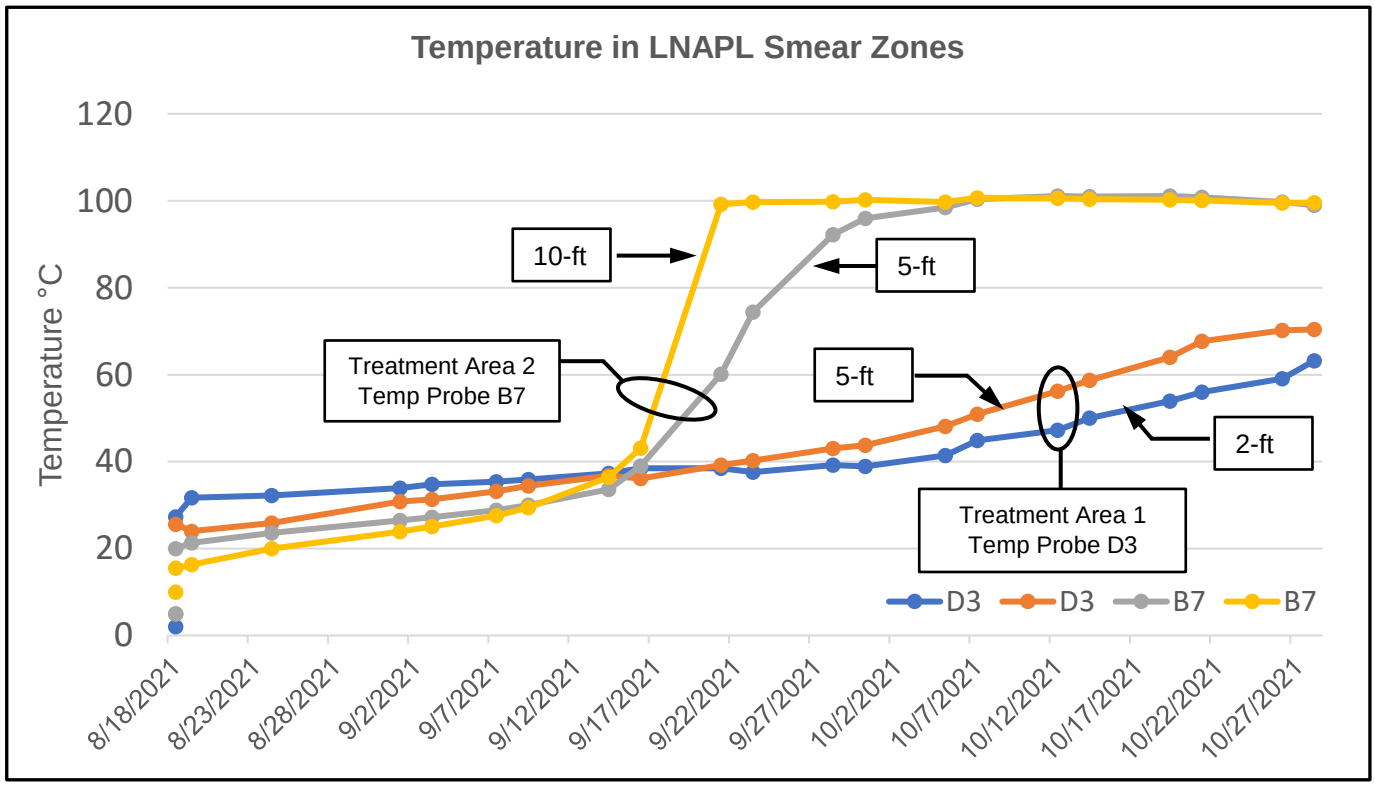

Figure 16 – Temperatures in the LNAPL Smear Zones in Treatment Areas 1 and 2

As previously noted, mobile NAPL had not been detected within site monitoring wells for some time prior to initiation of the ERH project. However, the site was used for over 30 years as an oil storage terminal, prior to the establishment of a solvent recycling operation in the 1960s.

It appears that heating operations decreased the LNAPL viscosity and interfacial tensions in a manner and to a degree that mobilized previously immobile LNAPL, allowing it to be entrained in the soil vapor extraction system along with groundwater. Increasing temperatures to enhance oil mobility is a technology originally used in the petroleum industry, and in more recent years to remediate oil contaminated sites, so this correlation is not unexpected.

During the month of October, close to 300 gallons of LNAPL was recovered from the oil/water separator. Samples of the recovered oil were obtained by MassDEP personnel in October and November for analysis at the MassDEP Wilmington laboratory on an SRI gas chromatograph with a flame ionization detector (GC/FID). The chromatograms for these samples are provided in Figure 17 and indicates the LNAPL is comprised of C_9-C_{19} hydrocarbon compounds.

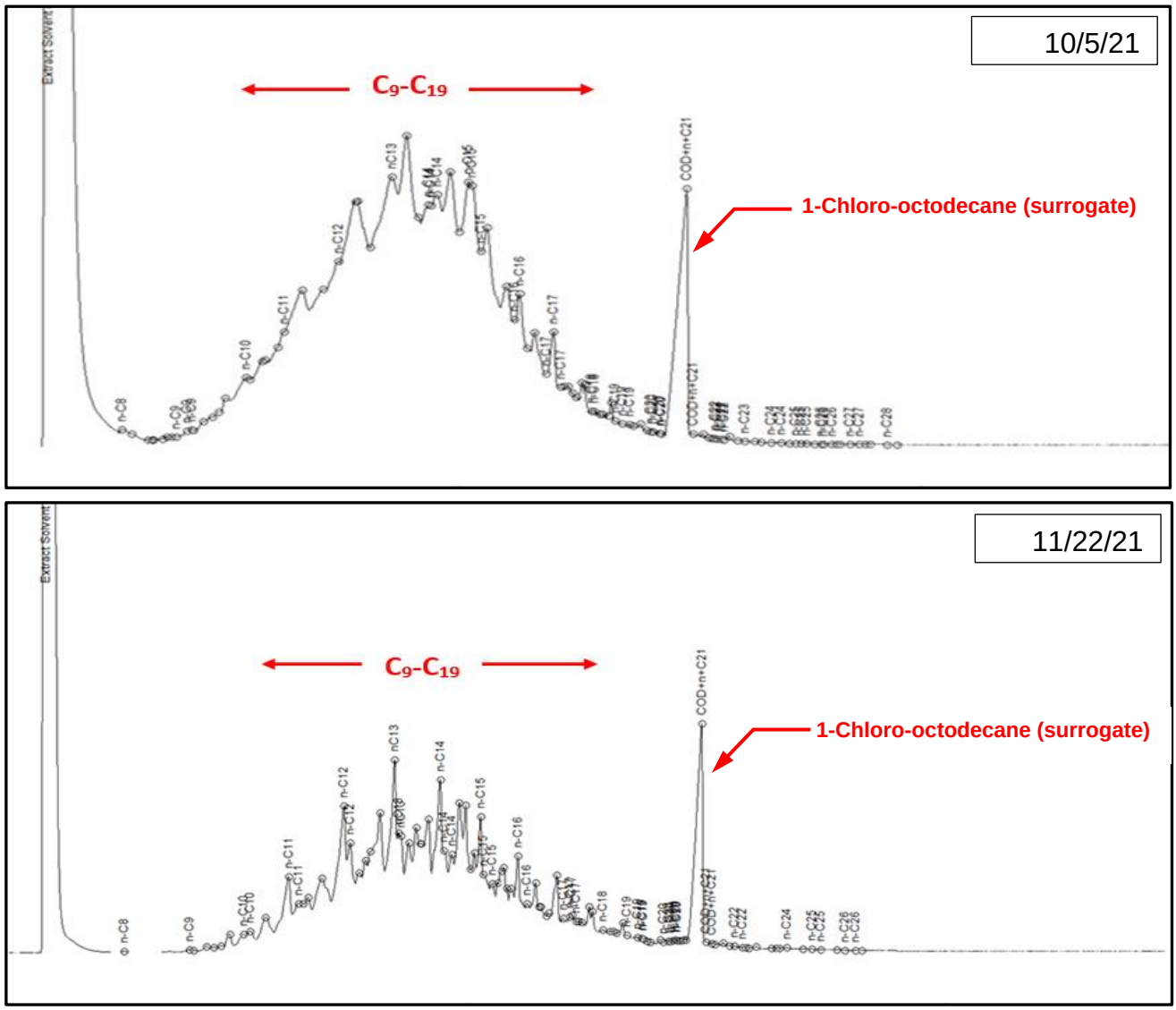

Figure 17 – GC/FID Chromatograms of LNAPL from Oi/Water Separator

The chromatographic signature of both samples most closely resembles a weathered diesel/#2 fuel oil, but with a slight enrichment of lighter hydrocarbons. While it is possible to produce reconstituted LNAPL by the azeotropic boiling and condensation of diesel-range hydrocarbons, the symmetry of the Unresolved

Complex Mixture, with respect to hydrocarbon compounds lighter and heavier than n-C_{13} (boiling point = 235°C) appears to suggest that heat-enhanced hydraulic recovery via entrainment of groundwater into the vapor extraction system was the dominant removal mechanism, with some contribution of C_9-C_{12} hydrocarbons via distillation recovery.

Headspace analysis of these oil samples on a HAPSITE GC/MS detected the presence of PCE, TCE, and other chlorinated hydrocarbons within the oil sample, which is not surprising. As such, and given site history, the recovered oil was classified and managed as a Hazardous Waste.

Mass Removal of Chlorinated Hydrocarbons in Recovered LNAPL

An issue arose as to whether the collection and removal of recovered LNAPL was a significant mechanism for the removal of chlorinated VOCs from the site, via the partitioning of CVOCs into the LNAPL. To evaluate this possibility, 2 grams of the LNAPL was placed in a 40-mL VOA vial, and the vial was heated to about 250°F, the boiling point of PCE, the most plentiful VOC at the site. An air-tight syringe was then used to obtain a sample of vial headspace, which was then injected into a HAPSITE GC/MS unit for VOC analysis.

The concentration of PCE in the vial headspace was determined to be 2,100,000 µg/m^3 (assuming all PCE was vaporized), which corresponded to a concentration of PCE in the oil of 50 mg/kg. This equates to approximately 9 grams of PCE within each 55 gallons of recovered LNAPL. Even if the amount of PCE in the oil was an order of magnitude higher, mass removal of chlorinated VOCs through the LNAPL recovery process would still be insignificant (less than 2 pounds) compared to mass removal via vapor extraction.

VOC Removal from Condensate/Groundwater

Condensate/groundwater exiting the oil/water separator was piped to a storage tank, and then pumped through two in-series Liquid-phase Granular Activated Carbon (LGAC) treatment vessels. Each vessel contained 200-pounds of Evoqua coconut shell based GAC. Flow through the LGAC system was not continuous, but subject to the on/off float-level-activated pumping cycle from the storage tank.

MassDEP collected aqueous samples of the influent, midpoint, and effluent discharge from these in-series vessels about twice a week, for analysis at the MassDEP laboratory in Wilmington. In total, 84 samples of this nature were analyzed during the ERH project.

Each aqueous sample was analyzed via a headspace analysis, where a sample vial was emptied of its content until it was about half-filled. The sample was then shaken vigorously for at least 15 seconds twice over at least a 20-minute headspace development period, after which time a sample of the vial headspace was obtained using a gas-tight syringe, for injection and analysis in a HAPSITE GC/MS unit. Aqueous concentrations in the sample were then estimated using Henry's Law, and assuming vapor-phase concentrations represented 75% of equilibrium conditions. MassDEP has been using this technique for more than 20 years and has undertaken numerous studies to compare these headspace screening results to split-sample data obtained using EPA Method 8260; in most cases, results are within +/- 30%; usually within 20%.

Influent samples to the LGAC system typically contained low to moderate concentrations of PCE (<1000 µg/L), TCE (<500 µg/L), cis-1,2-DCE (<350 µg/L) and 1,1,1-TCA (<150 µg/L), along with some petroleum VOCs. There was however a substantial spike in VOC concentration on 9/30/21, during the beginning of steam generation in Treatment Area 2, when PCE and TCE were each present at 20,000 µg/L; cis-1,2-DCE at 6000 µg/L, and 1,1,1-TCA at 2000 µg/L – though all returned to normal levels at the next sampling date (10/5/21).

Midpoint samples (discharge from first vessel) were initially "Not Detected" for VOCs (Reporting Limits in low single-digit µg/L), with some breakthrough occurring by the end of September (1,1-DCE, 1,1,1-TCA less than 10 µg/L), increasing to 60 µg/L of cis-1,2-DCE by 10/26/21, which triggered a changeout. Mid-point concentrations then returned to mainly "Not Detected", with VOC concentrations remaining less than 10 µg/L for the rest of the project.

The concentration of VOCs in the discharge from the second LGAC vessel was always “Not Detected” for all VOCs, except for a few trace detections of Toluene (1 µg/L) in a few samples (likely from laboratory contamination). This lack of VOCs in the LGAC effluent was confirmed by Alpha Analytical via Method 8260 analysis on effluent (split) samples obtained on 8/16/21, 9/9/21 and 9/16/21, although Alpha did report a trace amount of Bromomethane (less than the Reporting Limit) in the 9/9/21 sample (Bromomethane is not a target analyte in the MassDEP VOC method).

While the treatment of the condensate/groundwater discharge contributed to the mass removal of VOCs from the treatment areas, the amount is trivial. For example, even assuming a constant influent concentration to the LGAC system of 1000 µg/L of PCE, the amount of this compound removed in the 160,000 +/- gallons of water treated would only be about 1.4 pounds. As such, total VOC removal via aqueous treatment would be less than 10 pounds, less than 0.3% of the 3400 pounds of VOCs removed via the VGAC system.

PFAS Removal from Condensate/Wastewater

The discharge from the LGAC VOC treatment vessels was directed to PFAS treatment vessels. Past groundwater data from the treatment areas had identified the presence of a number of PFAS compounds at low to moderate concentrations, and in order to obtain permission to discharge the condensate/ wastewater into the municipal sewer, the regional wastewater entity (Massachusetts Water Resources Authority) required treatment and testing of the discharge to ensure that the collective concentrations of 6 specific PFAS compounds did not exceed the Massachusetts Drinking Water Standard of 20 ng/L. These “MCP-6” compounds are Perfluorodecanoic Acid (PFDA), Perfluoroheptanoic Acid (PFHpA), Perfluorohexanesulfonic Acid (PFHxS), Perfluorononanoic Acid (PFNA), Perfluorooctanesulfonic Acid (PFOS), and Perfluorooctanioc Acid (PFOA).

Removal of PFAS from the condensate/groundwater discharge was accomplished by passing the effluent from the VOC treatment system through four in-series vessels. The initial units were two 24” x 72” FRP vessels containing 400-pounds each of CHV-RA-1240 filtration media, a coal-based liquid-phase granular activated carbon product with an affinity for PFAS compounds. These units were designed for a flowrate of 3 GPM with a 12-minute Empty-Bed Contact Time (EBCT). For further polishing, the discharge from the two 24” x 72” FRP vessels was directed to two 10” x 65” FRP vessels each containing 3-ft^3 of CH-PFAI Treatment Resin.

Discharge from the resin vessel was then piped to a 7000-gallon holding tank, prior to discharge to the sanitary sewer. This tank was needed to ensure sufficient time to receive the results of PFAS analysis prior to discharge to the sanitary sewer.

Despite the elevated levels of PFAS in the LGAC influent (Table 1), the effluent/sewer discharge concentrations were extremely low, with levels never exceeding a total concentration of 2 ng/L for all PFAS analytes (i.e., the MCP-6 plus 18 additional PFAS compounds).

Summary of Operational Efficacy

Overall, the ERH system successfully vaporized and recovered approximately 3400 pounds of VOCs from the treatment areas. This achievement compares favorably with other similar ERH remediation projects, with respect to pounds of VOCs removed per kWH of electricity and per dollar expended.

However, problems with the ERH system occurred that may have impacted the overall efficacy of the system. While there is high confidence that the vast majority of VOC mass was removed from Treatment Area 2, the lack of a 5–7-day period of steam generation in Treatment Area 1 suggests that additional removal of VOC mass may have been feasible if boiling temperatures were reached before winter conditions and contractual limits required termination of remedial operations.

The design and/or operation of the vapor extraction system may also not have been optimal, given evidence of groundwater/LNAPL entrainment, the lack of VOC vapor recovery and containment north of

Treatment Area 2, and the possibility of some vapor condensation in cool areas of the vadose zone in the northeast quadrant of Treatment Area 2.

AIR MONITORING

A comprehensive and robust air monitoring program was implemented by MassDEP to ensure that remedial operations at the site would not adversely impact the health of surrounding populations, including neighboring homes and the Harmony Grove elementary school. The scope and timeliness of monitoring activities are believed to be unprecedented for projects of this nature and were accomplished in a cost-effective manner by using primarily in-house staff and equipment.

Following system startup, agency personnel conducted on-site inspections at least 2 days per week, to screen ambient air and soil vapor monitoring points with a photoionization detector, and to obtain soil gas vapor, ambient air, and indoor air samples for same or next-day analysis on a GC/MS instrument in the MassDEP regional office in Wilmington.

Each environmental sample was analyzed for the presence of 35 specific VOC contaminants, producing over 8000 discrete GC/MS data points. In addition to the grab samples analyzed by MassDEP, time-weighted indoor air samples were also obtained in the Harmony Grove elementary school for analysis by a commercial laboratory.

Action Levels

Action Levels for target VOC analytes were established for ambient air, indoor air, and soil vapor in the MassDEP July 2021 Air Monitoring Plan. A flowchart explaining the process to be followed if these levels were exceeded is reproduced in this report as Figure 18. The Action Levels for ambient air, soil gas, and indoor air are provided in Table 2.

It is noted that there are no available ambient air standards or guidelines for 1,1,2-trichlorotrifluoroethane (Freon-113) or trichloromonofluoromethane (Freon-11), though both are considered to be relatively non-toxic. Based upon available oral-ingestion toxicity data from EPA, the 24-hour safe levels for air exposures would be greater than 10,000 $\mu g/m^3$ for Freon-113 and greater than 1000 $\mu g/m^3$ for Freon-11. To be conservative, the Level 1 values in Table 2 were set at 10% of these concentrations, with the Level 2 value set at 10 times the Level 1 value.

Startup

Consistent with the March 2021 IRA Plan and July 2021 Air Monitoring Plan, MassDEP/FAST deployed its mobile laboratory to the site during the startup period. This vehicle includes a 10-meter mast and weather station to continuously monitor key atmospheric conditions, including wind speed and direction.

The mobile laboratory arrived at the site on Friday, July 30, 2021. Air and site monitoring operations commenced on August 2nd but were halted the next day after heating operations were terminated due to melted piping at several electrodes. The heating electrodes were re-energized at approximately 10 AM on Wednesday, August 11th, prompting the re-initiation of all-day air monitoring activities by MassDEP. Daytime monitoring operations continued for two additional days. On the afternoon of Friday, August 13th, all-day monitoring operations were terminated, and the mobile laboratory was removed from the site.

On-site air testing during ERH system startup included real-time fence line monitoring of VOCs using six Honeywell *AreaRAE* detectors equipped with 10.6 eV PID sensors, which transmitted data every 20 seconds to a receiver/laptop PC in the mobile laboratory. This was supplemented by spot field checks with hand-held PID meters, and the collection of grab samples of ambient air for immediate analysis on the HAPSITE GC/MS units aboard the mobile laboratory.

The potential for subsurface soil vapor transport and indoor air impacts were evaluated via the monitoring of soil gas probes and indoor air within two nearby homes (155 Leland and 157 Leland Street) as well as the Harmony Grove school. Key sampling points are identified in Figure 19.

Figure 18 – Monitoring Program and Actions

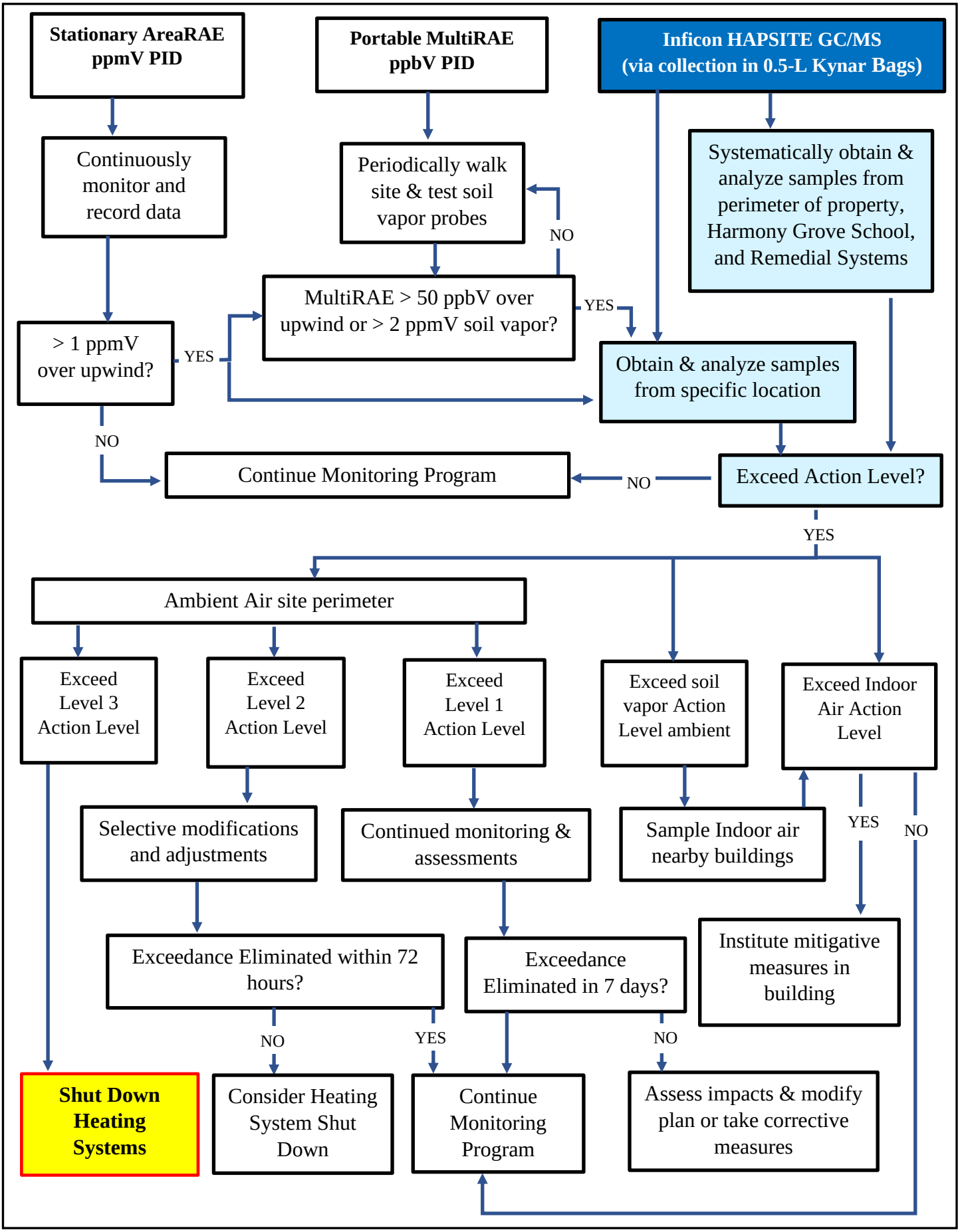

Table 2 – MassDEP Action Levels for Ambient Air, Soil Gas, and Residential Indoor Air					
VOC	Ambient Air			Soil Gas µg/m³	Residential Indoor Air µg/m³
	Level 1 µg/m³	Level 2 µg/m³	Level 3 µg/m³		
1,1,1-Trichloroethane	5187	32760	125580	210	3
1,1,2,2-Tetrachloroethane	7	69	206	2.8	0.04
1,1,2-Trichloroethane	5	109	1638	10	0.15
1,1,2-Trichlorotrifluoroethane	1000	10000	NA	NA	NA
1,1-Dichloroethane	810	4860	121500	56	0.8
1,1-Dichloroethylene	199	1985	1985	56	0.8
1,2,4-Trichlorobenzene	200	1998	1998	28	0.4
1,2,4-Trimethylbenzene	49	1964	2210	NA	NA
1,2-Dibromoethane	8	8	354	NA	NA
1,2-Dichlorobenzene (ortho)	6	1983	3005	50	0.72
1,2-Dichloroethane	4	41	2025	6.3	0.09
1,2-Dichloropropane	5	92	1386	8.6	0.12
1,3,5-Trimethylbenzene	49	1129	2210	NA	NA
1,3-Dichlorobenzene (meta)	198	1983	1983	42	0.6
1,4-Dichlorobenzene (para)	30	180	1803	35	0.5
Benzene	3	223	287	160	2.3
Carbon Tetrachloride	6	126	756	38	0.54
Chlorobenzene	5	199	462	160	2.3
Chloroethane	2112	NA	7920	NA	NA
Chloroform	5	49	97	130	1.9
Cis 1,2-Dichloroethylene	8	349	55580	56	0.8
cis-1,3-Dichloropropene	5	36	136	8.6	0.58
Ethylbenzene	998	998	9982	41	7.4
Hexachlorobutadiene	11	11	107	7.4	0.11
Naphthalene	5	21	7860	42	0.6
Methylene Chloride	35	2993	6960	770	11
p/m/o-Xylenes	22	22	5642	1400	20
Styrene	43	251	850	95	1.4
Tetrachloroethylene (PCE)	14	61	23765	98	1.4
Toluene	5076	50008	50008	3800	54
trans-1,3-Dichloropropene	5	36	136	41	0.58
Trichloroethylene (TCE)	11	32	41272	28	0.4
Trichloromonofluoromethane	100	1000	NA	NA	NA
Vinyl Chloride	3	155	1806	19	0.27

Blue shading indicates most common VOCs at General Chemical Site
Orange shading indicates action levels was controlled by odor concerns, not health concerns
Default Action Level 1 = 50 ppbV; Default Action Level 2 = 200 pppbV NA = Not Available
Exceeding Level 1: conduct hourly testing until condition is abated
Exceeding Level 2: modify remedial operations or discharges
Exceeding Level 3: shut down heating operations

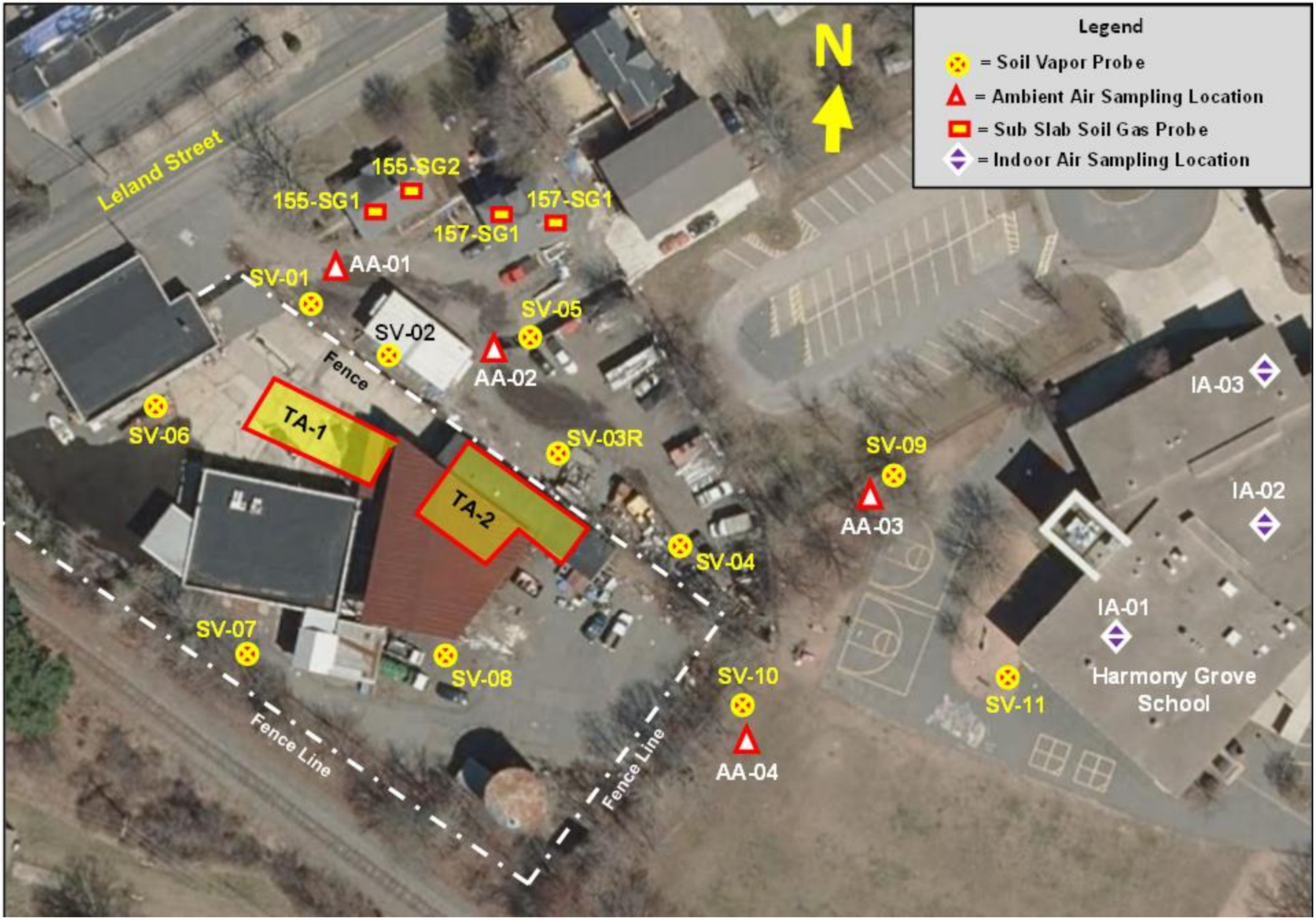

Figure 19 – Ambient Air, Soil Gas, and Indoor Air Sampling Locations

The purpose of the *AreaRAE* real-time monitors was to quickly identify system upsets or emissions as remedial operations commenced, and before "steady state" conditions were achieved. The detection limits for VOC compounds via the PID sensor were about 100 ppbV, which was sufficient to identify significant system upsets and acute exposure conditions. Longer-term concerns were monitored by analyzing air samples via GC/MS, which can detect less than 0.2 ppbV of VOC compounds. Over 30,000 discrete VOC data points were generated and recorded for the *AreaRAE* monitors during startup operations.

Per the July 2021 Air Monitoring Plan, the Action Level for *AreaRAE* or PID fence line concentration values was 1 ppmV. Above this value, grab samples of air were to be taken for analysis on a GC/MS unit. The only exceedance of this 1 ppmV action during startup was in *AreaRAE* unit LAR-5 on 8/12/21, when the first reading of the day (9:18 AM) was 1.5 ppmV, slowly and consistently declining to less than 1 ppmV by 10:11 AM, and less than 0.5 ppmV by 12:23 PM. The pattern of decline, and analysis of a grab ambient air sample for GC/MS analysis, suggests an instrumentation issue, as opposed to actual elevated VOC levels. In any event, this station was upwind of the site during the time of exceedances, indicating that any VOC contaminants would not be site related. Other than this apparent anomaly, consistent with the prevailing wind direction, the maximum PID readings were obtained from the two easterly locations, units ARP-2 and ARP-3, at 0.220 ppmV and 0.408 ppmV, respectively, which were well below the 1 ppmV level.

To supplement and expand upon the *AreaRAE* monitoring program, discrete "grab" samples of ambient air were obtained by MassDEP staff for analysis on two HAPSITE gas chromatographs/mass spectrometer (GC/MS) units within the onsite mobile Laboratory. All such samples were obtained in 0.5-Liter Kynar air sampling bags, using a "lung box" apparatus that ensured that samples only came into contact with Teflon tubing and stainless-steel fittings.

Other than the sample taken at station LAR-5 in response to the 1.5 ppmV AreaRAE VOC reading, ambient air samples were obtained primarily in downwind areas, with particular attention to sensitive receptors, including the school to the northeast, and homes to the north and east. A total of 26 grab ambient air samples were obtained during the four days of continuous site monitoring during startup.

No analyte in any ambient air sample exceeded Level 2 or Level 3 action limits, and the Level 1 limit was only exceeded for one analyte in 3 of the 26 ambient air samples. Per Figure 18, exceeding a Level 1 value required continued monitoring and assessment of the area of concern, but did not pose a significant health risk.

Tetrachloroethylene (PCE) slightly exceeded the Level 1 threshold of 14 $\mu g/m^3$ in two locations: at the AA-03 station (northeast of the site property line) on 8/2/21 and near LAR-7 on 8/12/21. In both cases, 18 $\mu g/m^3$ of this compound was detected. In both cases, this elevated level was not sustained. While PCE is present at the General Chemical site at high concentrations, it is not clear whether these detections were due to emissions from the site.

The only other time that an elevated level of a VOC compound was detected was benzene at 3.5 $\mu g/m^3$ on 8/12/21 in Treatment Area 2, slightly exceeding the 3 $\mu g/m^3$ monitoring plan threshold. A subsequent sample in this location contained no measurable amounts of this compound. This was not considered an exceedance of an Action Level since the sample was obtained on the site, and not at the property line.

During startup, 14 samples were obtained from soil gas probes on and off the General Chemical property, for GC/MS analysis in the on-site mobile laboratory. Elevated levels of VOCs detected in some probes were not confirmed by retesting and were likely due to sample carry-over within the PID instrument.

Based on the totality of information and data obtained during the startup monitoring effort, MassDEP was confident that the initiation of the remedial project did not expose surrounding populations to concentrations of VOCs that would constitute a significant risk to health or create nuisance conditions.

More details and data reports and tabulations of startup activities and monitoring are available in "*Air Monitoring Report, Thermal Treatment Startup, General Chemical Site, Framingham, MA*", MassDEP, August 2021.

Post-Startup Monitoring

The MassDEP mobile laboratory departed the site on Friday, 8/13/21 at the conclusion of remedial startup operations. Agency personnel returned to site the following week on three days, and thereafter two days a week, until conclusion of remedial activities and discharges on 12/6/21. During these site visits, MassDEP staff inspected remedial operations and site conditions, and obtained samples of ambient air, soil gas, and, on occasion, indoor air. All samples were transported to the MassDEP office in Wilmington, for analysis on HAPSITE GC/MS instruments. In most cases, samples were analyzed on the day of collection; on a few occasions, they were analyzed the day after sample collection.

Following system shutdown on 12/6/21, MassDEP returned to the site on 12/8/21, 12/14/21, 12/21/21, and 1/27/22 to obtain soil gas, indoor air, and ambient air samples to ensure a continuing lack of impacts to surrounding populations following termination of heating and vapor extraction operations.

Ambient Air

Between 8/16/21 and 12/6/21, MassDEP obtained and analyzed 65 ambient air samples at the fence line and in downwind off-property areas for analysis at the MassDEP Wilmington office on a HAPSITE GC/MS unit, using a modified EPA Method TO-14 procedure to accurately detect and quantify 35 target analytes, with a Reporting Limit of 0.2 ppbV and Detection Limit of 0.04 ppbV for most site-related VOCs. Each of the 2484 data points were compared to the Action Levels listed in Table 2.

All sample results were below Level 2 and Level 3 Action Levels, and the vast majority of samples did not exceed Level 1 Action Levels. Table 3 provides a summary of these data for site contaminants of concern.

Table 3 – Summary of Ambient Air Testing Data for 65 Grab Samples

	Level 1 Action Level µg/m^3	Number of Exceedances	Concentration in µg/m^3		
			Median	Average[1]	Maximum
1,1-Dichloroethylene (1,1-DCE)	199	0	N.D.	0.99	45
cis-1,2-Dichloroethylene (cis-1,2-DCE)	8	1	N.D.	0.36	10
1,1,1-Trichloroethane (1,1,1-TCA)	5187	0	N.D.	0.56	8.4
Trichloroethylene (TCE)	11	2	N.D.	1.1	31
Tetrachloroethylene (PCE)	14	7	0.96	3.4	47

[1]ND = ½ of Detection Limit

Most of the Level 1 Ambient Air exceedances were related to the vapor/steam emission on 155 Leland Street north of Treatment Area 2, as previously discussed (see Figure 10). PCE, TCE, and/or cis-1,2-DCE concentrations in ambient air near and downwind of the vapor/steam emission periodically exceeded Level 1 values until the emission was largely eliminated by 11/8/21. On 10/19/21, elevated concentrations of PCE (18 µg/m^3) and TCE (14 µg/m^3) were identified at station AA-03 (Figure 18), in the parking lot area of the Harmony Grove School, and downwind of the steam emission. Low levels of TCE (1.5 µg/m^3) and 1,1-DCE (1.6 µg/m^3) were also detected on that date within the cafeteria of the school.

Other Level 1 exceedances included at the northwest corner of the General Chemical property on 10/7/21, which was traced back to a drum storing recovered LNAPL at the site (which was subsequently secured to prevent emissions). It is important to stress the Level 1 ambient air Action Levels are based upon the concentration of a chemical that would be safe to breathe 24-hours a day for 30 years and are thus conservative and health-protective. Even the Level 2 values – which were not exceeded in ambient air – are themselves conservative, as they are set at a level safe to breathe 24-hours a day for 5 years. As

such, it is possible to say with a high degree of confidence that any exposures to site contaminants by surrounding populations did not pose a significant risk to human health.

Soil Gas

The two primary routes of exposure to contaminants at and emanating from the General Chemical site are through ambient air (discussed above) and via movement of contaminant vapors beneath the ground surface towards and into overlying buildings. As such, MassDEP monitored levels of VOC contaminants in soil gas to assess the potential for such movement, in addition to sampling of indoor air in potentially impacted buildings. This monitoring was undertaken by sampling permanent and temporary soil gas probes, using both a PID meter and via analysis of grab samples on a HAPSITE GC/MS unit. The locations of the permanent soil gas probes (e.g., SV-05) are provided in Figure 18; the location of temporary soil gas sampling probes (along with several permanent probes) is provided in Figure 10 (rectangles).

Soil gas contaminant levels were also monitored beneath the two residential structures at 155 and 157 Leland Street in pairs of "sub-slab soil gas probes" installed through the basement slab in both buildings. These are also depicted in Figure 18 (e.g., 155-SG1).

Baseline

"Baseline" concentrations of VOC contaminants in soil gas and sub-slab soil gas were established prior to the initiation of ERH remedial activities, by sampling programs conducted during June and July 2021. This was necessary as the objective of the monitoring program was to determine if ERH remedial activities were exacerbating existing conditions.

Unsurprisingly, baseline VOC levels in on-property soil gas probes SV-06, SV-07 and SV-08 were extremely elevated, with one contaminant (Freon-11) over 1,000,000 µg/m^3. Of the 5 probes at and just north of the property line (SV-01, SV-02, SV-03, SV-04,[3] and SV-05), SV-03 and SV-04 had the highest baseline levels of VOCs, including Freon-113 up to 230,000 µg/m^3 and 1,1,1-Trichloroethane up to 2800 µg/m^3. Of the three probes closest to the Harmony Grove school (SV-09, SV-10, SV-11), SV-11 had the highest baseline levels, with PCE up to 24 µg/m^3.

The baseline level of VOCs beneath the residential structures at 155 and 157 Leland contained elevated levels of Freon-11 and Freon-113 (up to 1700 µg/m^3), with lower levels of other site contaminants. PCE, and in one home, TCE, exceeded soil gas Action Levels presented in Table 2. These values were the *sub-slab soil gas screening values* in MassDEP's *Vapor Intrusion Guidance* document, Policy #WSC-16-435, and were developed to help predict when vapor intrusion into an overlying structure may be of concern, based upon conservative modeling.

Post-August 2021 Vapor Levels and Migration

With an understanding of these baseline conditions, soil gas data obtained from 8/16/21 to 1/27/22 were compared to the soil gas Action Levels (Table 2).

During ERH operations, and as previously discussed, subsurface migration of VOC vapors occurred north of Treatment Area 2. Soil gas probe SV-03R, located about 12-feet north of Treatment Area 2, recorded by far the highest levels of off-property soil vapor VOCs, with both PCE and TCE increasing to over 1,000,000 µg/m^3 by the end of September, during the accelerated heating of this treatment area. The highest off-property VOC concentration observed during this project – an estimated concentration of 94,000,000 µg/m^3 of Freon -113 (also known as 1,1,1 trichlorotrifluoroethane) was detected in SV-03R on 9/30/21. On 10/7/21, vapors emanating from groundwater well HMW-2 (Figure 10) were analyzed, and found to contain very high levels of VOCs, including PCE at 11,000 µg/m^3, TCE at 5900 µg/m^3, and cis-1,2-DCE at 3900 µg/m^3. This

[3] SV-04 was damaged after baseline sampling, replaced in June 2021, and damaged again and was not included in the post-startup monitoring efforts.

precipitated the soil vapor investigation north of SV-03R previously discussed, which documented movement of site contaminants to a point about 60 feet from the General Chemical property boundary – though no significant impacts were noted to indoor air at 155 & 157 Leland Street (or Harmony Grove school).

To the north and east, PCE and TCE increased somewhat in SV-09 and SV-10 in August 2021, prior to significant heating of the treatment areas, dropping to a relatively low level for the rest of the project. Action Levels for these contaminants were exceeded in 2 of 13 sampling rounds in SV-09, and 1 of 7 sampling rounds in SV-10.

SV-11, located immediately adjacent to the Harmony Grove school, was sampled 8 times between 8/13/21 to 12/14/21, and no contaminant exceeded its Action Level, though PCE did fluctuate between 10 and 81 $\mu g/m^3$, with a baseline value of 24-34 $\mu g/m^3$ established in June and July 2021.

MassDEP personnel returned to the site three times in December, after the termination of heating and vapor recovery operations, to ensure that VOCs were not migrating from the treatment areas. A bump-up in VOC concentrations in SV-03R was noted on 12/8/21, stabilizing by 12/21/21, and significantly declining by 1/27/21 (almost 2-months following the cessation of heating operations). VOCs in SV-11, adjacent to the Harmony Grove school, were steady in December, with very low levels detected on 1/27/22. Levels in SV-01 and SV-02, which did not increase substantially during heating operations, had returned to baseline levels in the 1/27/21 samples.

In summary, it appears ERH remedial actions likely resulted in vapor transport to a point about 60 feet beyond the northerly property line, with the highly mobile Freon-11 and Freon-113 compounds serving as indicators of the leading edge of the plume. There is no indication that this migration extended beyond that point, nor impacted SV-09, SV-10, or SV-11 (beyond the existing/baseline levels). Sampling on 1/27/21 showed that all soil gas probe levels were dropping as the ground temperature also dropped.

Sub-Slab Soil Gas

Sub-slab soil gas was sampled in 155 and 157 Leland Street on 9/28/21, 10/5/21, 11/2/21, l12/14/21, and 1/27/22. Baseline PCE concentrations were elevated in both homes prior to the start of remediation (100 to 150 $\mu g/m^3$), as was Freon-113 (1000 to 1700 $\mu g/m^3$), Freon-11 (600 to 800 $\mu g/m^3$) and TCE (15 to 30 $\mu g/m^3$). There were no substantial increases in sub-slab VOC concentrations in these homes during or after remediation, with the exception of Freon-113 and Freon-11. Both these compounds increased in both homes in the 1/27/22 sub-slab samples (almost two months after termination of heating and vapor extraction). The significance of this finding in uncertain, though both homes will continue to be monitored by MassDEP

There are no sub-slab soil gas probes in the Harmony Grove school, out of the concern that such installations may disturb a vapor barrier beneath the school buildings and create a potential vapor intrusion pathway to the indoor air,

Indoor Air Samples

Of concern during the remedial project was the potential for site-related contaminants to migrate to the indoor air of nearby structures, via a subsurface vapor intrusion pathway and/or via air exchange with ambient air. There were 3 structures where this was most likely to occur: two residential buildings at 155 and 157 Leland Street, which are 50- and 100-feet northeast of the General Chemical property line, respectively, and the Harmony Grove elementary school, located 120 feet to the east of the General Chemical property line (See Figure 18).

A total of 42 indoor air "grab" samples were obtained from the three structures of concern between 8/24/21 and 1/27/22 for analysis at the MassDEP Wilmington office on a HAPSITE GC/MS unit, using a modified EPA Method TO-14 procedure to accurately detect and quantify 35 target analytes, with a Reporting Limit of 0.2 ppbV and Detection Limit of 0.04 ppbV for most site-related VOCs. Each of the 1470 data points were compared to the Action Levels listed in Table 2. A summary of these data for site contaminants of concern for each building is provided Tables 4 through 6.

Table 4 – Summary of Indoor Air Grab Sample Data for 155 Leland Street (12 Samples)					
	Action Level µg/m³	Number of Exceedances	Concentration in µg/m³		
			Median	Average[1]	Maximum
1,1-Dichloroethylene (1,1-DCE)	0.8	0	N.D.	N.D.	N.D.
Cis-1,2-Dichloroethylene (cis-1,2-DCE)	0.8	2	N.D.	0.42	2.1
1,1,1-Trichloroethane (1,1,1-TCA)	3	0	N.D.	0.33	1.6
Trichloroethylene (TCE)	0.4	1	N.D.	0.14	0.6
Tetrachloroethylene (PCE)	1.4	2	0.76	0.80	1.9
[1]ND = ½ of Detection Limit					

Table 5 – Summary of Indoor Air Grab Sample Data for 157 Leland Street (7 Samples)					
	Action Level µg/m³	Number of Exceedances	Concentration in µg/m³		
			Median	Average[1]	Maximum
1,1-Dichloroethylene (1,1-DCE)	0.8	0	N.D.	N.D.	N.D.
Cis-1,2-Dichloroethylene (cis-1,2-DCE)	0.8	0	N.D.	N.D.	N.D.
1,1,1-Trichloroethane (1,1,1-TCA)	3	0	N.D.	N.D.	N.D.
Trichloroethylene (TCE)	0.4	0	N.D.	N.D.	N.D.
Tetrachloroethylene (PCE)	1.4	1	0.39	0.91	3.7
[1]ND = ½ of Detection Limit					

Table 6 – Summary of Indoor Air Grab Sample Data for Harmony Grove School (27 Samples)					
	Action Level µg/m³	Number of Exceedances	Concentration in µg/m³		
			Median	Average[1]	Maximum
1,1-Dichloroethylene (1,1-DCE)	0.8	1	N.D.	0.16	1.6
Cis-1,2-Dichloroethylene (cis-1,2-DCE)	0.8	3	N.D.	0.30	2
1,1,1-Trichloroethane (1,1,1-TCA)	3	0	N.D.	0.12	0.51
Trichloroethylene (TCE)	0.4	1	N.D.	0.15	1.5
Tetrachloroethylene (PCE)	1.4	3	N.D.	0.36	1.9
[1]ND = ½ of Detection Limit					

In addition to “grab” samples, which were obtained in a 0.5-Liter Kynar bag over an approximately 45-second sampling time and analyzed by MassDEP, 8-hour time weighted samples were also obtained in passivated stainless-steel canisters on 11/10/21 in the Harmony Grove School and analyzed at a contract

laboratory (Alpha Analytical of Westborough MA) by the EPA TO-15 method. Data from that sampling effort for site contaminants of concern is provided in Table 7.

Table 7 – 8-Hour Time Weighted Indoor Air Data at Harmony Grove School (11/10/21)

	Concentration in µg/m^3				
	Action Level	IA-01 Gym	IA-02 Cafe	IA-03 Office	AA-03 Outdoor Air
1,1-Dichloroethylene (1,1-DCE)	0.8	N.D.	N.D.	N.D.	N.D.
Cis-1,2-Dichloroethylene (cis-1,2-DCE)	0.8	0.35	0.29	0.29	N.D.
1,1,1-Trichloroethane (1,1,1-TCA)	3	N.D.	N.D.	0.11	N.D.
Trichloroethylene (TCE)	0.4	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene (PCE)	1.4	0.24	0.23	0.25	0.16

Grab sample and time-weighted indoor air data were compared to the Action Levels listed in Table 2. The indoor air action levels in Table 2 are the *residential indoor air Threshold Values* in MassDEP's *Vapor Intrusion Guidance* document, Policy #WSC-16-435. These concentration metrics were developed to help predict when VOC levels within indoor air ***may*** be from a subsurface vapor intrusion pathway, based upon levels of a VOC that are typically found in homes due to the use of building, cleaning, and personal care products, and are NOT necessarily considered a significant risk to human health.

The contaminant that is most prevalent at the General Chemical Site, Tetrachloroethylene (PCE), is also among the VOCs most typically found within residential homes and commercial buildings, given its use as a dry-cleaning agent.

As previously noted, there were no available risk-based Action Levels for Freon-11 and Freon-113, though both compounds are believed to be relatively nontoxic, especially Freon-113. During this investigation effort, no indoor air sample contained more than 15 µg/m^3 of either compound, which is considered a *de minimis* amount. It should also be noted that the presence of cis-1,2-DCE (in any media) is a strong indicator of environmental contamination, as it is a biological breakdown product of PCE and TCE, and not otherwise believed to be an ingredient in most commercially available products.

155 and 157 Leland Street

The indoor air in 155 and 157 Leland Street was sampled on the same 5 dates of sub-slab soil gas sampling (with the indoor air samples always obtained prior to the sub-slab soil gas samples). These samples were obtained in both the basement and first floor during each sampling event at 155 Leland, to help discern patterns of a vapor intrusion pathway. Due to access issues, only basement air samples were obtained at 157 Leland, except on 12/14/21, when both basement and first floor indoor air samples were obtained.

Not surprisingly, given its close proximity to the General Chemical property, there was more evidence of impacts to155 Leland than 157 Leland Street. A modest increase in cis-1,2-DCE, TCE, and PCE was seen in the sub-slab soil gas and basement indoor air at 155 Leland on 9/28/21, along with Freon-11 and Freon-113. This coincides with the rapid temperature rise in Treatment Area 2, and northerly transport of subsurface vapors during that time period. This modest increase quickly dissipated in subsequent sampling efforts, and as seen in Table 4, the median and average values of site contaminants of concern were all below Action Levels. Thus, while there is some evidence of a vapor intrusion pathway into this structure during (and prior to) the thermal

remediation effort – including the presence of cis-1,2-DCE within basement air - exposures did not pose a significant health risk.

Harmony Grove School (169 Leland Street).

Previous investigations by MassDEP have found no evidence that the indoor air within the school building is being impacted by a subsurface vapor intrusion pathway, even though low to moderate levels of VOCs (e.g., PCE) have long been present in a soil gas probe (SV-11) located immediately adjacent to the gymnasium. This may be wholly or partially attributable to a vapor barrier that reportedly exists beneath the building slab (which was why no sub-slab soil vapor probes have been installed in the school building).

Of concern is the potential impacts that could result from the thermal remediation project, either through a more accelerated or robust subsurface transport pathway from the General Chemical site, or via ambient air transport of VOCs being discharged from the on-site vapor recovery/ treatment/discharge system or fugitive emissions from the treatment areas. Both pathways are temporally and spatially variable, depending on such factors as barometric pressure, HVAC operations, wind direction and speed, and sample location within a building.

As presented in Table 6, the median and average concentrations of site-related VOCs in school air during and after the thermal remediation project were well below Action Levels. However, there were 8 instances where an Action Level was exceeded, and 4 of the 5 site contaminants exceeded their respective action levels at least once.

An examination of the dates and locations of the Action Level exceedances do not point to a clear source or reason for the exceedance. At no point were the concentrations of site contaminants within indoor air proportional to soil gas concentrations in SV-11 or proportional to the concentration of contaminants being emitted from the vapor treatment system discharge.

For example, the 3 exceedances for cis-1,2-DCE occurred on the same day (11/10/21) and the compound was present in all three sampling points within the school at almost identical concentrations (2 µg/m^3). This spatial uniformity suggests the entrainment of outdoor air into the school's HVAC system, though the concentration of cis-1,2-DCE in the VGAC emission was low that day (2.3 µg/m^3), with much higher concentrations of other site contaminants (e.g., Vinyl Chloride at 140 µg/m^3), which were not detected that day within school air. Also noteworthy is that these samples were obtained early in the morning, unlike all other school samples, and that the presence of cis-1,2-DCE was confirmed in the 8-hour time weighted samples obtained later that day, albeit at lower concentration levels.

The PCE exceedances occurred on 8/24/21 in the gymnasium and cafeteria, and on 9/7/21 in the cafeteria only, though no other site contaminants were elevated in these samples. Upon further evaluation, it was determined that these low levels of PCE were present in the air sampling bags used, and subsequent sample bags were more closely securitized to minimize this possibility of "cross contamination".

The TCE and 1,1-DCE exceedances did occur on the same day (10/19/21) in the same location (cafeteria), though no other site-related contaminants were elevated on that day at that or any other school sampling location. An ambient air sample taken on that day just westerly of the school (station AA-03) did have elevated levels of VOCs, most likely related to the steam emission issues just north of Treatment Area 2. However, the highest VOC concentration in this ambient air sample was PCE at 18 µg/m^3, with TCE at 14 µg/m^3, and 1,1-DCE at 1.4 µg/m^3, yet PCE was not detected in the school indoor air.

It is important to note that the 8-hour time weighted sampling results (Table 7) are consistent with the median and average concentrations of site contaminants determined by MassDEP via grab

samples. This provides confirmation on the representativeness and accuracy of MassDEP HAPSITE GC/MS data.

In summary, the infrequent exceedances of Action Levels within the school have no clear explanation, but most importantly, did not exceed the very low concentration level of 2 µg/m^3 (a fraction of a part-per-billion). From a health perspective, per the very strict risk management standards of the MCP, the maximum concentrations of site contaminants detected in the school during the remediation would be considered safe for 30-years of exposure by the general population, including children.

Summary of Air Monitoring Program and Results

Overall, the operation of the thermal remediation system at the General Chemical site had minimal impacts on the ambient air and on the indoor air of nearby structures, including the Harmony Grove school, and at no time posed a condition of significant risk to human health, as that term is defined in the MCP.

Localized impacts to the ambient air were noted during the steam emission episodes on 155 Leland Street in October 2021, and there is evidence of a transient increase in indoor air concentrations within the building at 155 Leland Street during this same period, though not to a level that would pose a significant health risk.

Transient impacts were also noted in ambient air on 9/30/21, with respect to elevated concentrations of Freon-113 at 120 µg/m^3 and 1,1,1-DCE at 45 µg/m^3 on the southerly fence line, due to a failure to change out a VGAC vessel in a timelier manner. These concentrations are however below risk-based limits for such exposures.

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Appendix A – Photos

MassDEP on-site mobile laboratory @ startup

AreaRAE Monitor on fence line @ startup

Treatment Area 1 looking west

Treatment Area 1 looking east

Treatment Area 2 within Building

Treatment Area 2 outside building in tank farm area

Appendix A – Photos

Close-up of vapor, drip & power lines @ electrodes

Oil/Water Separator & oil storage drums

LGAC VOC treatment system components

LGAC PFAS treatment system components

LGAC system 7000-gallon holding/discharge tank

LGAC system discharge to sewer manhole

Appendix A – Photos

4–5000-pound VGAC vessels

VGAC System Discharge Stack

VGAC System Quick Connect Hoses

Sampling Lead VGAC vessel discharge (“midpoint”)

Steam emission on 155 Leland Street on 10/18/21

Steam emanating from electrode E03 on 10/18/21

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	Action Levels for Ambient Air			ER	SP	ER	SP	ER	ER	ER	ER	ER
Sample Date				8/2/2021	8/2/2021	8/2/2021	8/2/2021	8/2/2021	8/2/2021	8/2/2021	8/11/2021	8/11/2021
Sample ID				AA-02	AA-03	AA-04	ARP-2	ARP-4	AA-Conex	AA-UPW	AA-02	AA-03
Analyte	Level 1	Level 2	Level 3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	3	155	18060	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	2000	--	2640	N.D.	12	5.5	21	17	N.D.	4.5	16	60
Trichloromonofluoromethane	--	--	56000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethylene	199	1985	1985	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	35	2993	6960	N.D.	2.7	5	2.4	3.8	N.D.	5.9	N.D.	1.6
1,1,2-Trichlorotrifluoroethane	--	--	76500	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	810	4860	121500	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	8	349	55580	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	5	49	97	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	4	41	405	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	5187	51870	125580	N.D.	N.D.	N.D.	1.2	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	3	223	2871	N.D.	2.1	N.D.	1.5	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon Tetrachloride	6	126	11970	N.D.	N.D.	N.D.	0.39	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	5	92	462	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	11	32	41272	N.D.	1.7	N.D.	0.58	2.5	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	5	36	136	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	5	36	45	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	5	109	1638	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	5076	50008	75200	N.D.	1.2	0.94	1.1	N.D.	N.D.	1.3	0.49	0.94
1,2-Dibromoethane	8	8	3537	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	14	61	23765	N.D.	18	N.D.	1.6	5.5	N.D.	N.D.	1.7	N.D.
Chlorobenzene	5	199	4620	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	998	9982	14322	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.87	0.33	0.57
p/m-Xylene	22	998	5642	N.D.	N.D.	0.85	N.D.	N.D.	N.D.	1	0.39	0.69
Styrene*	43	251	8500	N.D.	N.D.	0.87	N.D.	N.D.	N.D.	1.3	1.5	1.8
o-Xylene*	22	998	5642	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.92	0.35	0.61
1,1,2,2-Tetrachloroethane*	7	69	206	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	49	1129	2210	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	49	1964	2210	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	198	1983	1983	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	30	180	1803	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	6	1983	3005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	200	1998	1998	N.D.	N.D.	N.D.	26	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	11	11	107	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	ER	SP	SP	SP	SP	SP	ER	SP	ER	SP	SP	ER
Sample Date	8/11/2021	8/11/2021	8/11/2021	8/11/2021	8/11/2021	8/12/2021	8/12/2021	8/12/2021	8/12/2021	8/12/2021	8/12/2021	8/13/2021
Sample ID	ARP-2	. Property Lin	Leland Street	LAR-6	LAR-8	ARP-2	TA-1	TA-2	TA-2	LAR-5	LAR-7	ARP-2
Analyte	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	N.D.	48	17	17	16	10	N.D.	14	N.D.	15	9	N.D.
Trichloromonofluoromethane	N.D.	N.D.	N.D.	2.1	N.D.	1.8	N.D.	N.D.	N.D.	1.6	N.D.	N.D.
1,1-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	0.7	N.D.	N.D.	N.D.	N.D.	1	1.5	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.7	N.D.	N.D.
1,1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.4	N.D.	1	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	8.2	N.D.	N.D.
Benzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.5	N.D.	N.D.	N.D.	N.D.
Carbon Tetrachloride	N.D.	0.63	0.48	0.55	0.46	0.45	N.D.	N.D.	N.D.	0.4	0.54	N.D.
1,2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2	N.D.	1.8	N.D.	N.D.
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.48	1.4	N.D.	N.D.	N.D.	N.D.	0.87	96	N.D.	1	N.D.	N.D.
1,2-Dibromoethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	N.D.	0.72	0.41	N.D.	0.95	0.61	1.8	6.5	1.5	8.3	N.D.	N.D.
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	N.D.	1.3	N.D.	N.D.	N.D.	N.D.	0.82	1.3	N.D.	N.D.	N.D.	N.D.
Styrene*	1.2	2.1	1.7	1.4	1.3	0.92	2.1	0.98	1.9	1.3	1.2	1.8
o-Xylene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	SP	SP	SP	ER	SP	SP	SP	SP	SP	SP	ER
Sample Date	8/13/2021	8/13/2021	8/13/2021	8/13/2021	8/13/2021	8/16/2021	8/16/2021	8/17/2021	8/18/2021	8/18/2021	8/19/2021
Sample ID	RP-4 (E. Fenc	AR-5 (W. Fence	LAR-7	LAR-7	0 ft N. of LAR-	NW Corner	NE Corner	SE Corner	AA-NW	155 Leland	AA-04
Analyte	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	7.7	9.8	9.5	N.D.	8.9	3.7	N.D.	0.9	N.D.	N.D.	13
Trichloromonofluoromethane	N.D.	1.9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	N.D.	N.D.	2	1.2	2.1	2.1	1.1	1.5	0.96	1.1
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.91	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	5.7	N.D.	N.D.	N.D.	N.D.	1.7	N.D.	N.D.	N.D.
Benzene	N.D.	N.D.	N.D.	N.D.	2.8	18	16	11	16	9.2	N.D.
Carbon Tetrachloride	0.51	0.53	0.55	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	1.5	N.D.	5.3	N.D.	N.D.	2.9	N.D.	0.32	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	1.9	1.7	N.D.	100	110	560	570	250	480	270	1.3
1,2-Dibromoethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	5.2	3.2	18	1.4	1.3	11	3	11	2	1.7	N.D.
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	N.D.	N.D.	N.D.	N.D.	N.D.	1.5	1.6	0.98	1.6	1.1	N.D.
p/m-Xylene	N.D.	0.85	N.D.	1.2	1.2	6.2	6.2	3.3	6.9	4	N.D.
Styrene*	1.4	1.7	1.1	2.1	1.2	5.7	6.1	3.5	7.6	4.2	1.1
o-Xylene*	N.D.	N.D.	N.D.	N.D.	N.D.	1.4	1.4	N.D.	1.5	0.97	N.D.
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	ER	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Sample Date	8/19/2021	8/26/2021	8/26/2021	9/1/2021	9/1/2021	9/1/2021	9/3/2021	9/3/2021	9/3/2021	9/7/2021	9/9/2021	9/14/2021
Sample ID	AA-NW	SE Corner	NW Corner	Property Lin	S of Conex	AA-NW	SW Corner	AA-NW	NE Corner	NE Corner	AA-NW	AA-Conex
Analyte	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	N.D.	6.8	N.D.	8.9	3.2	4.1	4.2	1.8	6.7	7.5	N.D.	2.4
Trichloromonofluoromethane	N.D.	N.D.	2.4	N.D.	N.D.	1.5	N.D.	1.5	N.D.	N.D.	3.1	N.D.
1,1-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.76	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	N.D.	2.3	0.75	1.2	N.D.	1.1	1.7	0.72	3.1	0.98	N.D.	N.D.
Carbon Tetrachloride	N.D.	N.D.	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.38	0.37
1,2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	N.D.	N.D.	N.D.	N.D.	0.89	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.95
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	1.7	1.2	1.1	1.4	0.81	1.6	1.6	0.74	1.6	1.1	N.D.	1.2
1,2-Dibromoethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	1.8	0.97	0.66	0.39	1.1	N.D.	0.49	N.D.	0.65	0.47	N.D.	0.96
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	1.4	N.D.	N.D.	N.D.	N.D.	N.D.	0.92	N.D.	1.1	N.D.	N.D.	N.D.
Styrene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.5	N.D.	1.8	N.D.	N.D.	N.D.
o-Xylene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.5	N.D.	N.D.	1.2	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Sample Date	9/14/2021	9/14/2021	9/16/2021	9/21/2021	9/21/2021	9/23/2021	9/23/2021	9/23/2021	9/28/2021	9/28/2021	9/30/2021	9/30/2021
Sample ID	AA-NW	NE Corner	AA-NW	AA-NW	NE Corner	AA-S	AA-East	AA-NW	AA-NW	NE Corner	AA-S	AA-NW
Analyte	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	7.2	N.D.	4.1	11	N.D.	7.8	0.93	15	11	13	18	14
Trichloromonofluoromethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.4	N.D.	N.D.	76	2.4
1,1-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.93	N.D.	45	11
Methylene Chloride	0.4	0.66	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.93
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	N.D.	1.7	N.D.	N.D.	N.D.	1.6	3.6	1.5	120	32
1,1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.88	N.D.	1.9	1.2
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	7.8	4.3
Benzene	0.81	1.7	1.3	N.D.	N.D.	N.D.	N.D.	0.69	N.D.	0.9	1.1	N.D.
Carbon Tetrachloride	0.37	N.D.	N.D.	0.45	0.47	0.36	0.51	0.58	0.37	0.38	0.52	N.D.
1,2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	N.D.	N.D.	N.D.	0.75	N.D.	N.D.	N.D.	0.34	1.2	0.32	6.1	6.6
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	1.1	1.5	2.2	0.92	1.1	N.D.	0.74	1.4	1.5	1.9	1	0.78
1,2-Dibromoethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	0.31	0.56	0.68	1.8	N.D.	N.D.	0.47	1.3	2.3	0.8	N.D.	11
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	0.31	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	0.29	0.64	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.89	N.D.	N.D.
Styrene*	0.26	0.89	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
o-Xylene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	ER	ER	ER	SP	SP	SP	SP	SP	SP	SP	SP	SP
Sample Date	10/5/2021	10/5/2021	10/5/2021	10/7/2021	10/7/2021	10/7/2021	10/12/2021	10/14/2021	10/14/2021	10/14/2021	10/19/2021	10/19/2021
Sample ID	AA-03	AA-04	AA-NW	AA-S	AA-NW	HMW-2	AA-NW	AA-NW	AA-NE	155 Conex	AA-03	AA-04
Analyte	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	98	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	14	N.D.	N.D.	4.8	9	670	12	9.8	7.3	10	7.9	9.5
Trichloromonofluoromethane	N.D.	N.D.	N.D.	N.D.	N.D.	1400	1.8	N.D.	2.1	48	2.3	2.8
1,1-Dichloroethylene	N.D.	N.D.	N.D.	0.97	1.1	2200	N.D.	N.D.	N.D.	16	1.4	2.2
Methylene Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	N.D.	N.D.	N.D.	9200	N.D.	N.D.	N.D.	73	3.4	4.3
1,1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	110	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	3900	N.D.	N.D.	N.D.	10	2.2	2.4
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	1100	N.D.	N.D.	N.D.	N.D.	8.4	4.6
Benzene	N.D.	N.D.	0.6	0.67	0.97	130	1.3	0.86	N.D.	1.4	0.75	1.8
Carbon Tetrachloride	N.D.	N.D.	N.D.	N.D.	N.D.	100	N.D.	N.D.	N.D.	N.D.	N.D.	0.57
1,2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	N.D.	N.D.	N.D.	N.D.	1.6	5900	0.38	N.D.	N.D.	31	14	5
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	1.4	1.7	1.1	1.9	2.6	660	2.4	2.2	1.8	3.4	1.1	2.3
1,2-Dibromoethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	N.D.	1.4	1.5	0.62	16	11000	0.81	N.D.	N.D.	47	18	3.3
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.	26	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	N.D.	N.D.	N.D.	N.D.	N.D.	74	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	N.D.	N.D.	N.D.	N.D.	1	68	1.3	0.91	N.D.	1	N.D.	1.5
Styrene*	N.D.	N.D.	N.D.	N.D.	N.D.	4.3	N.D.	N.D.	N.D.	N.D.	N.D.	12
o-Xylene*	N.D.	N.D.	N.D.	N.D.	N.D.	25	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	3.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	5.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Sample Date	10/19/2021	10/21/2021	10/21/2021	10/26/2021	10/26/2021	10/28/2021	10/28/2021	11/2/2021	11/2/2021	11/4/2021	11/4/2021	11/8/2021
Sample ID	155 Conex	AA-03	155 Conex	AA-NW	155 Conex	AA-03	155 Conex	AA-NE	155 Conex	AA-NW	155 Conex	AA-NW
Analyte	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	16	2.6	6.5	18	19	6.7	10	12	6.7	7.2	2.1	7.5
Trichloromonofluoromethane	N.D.	1.4	1.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethylene	N.D.	N.D.	2.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	8.7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	1.8	0.87	0.7	N.D.	0.73	N.D.	0.69	N.D.	N.D.	N.D.	0.63	0.64
Carbon Tetrachloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	2.1	N.D.	4.1	N.D.	0.43	N.D.	N.D.	N.D.	N.D.	N.D.	0.4	N.D.
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	2.1	1.9	1.9	2	0.81	0.74	0.85	2	1.3	1.5	1.8	1.7
1,2-Dibromoethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	3.3	N.D.	28	1.7	1.4	N.D.	2.9	N.D.	0.89	0.47	3.6	0.56
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	1.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Styrene*	12	N.D.	N.D.	1.5	N.D.	N.D.	N.D.	N.D.	3.3	N.D.	N.D.	N.D.
o-Xylene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Sample Date	11/8/2021	11/10/2021	11/10/2021	11/16/2021	11/16/2021	11/22/2021	11/22/2021	11/24/2021	11/29/2021	11/29/2021	12/2/2021	12/8/2021
Sample ID	155 Conex	AA-03	155 Conex	AA-03	155 Conex	AA-NW	155 Conex	155 Conex	AA-NE	155 Conex	AA-NW	AA-NW
Analyte	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	5.9	0.71	6.5	3.2	8.3	3.5	4.8	3.1	6	6	2.5	N.D.
Trichloromonofluoromethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.2	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	1.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	N.D.	1	1.5	1.2	N.D.	0.74	0.71	0.67	N.D.	N.D.	1.2	3.5
Carbon Tetrachloride	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.36	N.D.
1,2-Dichloropropane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	1.3	N.D.	0.88	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	1.7	3.1	2.7	0.89	1.9	1.1	2	N.D.	2.5	0.81	1.3	6.4
1,2-Dibromoethane	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	17	0.47	11	0.39	1.2	N.D.	2.8	1.3	1.7	0.45	1.1	N.D.
Chlorobenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	N.D.	1.2	1.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.5
Styrene*	1.6	4.7	5.9	9.2	N.D.	5.2	N.D.	4.1	3	N.D.	7.4	N.D.
o-Xylene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.4
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	29	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Ambient Air

HAPSITE Instrument	SP	SP	SP
Sample Date	12/14/2021	12/14/2021	1/27/2022
Sample ID	AA-02	AA-03	AA-03
Analyte	µg/m3	µg/m3	µg/m3
Vinyl Chloride	N.D.	N.D.	N.D.
Chloroethane	N.D.	N.D.	5.3
Trichloromonofluoromethane	N.D.	N.D.	N.D.
1,1-Dichloroethylene	N.D.	N.D.	N.D.
Methylene Chloride	N.D.	N.D.	1.4
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	N.D.
1,1-Dichloroethane	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	N.D.	N.D.	N.D.
Chloroform	N.D.	N.D.	N.D.
1,2-Dichloroethane	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	N.D.	N.D.	N.D.
Benzene	N.D.	N.D.	0.76
Carbon Tetrachloride	N.D.	N.D.	N.D.
1,2-Dichloropropane	N.D.	N.D.	N.D.
Trichloroethylene	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	N.D.	N.D.	N.D.
Toluene	N.D.	N.D.	1.3
1,2-Dibromoethane	N.D.	N.D.	N.D.
Tetrachloroethylene	N.D.	N.D.	1.8
Chlorobenzene	N.D.	N.D.	N.D.
Ethylbenzene	N.D.	N.D.	N.D.
p/m-Xylene	N.D.	N.D.	N.D.
Styrene*	N.D.	N.D.	N.D.
o-Xylene*	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	N.D.	N.D.	N.D.
HexachloroButadiene*	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-01

HAPSITE Instrument		SP	SP	SP	SP	ER	SP	SP	ER	SP	ER	ER	SP	ER
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	3	1
Sample ID		SV-01	SV-01	SV-01	SV-01	SV-01	SV-01	SV-01	SV-01	SV-01	SV-01	SV-01	SV-01	SV-01
Sample Date		6/23/2021	8/2/2021	8/12/2021	8/17/2021	8/18/2021	8/26/2021	9/28/2021	10/12/2021	11/16/2021	12/8/2021	12/14/2021	12/21/2021	1/27/2022
Sample Time		10:05 AM	1:30 PM	2:55 PM	10:00 AM	9:45 AM	10:55 AM	11:10 AM	10:20 AM	12:05 PM	11:40 AM	12:10 PM	10:40 AM	11:10 AM
Analyte	Action Level	Baseline µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	7.1	13	1	N.D.	N.D.	7.4	N.D.	4.8	N.D.	N.D.	20	7.5
Trichloromonofluoromethane	NA	N.D.	5.8	3.6	N.D.	10	14	6.6	6.5	N.D.	33	57	11	4
1,1-Dichloroethylene	56	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	1.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	N.D.	N.D.	2.1	2.8	N.D.	N.D.	3.4	11	N.D.	64	110	21	7.7
1,1-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	N.D.	1.7	N.D.	N.D.	N.D.	N.D.	N.D.	1.6	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	130	N.D.	3.5	1.4	2	1.9	1.4	2.5	3.6	1.3	1.3	1.3	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	N.D.	7.2	N.D.	1.6	N.D.	N.D.	N.D.	3.4	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	160	0.66	N.D.	N.D.	1.2	N.D.	2.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon Tetrachloride	38	N.D.	N.D.	0.57	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	N.D.	12	N.D.	2.1	1.5	0.45	N.D.	10	N.D.	1.1	3.1	1.2	N.D.
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	1.9	0.89	N.D.	2.8	1	2.4	2	1.2	3	1.3	0.94	0.76	N.D.
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	2.8	55	1.6	17	14	6.1	4.6	59	1.5	16	38	43	3.7
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	1400	1.2	N.D.	N.D.	2.8	1.2	1.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Styrene*	95	N.D.	N.D.	1.2	7.6	5.6	3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
o-Xylene*	1400	N.D.	N.D.	N.D.	N.D.	1	N.D.	N.D.	N.D.	N.D.	N.D.	0.85	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1	1.2	1	N.D.
1,2,4-Trimethylbenzene*	NA	1.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-02

HAPSITE Instrument		SP	SP	SP	ER	SP	ER	SP	SP	ER	ER
Dilution Factor		3	3	3	1	3	3	4	3	5.2	3
Sample ID		SV-02	SV-02	SV-02	SV-02	SV-02	SV-02	SV-02	SV-02	SV-02	SV-02
Sample Date		6/23/2021	7/8/2021	8/2/2021	8/12/2021	8/17/2021	8/18/2021	8/24/2021	8/26/2021	9/30/2021	10/12/2021
Sample Time				1:35 PM	3:00 PM	10:05 AM	9:55 AM	11:00 AM	11:15 AM	11:50 AM	10:25 AM
Analyte	Action Level	Baseline µg/m3	Baseline µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	8.7	21	N.D.	N.D.	N.D.	N.D.	2.3	N.D.	N.D.
Trichloromonofluoromethane	NA	15	11	9.3	120	44	110	42	76	110	80
1,1-Dichloroethylene	56	14	29	35	N.D.	16	7	8.7	9.4	9.1	4.6
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.2	3.1	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	490	680	1600	190	330	580	120	100	660	390
1,1-Dichloroethane		N.D.	4	4.2	N.D.	2.6	N.D.	2	2.6	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	59	60	73	26	43	63	28	41	71	40
Chloroform	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	66	94	270	45	150	220	63	90	270	180
Benzene	160	2.1	3	N.D.	N.D.	4.5	1.2	3.3	5.1	N.D.	N.D.
Carbon Tetrachloride	38	0.66	15	25	3.1	16	18	8.3	10	25	15
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	140	180	290	92	220	350	140	200	470	230
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	10	1.7	0.87	N.D.	8.3	7.5	5.5	5.7	6.6	6.5
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	210	280	360	100	220	340	150	210	560	310
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	1	N.D.	N.D.	N.D.	1.2	N.D.	N.D.	N.D.	2.1	N.D.
p/m-Xylene	1400	2.8	N.D.	N.D.	N.D.	3.6	1.7	2.4	2.1	2.5	1.4
Styrene*	95	N.D.	N.D.	6.7	2.4	6.6	4.5	4.1	3.3	N.D.	N.D.
o-Xylene*	1400	N.D.	N.D.	N.D.	N.D.	N.D.	1.5	N.D.	N.D.	2.3	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	1.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-02 (continued)

HAPSITE Instrument		SP	SP	SP	ER	ER	SP	SP
Dilution Factor		3	3	4	5.2	5.2	4.5	3
Sample ID		SV-02	SV-02	SV-02	SV-02	SV-02	SV-02	SV-02
Sample Date		6/23/2021	7/8/2021	11/18/2021	12/8/2021	12/14/2021	12/21/2021	1/27/2021
Sample Time				10:45 AM	11:50 AM	12:25 PM	10:55 AM	11:50 AM
Analyte	Action Level	Baseline µg/m3	Baseline µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	8.7	2.4	N.D.	N.D.	20	23
Trichloromonofluoromethane	NA	15	11	5.3	2100	29	22	13
1,1-Dichloroethylene	56	14	29	1.5	N.D.	N.D.	1.1	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	490	680	1400	4100	4000	2100	280
1,1-Dichloroethane		N.D.	4	1.5	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	59	60	18	27	28	12	3
Chloroform	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	66	94	120	97	110	33	N.D.
Benzene	160	2.1	3	0.64	N.D.	N.D.	N.D.	0.77
Carbon Tetrachloride	38	0.66	15	14	N.D.	10	5.4	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	140	180	83	91	110	47	8.1
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	10	1.7	6.6	N.D.	3	1.3	2
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	210	280	100	110	150	110	32
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	1400	2.8	N.D.	N.D.	1.3	1.2	N.D.	N.D.
Styrene*	95	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
o-Xylene*	1400	N.D.	N.D.	N.D.	1.3	1.2	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	1.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-03

HAPSITE Instrument		SP	SP	ER	SP	ER	SP	ER	ER	SP	SP
Dilution Factor		18	4.5	340	850	34,000	13,600	13,600	13,600	13,600	34,000
Sample ID		SV-03	SV-03	SV-03	SV-03	SV-03	SV-03	SV-03	SV-03R	SV-03R	SV-03R
Sample Date		6/23/2021	9/21/2021	9/23/2021	9/28/2021	9/30/2021	12/6/2021	12/8/2021	12/14/2021	12/21/2021	1/27/2021
Sample Time		10:30 AM	11:45 AM	11:15 AM	11:25 AM	12:00 PM	11:10 AM	12:00 PM	12:35 PM	11:05 AM	11:50 AM
	Action Level	Baseline									
Analyte		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	48,000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	290	180	N.D.	N.D.	N.D.	97,000	N.D.	160,000	200,000	N.D.
Trichloromonofluoromethane	NA	110,000	87,000	N.D.	20,000,000	4,200,000	36,000	200,000	340,000	29,000	38,000
1,1-Dichloroethylene	56	N.D.	N.D.	20,000	5,100,000	18,000,000	330,000	510,000	540,000	200,000	86,000
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	230,000	130,000	5,100,000	30,000,000.00	94,000,000.00	200,000.00	380,000.00	660,000.00	410,000.00	270,000.00
1,1-Dichloroethane		42	N.D.	N.D.	250,000	N.D.	12,000	N.D.	N.D.	8,000	N.D.
Cis 1,2-Dichloroethylene	56	120	N.D.	N.D.	3,700,000	6,100,000	260,000	350,000	320,000	180,000	53,000
Chloroform	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	2800	430	N.D.	2,400,000	1,600,000	N.D.	56,000	55,000	26,000	N.D.
Benzene	160	7.3	1300	N.D.	690,000	N.D.	14,000	N.D.	N.D.	4,000	3,300
Carbon Tetrachloride	38	320	45	N.D.	280,000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	1,200	6,500	8,400	7,600,000	11,000,000	440,000	680,000	620,000	390,000	99,000
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	27	2,600	N.D.	1,400,000	170,000	41,000	11,000	N.D.	10,000	9,000
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	1,100	3,400	6,700	4,900,000	4,400,000	2,300,000	4,200,000	4,700,000	3,300,000	1,100,000
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	3.5	52	N.D.	32,000	N.D.	12,000	21,000	18,000	7,100	2,700
p/m-Xylene	1400	8	520	N.D.	200,000	N.D.	11,000	14,000	20,000	7,500	1,800
Styrene*	95	2.4	54	N.D.	29,000	N.D.	N.D.	N.D.	N.D.	1,300	N.D.
o-Xylene*	1400	1.7	170	N.D.	55,000	N.D.	8,300	19,000	25,000	22,000	3,200
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	4,200	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	1.4	N.D.	200	N.D.	2,500	5,600	16,000	7,400	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	13	N.D.	1,100	N.D.	2,200	4,000	5,800	5,400	N.D.
1,3-Dichlorobenzene (meta)*	42	2.8	N.D.	N.D.	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	1.3	N.D.	N.D.	61	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	2.1	N.D.	N.D.	82	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-05									
HAPSITE Instrument		SP	SP	ER	SP	ER	ER	SP	ER
Dilution Factor		1	3	1	1	3.5	2.3	3	1
Sample ID		SV-05	SV-05	SV-05	SV-05	SV-05	SV-05	SV-05	SV-05
Sample Date		6/23/2021	8/24/2021	9/30/2021	10/28/2021	12/8/2021	12/14/2021	12/21/2021	1/27/2022
Sample Time		9:35 AM	10:50 AM	11:40 AM	11:05 AM	11:45 AM	12:15 PM	10:45 AM	11:15 AM
Analyte	Action Level	Baseline µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	7	1.8	11	16	N.D.	N.D.	16	9
Trichloromonofluoromethane	NA	500	24	3.9	8.3	7400	9.9	15	13
1,1-Dichloroethylene	56	N.D.	1.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	1.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	990	36	110	7000	14,000	26,000	6,000	37,000
1,1-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	130	N.D.	1.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	36	21	23	23	26	41	12	26
Benzene	160	0.75	2.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon Tetrachloride	38	4.3	2.6	1.7	2.4	N.D.	N.D.	N.D.	1.9
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	0.5	0.68	N.D.	N.D.	N.D.	N.D.	0.6	N.D.
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	1.8	2.8	1.3	N.D.	2.8	N.D.	0.96	N.D.
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	4.7	6.6	4.5	2.3	15	40	16	2.9
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	N.D.	N.D.	N.D.	N.D.	1.3	1.2	N.D.	N.D.
p/m-Xylene	1400	N.D.	2	0.94	N.D.	N.D.	1.4	N.D.	N.D.
Styrene*	95	N.D.	4.6	1.8	N.D.	5.5	5.3	N.D.	1.2
o-Xylene*	1400	N.D.	N.D.	N.D.	N.D.	1.4	1.3	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	1.3	1.3	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

		SV-07		SV-09								
HAPSITE Instrument		SP	SP	ER	SP	ER	ER	ER	ER	SP	ER	SP
Dilution Factor		85	340	1	42.5	1	1	1	1	1	1	1
Sample ID		SV-07	SV-07 (V)	SV-09	SV-09	SV-09	SV-09	SV-09	SV-09	SV-09	SV-09	SV-09
Sample Date		7/8/2021	8/13/2021	6/24/2021	6/30/2021	8/2/2021	8/2/2021	8/12/2021	8/12/2021	8/17/2021	8/19/2021	8/26/2021
Sample Time		10:10 AM	11:55 AM	10:05 AM	10:20 AM	12:20 PM	1:55 PM	12:15 PM	2:00 PM	9:35 AM	1:05 PM	10:10 AM
	Action	Baseline	Vial	Baseline	Baseline			PID	SGK			
Analyte	Level			µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	74	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	110	1400	2.7	N.D.	12	N.D.	N.D.	N.D.	N.D.	8.7	N.D.
Trichloromonofluoromethane	NA	100000	89000	5.8	3.6	N.D.	4.7	5.8	N.D.	2.3	N.D.	25
1,1-Dichloroethylene	56	2400	1500	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.3
1,1,2-Trichlorotrifluoroethane	NA	200000	140000	9	7.2	N.D.	7.3	9	N.D.	3.5	N.D.	4.3
1,1-Dichloroethane		840	700	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	3200	3300	N.D.	N.D.	3.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	5900	9900	N.D.	N.D.	20	N.D.	4.1	N.D.	N.D.	N.D.	N.D.
Benzene	160	N.D.	N.D.	N.D.	1	N.D.	N.D.	N.D.	N.D.	1.4	N.D.	2.2
Carbon Tetrachloride	38	1000	970	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	3200	3900	N.D.	N.D.	44	9.3	21	N.D.	1.7	N.D.	N.D.
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	9.6	N.D.	1.2	0.85	N.D.	0.71	N.D.	N.D.	3.2	1.5	3.2
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	33000	35000	2.3	0.6	290	36	170	N.D.	11	6.6	2.2
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	3.7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	1400	2.9	N.D.	1.4	N.D.	N.D.	N.D.	N.D.	N.D.	2.9	1.5	1.6
Styrene*	95	N.D.	220	N.D.	N.D.	1.1	0.89	7.2	3.1	7	6.6	3
o-Xylene*	1400	2.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	2.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	2.5	N.D.	3.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	12	N.D.	N.D.	N.D.	N.D.	N.D.	9.3	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	5.6	N.D.	N.D.	N.D.	N.D.	N.D.	7.2	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	8.7	N.D.	N.D.	N.D.	N.D.	N.D.	6.9	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-09 (continued)

HAPSITE Instrument		ER	SP	SP	ER	ER	ER
Dilution Factor		2.3	1	1	3.5	2.3	3.8
Sample ID		SV-09	SV-09	SV-09	SV-09	SV-09	SV-09
Sample Date		10/21/2021	11/10/2021	11/16/2021	12/8/2021	12/14/2021	1/27/2021
Sample Time		10:45 AM	8:46 AM	10:50 AM	11:25 AM	10:55 AM	10:30 AM
Analyte	Action Level	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	5.4	4.8	N.D.	N.D.	180
Trichloromonofluoromethane	NA	66	1.6	N.D.	12	6.2	9
1,1-Dichloroethylene	56	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	N.D.	47	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	N.D.	5.9	N.D.	N.D.	N.D.	N.D.
Chloroform	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	N.D.	6.2	N.D.	N.D.	N.D.	N.D.
Benzene	160	N.D.	1.3	0.97	N.D.	N.D.	N.D.
Carbon Tetrachloride	38	N.D.	0.74	0.36	N.D.	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	N.D.	23	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	12	2.6	2.8	3.3	2	1
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	N.D.	70	0.99	22	51	1.3
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	N.D.	N.D.	N.D.	0.87	0.86	N.D.
p/m-Xylene	1400	2	N.D.	N.D.	1.4	1.3	N.D.
Styrene*	95	0.93	N.D.	N.D.	N.D.	N.D.	1
o-Xylene*	1400	N.D.	N.D.	N.D.	1.2	1.2	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	1.8	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-10

HAPSITE Instrument		ER	SP	SP	ER	SP	SP	ER	SP	ER
Dilution Factor		42.5	1	1	1	1	1	1	1	1
Sample ID		SV-10	SV-10	SV-10	SV-10	SV-10	SV-10	SV-10	SV-10	SV-10
Sample Date		6/30/2021	7/8/2021	8/2/2021	8/12/2021	8/12/2021	8/17/2021	8/19/2021	8/26/2021	12/8/2021
Sample Time		10:35 AM	9:10 AM	1:05 PM	12:20 PM	2:07 PM	9:45 AM	1:15 PM	10:15 AM	11:15 AM
	Action	Baseline	Baseline		PID	SGK				
Analyte	Level	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	0.69	4.6	5	9.8	N.D.	N.D.	N.D.	N.D.
Trichloromonofluoromethane	NA	110	4.9	3.1	N.D.	2.7	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethylene	56	N.D.	N.D.	0.94	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	1	1.4	1.1	N.D.
1,1,2-Trichlorotrifluoroethane	NA	29	9.7	4.7	N.D.	4.1	N.D.	3.5	N.D.	N.D.
1,1-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	N.D.	N.D.	1.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	130	N.D.	N.D.	1.9	1.7	1.2	1.5	2.6	3.3	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	14	4.9	16	12	7.8	11	7	9.2	1.5
Benzene	160	N.D.	1.4	0.99	N.D.	N.D.	3.1	N.D.	2.9	N.D.
Carbon Tetrachloride	38	N.D.	0.8	N.D.	N.D.	0.75	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	N.D.	N.D.	11	11	N.D.	2	1.2	0.61	N.D.
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	6.9	1.2	1	N.D.	0.83	3.1	1.4	1.7	1.3
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	49	26	81	130	16	39	35	37	30
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	N.D.	1.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
p/m-Xylene	1400	1.4	N.D.	0.95	N.D.	N.D.	2.5	1.4	1.5	0.82
Styrene*	95	0.85	N.D.	1.5	5.2	2.6	6.3	5	3.1	N.D.
o-Xylene*	1400	1.2	N.D.	N.D.	N.D.	N.D.	N.D.	1.2	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	N.D.	N.D.	N.D.	9.3	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	7.2	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	7	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Soil Gas

SV-11

HAPSITE Instrument		SP	SP	ER	ER	ER	ER	SP	SP	ER	ER	ER
Dilution Factor		1	1	1	1	5.2	1	1	3	1	1	1
Sample ID		SV-11	SV-11	SV-11	SV-11	SV-11	SV-11	SV-11	SV-11	SV-11	SV-11	SV-11
Sample Date		6/30/2021	7/8/2021	8/13/2021	8/13/2021	10/5/2021	10/19/2021	11/10/2021	11/16/2021	12/8/2021	12/14/2021	1/27/2022
Sample Time		9:55 AM	9:05 AM	11:30 AM	11:35 AM	10:45 AM	10:50 AM	8:30 AM	10:40 AM	11:10 AM	10:50 AM	10:20 AM
	Action	Baseline	Baseline	PID	SGK							
Analyte	Level	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	9.2	19	N.D.	N.D.	16
Trichloromonofluoromethane	NA	N.D.	2.4	N.D.	N.D.	88	N.D.	28	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethylene	56	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.1	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	N.D.	4.8	N.D.	N.D.	N.D.	N.D.	42	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	6.8	N.D.	N.D.	1.5	N.D.
Chloroform	130	N.D.	N.D.	1.5	N.D.	N.D.	1	N.D.	N.D.	N.D.	N.D.	0.97
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	2.7	4.3	4.6	N.D.	N.D.	2.9	6	N.D.	N.D.	N.D.	N.D.
Benzene	160	1.1	1.3	N.D.	N.D.	N.D.	N.D.	0.64	0.94	N.D.	N.D.	N.D.
Carbon Tetrachloride	38	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	N.D.	N.D.	7.1	N.D.	N.D.	N.D.	19	N.D.	3.6	3.3	N.D.
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	1.6	1.5	1.2	0.92	7.2	0.87	2.2	2.5	1	0.92	N.D.
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	24	34	81	6.1	41	9.8	61	6.2	44	55	N.D.
Chlorobenzene	160	N.D.	0.39	N.D.	N.D.	N.D.	N.D.	N.D.	0.33	N.D.	N.D.	N.D.
Ethylbenzene	41	N.D.	N.D.	N.D.	N.D.	1.1	N.D.	N.D.	N.D.	0.92	N.D.	N.D.
p/m-Xylene	1400	N.D.	1.1	N.D.	N.D.	1.4	N.D.	N.D.	N.D.	1	N.D.	N.D.
Styrene*	95	N.D.	N.D.	4.6	3.4	2.9	0.98	3.4	2	1.9	3	1.4
o-Xylene*	1400	N.D.	N.D.	N.D.	N.D.	1.2	N.D.	N.D.	N.D.	N.D.	1.1	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	1.2	N.D.	N.D.	N.D.	N.D.	1.8	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	42	N.D.	1.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Sub-Slab Soil Gas

155 Leland Street

HAPSITE Instrument		ER	SP	ER	SP	ER	ER	ER	SP	ER	SP	ER	ER
Dilution Factor		3.5	3	3	4.5	34	3	1.7	1	1	1	1	1
Sample ID		155-SG-1	155-SG-1	155-SG-1	155-SG-1	155-SG-1	155-SG-1	155-SG-2	155-SG-2	155-SG-2	155-SG-2	155-SG-2	155-SG-2
Sample Date		6/23/2021	9/28/2021	10/5/2021	11/2/2021	12/14/2021	1/27/2022	6/23/2021	9/28/2021	10/5/2021	11/2/2021	12/14/2021	1/27/2022
Sample Time		8:35 AM	11:00 AM	11:10 AM	10:45 AM	11:40 AM	11:35 AM	8:45 AM	10:50 AM	11:05 AM	10:40 AM	11:35 AM	11:40 AM
	Action Level	Baseline						Baseline					
Analyte		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	38	14	N.D.	13	N.D.	56	N.D.	11	N.D.	6.9	N.D.	N.D.
Trichloromonofluoromethane	NA	6.3	5.9	55	33	130	13	610	440	16	100	600	1400
1,1-Dichloroethylene	56	N.D.	7.7	7.6	0.95	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	1700	1100	1200	910	600	2200	950	660	15	160	1200	2800
1,1-Dichloroethane		N.D.	1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	31	25	22	18	N.D.	15	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	11	13	15	11	N.D.	3.7	1.6	2.2	N.D.	N.D.	N.D.	N.D.
Benzene	160	N.D.	1.3	N.D.	1.8	N.D.	N.D.	N.D.	N.D.	0.67	6.1	0.94	N.D.
Carbon Tetrachloride	38	N.D.	1.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.37	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	54	39	43	31	45	26	1.2	1.1	N.D.	N.D.	2.6	N.D.
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	2.9	3.9	5.3	17	N.D.	3.3	2.8	2.1	6.8	63	5	2.8
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	100	84	78	64	130	44	18	12	1.5	2.8	59	10
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	N.D.	N.D.	1.7	1.7	N.D.	0.93	N.D.	N.D.	N.D.	5.7	1.1	N.D.
p/m-Xylene	1400	N.D.	1.6	2	4.4	N.D.	1	1.2	1.1	3.1	18	2.3	N.D.
Styrene*	95	N.D.	N.D.	0.93	6.4	N.D.	1.8	N.D.	N.D.	N.D.	10	N.D.	N.D.
o-Xylene*	1400	N.D.	N.D.	N.D.	1.4	N.D.	0.99	1.1	N.D.	0.89	5.5	2.1	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	1.2	1.1	N.D.	N.D.	N.D.	N.D.	N.D.	1.1	1.7	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	0.97	N.D.	N.D.	N.D.	N.D.	N.D.	2.8	2.6	N.D.
1,3-Dichlorobenzene (meta)*	42	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Appendix B – MassDEP Data Summary Tables – Sub-Slab Soil Gas

157 Leland Street											
HAPSITE Instrument		ER	ER	SP	ER	ER	ER	ER	SP	ER	ER
Dilution Factor		1	1	3	3.5	3	1.7	1	1	3.5	3
Sample ID		157-SG-1	157-SG-1	157-SG-1	157-SG-1	157-SG-1	157-SG-2	157-SG-2	157-SG-2	157-SG-2	157-SG-2
Sample Date		6/23/2021	10/5/2021	11/2/2021	12/14/2021	1/27/2022	6/23/2021	10/5/2021	11/2/2021	12/14/2021	1/27/2022
Sample Time		9:05 AM	11:35 AM	11:05 AM	11:20 AM	10:55 AM	9:10 AM	11:30 AM	11:00 AM	11:15 AM	10:50 AM
	Action	Baseline					Baseline				
Analyte	Level	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3		µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	19	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	N.D.	12	N.D.	N.D.	N.D.	N.D.	5.6	51	N.D.
Trichloromonofluoromethane	NA	790	14	440	24	18	6.5	330	200	25	14
1,1-Dichloroethylene	56	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	770	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichlorotrifluoroethane	NA	1200	850	670	710	990	1700	520	300	210	3300
1,1-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	56	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	130	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.5	1.2	N.D.	N.D.
1,2-Dichloroethane	6.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	210	6.4	10	8.7	10	5.3	13	15	11	N.D.	5.3
Benzene	160	N.D.	N.D.	3.4	N.D.	N.D.	N.D.	N.D.	2.1	N.D.	N.D.
Carbon Tetrachloride	38	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	28	2.7	1.4	1.4	4.8	N.D.	17	12	6.6	11	6
cis-1,3-Dichloropropene	8.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	3800	1.3	3	13	N.D.	2.9	3.2	2.7	16	3.4	2.4
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	98	150	120	95	200	68	140	120	69	110	64
Chlorobenzene	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	41	N.D.	N.D.	1.7	1.6	N.D.	0.96	N.D.	1.9	0.86	N.D.
p/m-Xylene	1400	0.82	1.5	5	1.8	N.D.	1.1	1.4	6.2	2.2	N.D.
Styrene*	95	N.D.	0.85	7.9	5	1.8	N.D.	N.D.	10	4.3	2.4
o-Xylene*	1400	N.D.	1.3	1.7	1.8	N.D.	1	N.D.	2.1	2.5	N.D.
1,1,2,2-Tetrachloroethane*	2.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	2.3	N.D.	N.D.	N.D.	N.D.	1.7	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	1.2	2.6	N.D.	N.D.	N.D.	1.5	2.1	N.D.
1,3-Dichlorobenzene (meta)*	42	9.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	35	7.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	50	6.9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	7.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

155 Leland Street

HAPSITE Instrument		ER	ER	ER	ER	SP	SP	SP	SP	SP	SP	SP	SP
Sample Date		6/23/2021	6/23/2021	9/28/2021	9/28/2021	10/5/2021	10/5/2021	11/2/2021	11/2/2021	12/14/2021	12/14/2021	1/27/2022	1/27/2022
Sample ID		155-IA1	155-IA2	155-IA1	155-IA2	155-IA1	155-IA2	155-IA1	155-IA2	155-IA1	155-IA2	155-IA1	155-IA2
Address	Action	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland	155 Leland
Sample Location	Level	First Floor	Basement	First Floor	Basement	First Floor	Basement	First Floor	Basement	First Floor	Basement	First Floor	Basement
Analyte		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	0.27	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	2.9	N.D.	N.D.	9	2.9	N.D.	6.9	N.D.	1.6	N.D.	4.5
Trichloromonofluoromethane	NA	N.D.	N.D.	4.3	9.5	0.28	N.D.	1.6	N.D.	N.D.	1.9	0.44	0.75
1,1-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	11	0.98	0.69	N.D.	2	0.56	0.15	0.69	0.53	0.64	0.65	0.48	0.43
1,1,2-Trichlorotrifluoroethane	NA	N.D.	N.D.	N.D.	15	0.43	N.D.	N.D.	0.43	0.31	0.38	0.63	1.1
1,1-Dichloroethane	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	0.8	N.D.	N.D.	1.9	2.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	1.9	1.2	N.D.	N.D.	N.D.	1.7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	0.09	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	3	N.D.	N.D.	1.3	1.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	2.3	0.29	0.79	0.68	N.D.	3.8	0.96	5.5	3.9	1.9	1.2	2	1.2
Carbon Tetrachloride	0.54	N.D.	0.45	N.D.	N.D.	0.31	0.45	1.2	0.36	0.35	N.D.	0.26	N.D.
1,2-Dichloropropane	0.12	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	0.4	N.D.	N.D.	N.D.	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	0.15	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	54	8.5	12	4.5	4.6	25	2.9	38	24	11	8.5	5.7	5.9
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	1.4	0.93	1.1	1.5	1.9	0.31	N.D.	0.43	0.48	0.58	0.33	0.95	1
Chlorobenzene	2.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.41	0.24	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	7.4	0.96	1.2	0.53	0.63	1.7	0.62	2.7	1.8	0.95	0.76	0.6	0.56
p/m-Xylene	20	4	6	2.1	2.4	6	2.1	10	6.8	4.1	2.9	1.9	1.7
Styrene*	1.4	3.5	3.7	0.41	0.84	N.D.	N.D.	N.D.	4.7	1.5	1.2	1.1	1.3
o-Xylene*	20	1.2	1.6	0.78	0.84	1.7	N.D.	2.7	2.1	1.3	0.99	0.62	0.58
1,1,2,2-Tetrachloroethane*	0.04	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.33	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	0.3	0.4	0.37	0.38	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	0.89	1.5	1.1	1	1.4	N.D.	2.3	1.5	1.1	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	0.7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	0.11	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

155 Leland Street

HAPSITE Instrument		ER	SP	SP	SP	SP	SP	SP
Sample Date		6/23/2021	6/23/2021	10/5/2021	11/2/2021	12/14/2021	12/14/2021	1/27/2022
Sample ID		157-IA1	157-IA2	157-IA2	157-IA2	157-IA1	157-IA2	157-IA2
Address	Action	157 Leland	157 Leland	157 Leland	157 Leland	157 Leland	157 Leland	157 Leland
Sample Location	Level	First Floor	Basement	Basement	Basement	First Floor	Basement	Basement
Analyte		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	0.27	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	N.D.	8.8	12	1.1	N.D.	18
Trichloromonofluoromethane	NA	N.D.	N.D.	N.D.	1.3	3	N.D.	1
1,1-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	11	N.D.	0.38	0.37	0.17	0.31	0.24	0.25
1,1,2-Trichlorotrifluoroethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	0.34	N.D.
1,1-Dichloroethane	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	1.9	1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	0.09	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	2.3	0.62	1.7	1.8	0.56	0.72	0.44	0.6
Carbon Tetrachloride	0.54	N.D.	N.D.	0.3	N.D.	0.28	0.29	N.D.
1,2-Dichloropropane	0.12	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	0.15	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	54	5.3	8.7	11	2	1.8	1.2	0.81
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	1.4	0.5	1.2	0.39	N.D.	0.35	N.D.	3.7
Chlorobenzene	2.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	7.4	0.77	1.5	1	0.18	0.26	0.23	N.D.
p/m-Xylene	20	4	5.6	3.5	0.51	0.56	0.55	N.D.
Styrene*	1.4	3.2	2.9	0.86	N.D.	N.D.	2.6	1.4
o-Xylene*	20	0.85	1.4	1.1	N.D.	0.21	0.23	N.D.
1,1,2,2-Tetrachloroethane*	0.04	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	0.54	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	0.49	N.D.	1.3	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	0.7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	0.11	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Harmony Grove School - 169 Leland Street

HAPSITE Instrument		ER	ER	SP	SP	SP	ER	ER	ER	SP	SP
Sample Date		8/24/2021	8/24/2021	9/7/2021	9/7/2021	9/7/2021	9/21/2021	9/21/2021	9/21/2021	10/5/2021	10/5/2021
Sample ID		IA-1	IA-02	IA-01	IA-02	IA-03	IA-01	IA-02	IA-03	IA-01	IA-02
Address	Action	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland
Sample Location	Level	Gymnasium	Cafeteria	Gymnasium	Cafeteria	Office	Gymnasium	Cafeteria	Office	Gymnasium	Cafeteria
Analyte		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	0.27	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	13	N.D.	1.5	2.3	14	11	N.D.	N.D.	13	5.7
Trichloromonofluoromethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.4	N.D.
1,1-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	11	N.D.	N.D.	0.85	0.39	0.35	2.1	N.D.	N.D.	0.17	0.16
1,1,2-Trichlorotrifluoroethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	1.9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	0.09	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	2.3	N.D.	0.95	2.1	2.1	0.56	0.45	N.D.	N.D.	0.44	0.59
Carbon Tetrachloride	0.54	N.D.	N.D.	N.D.	N.D.	0.28	N.D.	N.D.	N.D.	0.36	0.32
1,2-Dichloropropane	0.12	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	0.15	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	54	2.7	2.3	1.7	2.3	1.9	2	1.8	1.7	1.9	2.1
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	1.4	1.5	1.9	0.73	1.5	N.D.	0.87	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	2.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	7.4	0.5	0.36	0.31	0.38	0.24	0.33	0.22	0.22	0.25	0.28
p/m-Xylene	20	1.5	1.3	1.1	1.4	0.64	1.1	0.62	0.82	0.63	0.62
Styrene*	1.4	1.6	0.75	2.1	N.D.	N.D.	2	N.D.	1.3	N.D.	N.D.
o-Xylene*	20	0.74	0.62	N.D.	N.D.	N.D.	0.98	0.55	0.36	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	0.04	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	0.38	0.32	N.D.	N.D.	N.D.	0.44	0.32	0.35	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	0.62	0.4	N.D.	N.D.	N.D.	0.36	0.27	0.22	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	0.6	N.D.	N.D.	0.25	N.D.	N.D.	N.D.	N.D.	9.3	N.D.	N.D.
1,4-Dichlorobenzene (para)*	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	7.2	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	0.7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	7	N.D.	N.D.
1,2,4-Trichlorobenzene*	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	0.11	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Harmony Grove School - 169 Leland Street

HAPSITE Instrument		SP	ER	ER	ER	SP	SP	SP	SP	SP	SP
Sample Date		10/5/2021	10/19/2021	10/19/2021	10/19/2021	10/21/2021	11/10/2021	11/10/2021	11/10/2021	11/16/2021	11/16/2021
Sample ID		IA-03	IA-01	IA-02	IA-03	IA-02	IA-01	IA-02	IA-03	IA-01	IA-02
Address	Action	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland
Sample Location	Level	Office	Gymnasium	Cafeteria	Office	Cafeteria	Gymnasium	Cafeteria	Office	Gymnasium	Cafeteria
Analyte		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	0.27	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	7.4	7.1	N.D.	N.D.	9.1	10	3.7	7.9	3.6	8.2
Trichloromonofluoromethane	NA	5.4	N.D.	3.9	N.D.	1.3	2	1.9	1.2	1.1	1.2
1,1-Dichloroethylene	0.8	N.D.	N.D.	1.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	11	0.16	N.D.	N.D.	N.D.	0.2	0.31	0.36	0.27	0.24	0.25
1,1,2-Trichlorotrifluoroethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	1.8	2	1.9	N.D.	N.D.
Chloroform	1.9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	0.09	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.51	N.D.	N.D.
Benzene	2.3	0.82	N.D.	N.D.	N.D.	1.6	2.8	2.8	2.7	0.58	0.5
Carbon Tetrachloride	0.54	0.33	N.D.	N.D.	N.D.	0.26	0.31	0.3	0.31	0.35	0.34
1,2-Dichloropropane	0.12	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	0.4	N.D.	N.D.	1.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	0.15	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	54	3.8	1.2	2.3	1.1	5.7	11	13	9.7	2.5	1.5
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	1.4	N.D.	N.D.	N.D.	N.D.	N.D.	0.73	0.77	0.64	N.D.	N.D.
Chlorobenzene	2.3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	7.4	0.36	0.49	0.69	0.53	0.66	1.2	1.3	1.1	0.2	0.18
p/m-Xylene	20	0.95	0.59	0.82	0.63	1.9	3.4	3.4	3.2	0.44	0.52
Styrene*	1.4	N.D.	N.D.	0.22	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
o-Xylene*	20	N.D.	0.53	0.24	0.56	N.D.	1	1.1	1.1	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	0.04	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	0.26	0.5	0.31	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	0.22	0.35	0.26	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene (para)*	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	0.7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene*	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	0.11	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Harmony Grove School - 169 Leland Street

HAPSITE Instrument		SP	SP	SP	SP	SP	SP	SP
Sample Date		11/16/2021	12/14/2021	12/14/2021	12/14/2021	1/27/2022	1/27/2022	1/27/2022
Sample ID		IA-03	IA-01	IA-02	IA-03	IA-01	IA-02	IA-03
Address	Action	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland	169 Leland
Sample Location	Level	Office	Gymnasium	Cafeteria	Office	Gymnasium	Cafeteria	Office
Analyte		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Vinyl Chloride	0.27	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	NA	N.D.	1.3	12	2	42	9.2	22
Trichloromonofluoromethane	NA	1.3	1.6	1.9	1.3	1.5	1.3	1.3
1,1-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene Chloride	11	0.24	0.32	0.32	0.33	0.2	0.22	0.24
1,1,2-Trichlorotrifluoroethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cis 1,2-Dichloroethylene	0.8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	1.9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	0.09	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	2.3	0.45	0.53	0.54	0.53	0.7	0.59	0.62
Carbon Tetrachloride	0.54	0.32	0.33	0.35	N.D.	0.35	0.29	N.D.
1,2-Dichloropropane	0.12	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethylene	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	0.15	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	54	4	1.3	1.2	1.7	0.84	0.82	1.1
1,2-Dibromoethane	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethylene	1.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	2.3	N.D.	N.D.	N.D.	N.D.	0.19	N.D.	N.D.
Ethylbenzene	7.4	0.19	0.2	N.D.	0.21	N.D.	N.D.	0.19
p/m-Xylene	20	0.49	0.51	0.36	0.54	N.D.	N.D.	0.43
Styrene*	1.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
o-Xylene*	20	N.D.	0.18	N.D.	0.18	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane*	0.04	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3,5-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2,4-Trimethylbenzene*	NA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene (meta)*	0.6	N.D.	N.D.	N.D.	N.D.	0.5	0.32	N.D.
1,4-Dichlorobenzene (para)*	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene (ortho)*	0.7	N.D.	N.D.	N.D.	N.D.	0.35	N.D.	N.D.
1,2,4-Trichlorobenzene*	0.4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HexachloroButadiene*	0.11	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

FIELD ASSESSMENT AND SUPPORT TEAM (FAST)

Operation and Monitoring of Electrical Resistance Heating (ERH) Thermal Treatment System General Chemical Site, Framingham, MA

MassDEP RTN 3-19174

February 2022

APPENDIX C & D

DATA REPORT FORMS

APPENDIX C – MassDEP DATA REPORT FORMS	
Sample Type	Pages
Ambient Air	1 – 89
Soil Gas	90-187
Indoor Air	188-229
Vapor Treatment System	230-355
Condensate Treatment System	356-439
Surface Water	440-443
Data Reports by Sample Type are in Chronological Order	

APPENDIX D – ALPHA ANALYTICAL DATA REPORT FORMS	
Sample Type	Pages
Ambient Air (VOCs) Condensate Discharge (VOCs & PFAS)	Starts on Page 444

MassDEP Ambient Air Data Reports

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/2/21	Time:	10:35 AM	Field ID:	AA-ARP4	Collector:	N. Johnson	Ambient - ARP 4
Date Analyzed:	8/2/21	Time:	11:24 AM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	**6.3**	**17**	2	5	0.851	0.168	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	**1.1**	*3.8*	0.2	0.7	0.972	0.358	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	**0.47**	**2.5**	0.2	1.1	0.93	0.468	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.962	0.128	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.81**	**5.5**	0.2	1.4	0.944	0.826	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0	0	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.742	0.094	
Styrene*	N.D.	N.D.	0.2	1	0.962	0.379	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.761	0.096	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/2/21	Time: 12:00 PM	Field ID:	AA-Con	Collector:	N. Johnson	Ambient near Conex area
Date Analyzed:	8/2/21	Time: 12:53 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0	0	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.975	0.226	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0	0	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0	0	
Styrene*	N.D.	N.D.	0.2	1	0	0	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	8/2/21	Time: 1:00 PM	Field ID:	AA-04	Collector:	N. Johnson	AA-04 (School)
Date Analyzed:	8/2/21	Time: 2:11 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m³	ppbV	µg/m³			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	**2.1**	**5.5**	2	5	0.868	0.172	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	**1.4**	**5**	0.2	0.7	0.988	0.575	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.25**	**0.94**	0.2	0.8	0.966	0.426	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.824	0.472	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.976	0.484	
p/m-Xylene	*0.2*	**0.85**	0.4	1.7	0.913	0.505	
Styrene*	**0.21**	*0.87*	0.2	1	0.91	0.657	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.925	0.511	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	8/2/21	Time: 1:25 PM	Field ID:	AA-02	Collector:	N. Johnson	AA-02
Date Analyzed:	8/2/21	Time: 2:44 PM	Lab ID:	008	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m³	ppbV	µg/m³			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.858	0.036	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.98	0.617	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.97	0.451	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.407	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.523	
Styrene*	N.D.	N.D.	0.2	1	0.978	0.62	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.994	0.522	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.637	0.074	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.651	0.075	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/2/21	Time:	1:50 PM	Field ID:	AA-UPW	Collector:	N. Johnson	Ambient - west gate
Date Analyzed:	8/2/21	Time:	3:45 PM	Lab ID:	11	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	*1.7*	*4.5*	2	5	0.982	0.104	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	**1.7**	**5.9**	0.2	0.7	0.996	0.77	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.34**	**1.3**	0.2	0.8	0.997	0.596	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	**0.2**	*0.87*	0.2	0.9	0.997	0.584	
p/m-Xylene	*0.24*	*1*	0.4	1.7	0.979	0.638	
Styrene*	**0.31**	*1.3*	0.2	1	0.981	0.694	Vinyl benzene
o-Xylene*	**0.21**	**0.92**	0.2	0.9	0.984	0.641	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.928	0.126	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.935	0.127	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/2/21	Time:	10:40 AM	Field ID:	AA-ARP2	Collector:	N. Johnson	Ambient at ARP-2
Date Analyzed:	8/2/21	Time:	10:40 AM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.805	0.004	Chloroethene
Chloroethane	**7.8**	**21**	2	5	0.853	0.258	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.982	0.023	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.59	0.051	Vinylidene Chloride
Methylene Chloride	**0.69**	**2.4**	0.2	0.7	0.981	0.716	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.813	0.075	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.838	0.027	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.67	0.029	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.994	0.069	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.99	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	**0.22**	**1.2**	0.2	1.1	0.825	0.413	Methyl Chloroform
Benzene	**0.47**	*1.5*	0.2	0.6	0.997	0.748	
Carbon Tetrachloride	*0.062*	*0.39*	0.2	1.3	0.903	0.118	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.611	0.056	Propylene Dichloride
Trichloroethylene	*0.11*	*0.58*	0.2	1.1	0.987	0.625	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.3**	**1.1**	0.2	0.8	1	0.622	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.875	0.184	Ethylene Dibromide
Tetrachloroethylene	**0.24**	**1.6**	0.2	1.4	0.984	0.935	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.992	0.613	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.979	0.382	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.994	0.548	
Styrene*	N.D.	N.D.	1	4	0.989	0.709	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.968	0.364	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.879	0.051	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.872	0.261	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.981	0.299	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.994	0.23	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.141	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.997	0.606	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	**3.5**	**26**	2	15	0.808	0.52	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	8/2/21	Time: 12:15 PM	Field ID:	AA-03	Collector:	N. Johnson	Ambient AA-03
Date Analyzed:	8/2/21	Time: 12:24 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**4.4**	**12**	2	5	0.885	0.205	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.961	0.014	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.944	0.015	Vinylidene Chloride
Methylene Chloride	**0.77**	**2.7**	0.2	0.7	0.975	0.87	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.72	0.009	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.968	0.036	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.983	0.05	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.925	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.711	0.161	Methyl Chloroform
Benzene	**0.67**	*2.1*	0.2	0.6	0.998	0.742	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.845	0.074	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	**0.31**	**1.7**	0.2	1.1	0.993	0.798	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.32**	**1.2**	0.2	0.8	0.999	0.672	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**2.7**	**18**	0.2	1.4	0.992	0.976	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.785	0.038	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.923	0.535	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.673	
Styrene*	N.D.	N.D.	1	4	0.99	0.699	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.964	0.331	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.52	0.072	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.951	0.14	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.953	0.14	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.975	0.357	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.141	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.997	0.606	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.446	0.164	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

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Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/11/21	Time:	12:40 PM	Field ID:	AA-02	Collector:	E Johnson		AA-02
Date Analyzed:	8/11/21	Time:	1:33 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	<1	<1	0.27
Chloroethane	**6.1**	**16**	2	5	0.941	0.172	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0	0	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.888	0.078	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	*0.13*	*0.49*	0.2	0.8	0.985	0.206	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	**0.25**	*1.7*	0.2	1.4	0.929	0.68	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.075*	*0.33*	0.2	0.9	0.987	0.206	1.5	7.4	7.4
p/m-Xylene	*0.09*	*0.39*	0.4	1.7	0.972	0.258	3.8	21	20
Styrene*	**0.36**	*1.5*	0.2	0.9	0.997	0.581	0.6	1.4	1.4
o-Xylene*	*0.08*	*0.35*	0.2	0.9	0.97	0.258	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.886	0.079	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.89	0.079	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/11/21	Time:	10:50 AM	Field ID:	AA-03	Collector:	E Johnson		AA-03
Date Analyzed:	8/11/21	Time:	11:47 AM	Lab ID:	003	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	3	7.7	0.526	0.122	<1	<1	0.27
Chloroethane	**23**	**60**	2	5	0.871	0.271	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0	0	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	<2	<2	0.8
Methylene Chloride	**0.46**	*1.6*	0.2	0.7	0.987	0.189	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.966	0.062	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.25**	**0.94**	0.2	0.8	0.968	0.248	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.757	0.262	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.13*	*0.57*	0.2	0.9	0.963	0.275	1.5	7.4	7.4
p/m-Xylene	*0.16*	*0.69*	0.4	1.7	0.961	0.295	3.8	21	20
Styrene*	**0.42**	*1.8*	0.2	0.9	0.996	0.592	0.6	1.4	1.4
o-Xylene*	*0.14*	*0.61*	0.2	0.9	0.967	0.297	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.58	0.124	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA			RTN: 3-19174
City or Town:	Framingham	Address:	Gen Chem				Location:
Date Sampled:	8/11/21	Time:	1:25 PM	Field ID:	ARP-2	Collector: E Johnson	near ARP-2 AreaRAE
Date Analyzed:	8/11/21	Time:	2;09 pm	Lab ID:	007	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.694	0.102	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0	0	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.792	0.028	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.618	0.051	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	*0.13*	*0.48*	0.2	0.8	0.961	0.169	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.873	0.002	1.5	7.4	7.4
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.559	0.039	3.8	21	20
Styrene*	**0.28**	*1.2*	0.2	0.9	0.998	0.586	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	Gen Chem				Location:
Date Sampled:	8/11/21	Time:	3:20 PM	Field ID:	LAR-8	Collector:	Fitzgerald	near AreaRAE LAR-8
Date Analyzed:	8/11/21	Time:	3:31 PM	Lab ID:	010	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.357	0.105	Chloroethene
Chloroethane	**6**	**16**	2	5	0.883	0.219	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.984	0.096	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.813	0.172	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.823	0.063	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.817	0.312	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.765	0.015	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.854	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.697	0.146	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.966	0.449	
Carbon Tetrachloride	*0.073*	*0.46*	0.2	1.3	0.952	0.41	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.899	0.268	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.988	0.503	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.14*	*0.95*	0.2	1.4	0.965	0.889	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.956	0.288	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.985	0.503	
Styrene*	*0.31*	*1.3*	1	4	0.984	0.751	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.914	0.24	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.967	0.044	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.852	0.157	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.973	0.173	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.906	0.075	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.982	0.066	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.864	0.082	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	Gen Chem				Location:
Date Sampled:	8/11/21	Time: 1:15 PM	Field ID:	LAR-6	Collector:	Fitzgerald	near AreaRAE LAR-6
Date Analyzed:	8/11/21	Time: 1:21 PM	Lab ID:	007	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**6.3**	**17**	2	5	0.866	0.241	Ethyl Chloride
Trichloromonofluoromethane	**0.3**	**2.1**	0.2	1	0.986	0.124	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.971	0.069	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.858	0.135	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.737	0.038	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.799	0.006	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.963	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.635	0.043	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	*0.087*	*0.55*	0.2	1.3	0.943	0.37	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.998	0.5	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.885	0.602	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.69	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.975	0.287	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.992	0.578	
Styrene*	*0.33*	*1.4*	1	4	0.988	0.759	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.915	0.213	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.819	0.054	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.836	0.055	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.968	0.031	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.982	0.066	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.864	0.082	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174
City or Town:	Framingham	Address:	Gen Chem			Location:
Date Sampled:	8/11/21	Time: 12:35 PM	Field ID:	Street	Collector: E Johnson	At Leland St
Date Analyzed:	8/11/21	Time: 12:44 PM	Lab ID:	006	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.633	0.016	Chloroethene
Chloroethane	**6.5**	**17**	2	5	0.86	0.239	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.949	0.077	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.885	0.053	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.951	0.27	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.875	0.07	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.973	0.015	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.836	0.016	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.995	0.261	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.965	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.668	0.022	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.926	0.303	
Carbon Tetrachloride	*0.076*	*0.48*	0.2	1.3	0.968	0.436	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.887	0.182	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.998	0.506	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.06*	*0.41*	0.2	1.4	0.942	0.759	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.673	0.133	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.935	0.369	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.993	0.603	
Styrene*	*0.39*	*1.7*	1	4	0.991	0.739	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.911	0.239	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.855	0.009	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.993	0.217	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.996	0.218	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.988	0.192	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.982	0.066	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.864	0.082	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.401	0.191	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/11/21	Time:	1:00 AM	Field ID:	east	Collector:	E Johnson	east property line
Date Analyzed:	8/11/21	Time:	11:27 AM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.271	0.106	Chloroethene
Chloroethane	**18**	**48**	2	5	0.844	0.317	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.969	0.037	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.977	0.046	Vinylidene Chloride
Methylene Chloride	*0.2*	*0.7*	0.2	0.7	0.856	0.295	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.873	0.061	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.703	0.044	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.932	0.043	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.943	0.157	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.856	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.554	0.012	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.983	0.537	
Carbon Tetrachloride	*0.1*	*0.63*	0.2	1.3	0.905	0.225	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.37**	**1.4**	0.2	0.8	1	0.611	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.872	0.1	Ethylene Dibromide
Tetrachloroethylene	*0.11*	*0.72*	0.2	1.4	0.932	0.756	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.596	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.994	0.61	
p/m-Xylene	*0.31*	*1.3*	0.4	1.7	0.994	0.635	
Styrene*	*0.49*	*2.1*	1	4	0.986	0.741	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.965	0.399	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.86	0.021	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.826	0.22	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.984	0.209	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.957	0.389	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.982	0.066	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.864	0.082	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.774	0.526	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/12/21	Time:	1:45 PM	Field ID:	AA-TA-2	Collector:	N. Johnson	AA near Trtmnt Area 2
Date Analyzed:	8/12/21	Time:	2:34 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.967	0.038	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.877	0.064	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.99	0.383	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.22**	**1.5**	0.2	1.4	0.892	0.692	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.996	0.385	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.987	0.455	
Styrene*	**0.44**	*1.9*	0.2	1	0.993	0.727	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.987	0.455	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/12/21	Time:	3:40 PM	Field ID:	AA-TA-1	Collector:	Fitzgerald	west side Trmt Area 1
Date Analyzed:	8/12/21	Time:	4:42 PM	Lab ID:	010	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0	0	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	**0.3**	*1*	0.2	0.7	0.922	0.18	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0	0	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.23**	**0.87**	0.2	0.8	0.995	0.515	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.26**	**1.8**	0.2	1.4	0.914	0.704	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.986	0.518	
p/m-Xylene	*0.19*	**0.82**	0.4	1.7	0.988	0.587	
Styrene*	**0.5**	*2.1*	0.2	1	0.986	0.786	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.992	0.59	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.957	0.169	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.964	0.17	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	8/12/21	Time:	10:20 AM	Field ID:	LAR-5	Collector:	N. Johnson	LAR-5
Date Analyzed:	8/12/21	Time:	10:21 AM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**5.5**	**15**	2	5	0.877	0.224	Ethyl Chloride
Trichloromonofluoromethane	**0.23**	**1.6**	0.2	1	0.99	0.127	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.983	0.16	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.841	0.137	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**0.22**	**1.7**	0.2	1.5	0.939	0.187	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.872	0.035	
Cis 1,2-Dichloroethylene	**0.26**	*1*	0.2	0.8	0.995	0.399	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.908	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	**1.5**	**8.2**	0.2	1.1	0.991	0.683	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.956	0.424	
Carbon Tetrachloride	*0.063*	*0.4*	0.2	1.3	0.952	0.323	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.773	0.092	Propylene Dichloride
Trichloroethylene	**0.33**	**1.8**	0.2	1.1	0.997	0.752	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.27**	**1**	0.2	0.8	1	0.619	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.881	0.173	Ethylene Dibromide
Tetrachloroethylene	**1.2**	**8.3**	0.2	1.4	0.996	0.97	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.964	0.374	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.989	0.536	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.993	0.59	
Styrene*	*0.3*	*1.3*	1	4	0.987	0.73	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.995	0.35	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.908	0.036	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.921	0.179	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.232	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.991	0.231	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.153	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.979	0.422	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.785	0.428	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/12/21	Time: 12:55 PM	Field ID:	ARP-2	Collector:	Fitzgerald	SE Corner near ARP-2
Date Analyzed:	8/12/21	Time: 12:59 PM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**3.9**	**10**	2	5	0.896	0.184	Ethyl Chloride
Trichloromonofluoromethane	**0.25**	**1.8**	0.2	1	0.999	0.114	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.8	0.014	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.856	0.18	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.591	0.061	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.899	0.026	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.778	0.014	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.885	0.203	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.968	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.677	0.022	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.99	0.506	
Carbon Tetrachloride	*0.072*	*0.45*	0.2	1.3	0.947	0.492	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.938	0.314	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.99	0.473	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.09*	*0.61*	0.2	1.4	0.952	0.786	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.665	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.899	0.188	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.988	0.529	
Styrene*	*0.22*	*0.92*	1	4	0.987	0.735	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.964	0.213	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.967	0.18	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.974	0.181	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.955	0.034	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.153	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.979	0.422	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/12/21	Time:	1:00 PM	Field ID:	LAR-7	Collector:	Fitzgerald	AA near LAR-7
Date Analyzed:	8/12/21	Time:	1:31 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.884	0.039	Chloroethene
Chloroethane	**3.4**	**9**	2	5	0.897	0.167	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.988	0.066	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.767	0.029	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.857	0.208	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.774	0.054	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.954	0.028	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.701	0.045	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.938	0.275	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.976	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.675	0.021	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.989	0.425	
Carbon Tetrachloride	*0.086*	*0.54*	0.2	1.3	0.914	0.428	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.999	0.504	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.891	0.638	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.653	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.89	0.26	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.991	0.611	
Styrene*	*0.27*	*1.2*	1	4	0.99	0.732	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.993	0.576	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.943	0.203	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.953	0.205	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.804	0.023	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.153	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.979	0.422	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	Gen Chem				Location:
Date Sampled:	8/12/21	Time: 3:50 PM	Field ID:	AA-TA-2	Collector:	Fitzgerald	Trmt Area 2 Lower level
Date Analyzed:	8/12/21	Time: 3:54 PM	Lab ID:	010	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.925	0.001	Chloroethene
Chloroethane	**5.2**	**14**	2	5	0.904	0.154	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.902	0.112	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.931	0.035	Vinylidene Chloride
Methylene Chloride	**0.45**	**1.5**	0.2	0.7	0.985	0.4	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.942	0.157	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.653	0.034	
Cis 1,2-Dichloroethylene	**0.36**	*1.4*	0.2	0.8	0.964	0.172	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.879	0.01	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.966	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.697	0.448	Methyl Chloroform
Benzene	**1.1**	**3.5**	0.2	0.6	1	0.755	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.914	0.079	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.265	0.124	Propylene Dichloride
Trichloroethylene	**0.36**	**2**	0.2	1.1	0.995	0.778	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.723	0.01	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.232	0.041	
Toluene	**26**	**96**	0.2	0.8	1	0.705	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.96**	**6.5**	0.2	1.4	0.994	0.963	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.738	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.994	0.605	
p/m-Xylene	*0.3*	*1.3*	0.4	1.7	0.995	0.614	
Styrene*	*0.23*	*0.98*	1	4	0.992	0.704	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.962	0.455	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.857	0.026	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.952	0.322	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.996	0.224	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.693	0.02	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.153	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.979	0.422	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/13/21	Time: 12:45 PM	Field ID:	ARP-2	Collector:	N. Johnson	AA near ARP-2
Date Analyzed:	8/13/21	Time: 1:44 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0.839	0.016	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.996	0.076	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0.661	0.054	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.773	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.632	0.031	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.96	0.216	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.798	0.047	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.953	0.198	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.941	0.52	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.731	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.97	0.186	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.905	0.199	
Styrene*	**0.41**	*1.8*	0.2	1	0.986	0.518	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.906	0.199	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.854	0.1	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.974	0.124	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/13/21	Time:	1:25 PM	Field ID:	LAR-7	Collector:	Fitzgerald	AA near LAR-7
Date Analyzed:	8/13/21	Time:	2:27 PM	Lab ID:	008	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.905	0.046	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.88	0.023	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0.719	0.048	Vinylidene Chloride
Methylene Chloride	**0.59**	*2*	0.2	0.7	0.948	0.194	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.869	0.02	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.927	0.018	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.68	0.016	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.53	0.03	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.776	0.034	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.553	0.018	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.821	0.009	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**27**	**100**	0.2	0.8	1	0.729	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.835	0.06	Ethylene Dibromide
Tetrachloroethylene	**0.21**	*1.4*	0.2	1.4	0.882	0.505	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.997	0.148	
p/m-Xylene	*0.28*	*1.2*	0.4	1.7	0.997	0.382	
Styrene*	**0.48**	*2.1*	0.2	1	0.992	0.544	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.833	0.175	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.97	0.103	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.941	0.149	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.398	0.129	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/13/21	Time: 11:10 AM	Field ID:	LAR-4	Collector:	E. Johnson	AA near ARP-4 (E Fence)
Date Analyzed:	8/13/21	Time: 11:18 AM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.92	0.026	Chloroethene
Chloroethane	**2.9**	**7.7**	2	5	0.871	0.18	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.949	0.083	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.954	0.023	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.87	0.017	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.948	0.047	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.86	0.011	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.858	0.332	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.67	0.12	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.944	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.703	0.363	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.979	0.2	
Carbon Tetrachloride	*0.081*	*0.51*	0.2	1.3	0.923	0.123	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.651	0.044	Propylene Dichloride
Trichloroethylene	**0.28**	**1.5**	0.2	1.1	0.99	0.696	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.395	0.003	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.741	0.063	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.49**	**1.9**	0.2	0.8	0.998	0.604	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.76**	**5.2**	0.2	1.4	0.992	0.953	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.556	0.047	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.928	0.42	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.99	0.617	
Styrene*	*0.33*	*1.4*	1	4	0.99	0.651	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.974	0.321	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.867	0.065	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.977	0.113	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.988	0.222	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.829	0.125	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.954	0.022	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.838	0.11	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.434	0.257	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	8/13/21	Time:	12:50 PM	Field ID:	LAR-7	Collector:	E. Johnson	AA near LAR-7
Date Analyzed:	8/13/21	Time:	1:03 PM	Lab ID:	008	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**3.6**	**9.5**	2	5	0.845	0.149	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.976	0.081	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.937	0.104	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.896	0.145	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.941	0.1	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.849	0.053	
Cis 1,2-Dichloroethylene	**0.23**	*0.91*	0.2	0.8	0.985	0.512	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.94	0.18	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.965	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	**1.1**	**5.7**	0.2	1.1	0.944	0.623	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.945	0.441	
Carbon Tetrachloride	*0.087*	*0.55*	0.2	1.3	0.988	0.439	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.758	0.049	Propylene Dichloride
Trichloroethylene	**0.99**	**5.3**	0.2	1.1	0.996	0.801	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	1	0.575	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**2.6**	**18**	0.2	1.4	0.994	0.969	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.629	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.984	0.347	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.998	0.545	
Styrene*	*0.26*	*1.1*	1	4	0.991	0.735	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.907	0.232	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.991	0.256	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.994	0.257	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.937	0.02	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.954	0.022	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.838	0.11	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/13/21	Time:	11:05 AM	Field ID:	LAR-5	Collector:	E. Johnson	AA near LAR-5 (W. fence)
Date Analyzed:	8/13/21	Time:	11:52 AM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.421	0.065	Chloroethene
Chloroethane	**3.7**	**9.8**	2	5	0.891	0.144	Ethyl Chloride
Trichloromonofluoromethane	**0.27**	**1.9**	0.2	1	0.959	0.105	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.982	0.145	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.985	0.086	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.977	0.041	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.878	0.273	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.869	0.073	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.921	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.696	0.062	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.987	0.504	
Carbon Tetrachloride	*0.084*	*0.53*	0.2	1.3	0.956	0.324	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.918	0.314	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.44**	**1.7**	0.2	0.8	1	0.665	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.48**	**3.2**	0.2	1.4	0.991	0.932	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.999	0.542	
p/m-Xylene	*0.2*	**0.85**	0.4	1.7	0.994	0.631	
Styrene*	*0.41*	*1.7*	1	4	0.989	0.753	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.986	0.436	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.634	0.006	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.934	0.303	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.992	0.244	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.989	0.025	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.954	0.022	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.838	0.11	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	155 Leland Street				Location:
Date Sampled:	8/13/21	Time:	1:30 PM	Field ID:	AA-1	Collector:	Fitzgerald	50 ft N. of LAR-7
Date Analyzed:	8/13/21	Time:	1:38 PM	Lab ID:	009	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**3.4**	**8.9**	2	5	0.916	0.133	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.967	0.008	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.852	0.031	Vinylidene Chloride
Methylene Chloride	**0.34**	**1.2**	0.2	0.7	0.952	0.493	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.74	0.005	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.93	0.048	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.911	0.094	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.922	0.113	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.697	0.043	Methyl Chloroform
Benzene	**0.87**	*2.8*	0.2	0.6	0.999	0.698	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.943	0.062	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.918	0.361	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.703	0.009	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.226	0.037	
Toluene	**30**	**110**	0.2	0.8	0.999	0.719	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.901	0.032	Ethylene Dibromide
Tetrachloroethylene	**0.2**	*1.3*	0.2	1.4	0.978	0.916	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.658	0.011	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.998	0.555	
p/m-Xylene	*0.28*	*1.2*	0.4	1.7	0.988	0.602	
Styrene*	*0.29*	*1.2*	1	4	0.99	0.708	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.991	0.373	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.582	0.067	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.944	0.101	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.143	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.946	0.086	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.954	0.022	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.838	0.11	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/16/21	Time: 3:40 PM	Field ID:	AA-NW	Collector:	E. Johnson	NW Corner inside fence
Date Analyzed:	8/17/21	Time: 11:07 AM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.37	0.014	Chloroethene
Chloroethane	*1.4*	*3.7*	2	5	0.955	0.102	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.916	0.077	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.823	0.046	Vinylidene Chloride
Methylene Chloride	**0.61**	**2.1**	0.2	0.7	0.979	0.714	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.936	0.087	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.912	0.005	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.978	0.014	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.899	0.011	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.805	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.714	0.35	Methyl Chloroform
Benzene	**5.7**	**18**	0.2	0.6	0.993	0.783	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.913	0.009	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.622	0.123	Propylene Dichloride
Trichloroethylene	**0.54**	**2.9**	0.2	1.1	0.994	0.811	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.714	0.007	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.229	0.031	
Toluene	**150**	**560**	0.2	0.8	0.996	0.751	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**1.6**	**11**	0.2	1.4	0.991	0.973	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.903	0.512	
Ethylbenzene	**0.35**	**1.5**	0.2	0.9	0.994	0.671	
p/m-Xylene	**1.4**	**6.2**	0.4	1.7	0.997	0.666	
Styrene*	**1.3**	**5.7**	1	4	0.995	0.751	Vinyl benzene
o-Xylene*	*0.31*	*1.4*	1	4	0.914	0.773	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.965	0.231	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.967	0.255	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.322	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.996	0.351	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.996	0.208	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.992	0.337	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.654	0.415	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ambient air, wind from south. Toluene recovery in check standard was 176%.

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	8/16/21	Time:	3:45 PM	Field ID:	AA-NE	Collector:	E. Johnson	AA - NE corner
Date Analyzed:	8/17/21	Time:	11:40 AM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.871	0.018	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.862	0.06	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.829	0.019	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.816	0.076	Vinylidene Chloride
Methylene Chloride	**0.61**	**2.1**	0.2	0.7	0.88	0.651	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.735	0.019	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.838	0.003	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.706	0.008	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.953	0.016	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.866	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.661	0.015	Methyl Chloroform
Benzene	**5.1**	**16**	0.2	0.6	0.992	0.79	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.939	0.008	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.964	0.378	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.709	0.007	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.221	0.03	
Toluene	**150**	**570**	0.2	0.8	0.996	0.751	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.44**	**3**	0.2	1.4	0.974	0.941	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.873	0.369	
Ethylbenzene	**0.38**	**1.6**	0.2	0.9	0.995	0.672	
p/m-Xylene	**1.4**	**6.2**	0.4	1.7	0.997	0.661	
Styrene*	**1.4**	**6.1**	1	4	0.996	0.791	Vinyl benzene
o-Xylene*	*0.31*	*1.4*	1	4	0.914	0.718	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.889	0.102	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.979	0.135	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.3	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.978	0.194	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.996	0.208	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.992	0.337	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments: Ambient air, wind from south. Toluene recovery in check standard was 176%.

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	8/17/21	Time:	11:05 AM	Field ID:	AA-SE	Collector:	E. Johnson	Ambient air - SE Corner
Date Analyzed:	8/17/21	Time:	12:14 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.813	0.045	Chloroethene
Chloroethane	*0.34*	*0.9*	2	5	0.851	0.106	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.949	0.086	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.854	0.1	Vinylidene Chloride
Methylene Chloride	**0.32**	**1.1**	0.2	0.7	0.96	0.613	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.732	0.071	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.968	0.011	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.704	0.005	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.887	0.37	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.887	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	**0.32**	**1.7**	0.2	1.1	0.872	0.418	Methyl Chloroform
Benzene	**3.4**	**11**	0.2	0.6	0.994	0.8	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.945	0.065	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.547	0.087	Propylene Dichloride
Trichloroethylene	*0.059*	*0.32*	0.2	1.1	0.969	0.58	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.722	0.008	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.226	0.031	
Toluene	**68**	**250**	0.2	0.8	0.996	0.746	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.507	0.036	Ethylene Dibromide
Tetrachloroethylene	**1.6**	**11**	0.2	1.4	0.991	0.982	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.758	0.001	
Ethylbenzene	**0.23**	**0.98**	0.2	0.9	0.995	0.611	
p/m-Xylene	**0.77**	**3.3**	0.4	1.7	0.996	0.683	
Styrene*	*0.83*	*3.5*	1	4	0.995	0.787	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.961	0.648	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.863	0.042	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.904	0.141	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.255	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.965	0.141	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.996	0.208	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.992	0.337	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.182	0.132	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Comments: Ambient air. Toluene recovery in check standard was 176%.

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	8/18/21	Time:	10:10 AM	Field ID:	AA-NW	Collector:	E. Johnson	NW Corner by Leland Street
Date Analyzed:	8/18/21	Time:	2:24 PM	Lab ID:	008	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.51	0.001	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.909	0.004	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.558	0.001	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.752	0.084	Vinylidene Chloride
Methylene Chloride	**0.44**	**1.5**	0.2	0.7	0.973	0.709	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.77	0.048	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.962	0.002	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.758	0.008	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.976	0.014	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.974	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.699	0.013	Methyl Chloroform
Benzene	**5**	**16**	0.2	0.6	0.999	0.791	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.834	0.006	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.983	0.305	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.729	0.008	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.222	0.036	
Toluene	**130**	**480**	0.2	0.8	0.999	0.725	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.29**	**2**	0.2	1.4	0.955	0.901	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.77	0.001	
Ethylbenzene	**0.38**	**1.6**	0.2	0.9	0.996	0.624	
p/m-Xylene	**1.6**	**6.9**	0.4	1.7	0.995	0.67	
Styrene*	**1.8**	**7.6**	1	4	0.994	0.757	Vinyl benzene
o-Xylene*	*0.35*	*1.5*	1	4	0.914	0.797	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.853	0.112	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.916	0.204	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.987	0.288	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.903	0.005	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.876	0.002	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.403	0.009	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.371	0.186	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	8/18/21	Time: 11:40 AM	Field ID:	AA-55	Collector:	E. Johnson	Western boundary
Date Analyzed:	8/18/21	Time: 1:50 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.579	0.006	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.958	0.085	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.761	0.003	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.635	0.048	Vinylidene Chloride
Methylene Chloride	**0.28**	**0.96**	0.2	0.7	0.97	0.669	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.662	0.001	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.926	0.003	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.615	0.004	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.971	0.017	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.933	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.69	0.016	Methyl Chloroform
Benzene	**2.9**	**9.2**	0.2	0.6	0.999	0.802	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.855	0.011	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.766	0.042	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.931	0.262	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.727	0.008	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.22	0.035	
Toluene	**72**	**270**	0.2	0.8	0.999	0.729	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.24**	**1.7**	0.2	1.4	0.946	0.894	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.631	0.001	
Ethylbenzene	**0.25**	**1.1**	0.2	0.9	0.994	0.656	
p/m-Xylene	**0.92**	**4**	0.4	1.7	0.995	0.662	
Styrene*	*0.99*	*4.2*	1	4	0.993	0.747	Vinyl benzene
o-Xylene*	*0.22*	*0.97*	1	4	0.914	0.722	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.821	0.035	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.892	0.166	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.23	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.872	0.073	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.876	0.002	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.403	0.009	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

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Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/19/21	Time:	3:00 PM	Field ID:	AA NW	Collector:	E. Johnson	Ambient - NW corner
Date Analyzed:	8/20/21	Time:	1:45 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0.926	0.027	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.804	0.047	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.987	0.034	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.779	0.028	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.735	0.085	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.45**	**1.7**	0.2	0.8	0.999	0.38	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.27**	**1.8**	0.2	1.4	0.935	0.631	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	1	0.16	
p/m-Xylene	*0.32*	*1.4*	0.4	1.7	0.98	0.469	
Styrene*	N.D.	N.D.	0.2	1	0.954	0.366	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.905	0.194	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.993	0.123	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.972	0.165	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.384	0.139	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/19/21	Time:	3:15 PM	Field ID:	AA-04	Collector:	E. Johnson	AA-04
Date Analyzed:	8/20/21	Time:	1:12 PM	Lab ID:	003	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0.892	0.052	Chloroethene
Chloroethane	**5**	**13**	2	5	0.977	0.104	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	**0.33**	*1.1*	0.2	0.7	0.873	0.108	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.727	0.066	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.811	0.065	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.34**	**1.3**	0.2	0.8	0.997	0.281	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.796	0.429	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.991	0.223	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.962	0.254	
Styrene*	**0.26**	*1.1*	0.2	1	0.982	0.338	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.961	0.254	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.642	0.077	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.862	0.105	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.874	0.106	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.654	0.359	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/26/21	Time: 1:00 PM	Field ID:	AA-SE	Collector:	E Johnson	SE Corner of property
Date Analyzed:	8/27/21	Time: 11:47 AM	Lab ID:	003	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**2.6**	**6.8**	2	5	0.889	0.109	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.99	0.033	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.729	0.04	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.802	0.267	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.753	0.024	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.959	0.025	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.985	0.068	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.82	0.019	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.931	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.836	0.149	Methyl Chloroform
Benzene	**0.72**	*2.3*	0.2	0.6	0.997	0.723	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.96	0.059	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.622	0.031	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.799	0.063	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.294	0.111	
Toluene	**0.33**	**1.2**	0.2	0.8	1	0.554	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.14*	*0.97*	0.2	1.4	0.966	0.868	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.99	0.476	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.98	0.499	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.992	0.586	
Styrene*	N.D.	N.D.	1	4	0.993	0.529	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	1	0.985	0.363	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.852	0.105	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.223	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.981	0.223	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.991	0.313	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1	6	0.998	0.219	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1	6	0.977	0.365	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	1	7	0.799	0.477	
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 5/25/21

Quality Control: 5-8 pt calib w/ %RSD<30, Internal Stds, daily blk, daily calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	8/26/21	Time: 12:45 PM	Field ID:	AA-NW	Collector:	E Johnson	NW corner of property
Date Analyzed:	8/26/21	Time: 4:33 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m³	ppbV	µg/m³			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.623	0.031	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.882	0.04	Ethyl Chloride
Trichloromonofluoromethane	**0.35**	**2.4**	0.2	1	0.985	0.109	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.913	0.031	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.952	0.323	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.953	0.118	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.853	0.023	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.966	0.021	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.908	0.203	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.859	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.976	0.024	Methyl Chloroform
Benzene	**0.23**	*0.75*	0.2	0.6	0.993	0.545	
Carbon Tetrachloride	*0.063*	*0.4*	0.2	1.3	0.954	0.257	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.352	0.14	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.95	0.036	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.39	0.068	
Toluene	**0.29**	**1.1**	0.2	0.8	1	0.547	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.098*	*0.66*	0.2	1.4	0.976	0.807	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.981	0.53	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.94	0.388	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.992	0.569	
Styrene*	N.D.	N.D.	1	4	0.994	0.646	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	1	0.999	0.324	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.514	0.061	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.992	0.19	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.992	0.19	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.993	0.383	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1	6	0.998	0.219	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1	6	0.977	0.365	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	1	7	0.408	0.141	
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 5/25/21

Quality Control: 5-8 pt calib w/ %RSD<30, Internal Stds, daily blk, daily calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/1/21	Time:	Field ID:	AA-NW	Collector:	E. Johnson	AA-NW
Date Analyzed:	9/1/21	Time: 3:42 PM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	*1.6*	*4.1*	2	5	0.915	0.165	Ethyl Chloride
Trichloromonofluoromethane	**0.21**	**1.5**	0.2	1	0.994	0.108	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.729	0.024	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.953	0.447	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.695	0.074	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.888	0.016	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.984	0.37	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.978	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.65	0.021	Methyl Chloroform
Benzene	**0.33**	**1.1**	0.2	0.6	0.998	0.678	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.907	0.273	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.42**	**1.6**	0.2	0.8	0.999	0.708	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.887	0.799	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.889	0.281	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.985	0.705	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.994	0.637	
Styrene*	N.D.	N.D.	1	4	0.997	0.662	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.997	0.574	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.627	0.009	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.891	0.175	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.409	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.994	0.218	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.999	0.135	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.995	0.36	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib chk stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

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Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/1/21	Time: 1:30 PM	Field ID:	AA-E	Collector:	E. Johnson	AA - East Permimeter
Date Analyzed:	9/1/21	Time: 4:17 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.832	0.005	Chloroethene
Chloroethane	**3.4**	**8.9**	2	5	0.887	0.148	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	1	0.051	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.625	0.076	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.874	0.269	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.787	0.045	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.85	0.004	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.962	0.225	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.934	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.667	0.02	Methyl Chloroform
Benzene	**0.39**	**1.2**	0.2	0.6	0.999	0.704	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.727	0.121	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.37**	**1.4**	0.2	0.8	0.999	0.704	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.058*	*0.39*	0.2	1.4	0.903	0.742	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.846	0.296	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.984	0.577	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.991	0.607	
Styrene*	N.D.	N.D.	1	4	0.977	0.546	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.992	0.381	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.996	0.043	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.847	0.243	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.949	0.23	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.966	0.112	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.999	0.135	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.995	0.36	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/1/21	Time: 1:35 PM	Field ID:	AA Con	Collector:	E. Johnson	sourh of TRS Conex
Date Analyzed:	9/1/21	Time: 4:50 PM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.728	0.05	Chloroethene
Chloroethane	*1.2*	*3.2*	2	5	0.933	0.136	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.987	0.095	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.638	0.016	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.859	0.224	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.703	0.064	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.802	0.099	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.988	0.338	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.929	0.114	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.996	0.007	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.916	0.186	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.989	0.659	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.863	0.372	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	*0.17*	*0.89*	0.2	1.1	0.996	0.778	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.22**	**0.81**	0.2	0.8	1	0.615	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.16*	*1.1*	0.2	1.4	0.951	0.884	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.918	0.395	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.983	0.384	
Styrene*	N.D.	N.D.	1	4	0.987	0.594	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.994	0.345	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.679	0.031	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.885	0.186	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.988	0.218	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.892	0.234	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.999	0.135	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.995	0.36	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/3/21	Time:	10:40 AM	Field ID:	AA NW	Collector:	E. Johnson	Ambient Air - NW Corner
Date Analyzed:	9/3/21	Time:	2:43 PM	Lab ID:	006	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.758	0.007	Chloroethene
Chloroethane	*0.69*	*1.8*	2	5	0.911	0.107	Ethyl Chloride
Trichloromonofluoromethane	**0.22**	**1.5**	0.2	1	0.984	0.215	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.687	0.088	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.998	0.289	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.974	0.078	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.862	0.051	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.975	0.137	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.974	0.007	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.697	0.022	Methyl Chloroform
Benzene	**0.23**	*0.72*	0.2	0.6	0.998	0.512	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.852	0.126	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	*0.2*	**0.74**	0.2	0.8	0.998	0.499	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.894	0.631	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.613	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.979	0.385	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.522	
Styrene*	N.D.	N.D.	1	4	0.995	0.507	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.989	0.248	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.889	0.032	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.842	0.172	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.293	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.968	0.052	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.907	0.059	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.916	0.096	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/3/21	Time:	10:50 AM	Field ID:	AA NE	Collector:	E. Johnson	Ambient Air - NE corner
Date Analyzed:	9/3/21	Time:	2:10 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.507	0.053	Chloroethene
Chloroethane	**2.5**	**6.7**	2	5	0.927	0.111	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.986	0.03	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.63	0.079	Vinylidene Chloride
Methylene Chloride	**0.22**	*0.76*	0.2	0.7	0.986	0.62	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.848	0.095	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.961	0.004	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.287	0.022	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.66	0.012	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.93	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.715	0.048	Methyl Chloroform
Benzene	**0.98**	*3.1*	0.2	0.6	0.999	0.737	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.856	0.046	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.382	0.057	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.297	0.05	
Toluene	**0.43**	**1.6**	0.2	0.8	0.998	0.641	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.918	0.049	Ethylene Dibromide
Tetrachloroethylene	*0.096*	*0.65*	0.2	1.4	0.938	0.811	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.822	0.006	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.951	0.418	
p/m-Xylene	*0.26*	*1.1*	0.4	1.7	0.996	0.609	
Styrene*	*0.42*	*1.8*	1	4	0.99	0.732	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.911	0.526	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.866	0.083	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.887	0.234	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.991	0.282	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.981	0.315	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.907	0.059	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.916	0.096	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.466	0.16	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/3/21	Time:	10:45am	Field ID:	AA SW	Collector:	E. Johnson	Ambient Air - S of Garage
Date Analyzed:	9/3/21	Time:	1:31 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.729	0.029	Chloroethene
Chloroethane	*1.6*	*4.2*	2	5	0.882	0.129	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.985	0.039	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.941	0.029	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.976	0.596	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.886	0.11	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.993	0.01	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.765	0.041	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.856	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.681	0.022	Methyl Chloroform
Benzene	**0.53**	*1.7*	0.2	0.6	0.996	0.716	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.903	0.083	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.718	0.081	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.37	0.108	
Toluene	**0.43**	**1.6**	0.2	0.8	0.996	0.659	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.766	0.072	Ethylene Dibromide
Tetrachloroethylene	*0.073*	*0.49*	0.2	1.4	0.896	0.759	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.995	0.588	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.944	0.429	
p/m-Xylene	*0.21*	*0.92*	0.4	1.7	0.996	0.662	
Styrene*	*0.35*	*1.5*	1	4	0.994	0.756	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.915	0.527	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.593	0.073	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.85	0.138	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.313	
1,3-Dichlorobenzene (meta)*	**0.25**	**1.5**	0.2	1	0.995	0.104	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.907	0.059	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.916	0.096	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.187	0.136	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/7/21	Time:	12:05 PM	Field ID:	AA-NE	Collector:	E. Johnson	Ambient - NE corner
Date Analyzed:	9/7/21	Time:	2:34 PM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.547	0.053	Chloroethene
Chloroethane	**2.8**	**7.5**	2	5	0.885	0.171	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.987	0.032	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.695	0.106	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.846	0.347	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.607	0.019	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.958	0.008	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.899	0.052	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.898	0.197	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.938	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.655	0.021	Methyl Chloroform
Benzene	**0.31**	**0.98**	0.2	0.6	0.997	0.64	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.89	0.191	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.641	0.048	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.3**	**1.1**	0.2	0.8	0.997	0.649	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.069*	*0.47*	0.2	1.4	0.955	0.843	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.996	0.668	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.984	0.503	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.991	0.558	
Styrene*	N.D.	N.D.	1	4	0.992	0.742	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.999	0.38	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.871	0.128	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.975	0.189	
1,3-Dichlorobenzene (meta)*	**0.21**	1.2	0.2	1	0.996	0.129	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.986	0.274	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.984	0.484	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.733	0.416	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/9/21	Time: 11:30 AM	Field ID:	AA NW	Collector:	E Johnson	Ambient Air Northwest
Date Analyzed:	9/9/21	Time: 3:27 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.936	0.051	Ethyl Chloride
Trichloromonofluoromethane	**0.44**	**3.1**	0.2	1	0.995	0.233	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.798	0.112	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.98	0.182	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.716	0.166	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.712	0.016	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.936	0.166	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.815	0.128	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.954	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.714	0.044	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.99	0.414	
Carbon Tetrachloride	*0.06*	*0.38*	0.2	1.3	0.932	0.237	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	1	0.561	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.253	0.019	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.893	0.735	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.669	0.008	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.899	0.275	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.986	0.444	
Styrene*	N.D.	N.D.	1	4	0.989	0.439	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.991	0.251	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.619	0.029	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.97	0.2	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.976	0.201	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.901	0.037	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.995	0.024	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.813	0.09	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/14/21	Time:	12:25 PM	Field ID:	Conex	Collector:	E. Johnson	30 ft south of effluent stack
Date Analyzed:	9/14/21	Time:	2:50 PM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.402	0.013	Chloroethene
Chloroethane	*0.89*	*2.4*	2	5	0.934	0.14	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.83	0.04	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.782	0.064	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.969	0.354	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.768	0.064	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.791	0.058	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.998	0.392	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.999	0.007	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.689	0.019	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.985	0.547	
Carbon Tetrachloride	*0.059*	*0.37*	0.2	1.3	0.844	0.189	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	*0.18*	*0.95*	0.2	1.1	0.991	0.732	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.31**	**1.2**	0.2	0.8	0.999	0.645	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.14*	*0.96*	0.2	1.4	0.94	0.836	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.65	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.953	0.437	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.991	0.629	
Styrene*	N.D.	N.D.	1	4	0.987	0.662	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.999	0.317	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.936	0.22	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.956	0.169	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.862	0.018	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.996	0.017	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.816	0.039	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: wind from the southwest

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/14/21	Time: 10:45 AM	Field ID:	AA-NW	Collector:	E. Johnson	Ambient - NW corner
Date Analyzed:	9/14/21	Time: 2:17 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**2.7**	**7.2**	2	5	0.893	0.148	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.985	0.069	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.686	0.073	Vinylidene Chloride
Methylene Chloride	*0.12*	*0.4*	0.2	0.7	0.935	0.357	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.919	0.089	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.878	0.045	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.818	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.668	0.019	Methyl Chloroform
Benzene	**0.25**	**0.81**	0.2	0.6	0.998	0.58	
Carbon Tetrachloride	*0.059*	*0.37*	0.2	1.3	0.898	0.19	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.29**	**1.1**	0.2	0.8	1	0.648	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.046*	*0.31*	0.2	1.4	0.93	0.703	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.784	0.06	
Ethylbenzene	*0.072*	*0.31*	0.2	0.9	0.951	0.53	
p/m-Xylene	*0.066*	*0.29*	0.4	1.7	0.986	0.582	
Styrene*	*0.06*	*0.26*	1	4	0.973	0.604	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.991	0.31	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.986	0.246	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.988	0.246	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.959	0.17	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.996	0.017	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.816	0.039	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.26	0.119	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/14/21	Time:	10:50 AM	Field ID:	AA-NE	Collector:	E. Johnson	Ambient - NE Corner
Date Analyzed:	9/14/21	Time:	1:44 PM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.602	0.037	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.876	0.063	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.968	0.048	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.771	0.069	Vinylidene Chloride
Methylene Chloride	*0.19*	*0.66*	0.2	0.7	0.992	0.693	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.739	0.035	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.943	0.201	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.968	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.677	0.018	Methyl Chloroform
Benzene	**0.52**	**1.7**	0.2	0.6	0.997	0.697	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.834	0.081	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.39**	**1.5**	0.2	0.8	0.999	0.627	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.083*	*0.56*	0.2	1.4	0.926	0.787	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.747	0.087	
Ethylbenzene	*0.046*	*0.2*	0.2	0.9	0.988	0.528	
p/m-Xylene	*0.15*	*0.64*	0.4	1.7	0.989	0.626	
Styrene*	*0.21*	*0.89*	1	4	0.989	0.731	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.982	0.429	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.485	0.055	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.94	0.318	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.939	0.317	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.982	0.033	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.996	0.017	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.816	0.039	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.175	0.125	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/16/21	Time: 11:40 AM	Field ID:	AA-NW	Collector:	E. Johnson	Northwest corner
Date Analyzed:	9/17/21	Time: 10:26 AM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.546	0.009	Chloroethene
Chloroethane	*1.6*	*4.1*	2	5	0.867	0.153	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.907	0.03	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.718	0.111	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.992	0.25	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.865	0.056	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.351	0.048	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.758	0.036	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.948	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.672	0.018	Methyl Chloroform
Benzene	**0.42**	**1.3**	0.2	0.6	0.999	0.621	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.935	0.089	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.59**	**2.2**	0.2	0.8	1	0.624	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.1*	*0.68*	0.2	1.4	0.952	0.844	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.471	0.064	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.972	0.532	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.994	0.554	
Styrene*	N.D.	N.D.	1	4	0.98	0.654	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.992	0.435	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.599	0.072	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.891	0.226	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.968	0.225	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.97	0.031	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.976	0.017	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.801	0.038	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments: Sample collected downwind of treatment areas and effluent stack.

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/21/21	Time:	11:320 AM	Field ID:	AA-NE	Collector:	E Johnson	Ambient Air Northeast
Date Analyzed:	9/21/21	Time:	2:15 PM	Lab ID:	003	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.903	0.004	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.694	0.183	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.995	0.08	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.634	0.057	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.926	0.129	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.849	0.075	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.946	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.683	0.02	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.988	0.48	
Carbon Tetrachloride	*0.075*	*0.47*	0.2	1.3	0.862	0.271	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.3**	**1.1**	0.2	0.8	0.999	0.598	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.918	0.695	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.997	0.542	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.991	0.3	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.985	0.607	
Styrene*	N.D.	N.D.	1	4	0.979	0.502	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.976	0.268	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.552	0.018	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.907	0.184	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.969	0.23	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.946	0.38	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.13	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.988	0.2	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

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Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/23/21	Time:	1:00 PM	Field ID:	AA-E	Collector:	E Johnson	Ambient Air East
Date Analyzed:	9/23/21	Time:	3:30 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.868	0.031	Chloroethene
Chloroethane	*0.35*	*0.93*	2	5	0.848	0.133	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.981	0.055	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.925	0.138	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.985	0.071	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.916	0.027	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.903	0.09	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.925	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.678	0.019	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.986	0.498	
Carbon Tetrachloride	*0.081*	*0.51*	0.2	1.3	0.941	0.321	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.463	0.107	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	*0.2*	*0.74*	0.2	0.8	0.999	0.583	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.07*	*0.47*	0.2	1.4	0.905	0.733	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.742	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.903	0.252	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.989	0.505	
Styrene*	N.D.	N.D.	1	4	0.968	0.464	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.993	0.35	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.881	0.139	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.998	0.101	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.924	0.026	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.961	0.009	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.627	0.019	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/23/21	Time:	10:50 AM	Field ID:	AA_NW	Collector:	E Johnson	Ambient Air Northwest
Date Analyzed:	9/23/21	Time:	2:59 PM	Lab ID:	003	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.63	0.015	Chloroethene
Chloroethane	**5.8**	**15**	2	5	0.884	0.234	Ethyl Chloride
Trichloromonofluoromethane	**0.35**	**2.4**	0.2	1	0.985	0.161	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.968	0.06	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.92	0.184	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**0.21**	**1.6**	0.2	1.5	0.932	0.123	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.988	0.023	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.976	0.248	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.944	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.911	0.021	Methyl Chloroform
Benzene	**0.22**	*0.69*	0.2	0.6	0.997	0.505	
Carbon Tetrachloride	*0.092*	*0.58*	0.2	1.3	0.921	0.311	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.765	0.058	Propylene Dichloride
Trichloroethylene	*0.063*	*0.34*	0.2	1.1	0.989	0.534	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.38**	**1.4**	0.2	0.8	0.999	0.606	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.19*	*1.3*	0.2	1.4	0.984	0.9	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.978	0.67	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.974	0.434	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.99	0.258	
Styrene*	N.D.	N.D.	1	4	0.994	0.586	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.94	0.298	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.507	0.058	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.995	0.207	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.207	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.947	0.317	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.961	0.009	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.627	0.019	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.331	0.11	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/23/21	Time:	12:55 PM	Field ID:	AA-S	Collector:	E Johnson	Ambient Air South
Date Analyzed:	9/23/21	Time:	4:01 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.384	0.077	Chloroethene
Chloroethane	**3**	**7.8**	2	5	0.901	0.199	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.993	0.068	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.611	0.076	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.859	0.149	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.679	0.045	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.657	0.01	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.937	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.716	0.127	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.999	0.575	
Carbon Tetrachloride	*0.058*	*0.36*	0.2	1.3	0.984	0.2	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	0.998	0.463	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.964	0.659	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.871	0.074	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.99	0.319	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.987	0.475	
Styrene*	N.D.	N.D.	1	4	0.939	0.48	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.987	0.267	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.558	0.061	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.236	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.984	0.236	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.928	0.014	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.961	0.009	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.627	0.019	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/28/21	Time:	12:10 PM	Field ID:	AA-NE	Collector:	E. Johnson	Ambient - NE corner
Date Analyzed:	9/28/21	Time:	2:58 PM	Lab ID:	005	Analyst:	N. Johnon	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.947	0.013	Chloroethene
Chloroethane	**5**	**13**	2	5	0.834	0.214	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.956	0.203	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.939	0.063	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.904	0.21	Dichloromethane
1,1,2-Trichlorotrifluoroethane	*0.2*	1.5	0.2	1.5	0.861	0.242	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.901	0.214	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.857	0.157	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.967	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.814	0.169	Methyl Chloroform
Benzene	**0.28**	**0.9**	0.2	0.6	0.991	0.558	
Carbon Tetrachloride	*0.061*	*0.38*	0.2	1.3	0.937	0.228	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	*0.06*	*0.32*	0.2	1.1	0.983	0.463	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.52**	**1.9**	0.2	0.8	0.998	0.671	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.12*	*0.8*	0.2	1.4	0.963	0.848	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.971	0.38	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.992	0.52	
p/m-Xylene	*0.21*	*0.89*	0.4	1.7	0.993	0.656	
Styrene*	N.D.	N.D.	1	4	0.992	0.72	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.97	0.453	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.996	0.259	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.311	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.957	0.211	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.304	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.948	0.481	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street			Location:
Date Sampled:	9/28/21	Time: 12:05 PM	Field ID:	AA-NW	Collector: E. Johnson	Ambient - NW corner
Date Analyzed:	9/28/21	Time: 1:13 PM	Lab ID:	004	Analyst: N. Johnon	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.346	0.085	Chloroethene
Chloroethane	**4.1**	**11**	2	5	0.875	0.222	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.987	0.101	Freon 11
1,1-Dichloroethene	**0.23**	*0.93*	0.2	0.8	0.99	0.198	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.987	0.098	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**0.48**	**3.6**	0.2	1.5	0.986	0.336	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.805	0.057	
Cis 1,2-Dichloroethylene	**0.22**	*0.88*	0.2	0.8	0.993	0.672	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.914	0.329	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.966	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.771	0.518	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.994	0.638	
Carbon Tetrachloride	*0.059*	*0.37*	0.2	1.3	0.946	0.384	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.371	0.02	Propylene Dichloride
Trichloroethylene	**0.23**	**1.2**	0.2	1.1	0.992	0.74	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.474	0.089	
Toluene	**0.39**	**1.5**	0.2	0.8	0.997	0.63	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.34**	**2.3**	0.2	1.4	0.981	0.933	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.99	0.439	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.996	0.551	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.985	0.684	
Styrene*	N.D.	N.D.	1	4	0.992	0.571	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.999	0.45	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.818	0.06	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.964	0.116	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.992	0.306	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.988	0.513	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.304	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.948	0.481	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.814	0.527	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/30/21	Time: 10:55 AM	Field ID:	AA-NW	Collector:	E. Johnson	Ambient - NW corner
Date Analyzed:	9/30/21	Time: 4:23 PM	Lab ID:	006	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.369	0.091	Chloroethene
Chloroethane	**5.4**	**14**	2	5	0.875	0.214	Ethyl Chloride
Trichloromonofluoromethane	**0.34**	**2.4**	0.2	1	0.978	0.173	Freon 11
1,1-Dichloroethene	**2.7**	**11**	0.2	0.8	0.997	0.745	Vinylidene Chloride
Methylene Chloride	**0.27**	**0.93**	0.2	0.7	0.933	0.121	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**4.1**	**32**	0.2	1.5	0.99	0.692	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.895	0.076	
Cis 1,2-Dichloroethylene	**0.3**	*1.2*	0.2	0.8	0.991	0.508	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.865	0.24	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.949	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	**0.79**	**4.3**	0.2	1.1	0.973	0.654	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.857	0.123	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.932	0.246	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	**1.2**	**6.6**	0.2	1.1	0.996	0.827	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.21**	**0.78**	0.2	0.8	0.998	0.604	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**1.6**	**11**	0.2	1.4	0.989	0.971	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.88	0.182	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.471	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.997	0.592	
Styrene*	N.D.	N.D.	1	4	0.891	0.305	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.997	0.337	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.807	0.088	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.854	0.191	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.987	0.219	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.954	0.121	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.857	0.028	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.954	0.122	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/30/21	Time: 11:25 AM	Field ID:	AA-S	Collector:	E. Johnson	Center of S fence line
Date Analyzed:	10/1/21	Time: 9:54 AM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.551	0.07	Chloroethene
Chloroethane	**7**	**18**	2	5	0.885	0.22	Ethyl Chloride
Trichloromonofluoromethane	**11**	**76**	0.2	1	1	0.444	Freon 11
1,1-Dichloroethene	**11**	**45**	0.2	0.8	0.999	0.781	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.925	0.09	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**15**	**120**	0.2	1.5	0.992	0.708	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.993	0.169	
Cis 1,2-Dichloroethylene	**0.47**	*1.9*	0.2	0.8	0.993	0.548	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.954	0.034	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.918	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	**1.4**	**7.8**	0.2	1.1	0.993	0.718	Methyl Chloroform
Benzene	**0.34**	**1.1**	0.2	0.6	0.994	0.654	
Carbon Tetrachloride	*0.083*	*0.52*	0.2	1.3	0.977	0.154	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.667	0.116	Propylene Dichloride
Trichloroethylene	**1.1**	**6.1**	0.2	1.1	0.998	0.834	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.878	0.038	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.815	0.035	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.27**	**1**	0.2	0.8	0.999	0.634	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.934	0.776	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.996	0.658	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.974	0.363	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.99	0.579	
Styrene*	N.D.	N.D.	1	4	0.992	0.564	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.997	0.303	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.956	0.045	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.983	0.229	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.988	0.23	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.992	0.147	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.857	0.028	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.954	0.122	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	169 Leland Street				Location:
Date Sampled:	10/5/21	Time:	10:50 AM	Field ID:	AA-04	Collector:	E Johnson	Ambient Air Location 04
Date Analyzed:	10/5/21	Time:	5:42 PM	Lab ID:	009	Analyst:	N Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.694	0.053	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.974	0.072	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.924	0.157	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.65	0.046	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.909	0.039	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.703	0.03	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.79	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.671	0.049	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.445	0.108	
Toluene	**0.46**	**1.7**	0.2	0.8	0.998	0.372	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.2**	*1.4*	0.2	1.4	0.923	0.551	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.769	0.002	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.894	0.119	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.998	0.329	
Styrene*	N.D.	N.D.	0.2	1	0.984	0.364	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.955	0.17	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.521	0.021	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.906	0.108	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.912	0.108	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/5/21	Time:	1:30 PM	Field ID:	AA-NW	Collector:	E Johnson	Ambient Air Northwest
Date Analyzed:	10/5/21	Time:	6:19 PM	Lab ID:	010	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	Chloroethene
Chloroethane	N.D.	N.D.	2	5	0.983	0.034	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.955	0.077	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0.632	0.029	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.655	0.026	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.721	0.055	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	*0.19*	0.6	0.2	0.6	0.888	0.132	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.916	0.118	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.29**	**1.1**	0.2	0.8	1	0.323	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.21**	**1.5**	0.2	1.4	0.903	0.493	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.969	0.104	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.96	0.242	
Styrene*	N.D.	N.D.	0.2	1	0	0	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	0.9	0.893	0.132	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.961	0.104	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.963	0.104	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			INDOOR AIR DATA			RTN: 3-19174		
City or Town:	Framingham		Address:	157 Leland Street			Location:	
Date Sampled:	10/5/21	Time:	11:25 AM	Field ID:	157-2	Collector:	E. Johnson	Basement
Date Analyzed:	10/5/21	Time:	6:05 PM	Lab ID:	010	Analyst:	J. Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.847	0.003	<1	<1	0.27
Chloroethane	**3.3**	**8.8**	2	5	0.88	0.202	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.987	0.026	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.967	0.005	<2	<2	0.8
Methylene Chloride	*0.11*	*0.37*	0.2	0.7	0.985	0.53	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.953	0.086	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.813	0.028	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.943	0.033	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.977	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.664	0.263	0.5	3	3
Benzene	**0.56**	**1.8**	0.2	0.6	0.988	0.695	2.3	11	2.3
Carbon Tetrachloride	*0.048*	*0.3*	0.2	1.3	0.922	0.24	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.285	0.043	<2.7	<2.7	0.15
Toluene	**2.8**	**11**	0.2	0.8	0.998	0.736	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.057*	*0.39*	0.2	1.4	0.839	0.725	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.707	0.07	<2.3	<2.3	2.3
Ethylbenzene	**0.24**	**1**	0.2	0.9	0.996	0.653	1.5	7.4	7.4
p/m-Xylene	**0.81**	**3.5**	0.4	1.7	0.996	0.675	3.8	21	20
Styrene*	*0.2*	*0.86*	1	4.3	0.992	0.611	0.6	1.4	1.4
o-Xylene*	*0.25*	*1.1*	1	4.3	0.998	0.662	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.51	0.005	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.966	0.224	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.26*	*1.3*	1	4.9	0.998	0.485	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.875	0.012	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.881	0.005	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.5	0.018	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.23	0.147	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	10/7/21	Time: 11:35 AM	Field ID:	HMW-2	Collector:	E. Johnson	HMW-2 Road Box
Date Analyzed:	10/7/21	Time: 4:10 PM	Lab ID:	006	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	**38**	98	0.2	0.5	0.841	0.175	Chloroethene
Chloroethane	**250**	**670**	2	5	0.945	0.144	Ethyl Chloride
Trichloromonofluoromethane	**200**	**1400**	0.2	1	0.997	0.356	Freon 11
1,1-Dichloroethene	**550**	**2200**	0.2	0.8	0.992	0.818	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.784	0.049	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**1200**	**9200**	0.2	1.5	0.994	0.685	Freon 113
1,1-Dichloroethane	**28**	**110**	0.2	0.8	0.907	0.247	
Cis 1,2-Dichloroethylene	**970**	**3900**	0.2	0.8	0.989	0.837	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.904	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	**200**	**1100**	0.2	1.1	0.968	0.719	Methyl Chloroform
Benzene	**42**	**130**	0.2	0.6	0.991	0.628	
Carbon Tetrachloride	**16**	**100**	0.2	1.3	0.946	0.105	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	**1100**	**5900**	0.2	1.1	0.995	0.829	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.294	0.044	
Toluene	**180**	**660**	0.2	0.8	0.996	0.748	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**1600**	**11000**	0.2	1.4	0.992	0.987	Perchloroethylene
Chlorobenzene	**5.6**	**26**	0.2	0.9	0.825	0.117	
Ethylbenzene	**17**	**74**	0.2	0.9	0.991	0.621	
p/m-Xylene	**16**	**68**	0.4	1.7	0.997	0.625	
Styrene*	**1**	**4.3**	1	4	0.96	0.316	Vinyl benzene
o-Xylene*	**5.8**	**25**	1	4	0.991	0.427	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.796	0.041	
1,3,5-Trimethylbenzene*	*0.68*	*3.3*	1	5	0.888	0.154	Mesitylene
1,2,4-Trimethylbenzene*	**1.2**	**5.8**	1	5	0.979	0.261	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.946	0.075	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.992	0.045	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.871	0.089	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **170** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Sample collected 1-2 inches above closed roadbox at HMW-2.

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/7/21	Time:	11:25 AM	Field ID:	AA-NW	Collector:	E. Johnson	Ambinet - NW corner
Date Analyzed:	10/7/21	Time:	3:03 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.758	0.018	Chloroethene
Chloroethane	**3.4**	**9**	2	5	0.904	0.232	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.991	0.11	Freon 11
1,1-Dichloroethene	**0.28**	*1.1*	0.2	0.8	0.999	0.592	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.922	0.25	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.985	0.342	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.697	0.132	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.994	0.366	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.939	0.249	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.855	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.621	0.101	Methyl Chloroform
Benzene	**0.3**	**0.97**	0.2	0.6	0.993	0.569	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.939	0.244	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	**0.31**	**1.6**	0.2	1.1	0.995	0.806	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.69**	**2.6**	0.2	0.8	0.995	0.722	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**2.3**	**16**	0.2	1.4	0.993	0.984	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.934	0.264	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.974	0.607	
p/m-Xylene	*0.23*	*1*	0.4	1.7	0.997	0.585	
Styrene*	N.D.	N.D.	1	4	0.996	0.637	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.997	0.517	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.866	0.11	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.987	0.134	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.264	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.906	0.019	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.992	0.045	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.871	0.089	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.352	0.106	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/7/21	Time:	11:30 AM	Field ID:	AA-S	Collector:	E. Johnson	Ambient Air - S. Fence Line
Date Analyzed:	10/7/21	Time:	3:36 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.44	0.058	Chloroethene
Chloroethane	*1.8*	*4.8*	2	5	0.888	0.182	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.907	0.185	Freon 11
1,1-Dichloroethene	**0.24**	*0.97*	0.2	0.8	0.992	0.51	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.854	0.255	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.916	0.25	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.968	0.022	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.911	0.23	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.956	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.68	0.022	Methyl Chloroform
Benzene	**0.21**	**0.67**	0.2	0.6	0.994	0.61	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.938	0.262	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.964	0.531	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.5**	**1.9**	0.2	0.8	0.997	0.714	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.091*	*0.62*	0.2	1.4	0.934	0.86	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.854	0.143	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.949	0.504	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.702	
Styrene*	N.D.	N.D.	1	4	0.974	0.536	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	1	0.355	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.656	0.049	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.805	0.199	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.995	0.318	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.974	0.226	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.992	0.045	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.871	0.089	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	10/12/21	Time: 11:00 AM	Field ID:	AA-NW	Collector:	E. Johnson	Ambient - NW corner
Date Analyzed:	10/12/21	Time: 1:41 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m³	ppbV	µg/m³			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**4.4**	**12**	2	5	0.86	0.255	Ethyl Chloride
Trichloromonofluoromethane	**0.26**	**1.8**	0.2	1	0.993	0.123	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.886	0.047	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.994	0.404	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.717	0.089	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.743	0.068	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.99	0.261	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.891	0.15	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.953	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.572	0.182	Methyl Chloroform
Benzene	**0.42**	**1.3**	0.2	0.6	0.983	0.593	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.941	0.198	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.265	0.114	Propylene Dichloride
Trichloroethylene	*0.07*	*0.38*	0.2	1.1	0.99	0.567	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.395	0.052	
Toluene	**0.62**	**2.4**	0.2	0.8	0.996	0.715	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.597	0.105	Ethylene Dibromide
Tetrachloroethylene	*0.12*	*0.81*	0.2	1.4	0.926	0.835	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.976	0.585	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.985	0.676	
p/m-Xylene	*0.29*	*1.3*	0.4	1.7	0.997	0.639	
Styrene*	N.D.	N.D.	1	4	0.992	0.707	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	1	0.491	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.933	0.084	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.895	0.11	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.995	0.363	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.973	0.355	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.999	0.227	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.997	0.378	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.66	0.366	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

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Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/14/21	Time:	12:50 PM	Field ID:	AA-NE	Collector:	E Johnson	Ambient Air Northeast
Date Analyzed:	10/14/21	Time:	3:34 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.887	0.044	Chloroethene
Chloroethane	**2.8**	**7.3**	2	5	0.839	0.229	Ethyl Chloride
Trichloromonofluoromethane	**0.3**	**2.1**	0.2	1	0.999	0.125	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.649	0.093	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.823	0.284	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.93	0.087	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.647	0.068	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.847	0.218	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.933	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.655	0.021	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.95	0.488	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.932	0.45	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.726	0.102	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.47**	**1.8**	0.2	0.8	0.995	0.743	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.923	0.829	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.754	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.984	0.622	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.687	
Styrene*	N.D.	N.D.	1	4	0.983	0.667	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.996	0.452	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.854	0.174	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.184	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.921	0.023	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.929	0.032	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.712	0.079	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

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Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/14/21	Time:	12:55 PM	Field ID:	AA-NW	Collector:	E Johnson	Ambient Air Northwest
Date Analyzed:	10/14/21	Time:	4:39 PM	Lab ID:	007	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.758	0.01	Chloroethene
Chloroethane	**3.7**	**9.8**	2	5	0.874	0.23	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.992	0.054	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.799	0.037	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.978	0.538	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.854	0.094	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.184	0.06	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.889	0.132	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.964	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.671	0.022	Methyl Chloroform
Benzene	**0.27**	*0.86*	0.2	0.6	0.972	0.604	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.859	0.193	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.897	0.355	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.59**	**2.2**	0.2	0.8	0.996	0.73	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.735	0.641	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.592	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.978	0.533	
p/m-Xylene	*0.21*	*0.91*	0.4	1.7	0.997	0.71	
Styrene*	N.D.	N.D.	1	4	0.993	0.767	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.999	0.606	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.818	0.02	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.988	0.278	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.284	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.825	0.071	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.929	0.032	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.712	0.079	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	10/19/21	Time: 11:00 AM	Field ID:	AA-03	Collector:	E. Johnson	Ambient air at station 3
Date Analyzed:	10/19/21	Time: 4:03 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.811	0.013	Chloroethene
Chloroethane	**3**	**7.9**	2	5	0.865	0.193	Ethyl Chloride
Trichloromonofluoromethane	**0.32**	**2.3**	0.2	1	0.973	0.367	Freon 11
1,1-Dichloroethene	**0.36**	**1.4**	0.2	0.8	0.99	0.529	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.955	0.169	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**0.45**	**3.4**	0.2	1.5	0.979	0.586	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.96	0.069	
Cis 1,2-Dichloroethylene	**0.54**	**2.2**	0.2	0.8	0.985	0.554	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.982	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	**1.5**	**8.4**	0.2	1.1	0.988	0.719	Methyl Chloroform
Benzene	**0.23**	**0.75**	0.2	0.6	0.994	0.605	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.898	0.267	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	**2.7**	**14**	0.2	1.1	0.993	0.846	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.29**	**1.1**	0.2	0.8	0.994	0.73	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**2.6**	**18**	0.2	1.4	0.994	0.988	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.845	0.136	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.977	0.599	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.719	
Styrene*	N.D.	N.D.	1	4	0.993	0.677	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.999	0.515	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.969	0.28	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.972	0.281	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.912	0.123	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.902	0.067	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.903	0.126	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	10/19/21	Time: 10:55 AM	Field ID:	AA-04	Collector:	E. Johnson	Ambient air at station 4
Date Analyzed:	10/20/21	Time: 1:29 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.386	0.065	Chloroethene
Chloroethane	**3.6**	**9.5**	2	5	0.865	0.204	Ethyl Chloride
Trichloromonofluoromethane	**0.4**	**2.8**	0.2	1	0.986	0.378	Freon 11
1,1-Dichloroethene	**0.55**	**2.2**	0.2	0.8	0.989	0.547	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.973	0.218	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**0.56**	**4.3**	0.2	1.5	0.981	0.557	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.95	0.059	
Cis 1,2-Dichloroethylene	**0.6**	**2.4**	0.2	0.8	0.992	0.41	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.884	0.172	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.981	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	**0.83**	**4.6**	0.2	1.1	0.988	0.707	Methyl Chloroform
Benzene	**0.57**	**1.8**	0.2	0.6	0.994	0.633	
Carbon Tetrachloride	*0.09*	*0.57*	0.2	1.3	0.859	0.1	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.216	0.112	Propylene Dichloride
Trichloroethylene	**0.92**	**5**	0.2	1.1	0.997	0.81	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.817	0.018	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.6**	**2.3**	0.2	0.8	0.998	0.674	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.49**	**3.3**	0.2	1.4	0.989	0.962	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.944	0.163	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.991	0.656	
p/m-Xylene	*0.34*	*1.5*	0.4	1.7	0.996	0.667	
Styrene*	**2.8**	**12**	1	4	0.996	0.789	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.974	0.185	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.839	0.199	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.948	0.386	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.983	0.406	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.956	0.289	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.902	0.067	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.903	0.126	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	10/19/21	Time: 1:00 PM	Field ID:	Conex	Collector:	E. Johnson	Ambient Air at Conex
Date Analyzed:	10/20/21	Time: 2:38 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.367	0.104	Chloroethene
Chloroethane	**5.9**	**16**	2	5	0.877	0.23	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.952	0.223	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.869	0.189	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.968	0.446	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.975	0.34	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.697	0.043	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.996	0.357	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.88	0.032	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.911	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.669	0.396	Methyl Chloroform
Benzene	**0.57**	**1.8**	0.2	0.6	0.989	0.705	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.856	0.068	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	**0.4**	**2.1**	0.2	1.1	0.998	0.796	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.56**	**2.1**	0.2	0.8	0.997	0.709	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.49**	**3.3**	0.2	1.4	0.989	0.961	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.607	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.994	0.691	
p/m-Xylene	*0.35*	*1.5*	0.4	1.7	0.996	0.69	
Styrene*	**2.8**	**12**	1	4	0.996	0.794	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.915	0.681	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.891	0.095	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.986	0.233	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.409	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.942	0.179	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.902	0.067	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.903	0.126	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	10/21/21	Time: 10:40 AM	Field ID:	AA-03	Collector:	E. Johnson	Ambient air at station 3
Date Analyzed:	10/21/21	Time: 3:24 PM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.758	0.004	Chloroethene
Chloroethane	*0.99*	*2.6*	2	5	0.898	0.178	Ethyl Chloride
Trichloromonofluoromethane	*0.2*	**1.4**	0.2	1	0.998	0.287	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.831	0.163	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.992	0.389	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.929	0.11	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.189	0.043	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.953	0.086	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.806	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.809	0.014	Methyl Chloroform
Benzene	**0.27**	**0.87**	0.2	0.6	0.99	0.654	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.5**	**1.9**	0.2	0.8	0.997	0.653	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.839	0.712	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.889	0.121	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.983	0.578	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.661	
Styrene*	N.D.	N.D.	1	4	0.993	0.73	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.98	0.472	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.447	0.073	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.899	0.123	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.294	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.948	0.043	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.851	0.007	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.51	0.019	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	10/21/21	Time: 1:25 PM	Field ID:	Conex	Collector:	E. Johnson	Ambient air at Conex
Date Analyzed:	10/21/21	Time: 3:56 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.776	0.004	Chloroethene
Chloroethane	**2.5**	**6.5**	2	5	0.898	0.167	Ethyl Chloride
Trichloromonofluoromethane	**0.23**	**1.6**	0.2	1	0.957	0.275	Freon 11
1,1-Dichloroethene	**0.57**	**2.3**	0.2	0.8	0.993	0.546	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.935	0.118	Dichloromethane
1,1,2-Trichlorotrifluoroethane	**1.1**	**8.7**	0.2	1.5	0.99	0.658	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.988	0.026	
Cis 1,2-Dichloroethylene	**0.7**	**2.8**	0.2	0.8	0.997	0.647	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.766	0.084	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.881	0.044	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.675	0.319	Methyl Chloroform
Benzene	**0.22**	**0.7**	0.2	0.6	0.988	0.563	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.936	0.165	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	**0.76**	**4.1**	0.2	1.1	0.996	0.803	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.51**	**1.9**	0.2	0.8	0.998	0.651	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**4.1**	**28**	0.2	1.4	0.993	0.982	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.847	0.005	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.997	0.551	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.997	0.47	
Styrene*	N.D.	N.D.	1	4	0.975	0.426	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.987	0.418	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.998	0.05	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.203	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.298	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.824	0.012	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.851	0.007	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.51	0.019	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

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Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	10/26/21	Time: 12:10 PM	Field ID:	AA-Con	Collector:	E. Johnson	Ambient near red conex
Date Analyzed:	10/26/21	Time: 2:16 PM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.347	0.092	Chloroethene
Chloroethane	**7.4**	**19**	2	5	0.867	0.256	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.993	0.263	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.897	0.108	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.755	0.141	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.969	0.391	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.996	0.048	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.892	0.117	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.869	0.157	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.957	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.655	0.021	Methyl Chloroform
Benzene	**0.23**	**0.73**	0.2	0.6	0.982	0.574	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.893	0.242	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	*0.08*	*0.43*	0.2	1.1	0.984	0.649	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.22**	**0.81**	0.2	0.8	0.995	0.648	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.2**	**1.4**	0.2	1.4	0.979	0.94	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.794	0.105	
Ethylbenzene	N.D.	N.D.	0.2	0.9	1	0.448	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.588	
Styrene*	N.D.	N.D.	1	4	0.956	0.538	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.999	0.308	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.932	0.104	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.916	0.262	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.911	0.186	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.281	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.991	0.431	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	10/26/21	Time: 12:05 PM	Field ID:	AA-NW	Collector:	E. Johnson	Ambient air - NW corner
Date Analyzed:	10/26/21	Time: 1:44 PM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**7**	**18**	2	5	0.813	0.277	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.996	0.222	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.74	0.025	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.985	0.349	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.957	0.28	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.979	0.329	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.927	0.334	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.954	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.999	0.092	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.935	0.467	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.97	0.441	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.979	0.288	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.52**	**2**	0.2	0.8	0.998	0.719	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.25**	**1.7**	0.2	1.4	0.986	0.947	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.975	0.546	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.907	0.454	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.997	0.717	
Styrene*	*0.36*	*1.5*	1	4	0.995	0.784	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.914	0.509	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.805	0.045	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.957	0.26	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.943	0.27	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.989	0.118	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.281	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.991	0.431	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.435	0.146	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	10/28/21	Time: 12:00 PM	Field ID:	AA-Con	Collector:	E. Johnson	Ambient at conex
Date Analyzed:	10/28/21	Time: 3:18 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.919	0.01	Chloroethene
Chloroethane	**3.9**	**10**	2	5	0.874	0.194	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.983	0.214	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.983	0.195	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.98	0.381	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.954	0.26	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.791	0.01	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.576	0.129	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.991	0.276	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.806	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.668	0.022	Methyl Chloroform
Benzene	**0.22**	**0.69**	0.2	0.6	0.987	0.639	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.907	0.248	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.991	0.636	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.23**	**0.85**	0.2	0.8	0.999	0.701	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.43**	**2.9**	0.2	1.4	0.987	0.968	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.814	0.147	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.969	0.41	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.994	0.652	
Styrene*	N.D.	N.D.	1	4	0.966	0.463	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.993	0.385	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.855	0.079	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.986	0.315	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.991	0.316	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.918	0.035	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.927	0.019	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.846	0.078	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	10/28/21	Time: 10:55 AM	Field ID:	AA-03	Collector:	E. Johnson	Ambient air at station 03
Date Analyzed:	10/28/21	Time: 2:47 PM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**2.5**	**6.7**	2	5	0.875	0.199	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.984	0.187	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.87	0.067	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.992	0.356	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.868	0.069	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.585	0.082	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.961	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.657	0.022	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.987	0.536	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.928	0.371	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	*0.2*	**0.74**	0.2	0.8	0.995	0.694	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.712	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.955	0.323	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.989	0.557	
Styrene*	N.D.	N.D.	1	4	0.97	0.385	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.996	0.529	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.667	0.05	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.872	0.151	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.875	0.152	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.983	0.098	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.927	0.019	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.846	0.078	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	155 Leland Street			Location:
Date Sampled:	11/4/21	Time: 12:55 PM	Field ID:	AA-Conex	Collector:	E Johnson	Ambient Air at Conex
Date Analyzed:	11/5/21	Time: 12:32 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.343	0.069	Chloroethene
Chloroethane	*0.78*	*2.1*	2	5	0.804	0.263	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.899	0.112	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.845	0.105	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.979	0.337	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.905	0.184	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.77	0.028	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.849	0.319	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.973	0.164	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.938	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.678	0.023	Methyl Chloroform
Benzene	*0.2*	0.63	0.2	0.6	0.997	0.585	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.938	0.321	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.364	0.048	Propylene Dichloride
Trichloroethylene	*0.075*	*0.4*	0.2	1.1	0.986	0.552	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.48**	**1.8**	0.2	0.8	0.998	0.707	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.53**	**3.6**	0.2	1.4	0.99	0.957	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.897	0.214	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.973	0.37	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.653	
Styrene*	N.D.	N.D.	1	4	0.973	0.527	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.996	0.405	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.91	0.078	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.848	0.182	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.957	0.186	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.815	0.077	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.834	0.042	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.825	0.094	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/4/21	Time: 12:45 PM	Field ID:	AA-NW	Collector:	E Johnson	Ambient Air Northwest
Date Analyzed:	11/5/21	Time: 12:01 PM	Lab ID:	003	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**2.7**	**7.2**	2	5	0.837	0.149	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.998	0.179	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.667	0.051	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.993	0.435	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.882	0.081	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.966	0.21	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.969	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.836	0.023	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.994	0.574	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.904	0.243	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.276	0.107	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.325	0.047	
Toluene	**0.41**	**1.5**	0.2	0.8	0.996	0.702	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.429	0.03	Ethylene Dibromide
Tetrachloroethylene	*0.07*	*0.47*	0.2	1.4	0.94	0.811	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.994	0.614	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.961	0.452	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.997	0.575	
Styrene*	N.D.	N.D.	1	4	0.98	0.543	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.995	0.386	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.809	0.06	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.988	0.315	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.993	0.316	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.998	0.143	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.834	0.042	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.825	0.094	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.522	0.142	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	11/8/21	Time:	12:00 PM	Field ID:	AA-NW	Collector:	B. Roden	Ambient air at NW corner
Date Analyzed:	11/8/21	Time:	5:11 PM	Lab ID:	009	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**2.9**	**7.5**	2	5	0.861	0.165	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.997	0.154	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.974	0.076	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.949	0.242	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.958	0.099	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.909	0.044	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.782	0.006	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.873	0.193	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.921	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.688	0.034	Methyl Chloroform
Benzene	*0.2*	*0.64*	0.2	0.6	0.992	0.64	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.939	0.359	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.319	0.041	
Toluene	**0.44**	**1.7**	0.2	0.8	0.998	0.72	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.082*	*0.56*	0.2	1.4	0.976	0.872	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.632	0.061	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.997	0.534	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.998	0.616	
Styrene*	N.D.	N.D.	1	4	0.99	0.501	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.997	0.424	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.639	0.05	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.928	0.267	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.991	0.203	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.699	0.017	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.742	0.011	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.628	0.094	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	11/10/21	Time:	10:30 AM	Field ID:	AA-Con	Collector:	B. Roden	Ambient air near conex
Date Analyzed:	11/10/21	Time:	5:09 PM	Lab ID:	013	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**2.5**	**6.5**	2	5	0.897	0.171	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.989	0.197	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.967	0.203	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.975	0.316	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.923	0.251	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.711	0.045	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.965	0.19	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.903	0.266	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.936	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.424	0.081	Methyl Chloroform
Benzene	**0.48**	**1.5**	0.2	0.6	0.987	0.71	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.931	0.137	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	*0.16*	*0.88*	0.2	1.1	0.991	0.779	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.71**	**2.7**	0.2	0.8	0.997	0.746	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**1.7**	**11**	0.2	1.4	0.992	0.982	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.555	0.076	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.993	0.699	
p/m-Xylene	*0.27*	*1.2*	0.4	1.7	0.996	0.693	
Styrene*	**1.4**	**5.9**	1	4	0.994	0.793	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.914	0.669	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.753	0.033	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.894	0.16	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	1	0.366	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.861	0.002	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.837	0.006	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.661	0.059	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	11/10/21	Time: 8:55 AM	Field ID:	AA-03	Collector:	B. Roden	AA-03
Date Analyzed:	11/10/21	Time: 1:55 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m³	ppbV	µg/m³			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.382	0.063	Chloroethene
Chloroethane	*0.27*	*0.71*	2	5	0.835	0.162	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.998	0.032	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.714	0.092	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.985	0.341	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.603	0.017	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.782	0.124	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.979	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.67	0.021	Methyl Chloroform
Benzene	**0.32**	**1**	0.2	0.6	0.99	0.625	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.881	0.391	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.81**	**3.1**	0.2	0.8	0.998	0.748	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.069*	*0.47*	0.2	1.4	0.931	0.834	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.585	0.041	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.724	
p/m-Xylene	*0.28*	*1.2*	0.4	1.7	0.995	0.716	
Styrene*	**1.1**	**4.7**	1	4	0.994	0.799	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.914	0.706	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.896	0.219	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.998	0.523	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.871	0.016	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.837	0.006	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.661	0.059	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	11/16/21	Time: 10:45 AM	Field ID:	AA-03	Collector:	E. Johnson	Ambient at AA-03
Date Analyzed:	11/16/21	Time: 6:27 PM	Lab ID:	011	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	*1.2*	*3.2*	2	5	0.887	0.139	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.982	0.018	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.812	0.06	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.966	0.155	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.881	0.065	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.804	0.006	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.806	0.004	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.654	0.019	Methyl Chloroform
Benzene	**0.39**	**1.2**	0.2	0.6	0.989	0.681	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.902	0.178	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.24**	**0.89**	0.2	0.8	0.999	0.665	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.058*	*0.39*	0.2	1.4	0.954	0.842	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.596	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.954	0.453	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.999	0.598	
Styrene*	**2.2**	**9.2**	1	4	0.999	0.793	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.914	0.538	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.968	0.347	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.333	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.652	0.114	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.853	0.078	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.596	0.097	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

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Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	155 Leland Street				Location:
Date Sampled:	11/22/21	Time:	1:15 PM	Field ID:	AA-Con	Collector:	E. Johnson	Ambient air near Conex
Date Analyzed:	11/22/21	Time:	4:52 PM	Lab ID:	010	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.816	0.013	Chloroethene
Chloroethane	*1.8*	*4.8*	2	5	0.869	0.172	Ethyl Chloride
Trichloromonofluoromethane	**0.32**	**2.2**	0.2	1	0.994	0.245	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.881	0.103	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.978	0.275	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.912	0.144	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.917	0.012	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.76	0.112	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.962	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.673	0.022	Methyl Chloroform
Benzene	**0.22**	**0.71**	0.2	0.6	0.99	0.657	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.957	0.379	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.963	0.321	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**0.53**	**2**	0.2	0.8	0.997	0.739	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.41**	**2.8**	0.2	1.4	0.988	0.958	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.579	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.998	0.594	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.681	
Styrene*	N.D.	N.D.	1	4	0.978	0.486	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.998	0.426	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.934	0.179	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.996	0.335	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.75	0.001	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.251	0.006	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/22/21	Time:	1:10 PM	Field ID:	AA-NW	Collector:	E. Johnson	Ambient air at NW corner
Date Analyzed:	11/22/21	Time:	5:25 PM	Lab ID:	011	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.577	0.005	Chloroethene
Chloroethane	*1.3*	*3.5*	2	5	0.885	0.176	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.998	0.073	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.916	0.088	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.947	0.186	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.864	0.079	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.341	0.046	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.943	0.149	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.976	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.651	0.02	Methyl Chloroform
Benzene	**0.23**	**0.74**	0.2	0.6	0.975	0.633	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.915	0.27	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.34	0.065	
Toluene	**0.29**	**1.1**	0.2	0.8	0.999	0.687	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.371	0.03	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.939	0.798	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.718	0.011	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.994	0.666	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.687	
Styrene*	**1.2**	**5.2**	1	4	0.994	0.787	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.914	0.567	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.887	0.364	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.986	0.348	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.836	0.003	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.75	0.001	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.251	0.006	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	11/24/21	Time: 10:10 AM	Field ID:	AA-Con	Collector:	E. Johnson	Ambient air near conex
Date Analyzed:	11/24/21	Time: 2:25 PM	Lab ID:	009	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	*1.2*	*3.1*	2	5	0.885	0.104	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.978	0.25	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.865	0.164	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.953	0.029	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.801	0.005	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.768	0.083	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.926	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.66	0.021	Methyl Chloroform
Benzene	**0.21**	**0.67**	0.2	0.6	0.968	0.722	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.951	0.377	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	1	0.593	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.19*	*1.3*	0.2	1.4	0.966	0.925	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.82	0.004	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.911	0.505	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.992	0.734	
Styrene*	*0.97*	*4.1*	1	4	0.994	0.784	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.911	0.537	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.855	0.335	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.97	0.458	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.964	0.006	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.966	0.003	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.502	0.064	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

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Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland street				Location:
Date Sampled:	11/29/21	Time: 12:45 PM	Field ID:	AA-Con	Collector:	E Johnson	Ambient Air NW of Conex
Date Analyzed:	11/29/21	Time: 4:58 PM	Lab ID:	009	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.758	0.032	Chloroethene
Chloroethane	**2.3**	**6**	2	5	0.877	0.15	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.947	0.193	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.982	0.084	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.991	0.303	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.919	0.171	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.73	0.016	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.743	0.054	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.865	0.148	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.947	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.657	0.021	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.991	0.686	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.923	0.339	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.807	0.131	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.56	0.11	
Toluene	**0.22**	**0.81**	0.2	0.8	1	0.687	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.066*	*0.45*	0.2	1.4	0.929	0.806	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.503	0	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.968	0.562	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.993	0.597	
Styrene*	N.D.	N.D.	1	4	0.924	0.342	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.998	0.383	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.675	0.034	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.895	0.163	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.981	0.27	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.93	0.124	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.98	0.08	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.953	0.11	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.276	0.103	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.196	0.113	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/29/21	Time: 12:35 PM	Field ID:	AA-E	Collector:	E Johnson	Ambient Air NE corner
Date Analyzed:	11/29/21	Time: 4:27 PM	Lab ID:	008	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.857	0.056	Chloroethene
Chloroethane	**2.3**	**6**	2	5	0.853	0.173	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.995	0.123	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.999	0.192	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.99	0.297	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.927	0.163	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.799	0.041	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.741	0.109	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.924	0.137	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.972	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.715	0.027	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.989	0.698	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.938	0.536	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.647	0.069	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.252	0.042	
Toluene	**0.66**	**2.5**	0.2	0.8	0.999	0.722	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.25**	**1.7**	0.2	1.4	0.988	0.949	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.461	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.924	0.347	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.619	
Styrene*	*0.71*	*3*	1	4	0.998	0.795	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.908	0.396	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.924	0.205	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.994	0.377	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.913	0.154	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.98	0.08	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.953	0.11	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	12/2/21	Time:	12:05 PM	Field ID:	NW	Collector:	E Johnson	Ambient Air Northwest
Date Analyzed:	12/3/21	Time:	12:12 PM	Lab ID:	003	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.791	0.02	Chloroethene
Chloroethane	*0.96*	*2.5*	2	5	0.82	0.308	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.998	0.028	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0.802	0.046	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.99	0.166	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.686	0.049	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.967	0.061	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.96	0.173	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.959	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.684	0.02	Methyl Chloroform
Benzene	**0.38**	*1.2*	0.2	0.6	0.98	0.688	
Carbon Tetrachloride	*0.058*	*0.36*	0.2	1.3	0.902	0.173	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.332	0.056	
Toluene	**0.34**	**1.3**	0.2	0.8	1	0.66	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	*0.17*	*1.1*	0.2	1.4	0.977	0.932	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.993	0.659	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.962	0.607	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.987	0.664	
Styrene*	**1.7**	**7.4**	1	4	0.997	0.793	Vinyl benzene
o-Xylene*	N.D.	N.D.	1	4	0.913	0.563	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.873	0.028	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.902	0.397	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	1	0.334	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.985	0.4	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.998	0.26	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.941	0.36	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	**3.9**	**29**	2	15	0.808	0.484	
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				AIR SCREENING DATA				RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	12/8/21	Time:	12:40 PM	Field ID:	AA-NW	Collector:	E. Johnson	Ambient at NW corner
Date Analyzed:	12/8/21	Time:	6:11 PM	Lab ID:	013	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	1	2.6	0	0	Chloroethene
Chloroethane	N.D.	N.D.	3	8	0.84	0.068	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0	0	Freon 11
1,1-Dichloroethene	N.D.	N.D.	1	4.0	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0	0	Freon 113
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0	0	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	Methyl Chloroform
Benzene	**1.1**	**3.5**	0.2	0.6	0.984	0.39	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	**1.7**	**6.4**	0.2	0.8	0.998	0.542	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	
Ethylbenzene	N.D.	N.D.	1	4.3	0.994	0.341	
p/m-Xylene	**0.81**	**3.5**	0.4	1.7	0.994	0.508	
Styrene*	N.D.	N.D.	0.2	1	0	0	Vinyl benzene
o-Xylene*	**0.32**	**1.4**	0.2	0.9	0.987	0.359	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.867	0.103	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.34	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	12/14/21	Time: 12:45 PM	Field ID:	AA-02	Collector:	E. Johnson	AA-02
Date Analyzed:	12/14/21	Time: 6:06 PM	Lab ID:	014	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**1**	**2.7**	1	3	0.816	0.187	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.989	0.18	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.998	0.278	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.839	0.171	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.778	0.007	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.976	0.14	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.942	0.006	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.689	0.024	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	0.996	0.59	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.844	0.423	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	1	0.764	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.884	0.681	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.576	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.625	
p/m-Xylene	N.D.	N.D.	0.4	1.7	1	0.748	
Styrene*	*0.41*	*1.7*	1	4	1	0.764	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	1	0.915	0.524	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.644	0.026	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.887	0.293	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.993	0.378	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.623	0.025	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.617	0.025	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.626	0.025	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham	Address:	169 Leland Street				Location:
Date Sampled:	12/14/21	Time: 11:00 AM	Field ID:	AA-03	Collector:	E. Johnson	AA-03
Date Analyzed:	12/14/21	Time: 5:33 PM	Lab ID:	013	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	N.D.	N.D.	1	3	0.779	0.191	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.993	0.361	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0	0	Vinylidene Chloride
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.996	0.342	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.691	0.254	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.675	0.005	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	1	0.227	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.966	0.007	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.705	0.026	Methyl Chloroform
Benzene	N.D.	N.D.	0.2	0.6	1	0.759	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.945	0.516	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	
Toluene	N.D.	N.D.	0.2	0.8	1	0.767	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.882	0.748	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.504	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.997	0.473	
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.999	0.653	
Styrene*	N.D.	N.D.	1	4	0.989	0.478	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	1	0.998	0.488	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.64	0.027	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.983	0.365	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.986	0.366	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.827	0.177	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.617	0.025	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.626	0.025	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			AIR SCREENING DATA			RTN: 3-19174	
City or Town:	Framingham		Address:	169 Leland Street			Location:
Date Sampled:	1/27/22	Time:	10:35 AM	Field ID:	AA-03	Collector:	B. Roden	Ambient air at AA-03
Date Analyzed:	1/27/22	Time:	5:18 PM	Lab ID:	009	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Synonym
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	Chloroethene
Chloroethane	**2**	**5.3**	1	3	0.852	0.223	Ethyl Chloride
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.997	0.008	Freon 11
1,1-Dichloroethene	N.D.	N.D.	0.2	0.8	0	0	Vinylidene Chloride
Methylene Chloride	**0.42**	**1.4**	0.2	0.7	1	0.789	Dichloromethane
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.616	0.005	Freon 113
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.438	0.049	cis-1,2-Dichloroethene
Chloroform	N.D.	N.D.	0.2	1.0	0.997	0.066	Trichloromethane
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.929	0.005	Ethylene Dichloride
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.702	0.023	Methyl Chloroform
Benzene	**0.24**	**0.76**	0.2	0.6	0.998	0.729	
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.988	0.35	Tetrachloromethane
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	Propylene Dichloride
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	Trichloroethene
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.764	0.004	
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.196	0.009	
Toluene	**0.36**	**1.3**	0.2	0.8	1	0.771	
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	Ethylene Dibromide
Tetrachloroethylene	**0.26**	**1.8**	0.2	1.4	0.99	0.966	Perchloroethylene
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.592	0.001	
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.997	0.533	
p/m-Xylene	N.D.	N.D.	0.4	1.7	1	0.733	
Styrene*	N.D.	N.D.	1	4	0.995	0.663	Vinyl benzene
o-Xylene*	N.D.	N.D.	0.2	1	0.999	0.535	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.859	0.354	Mesitylene
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.994	0.31	
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	m– Dichlorobenzene
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	p – Dichlorobenzene
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	o – Dichlorobenzene
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL)

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Soil Gas Data Reports

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/2/21	Time:	12:20 PM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	8/2/21	Time:	1:27 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	**4.7**	**12**	2	5	0.935	0.147	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	**0.96**	**3.8**	0.2	0.8	0.986	0.494	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**3.7**	**20**	0.2	1.1	0.994	0.693	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**8.1**	**44**	0.2	1.1	0.999	0.856	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**42**	**290**	0.2	1.4	0.998	0.99	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.948	0.255	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.764	0.205	1400	6200
Styrene*	**0.25**	**1.1**	0.2	1	0.983	0.603	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.783	0.21	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.954	0.105	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.959	0.106	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: May be elevated due to PID carry-over from VGAC samples.

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/2/21	Time:	1:55 PM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	8/2/21	Time:	3:15 PM	Lab ID:	010	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.9	0.045	NA	NA
Trichloromonofluoromethane	*0.68*	4.7	1	7	0.991	0.264	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	*0.96*	7.3	1	7.7	0.983	0.379	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.98	0.057	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**1.7**	**9.3**	0.2	1.1	0.996	0.8	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	*0.19*	**0.71**	0.2	0.8	0.943	0.468	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**5.4**	**36**	0.2	1.4	0.991	0.977	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.464	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.946	0.489	1400	6200
Styrene*	**0.21**	**0.89**	0.2	1	0.972	0.593	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.955	0.494	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.879	0.075	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.889	0.076	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/2/21	Time:		Field ID:	SV-01	Collector:	E. Johnson		SV-01
Date Analyzed:	8/2/21	Time:	1:57 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.607	0.063	19	91
Chloroethane	**2.7**	**7.1**	2	5	0.906	0.155	NA	NA
Trichloromonofluoromethane	**0.83**	**5.8**	0.2	1	0.996	0.296	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.869	0.055	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.807	0.009	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.97	0.079	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.896	0.009	56	50,000
Cis 1,2-Dichloroethylene	**0.44**	**1.7**	0.2	0.8	0.971	0.641	56	370
Chloroform	**0.71**	**3.5**	0.2	1.0	0.994	0.764	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.98	0.006	6.3	31
1,1,1-Trichloroethane	**1.3**	**7.2**	0.2	1.1	0.967	0.712	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.955	0.642	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.93	0.086	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.637	0.032	8.6	42
Trichloroethylene	**2.1**	**12**	0.2	1.1	0.995	0.834	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.24**	**0.89**	0.2	0.8	1	0.364	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**8.1**	**55**	0.2	1.4	0.995	0.983	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.778	0.055	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.99	0.429	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.971	0.235	1400	6200
Styrene*	N.D.	N.D.	1	4	0.985	0.675	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.997	0.413	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.78	0.089	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.99	0.124	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.994	0.125	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.892	0.277	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.981	0.172	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.896	0.279	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.328	0.112	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/2/21	Time:		Field ID:	SV-10	Collector:	E. Johnson		SV-10
Date Analyzed:	8/2/21	Time:	1:25 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.365	0.012	19	91
Chloroethane	*1.8*	*4.6*	2	5	0.937	0.126	NA	NA
Trichloromonofluoromethane	**0.44**	**3.1**	0.2	1	0.879	0.125	NA	NA
1,1-Dichloroethylene	**0.24**	**0.94**	0.2	0.8	0.932	0.111	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.9	0.037	770	37000
1,1,2-Trichlorotrifluoroethane	**0.61**	**4.7**	0.2	1.5	0.973	0.131	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.948	0.005	56	50,000
Cis 1,2-Dichloroethylene	**0.46**	**1.8**	0.2	0.8	0.977	0.589	56	370
Chloroform	**0.38**	**1.9**	0.2	1.0	0.976	0.398	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.987	0.007	6.3	31
1,1,1-Trichloroethane	**2.9**	**16**	0.2	1.1	0.988	0.615	210	310,000
Benzene	**0.31**	**0.99**	0.2	0.6	0.997	0.817	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.913	0.085	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**2.1**	**11**	0.2	1.1	0.994	0.836	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.27**	**1**	0.2	0.8	1	0.286	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**12**	**81**	0.2	1.4	0.994	0.983	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.772	0.03	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.999	0.473	520	62000
p/m-Xylene	*0.22*	*0.95*	0.4	1.7	0.987	0.349	1400	6200
Styrene*	*0.35*	*1.5*	1	4	0.99	0.67	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.911	0.336	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.845	0.13	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.99	0.313	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.995	0.22	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.824	0.318	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.981	0.172	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.896	0.279	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.329	0.101	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/2/21	Time:	1:35 PM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	8/2/21	Time:	2:31 PM	Lab ID:	10	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0	0	19	91
Chloroethane	**8.1**	**21**	6	16	0.873	0.212	NA	NA
Trichloromonofluoromethane	**1.3**	**9.3**	0.6	4	1	0.421	NA	NA
1,1-Dichloroethylene	**8.9**	**35**	0.6	2.4	0.992	0.201	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.63	0.034	770	37000
1,1,2-Trichlorotrifluoroethane	**200**	**1600**	0.6	4.6	0.995	0.727	NA	NA
1,1-Dichloroethane	**1**	**4.2**	0.6	2.4	0.921	0.297	56	50,000
Cis 1,2-Dichloroethylene	**18**	**73**	0.6	2.4	0.989	0.832	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0.653	0.396	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.948	0.006	6.3	31
1,1,1-Trichloroethane	**50**	**270**	0.6	3.3	0.997	0.704	210	310,000
Benzene	N.D.	N.D.	0.6	1.9	0.912	0.44	160	800
Carbon Tetrachloride	**4**	**25**	0.6	3.8	0.998	0.103	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0.608	0.036	8.6	42
Trichloroethylene	**54**	**290**	0.6	3.2	0.998	0.844	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0	0	10	50
Toluene	*0.23*	*0.87*	0.6	2.3	0.994	0.459	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**53**	**360**	0.6	4.1	0.995	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.658	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.6	2.6	0.956	0.43	520	62000
p/m-Xylene	N.D.	N.D.	1.2	5.2	0.994	0.492	1400	6200
Styrene*	*1.6*	*6.7*	3	13	0.99	0.764	95	1400
o-Xylene*	N.D.	N.D.	3	13	0.911	0.211	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0.961	0.109	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3	15	0.947	0.253	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	0.97	0.35	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.927	0.199	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0.981	0.172	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.896	0.279	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0.474	0.166	28	240
HexachloroButadiene*	N.D.	N.D.	0.6	6	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/6/21	Time:	10:55 AM	Field ID:	Area 1	Collector:	E. Johnson		Area 1 excavation
Date Analyzed:	8/6/21	Time:	12:00 PM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.82	0.017	19	91
Chloroethane	**18**	**49**	2	5	0.913	0.125	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.535	0.078	56	50,000
Cis 1,2-Dichloroethylene	**5.6**	**22**	0.2	0.8	0.991	0.447	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.75	0.033	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.544	0.012	6.3	31
1,1,1-Trichloroethane	**5.5**	**30**	0.2	1.1	1	0.373	210	310,000
Benzene	**1**	**3.3**	0.2	0.6	0.854	0.152	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.952	0.069	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.739	0.039	8.6	42
Trichloroethylene	**13**	**71**	0.2	1.1	0.999	0.735	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.867	0.012	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.856	0.012	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.2**	**4.4**	0.2	0.8	0.998	0.267	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**68**	**460**	0.2	1.4	0.996	0.979	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.22**	**0.95**	0.2	0.9	0.984	0.144	520	62000
p/m-Xylene	**0.66**	**2.8**	0.4	1.7	0.993	0.307	1400	6200
Styrene*	**29**	**120**	0.2	1	1	0.752	95	1400
o-Xylene*	**0.58**	**2.5**	0.2	0.9	0.995	0.307	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**0.31**	**1.5**	0.2	1.0	0.992	0.108	NA	NA
1,2,4-Trimethylbenzene*	**0.82**	**4**	0.2	1.0	0.994	0.275	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.519	0.268	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.308	0.107	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Chloroethane and styrene in blank sample; hole is uncovered

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/6/21	Time:	10:45 AM	Field ID:	Area 2	Collector:	E. Johnson		Area 2 excavation
Date Analyzed:	8/6/21	Time:	12:36 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.594	0.029	19	91
Chloroethane	**46**	**120**	2	5	0.958	0.105	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	**4.6**	**19**	0.2	0.8	0.996	0.165	56	50,000
Cis 1,2-Dichloroethylene	**8.2**	**33**	0.2	0.8	0.992	0.337	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.931	0.029	6.3	31
1,1,1-Trichloroethane	**74**	**400**	0.2	1.1	1	0.641	210	310,000
Benzene	**4.5**	**14**	0.2	0.6	0.959	0.304	160	800
Carbon Tetrachloride	**5.9**	**37**	0.2	1.3	0.99	0.104	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.776	0.055	8.6	42
Trichloroethylene	**81**	**430**	0.2	1.1	0.999	0.784	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**3.8**	**14**	0.2	0.8	0.994	0.332	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.396	0.027	NA	NA
Tetrachloroethylene	**300**	**2100**	0.2	1.4	0.997	0.981	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.79**	**3.4**	0.2	0.9	0.991	0.193	520	62000
p/m-Xylene	**1.8**	**7.9**	0.4	1.7	0.987	0.307	1400	6200
Styrene*	**52**	**220**	0.2	1	1	0.738	95	1400
o-Xylene*	**1.6**	**7.1**	0.2	0.9	0.987	0.307	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**1.3**	**6.3**	0.2	1.0	0.987	0.237	NA	NA
1,2,4-Trimethylbenzene*	**1.9**	**9.3**	0.2	1.0	0.995	0.291	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.415	0.157	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 10 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Styrene and chloroethene present in blank sample.

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/12/21	Time:	12:20 PM	Field ID:	SV-10	Collector:	N. Johnson		SV-10
Date Analyzed:	8/12/21	Time:	1:52 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	*1.9*	5	2	5	0.953	0.107	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.31	0.015	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	**0.35**	**1.7**	0.2	1.0	0.997	0.422	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**2.2**	**12**	0.2	1.1	1	0.674	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.795	0.056	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**2.1**	**11**	0.2	1.1	0.999	0.79	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.951	0.311	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**19**	**130**	0.2	1.4	0.998	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.998	0.217	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.96	0.361	1400	6200
Styrene*	**1.2**	**5.2**	0.2	1	0.998	0.753	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.968	0.364	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.852	0.113	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.975	0.28	NA	NA
1,3-Dichlorobenzene (meta)*	**1.6**	**9.3**	0.2	1	0.905	0.314	42	50,000
1,4-Dichlorobenzene (para)*	**1.2**	**7.2**	0.2	1	0.906	0.314	35	120
1,2-Dichlorobenzene (ortho)*	**1.2**	**7**	0.2	1	0.902	0.313	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: May be impacted by carry-over from PID. Resample.

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/12/21	Time:	12:15 PM	Field ID:	SV-09	Collector:	N. Johnson		SV-09
Date Analyzed:	8/12/21	Time:	1:22 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.879	0.09	NA	NA
Trichloromonofluoromethane	*0.83*	5.8	1	7	0.947	0.158	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**1.2**	**9**	1	7.7	0.984	0.282	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**0.76**	**4.1**	0.2	1.1	0.983	0.492	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**3.9**	**21**	0.2	1.1	0.998	0.81	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.924	0.321	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**26**	**170**	0.2	1.4	0.996	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.441	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.874	0.403	1400	6200
Styrene*	**1.7**	**7.2**	0.2	1	0.999	0.784	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.885	0.408	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.856	0.31	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.993	0.166	NA	NA
1,3-Dichlorobenzene (meta)*	**1.5**	**9.3**	0.2	1	0.859	0.16	42	50,000
1,4-Dichlorobenzene (para)*	**1.2**	**7.2**	0.2	1	0.906	0.314	35	120
1,2-Dichlorobenzene (ortho)*	**1.2**	**6.9**	0.2	1	0.902	0.313	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: May be impacted by carry-over from PID. Resample.

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/12/21	Time:	2:00 PM	Field ID:	SV-09	Collector:	Fitzgerald		SV-09
Date Analyzed:	8/12/21	Time:	3:10 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.963	0.502	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.968	0.567	1400	6200
Styrene*	**0.72**	**3.1**	0.2	1	0.998	0.733	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.972	0.57	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.978	0.218	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.981	0.219	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.906	0.314	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.902	0.313	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Resample with lung box and soil gas kit.

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	Gen Chem					Location:
Date Sampled:	8/12/21	Time:	3:00 PM	Field ID:	SV-02	Collector:	Fitzgerald		SV-02
Date Analyzed:	8/12/21	Time:	3:58 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.876	0.039	NA	NA
Trichloromonofluoromethane	**18**	**120**	1	7	0.997	0.431	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.673	0.037	770	37000
1,1,2-Trichlorotrifluoroethane	**25**	**190**	1	7.7	0.999	0.717	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.659	0.135	56	50,000
Cis 1,2-Dichloroethylene	**6.5**	**26**	0.2	0.8	0.999	0.746	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.848	0.027	6.3	31
1,1,1-Trichloroethane	**8.2**	**45**	0.2	1.1	1	0.721	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	**0.49**	**3.1**	0.2	1.3	0.975	0.118	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.635	0.038	8.6	42
Trichloroethylene	**17**	**92**	0.2	1.1	0.999	0.828	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.944	0.286	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**15**	**100**	0.2	1.4	0.996	0.99	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.988	0.361	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.964	0.411	1400	6200
Styrene*	**0.57**	**2.4**	0.2	1	0.997	0.757	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.967	0.412	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.887	0.154	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.896	0.155	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.906	0.314	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.902	0.313	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/12/21	Time:	2:07 PM	Field ID:	SV-10	Collector:	Fitzgerald		SV-10
Date Analyzed:	8/12/21	Time:	2:24 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.765	0.031	19	91
Chloroethane	**3.7**	**9.8**	2	5	0.905	0.196	NA	NA
Trichloromonofluoromethane	**0.38**	**2.7**	0.2	1	0.956	0.167	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.982	0.12	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.958	0.215	770	37000
1,1,2-Trichlorotrifluoroethane	**0.53**	**4.1**	0.2	1.5	0.965	0.237	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.862	0.053	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.559	0.055	56	370
Chloroform	**0.25**	**1.2**	0.2	1.0	0.986	0.352	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.854	0.005	6.3	31
1,1,1-Trichloroethane	**1.4**	**7.8**	0.2	1.1	0.98	0.736	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.975	0.105	160	800
Carbon Tetrachloride	*0.12*	*0.75*	0.2	1.3	0.963	0.106	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.901	0.391	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.22**	**0.83**	0.2	0.8	0.992	0.611	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**2.3**	**16**	0.2	1.4	0.995	0.968	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.749	0.029	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.998	0.508	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.992	0.621	1400	6200
Styrene*	*0.61*	*2.6*	1	4	0.991	0.766	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.895	0.305	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.819	0.133	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.368	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.953	0.402	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.961	0.274	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.954	0.388	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/12/21	Time:	2:55 PM	Field ID:	SV-01	Collector:	Fitzgerald		SV-01
Date Analyzed:	8/12/21	Time:	3:10 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	19	91
Chloroethane	**4.8**	**13**	2	5	0.856	0.168	NA	NA
Trichloromonofluoromethane	**0.52**	**3.6**	0.2	1	0.998	0.171	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.614	0.019	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.935	0.176	770	37000
1,1,2-Trichlorotrifluoroethane	**0.28**	**2.1**	0.2	1.5	0.976	0.166	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.8	0.017	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.551	0.034	56	370
Chloroform	**0.28**	**1.4**	0.2	1.0	0.979	0.733	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.967	0.006	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.714	0.198	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.998	0.428	160	800
Carbon Tetrachloride	*0.091*	*0.57*	0.2	1.3	0.974	0.129	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.926	0.176	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.999	0.468	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.83	0.054	NA	NA
Tetrachloroethylene	**0.24**	**1.6**	0.2	1.4	0.984	0.893	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.955	0.311	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.985	0.526	1400	6200
Styrene*	*0.28*	*1.2*	1	4	0.992	0.747	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.941	0.212	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.905	0.227	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.948	0.134	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.626	0.043	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.961	0.274	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.954	0.388	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/13/21	Time:	11:35 AM	Field ID:	SV-11 K	Collector:	E. Johnson		SV-11 (soil gas kit)
Date Analyzed:	8/13/21	Time:	1:08 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.981	0.091	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.965	0.034	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.888	0.046	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.778	0.037	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.878	0.069	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.992	0.104	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.719	0.031	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.865	0.176	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.798	0.12	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.84	0.084	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.634	0.144	10	50
Toluene	**0.24**	**0.92**	0.2	0.8	0.999	0.339	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.635	0.083	NA	NA
Tetrachloroethylene	**0.89**	**6.1**	0.2	1.4	0.994	0.873	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.729	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.924	0.122	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.972	0.303	1400	6200
Styrene*	**0.8**	**3.4**	0.2	1	0.997	0.613	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.971	0.303	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.998	0.123	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.998	0.123	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.771	0.041	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.768	0.041	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.768	0.041	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.408	0.147	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/13/21	Time:	11:30 AM	Field ID:	SV-11 P	Collector:	E. Johnson		SV-11 (PID)
Date Analyzed:	8/13/21	Time:	12:36 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.867	0.003	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.986	0.039	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.772	0.045	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.864	0.058	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.995	0.074	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.86	0.055	56	370
Chloroform	**0.31**	**1.5**	0.2	1.0	0.944	0.232	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.942	0.022	6.3	31
1,1,1-Trichloroethane	**0.84**	**4.6**	0.2	1.1	0.977	0.28	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.97	0.081	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.793	0.089	8.6	42
Trichloroethylene	**1.3**	**7.1**	0.2	1.1	0.989	0.631	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.31**	**1.2**	0.2	0.8	0.993	0.222	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.444	0.04	NA	NA
Tetrachloroethylene	**12**	**81**	0.2	1.4	0.996	0.973	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.98	0.157	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.97	0.324	1400	6200
Styrene*	**1.1**	**4.6**	0.2	1	0.999	0.612	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.97	0.324	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.848	0.044	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.992	0.162	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.994	0.163	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.78	0.083	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.768	0.041	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.768	0.041	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.254	0.117	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.412	0.159	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Potentially impacted by carry-over from PID

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/13/21	Time:	11:55 AM	Field ID:	SV-07	Collector:	E. Johnson		SV-07 (vial)
Date Analyzed:	8/13/21	Time:	12:28 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	67.9245	175.2	0.817	0.117	19	91
Chloroethane	*520*	*1400*	679.245	1793	0.943	0.166	NA	NA
Trichloromonofluoromethane	**13000**	**89000**	67.9245	475	1	0.47	NA	NA
1,1-Dichloroethylene	**380**	**1500**	67.9245	269.7	0.995	0.144	56	12000
Methylene Chloride	N.D.	N.D.	67.9245	235.7	0.602	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	**18000**	**140000**	67.9245	520.3	0.998	0.735	NA	NA
1,1-Dichloroethane	**170**	**700**	67.9245	275.1	0.994	0.523	56	50,000
Cis 1,2-Dichloroethylene	**830**	**3300**	67.9245	269.7	0.996	0.821	56	370
Chloroform	N.D.	N.D.	67.9245	331.5	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	339.623	1375.5	0.973	0.006	6.3	31
1,1,1-Trichloroethane	**1800**	**9900**	67.9245	370.9	0.998	0.707	210	310,000
Benzene	N.D.	N.D.	67.9245	217.4	0	0	160	800
Carbon Tetrachloride	**150**	**970**	67.9245	427.2	0.992	0.101	38	130
1,2-Dichloropropane	N.D.	N.D.	67.9245	313.8	0.688	0.045	8.6	42
Trichloroethylene	**730**	**3900**	67.9245	364.8	0.998	0.826	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	67.9245	308.4	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	67.9245	308.4	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	67.9245	370.9	0	0	10	50
Toluene	N.D.	N.D.	67.9245	256.1	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	67.9245	521.7	0	0	NA	NA
Tetrachloroethylene	**5200**	**35000**	67.9245	460.5	0.997	0.981	98	290
Chlorobenzene	N.D.	N.D.	67.9245	312.5	0.7	0.001	160	3100
Ethylbenzene	N.D.	N.D.	67.9245	294.8	0.915	0.109	520	62000
p/m-Xylene	N.D.	N.D.	135.849	589.6	0.989	0.086	1400	6200
Styrene*	51	220	339.623	1447	0.987	0.741	95	1400
o-Xylene*	N.D.	N.D.	339.623	1474	0.996	0.08	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	67.9245	467	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	339.623	1671	0.967	0.099	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	339.623	1671	0.975	0.1	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	67.9245	408	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	67.9245	408	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	67.9245	408	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	679.245	5040	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	67.9245	725	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **340** The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/17/21	Time:	10:05 AM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	8/17/21	Time:	2:40 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0.601	0.048	19	91
Chloroethane	N.D.	N.D.	6	16	0.955	0.022	NA	NA
Trichloromonofluoromethane	**6.2**	**44**	0.6	4	0.999	0.12	NA	NA
1,1-Dichloroethylene	**3.9**	**16**	0.6	2.4	0.991	0.36	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.823	0.041	770	37000
1,1,2-Trichlorotrifluoroethane	**43**	**330**	0.6	4.6	0.995	0.682	NA	NA
1,1-Dichloroethane	**0.65**	**2.6**	0.6	2.4	0.884	0.191	56	50,000
Cis 1,2-Dichloroethylene	**11**	**43**	0.6	2.4	0.981	0.742	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0.657	0.097	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.983	0.027	6.3	31
1,1,1-Trichloroethane	**28**	**150**	0.6	3.3	0.994	0.703	210	310,000
Benzene	**1.4**	**4.5**	0.6	1.9	0.998	0.745	160	800
Carbon Tetrachloride	**2.5**	**16**	0.6	3.8	0.946	0.113	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0.542	0.029	8.6	42
Trichloroethylene	**41**	**220**	0.6	3.2	0.996	0.843	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0	0	10	50
Toluene	**2.2**	**8.3**	0.6	2.3	0.997	0.708	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**32**	**220**	0.6	4.1	0.995	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.781	0.128	160	3100
Ethylbenzene	*0.27*	*1.2*	0.6	2.6	0.991	0.686	520	62000
p/m-Xylene	*0.83*	*3.6*	1.2	5.2	0.992	0.657	1400	6200
Styrene*	*1.5*	*6.6*	3	13	0.991	0.777	95	1400
o-Xylene*	N.D.	N.D.	3	13	0.913	0.498	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0.876	0.006	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3	15	0.963	0.168	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	0.993	0.328	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.744	0.007	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0.81	0.005	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.555	0.011	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.6	6	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/17/21	Time:	10:00 AM	Field ID:	SV-01	Collector:	E. Johnson		SV-01
Date Analyzed:	8/17/21	Time:	1:57 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.701	0.02	19	91
Chloroethane	0.39	1	2	5	0.899	0.15	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.999	0.061	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.595	0.005	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.984	0.367	770	37000
1,1,2-Trichlorotrifluoroethane	**0.37**	**2.8**	0.2	1.5	0.983	0.117	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.93	0.01	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.997	0.105	56	370
Chloroform	**0.41**	**2**	0.2	1.0	0.995	0.217	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.91	0.004	6.3	31
1,1,1-Trichloroethane	**0.3**	**1.6**	0.2	1.1	0.829	0.456	210	310,000
Benzene	**0.38**	**1.2**	0.2	0.6	0.999	0.613	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.833	0.045	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**0.39**	**2.1**	0.2	1.1	0.994	0.779	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.426	0.015	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.307	0.044	10	50
Toluene	**0.76**	**2.8**	0.2	0.8	0.999	0.716	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**2.6**	**17**	0.2	1.4	0.994	0.985	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.712	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.993	0.692	520	62000
p/m-Xylene	**0.64**	**2.8**	0.4	1.7	0.994	0.677	1400	6200
Styrene*	**1.8**	**7.6**	1	4	0.991	0.794	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.913	0.672	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.866	0.058	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.856	0.148	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.994	0.347	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.877	0.331	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.81	0.005	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.555	0.011	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.289	0.133	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/17/21	Time:	9:45 AM	Field ID:	SV-10	Collector:	E. Johnson		SV-10
Date Analyzed:	8/17/21	Time:	1:24 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.523	0.007	19	91
Chloroethane	N.D.	N.D.	2	5	0.845	0.033	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.927	0.006	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.98	0.162	56	12000
Methylene Chloride	**0.3**	**1**	0.2	0.7	0.963	0.305	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.987	0.08	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.834	0.007	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.897	0.035	56	370
Chloroform	**0.3**	**1.5**	0.2	1.0	0.984	0.236	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.948	0.023	6.3	31
1,1,1-Trichloroethane	**2**	**11**	0.2	1.1	0.977	0.732	210	310,000
Benzene	**0.96**	**3.1**	0.2	0.6	0.997	0.747	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.807	0.005	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.568	0.047	8.6	42
Trichloroethylene	**0.37**	**2**	0.2	1.1	0.994	0.763	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.774	0.011	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.83**	**3.1**	0.2	0.8	0.998	0.692	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**5.8**	**39**	0.2	1.4	0.995	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.651	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.997	0.706	520	62000
p/m-Xylene	**0.57**	**2.5**	0.4	1.7	0.996	0.668	1400	6200
Styrene*	**1.5**	**6.3**	1	4	0.993	0.792	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.915	0.683	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.867	0.052	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.92	0.15	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.353	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.985	0.094	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.81	0.005	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.555	0.011	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.245	0.096	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/17/21	Time:	9:35 AM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	8/17/21	Time:	12:48 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.82	0.077	NA	NA
Trichloromonofluoromethane	**0.33**	**2.3**	0.2	1	0.908	0.142	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.829	0.009	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.975	0.353	770	37000
1,1,2-Trichlorotrifluoroethane	**0.46**	**3.5**	0.2	1.5	0.98	0.169	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.679	0.025	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.539	0.003	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.896	0.033	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.903	0.005	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.686	0.245	210	310,000
Benzene	**0.45**	**1.4**	0.2	0.6	0.996	0.774	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.602	0.087	8.6	42
Trichloroethylene	**0.31**	**1.7**	0.2	1.1	0.991	0.76	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.264	0.039	10	50
Toluene	**0.85**	**3.2**	0.2	0.8	0.997	0.701	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**1.7**	**11**	0.2	1.4	0.993	0.98	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.928	0.167	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.994	0.706	520	62000
p/m-Xylene	**0.67**	**2.9**	0.4	1.7	0.996	0.669	1400	6200
Styrene*	**1.6**	**7**	1	4	0.994	0.792	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.914	0.665	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.871	0.066	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.929	0.233	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.991	0.337	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.947	0.198	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.81	0.005	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.555	0.011	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.195	0.071	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Intrnl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/18/21	Time:	9:45 AM	Field ID:	SV-01	Collector:	E. Johnson		SV-01
Date Analyzed:	8/18/21	Time:	3:08 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.886	0.072	NA	NA
Trichloromonofluoromethane	**1.4**	**10**	1	7	0.946	0.158	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.648	0.111	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	**0.4**	**1.9**	0.2	1.0	0.991	0.445	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**0.28**	**1.5**	0.2	1.1	0.854	0.244	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.27**	**1**	0.2	0.8	0.997	0.328	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**2**	**14**	0.2	1.4	0.991	0.937	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.898	0.157	520	62000
p/m-Xylene	*0.27*	1.2	0.4	1.7	0.99	0.468	1400	6200
Styrene*	**1.3**	**5.6**	0.2	1	0.999	0.73	95	1400
o-Xylene*	**0.24**	**1**	0.2	0.9	0.989	0.468	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.993	0.154	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.991	0.154	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/18/21	Time:	9:55 AM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	8/18/21	Time:	3:39 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.705	0.025	19	91
Chloroethane	N.D.	N.D.	2	5	0.682	0.098	NA	NA
Trichloromonofluoromethane	**16**	**110**	1	7	1	0.608	NA	NA
1,1-Dichloroethylene	**1.8**	**7**	1	4.0	0.979	0.276	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.57	0.032	770	37000
1,1,2-Trichlorotrifluoroethane	**76**	**580**	1	7.7	0.999	0.712	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.606	0.143	56	50,000
Cis 1,2-Dichloroethylene	**16**	**63**	0.2	0.8	0.999	0.746	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.67	0.06	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.937	0.029	6.3	31
1,1,1-Trichloroethane	**41**	**220**	0.2	1.1	1	0.724	210	310,000
Benzene	**0.38**	**1.2**	0.2	0.6	0.876	0.255	160	800
Carbon Tetrachloride	**2.9**	**18**	0.2	1.3	0.988	0.108	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.47	0.064	8.6	42
Trichloroethylene	**66**	**350**	0.2	1.1	1	0.824	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**2**	**7.5**	0.2	0.8	0.999	0.536	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**50**	**340**	0.2	1.4	0.999	0.988	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.949	0.198	520	62000
p/m-Xylene	**0.4**	**1.7**	0.4	1.7	0.99	0.482	1400	6200
Styrene*	**1.1**	**4.5**	0.2	1	0.991	0.61	95	1400
o-Xylene*	**0.36**	**1.5**	0.2	0.9	0.994	0.484	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.989	0.139	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.992	0.14	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/19/21	Time:	1:15 PM	Field ID:	SV-10	Collector:	E. Johnson		SV-10
Date Analyzed:	8/20/21	Time:	3:07 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.888	0.062	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.949	0.039	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	**0.4**	**1.4**	0.2	0.7	0.991	0.191	770	37000
1,1,2-Trichlorotrifluoroethane	*0.46*	3.5	1	7.7	0.973	0.135	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	**0.54**	**2.6**	0.2	1.0	0.998	0.388	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.875	0.043	6.3	31
1,1,1-Trichloroethane	**1.3**	**7**	0.2	1.1	0.992	0.412	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.976	0.093	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**0.22**	**1.2**	0.2	1.1	0.936	0.271	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.37**	**1.4**	0.2	0.8	0.995	0.374	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**5.1**	**35**	0.2	1.4	0.997	0.968	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.671	0.002	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.988	0.222	520	62000
p/m-Xylene	*0.32*	1.4	0.4	1.7	0.998	0.519	1400	6200
Styrene*	**1.2**	**5**	0.2	1	0.998	0.672	95	1400
o-Xylene*	**0.28**	**1.2**	0.2	0.9	0.998	0.519	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.991	0.201	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.99	0.2	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Large ethanol peak

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/19/21	Time:	1:05 PM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	8/20/21	Time:	2:20 PM	Lab ID:	005	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.936	0.033	19	91
Chloroethane	**3.3**	**8.7**	2	5	0.872	0.101	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.965	0.062	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.627	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.707	0.043	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.855	0.02	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.95	0.093	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.955	0.007	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.858	0.1	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.41**	**1.5**	0.2	0.8	1	0.413	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.97**	**6.6**	0.2	1.4	0.99	0.838	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.996	0.22	520	62000
p/m-Xylene	*0.34*	1.5	0.4	1.7	0.995	0.491	1400	6200
Styrene*	**1.5**	**6.6**	0.2	1	0.999	0.721	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.905	0.225	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.934	0.138	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.99	0.209	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.785	0.035	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Large ethanol peak

Paste ppbV HAPSITE Values Below

IF BAG NOT FULLY SAMPLED ------->

 # seconds bag sampled:

#DIV/0! 1 1

If using syringe: 1 mL = 0.61 seconds; 2 mL = 1.22; etc.

			Change pppbV #VALUE! To		Results Add 0.00001		Results 2 Sign Figs		N.D.		R -0.01
	DF	ppbV * DL	Zero	ug/m3	ppbV	ug/m3	ppbV	ug/m3	ppbV	ug/m3	ppbV
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	2.6	2.99
3.299	1	3.30	3.30	8.709	3.30	8.709	3.30	8.70	0.19	2.6	1.99
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	7	0.99
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.79	0.99
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.69	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	7.7	0.99
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.81	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.79	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.98	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.81	0.99
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	1.1	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.64	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	1.3	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.92	0.99
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	1.1	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.91	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.91	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	1.1	0.19
0.411	1	0.41	0.41	1.549	0.41	1.549	0.41	1.50	0.19	0.75	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	1.5	0.19
0.971	1	0.97	0.97	6.583	0.97	6.583	0.97	6.60	0.19	1.4	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	0.92	0.19
0.088	1	0.09	0.09	0.382	0.09	0.382	0.09	0.38	0.19	0.87	0.19
0.338	1	0.34	0.34	1.467	0.34	1.467	0.34	1.50	0.19	0.87	0.39
1.539	1	1.54	1.54	6.556	1.54	6.556	1.50	6.60	0.19	0.85	0.19
0.09	1	0.09	0.09	0.391	0.09	0.391	0.09	0.39	0.19	0.87	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.19	1.4	0.99
0.065	1	0.07	0.07	0.320	0.07	0.320	0.07	0.32	0.19	4.9	0.19
0.066	1	0.07	0.07	0.325	0.07	0.325	0.07	0.32	0.39	9.8	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.39	12	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.39	12	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.39	12	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.59	22	0.19
	1	#VALUE!	0.00	0.000	0.00	0.000	0.00	0.00	0.39	21	0.19

L
-0.08
ug/m3
7.66
5.20
6.91
3.89
0.61
7.58
0.73
0.71
0.90
3.97
1.01
0.56
1.18
4.60
0.99
0.83
0.83
1.01
0.67
1.46
1.28
0.84
0.79
1.66
0.77
0.79
6.79
0.90
0.90
1.12
1.12
1.12
1.40
2.05

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/24/21	Time:	10:50 AM	Field ID:	SV-05	Collector:	E. Johnson		SV-05
Date Analyzed:	8/25/21	Time:	9:56 AM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.336	0.004	19	91
Chloroethane	*0.68*	*1.8*	2	5	0.953	0.128	NA	NA
Trichloromonofluoromethane	**3.4**	**24**	0.2	1	1	0.4	NA	NA
1,1-Dichloroethylene	**0.4**	**1.6**	0.2	0.8	0.998	0.199	56	12000
Methylene Chloride	**0.32**	**1.1**	0.2	0.7	0.939	0.158	770	37000
1,1,2-Trichlorotrifluoroethane	**4.8**	**36**	0.2	1.5	0.996	0.644	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.939	0.01	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.874	0.008	56	370
Chloroform	**0.23**	**1.1**	0.2	1.0	0.998	0.295	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.982	0.006	6.3	31
1,1,1-Trichloroethane	**3.8**	**21**	0.2	1.1	0.999	0.693	210	310,000
Benzene	**0.7**	**2.2**	0.2	0.6	1	0.692	160	800
Carbon Tetrachloride	**0.41**	**2.6**	0.2	1.3	0.922	0.1	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.43	0.047	8.6	42
Trichloroethylene	*0.13*	*0.68*	0.2	1.1	0.998	0.671	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.258	0.048	10	50
Toluene	**0.73**	**2.8**	0.2	0.8	0.999	0.65	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.98**	**6.6**	0.2	1.4	0.997	0.962	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.983	0.494	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.993	0.583	520	62000
p/m-Xylene	**0.46**	**2**	0.4	1.7	0.992	0.605	1400	6200
Styrene*	**1.1**	**4.6**	1	4	0.996	0.759	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.909	0.59	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.656	0.015	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.898	0.138	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.992	0.324	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.981	0.389	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.257	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.995	0.418	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.703	0.426	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/24/21	Time:	11:00 AM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	8/25/21	Time:	10:29 AM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0.581	0.042	19	91
Chloroethane	N.D.	N.D.	6	16	0.963	0.047	NA	NA
Trichloromonofluoromethane	**6.1**	**42**	0.6	4	0.999	0.218	NA	NA
1,1-Dichloroethylene	**2.2**	**8.7**	0.6	2.4	0.997	0.301	56	12000
Methylene Chloride	**0.93**	**3.2**	0.6	2.1	0.891	0.11	770	37000
1,1,2-Trichlorotrifluoroethane	**16**	**120**	0.6	4.6	0.999	0.668	NA	NA
1,1-Dichloroethane	*0.5*	*2*	0.6	2.4	0.914	0.156	56	50,000
Cis 1,2-Dichloroethylene	**7.1**	**28**	0.6	2.4	0.999	0.769	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0.65	0.142	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.951	0.005	6.3	31
1,1,1-Trichloroethane	**12**	**63**	0.6	3.3	0.998	0.676	210	310,000
Benzene	**1**	**3.3**	0.6	1.9	0.996	0.639	160	800
Carbon Tetrachloride	**1.3**	**8.3**	0.6	3.8	0.948	0.118	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0.551	0.033	8.6	42
Trichloroethylene	**25**	**140**	0.6	3.2	1	0.842	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0.732	0.012	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0.283	0.056	10	50
Toluene	**1.4**	**5.5**	0.6	2.3	1	0.631	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**23**	**150**	0.6	4.1	0.998	0.99	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.965	0.296	160	3100
Ethylbenzene	N.D.	N.D.	0.6	2.6	0.99	0.49	520	62000
p/m-Xylene	*0.55*	*2.4*	1.2	5.2	0.989	0.55	1400	6200
Styrene*	*0.97*	*4.1*	3	13	0.995	0.735	95	1400
o-Xylene*	N.D.	N.D.	3	13	0.914	0.344	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0.681	0.063	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3	15	0.886	0.277	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	0.983	0.256	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.939	0.076	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	1	0.257	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.995	0.418	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0.475	0.211	28	240
HexachloroButadiene*	N.D.	N.D.	0.6	6	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/26/21	Time:	10:55 AM	Field ID:	SV-01	Collector:	E Johnson		
Date Analyzed:	8/27/21	Time:	1:51 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.815	0.046	NA	NA
Trichloromonofluoromethane	**1.9**	**14**	0.2	1	0.929	0.312	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	12000
Methylene Chloride	**0.37**	**1.3**	0.2	0.7	0.971	0.535	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.972	0.059	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.787	0.003	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.903	0.05	56	370
Chloroform	**0.3**	**1.4**	0.2	1.0	0.995	0.306	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.99	0.006	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.656	0.304	210	310,000
Benzene	**0.78**	**2.5**	0.2	0.6	0.999	0.688	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.872	0.121	8.6	42
Trichloroethylene	*0.084*	0.45	0.2	1.1	0.995	0.51	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.265	0.053	10	50
Toluene	**0.63**	**2.4**	0.2	0.8	0.999	0.632	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.9**	**6.1**	0.2	1.4	0.996	0.961	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.909	0.158	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.992	0.604	520	62000
p/m-Xylene	*0.35*	1.5	0.4	1.7	0.991	0.553	1400	6200
Styrene*	*0.71*	3	1	4	0.99	0.745	95	1400
o-Xylene*	N.D.	N.D.	0.2	1	0.93	0.584	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.939	0.04	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.968	0.13	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	1	0.332	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.53	0.018	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1	6	0.965	0.011	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1	6	0.667	0.012	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	1	7	0.367	0.145	28	240
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 5/25/21

Quality Control: 5-8 pt calib w/ %RSD<30, Internal Stds, daily blk, daily calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	8/26/21	Time:	11:15 AM	Field ID:	SV-02	Collector:	E Johnson		
Date Analyzed:	8/27/21	Time:	2:53 PM	Lab ID:	007	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.916	0.016	19	91
Chloroethane	*0.89*	2.3	2	5	0.959	0.106	NA	NA
Trichloromonofluoromethane	**11**	**76**	0.2	1	1	0.275	NA	NA
1,1-Dichloroethylene	**2.4**	**9.4**	0.2	0.8	0.993	0.411	56	12000
Methylene Chloride	**0.89**	**3.1**	0.2	0.7	0.884	0.124	770	37000
1,1,2-Trichlorotrifluoroethane	**13**	**100**	0.2	1.5	0.996	0.6	NA	NA
1,1-Dichloroethane	**0.65**	**2.6**	0.2	0.8	0.846	0.167	56	50,000
Cis 1,2-Dichloroethylene	**10**	**41**	0.2	0.8	0.996	0.79	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.688	0.173	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.926	0.005	6.3	31
1,1,1-Trichloroethane	**16**	**90**	0.2	1.1	0.999	0.687	210	310,000
Benzene	**1.6**	**5.1**	0.2	0.6	0.999	0.678	160	800
Carbon Tetrachloride	**1.6**	**10**	0.2	1.3	0.958	0.111	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.306	0.138	8.6	42
Trichloroethylene	**37**	**200**	0.2	1.1	0.998	0.84	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.375	0.135	10	50
Toluene	**1.5**	**5.7**	0.2	0.8	1	0.632	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.763	0.03	NA	NA
Tetrachloroethylene	**32**	**210**	0.2	1.4	0.998	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.726	0.006	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.981	0.408	520	62000
p/m-Xylene	**0.49**	**2.1**	0.4	1.7	0.987	0.604	1400	6200
Styrene*	*0.77*	3.3	1	4	0.989	0.728	95	1400
o-Xylene*	N.D.	N.D.	0.2	1	0.911	0.349	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.526	0.064	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.98	0.196	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.991	0.235	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.735	0.029	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1	6	0.965	0.011	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1	6	0.667	0.012	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	1	7	0.405	0.167	28	240
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 5/25/21

Quality Control: 5-8 pt calib w/ %RSD<30, Internal Stds, daily blk, daily calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/26/21	Time:	10:10 AM	Field ID:	SV-09	Collector:	E Johnson		
Date Analyzed:	8/27/21	Time:	12:20 PM	Lab ID:	004	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.393	0.015	19	91
Chloroethane	N.D.	N.D.	2	5	0.578	0.2	NA	NA
Trichloromonofluoromethane	**3.6**	**25**	0.2	1	0.929	0.33	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.91	0.041	56	12000
Methylene Chloride	**0.38**	**1.3**	0.2	0.7	0.935	0.502	770	37000
1,1,2-Trichlorotrifluoroethane	**0.56**	**4.3**	0.2	1.5	0.966	0.303	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.864	0.011	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.846	0.027	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.977	0.066	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.839	0.005	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.662	0.092	210	310,000
Benzene	**0.68**	**2.2**	0.2	0.6	0.999	0.727	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.824	0.025	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.805	0.066	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.92	0.153	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.84**	**3.2**	0.2	0.8	0.999	0.6	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.32**	**2.2**	0.2	1.4	0.988	0.919	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.941	0.327	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.985	0.59	520	62000
p/m-Xylene	*0.38*	1.6	0.4	1.7	0.99	0.49	1400	6200
Styrene*	*0.71*	3	1	4	0.993	0.738	95	1400
o-Xylene*	N.D.	N.D.	0.2	1	0.937	0.524	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.96	0.058	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.992	0.125	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.996	0.324	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.948	0.32	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1	6	0.965	0.011	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1	6	0.667	0.012	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	1	7	0.217	0.056	28	240
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 5/25/21

Quality Control: 5-8 pt calib w/ %RSD<30, Internal Stds, daily blk, daily calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/26/21	Time:	10:15 AM	Field ID:	SV-10	Collector:	E Johnson		
Date Analyzed:	8/27/21	Time:	1:01 PM	Lab ID:	005	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.968	0.017	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.991	0.027	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.992	0.152	56	12000
Methylene Chloride	**0.31**	**1.1**	0.2	0.7	0.94	0.286	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.998	0.081	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.821	0.037	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.8	0.012	56	370
Chloroform	**0.68**	**3.3**	0.2	1.0	0.998	0.169	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.981	0.007	6.3	31
1,1,1-Trichloroethane	**1.7**	**9.2**	0.2	1.1	0.99	0.676	210	310,000
Benzene	**0.9**	**2.9**	0.2	0.6	0.997	0.674	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.931	0.065	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	*0.11*	0.61	0.2	1.1	0.993	0.54	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.44**	**1.7**	0.2	0.8	1	0.605	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**5.4**	**37**	0.2	1.4	0.998	0.984	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.854	0.23	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.981	0.598	520	62000
p/m-Xylene	*0.34*	1.5	0.4	1.7	0.99	0.525	1400	6200
Styrene*	*0.73*	3.1	1	4	0.993	0.76	95	1400
o-Xylene*	N.D.	N.D.	0.2	1	0.908	0.49	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.677	0.069	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.977	0.128	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.297	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.969	0.307	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1	6	0.965	0.011	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1	6	0.667	0.012	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	1	7	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	1	11	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 5/25/21

Quality Control: 5-8 pt calib w/ %RSD<30, Internal Stds, daily blk, daily calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/21/21	Time:	11:45 AM	Field ID:	SV-03	Collector:	E Johnson		SV-03
Date Analyzed:	9/21/21	Time:	5:20 PM	Lab ID:	008	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.9	2.3	0.817	0.003	19	91
Chloroethane	**67**	**180**	9	24	0.812	0.122	NA	NA
Trichloromonofluoromethane	**12000**	**87000**	0.9	6	0.996	0.416	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.9	3.6	0.997	0.016	56	12000
Methylene Chloride	N.D.	N.D.	0.9	3.1	0.715	0.051	770	37000
1,1,2-Trichlorotrifluoroethane	**17000**	**130000**	0.9	6.9	0.996	0.684	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.9	3.6	0.86	0.002	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.9	3.6	0.77	0.003	56	370
Chloroform	N.D.	N.D.	0.9	4.4	0.431	0.053	130	210
1,2-Dichloroethane	N.D.	N.D.	4.5	18.2	0.998	0.002	6.3	31
1,1,1-Trichloroethane	**78**	**430**	0.9	4.9	0.999	0.672	210	310,000
Benzene	**420**	**1300**	0.9	2.9	1	0.653	160	800
Carbon Tetrachloride	**7.2**	**45**	0.9	5.7	0.939	0.105	38	130
1,2-Dichloropropane	N.D.	N.D.	0.9	4.2	0.528	0.026	8.6	42
Trichloroethylene	**1200**	**6500**	0.9	4.8	0.999	0.688	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0.427	0.002	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0.809	0.009	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.9	4.9	0.21	0.098	10	50
Toluene	**700**	**2600**	0.9	3.4	0.999	0.705	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.9	6.9	0.481	0.008	NA	NA
Tetrachloroethylene	**500**	**3400**	0.9	6.1	0.992	0.974	98	290
Chlorobenzene	N.D.	N.D.	0.9	4.1	0.827	0.021	160	3100
Ethylbenzene	**12**	**52**	0.9	3.9	0.999	0.186	520	62000
p/m-Xylene	**120**	**520**	1.8	7.8	0.997	0.63	1400	6200
Styrene*	**13**	**54**	4.5	19	0.995	0.447	95	1400
o-Xylene*	**39**	**170**	4.5	20	1	0.669	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.9	6	0.924	0.033	2.8	14
1,3,5-Trimethylbenzene*	0.28	1.4	4.5	22	0.972	0.122	NA	NA
1,2,4-Trimethylbenzene*	*2.7*	*13*	4.5	22	0.997	0.52	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.9	5	0.705	0.027	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.9	5	0.913	0.027	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.9	5	0.678	0.022	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	9	67	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.9	10	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 4.5 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments: Sample saturated concentrator; reported concentrations are likely biases low.

MassDEP Field Assessment and Support Team (FAST)			SOIL GAS DATA			RTN:	3-19174
City or Town:	Framingham	Address:	155 Leland Street				Location:
Date Sampled:	9/23/21	Time: 11:15 AM	Field ID:	SV-03	Collector:	E Johnson	SV-03
Date Analyzed:	9/23/21	Time: 5:19 PM	Lab ID:	006	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	680	1760	0.959	0.017	19	91
Chloroethane	N.D.	N.D.	6800	18000	0	0	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	6800	48000	0.997	0.235	NA	NA
1,1-Dichloroethylene	5000	20000	340	1340	0.999	0.708	56	12000
Methylene Chloride	N.D.	N.D.	680	2400	0.587	0.031	770	37000
1,1,2-Trichlorotrifluoroethane	660000	5100000	340	2600	1	0.722	NA	NA
1,1-Dichloroethane	N.D.	N.D.	340	1380	0.811	0.008	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	340	1340	0	0	56	370
Chloroform	N.D.	N.D.	340	1660	0.756	0.006	130	210
1,2-Dichloroethane	N.D.	N.D.	340	1380	0.982	0.004	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	340	1860	0.927	0.313	210	310,000
Benzene	N.D.	N.D.	340	1080	0.881	0.044	160	800
Carbon Tetrachloride	N.D.	N.D.	340	2200	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	340	1580	0.598	0.006	8.6	42
Trichloroethylene	1600	8400	340	1820	0.999	0.356	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	340	1540	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	340	1540	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	340	1860	0.276	0.119	10	50
Toluene	N.D.	N.D.	340	1280	0.978	0.069	3800	310000
1,2-Dibromoethane	N.D.	N.D.	340	2600	0.418	0.009	NA	NA
Tetrachloroethylene	980	6700	340	2400	0.975	0.892	98	290
Chlorobenzene	N.D.	N.D.	340	1560	0.868	0.029	160	3100
Ethylbenzene	N.D.	N.D.	340	1480	0.943	0.128	520	62000
p/m-Xylene	N.D.	N.D.	340	1480	0.945	0.14	1400	6200
Styrene	N.D.	N.D.	340	1440	0.822	0.031	95	1400
o-Xylene	N.D.	N.D.	340	1480	0.953	0.141	Part Total Xylenes	
1,1,2,2-Tetrachloroethane	N.D.	N.D.	340	2400	0.965	0.047	2.8	14
1,3,5-Trimethylbenzene	N.D.	N.D.	340	1680	0.913	0.077	NA	NA
1,2,4-Trimethylbenzene	N.D.	N.D.	680	3400	0.916	0.077	NA	NA
1,3-Dichlorobenzene (meta)	N.D.	N.D.	680	4000	0	0	42	50,000
1,4-Dichlorobenzene (para)	N.D.	N.D.	680	4000	0	0	35	120
1,2-Dichlorobenzene (ortho)	N.D.	N.D.	680	4000	0	0	50	50,000
1,2,4-Trichlorobenzene	N.D.	N.D.	1020	7600	0	0	28	240
HexachloroButadiene	N.D.	N.D.	680	7200	0	0	7.4	320

Sample collected in 40 mL vial; experimentation has demonstrated that this will achieve 70 to 90% of actual values.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 The above listed Reporting Limits have been adusted to reflect this dilution factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/28/21	Time:	11:00 AM	Field ID:	SG-1	Collector:	E Johnson		subslab probe
Date Analyzed:	9/28/21	Time:	4:03 PM	Lab ID:	007	Analyst:	N Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0.44	0.025	19	91
Chloroethane	*5.4*	*14*	6	16	0.943	0.167	NA	NA
Trichloromonofluoromethane	**0.84**	**5.9**	0.6	4	0.998	0.128	NA	NA
1,1-Dichloroethylene	**1.9**	**7.7**	0.6	2.4	0.999	0.11	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.611	0.036	770	37000
1,1,2-Trichlorotrifluoroethane	**150**	**1100**	0.6	4.6	0.999	0.728	NA	NA
1,1-Dichloroethane	*0.25*	*1*	0.6	2.4	0.976	0.142	56	50,000
Cis 1,2-Dichloroethylene	**6.3**	**25**	0.6	2.4	0.996	0.785	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.94	0.005	6.3	31
1,1,1-Trichloroethane	**2.3**	**13**	0.6	3.3	0.991	0.636	210	310,000
Benzene	*0.41*	*1.3*	0.6	1.9	0.988	0.531	160	800
Carbon Tetrachloride	*0.29*	*1.8*	0.6	3.8	0.966	0.101	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0	0	8.6	42
Trichloroethylene	**7.3**	**39**	0.6	3.2	0.999	0.836	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0	0	10	50
Toluene	**1**	**3.9**	0.6	2.3	0.999	0.634	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**12**	**84**	0.6	4.1	0.998	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.772	0.076	160	3100
Ethylbenzene	N.D.	N.D.	0.6	2.6	0.975	0.583	520	62000
p/m-Xylene	*0.36*	*1.6*	1.2	5.2	0.988	0.599	1400	6200
Styrene*	N.D.	N.D.	3	13	0.969	0.446	95	1400
o-Xylene*	N.D.	N.D.	3	13	0.993	0.363	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3	15	0.96	0.109	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	0.999	0.333	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.943	0.125	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0.999	0.117	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.971	0.336	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.6	6	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/28/21	Time:	10:50 AM	Field ID:	SG-2	Collector:	E Johnson		subslab probe
Date Analyzed:	9/28/21	Time:	3:30 PM	Lab ID:	006	Analyst:	N Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	19	91
Chloroethane	**4.2**	**11**	2	5	0.948	0.184	NA	NA
Trichloromonofluoromethane	**62**	**440**	0.2	1	0.999	0.453	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.904	0.002	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.628	0.035	770	37000
1,1,2-Trichlorotrifluoroethane	**87**	**660**	0.2	1.5	0.992	0.719	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.889	0.044	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.863	0.07	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.914	0.234	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.974	0.006	6.3	31
1,1,1-Trichloroethane	**0.41**	**2.2**	0.2	1.1	0.94	0.635	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.994	0.569	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.9	0.102	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**0.21**	**1.1**	0.2	1.1	0.998	0.705	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.27	0.046	10	50
Toluene	**0.56**	**2.1**	0.2	0.8	1	0.648	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**1.8**	**12**	0.2	1.4	0.996	0.976	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.902	0.232	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.988	0.596	520	62000
p/m-Xylene	*0.24*	*1.1*	0.4	1.7	0.991	0.641	1400	6200
Styrene*	N.D.	N.D.	1	4	0.991	0.563	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.994	0.462	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.57	0.031	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.931	0.345	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.998	0.324	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.903	0.162	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.999	0.117	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.971	0.336	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/28/21	Time:	11:10 AM	Field ID:	SV-01	Collector:	E Johnson		SV-01
Date Analyzed:	9/28/21	Time:	4:42 PM	Lab ID:	008	Analyst:	N Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.305	0.051	19	91
Chloroethane	**2.8**	**7.4**	2	5	0.91	0.148	NA	NA
Trichloromonofluoromethane	**0.95**	**6.6**	0.2	1	0.994	0.147	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.834	0.009	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.982	0.235	770	37000
1,1,2-Trichlorotrifluoroethane	**0.45**	**3.4**	0.2	1.5	0.988	0.3	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.954	0.025	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.848	0.057	56	370
Chloroform	**0.52**	**2.5**	0.2	1.0	0.998	0.652	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.959	0.007	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.915	0.357	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.996	0.536	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.883	0.089	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.984	0.524	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.52**	**2**	0.2	0.8	0.999	0.644	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.68**	**4.6**	0.2	1.4	0.993	0.95	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.626	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.992	0.436	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.99	0.586	1400	6200
Styrene*	N.D.	N.D.	1	4	0.996	0.711	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.984	0.392	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.478	0.023	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.885	0.325	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	1	0.248	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.637	0.036	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.999	0.117	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.971	0.336	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/28/21	Time:	11:25 AM	Field ID:	SV-03	Collector:	E Johnson		SV-03
Date Analyzed:	9/28/21	Time:	5:15 PM	Lab ID:	009	Analyst:	N Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	19000	48000	169.811	438.1	0.901	0.103	19	91
Chloroethane	N.D.	N.D.	1698.11	4483	0.818	0.023	NA	NA
Trichloromonofluoromethane	2900000	20000000	169.811	1187	0.969	0.238	NA	NA
1,1-Dichloroethylene	1300000	5100000	169.811	674.2	0.97	0.307	56	12000
Methylene Chloride	N.D.	N.D.	169.811	589.2	0.657	0.037	770	37000
1,1,2-Trichlorotrifluoroethane	4000000	30000000	169.811	1300.8	0.982	0.386	NA	NA
1,1-Dichloroethane	61000	250000	169.811	687.7	0.913	0.21	56	50,000
Cis 1,2-Dichloroethylene	920000	3700000	169.811	674.2	0.995	0.832	56	370
Chloroform	N.D.	N.D.	169.811	828.7	0.403	0.003	130	210
1,2-Dichloroethane	N.D.	N.D.	849.057	3438.7	0.969	0.002	6.3	31
1,1,1-Trichloroethane	440000	2400000	169.811	927.2	1	0.671	210	310,000
Benzene	210000	690000	169.811	543.4	0.998	0.767	160	800
Carbon Tetrachloride	45000	280000	169.811	1068.1	0.947	0.119	38	130
1,2-Dichloropropane	N.D.	N.D.	169.811	784.5	0.451	0.002	8.6	42
Trichloroethylene	1400000	7600000	169.811	911.9	0.99	0.777	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	169.811	770.9	0.386	0.002	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	169.811	770.9	0.364	0.014	41	200
1,1,2-Trichloroethane	N.D.	N.D.	169.811	927.2	0.297	0.103	10	50
Toluene	360000	1400000	169.811	640.2	1	0.693	3800	310000
1,2-Dibromoethane	N.D.	N.D.	169.811	1304.2	0.755	0.023	NA	NA
Tetrachloroethylene	730000	4900000	169.811	1151.3	0.984	0.979	98	290
Chlorobenzene	N.D.	N.D.	169.811	781.1	0.86	0.048	160	3100
Ethylbenzene	7400	32000	169.811	737.0	0.995	0.526	520	62000
p/m-Xylene	46000	200000	339.623	1474.0	0.997	0.677	1400	6200
Styrene*	6800	29000	849.057	3617	0.997	0.761	95	1400
o-Xylene*	13000	55000	849.057	3685	0.999	0.778	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	169.811	1167	0.884	0.009	2.8	14
1,3,5-Trimethylbenzene*	42	200	849.057	4177	0.999	0.222	NA	NA
1,2,4-Trimethylbenzene*	*220*	*1100*	849.057	4177	0.997	0.448	NA	NA
1,3-Dichlorobenzene (meta)*	22	130	169.811	1021	0.992	0.21	42	50,000
1,4-Dichlorobenzene (para)*	10	61	169.811	1021	0.999	0.117	35	120
1,2-Dichlorobenzene (ortho)*	14	82	169.811	1021	0.971	0.336	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	1698.11	12600	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	169.811	1812	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments: Several peaks saturated detector

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/30/21	Time:	11:50 AM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	10/1/21	Time:	1:04 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	**16**	**110**	1	7	0.996	0.479	NA	NA
1,1-Dichloroethylene	**2.3**	**9.1**	1	4.0	0.873	0.12	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.673	0.038	770	37000
1,1,2-Trichlorotrifluoroethane	**86**	**660**	1	7.7	0.999	0.697	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.998	0.094	56	50,000
Cis 1,2-Dichloroethylene	**18**	**71**	0.2	0.8	0.998	0.639	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.983	0.036	6.3	31
1,1,1-Trichloroethane	**49**	**270**	0.2	1.1	1	0.692	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	**3.9**	**25**	0.2	1.3	0.991	0.118	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.675	0.039	8.6	42
Trichloroethylene	**87**	**470**	0.2	1.1	1	0.808	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.7**	**6.6**	0.2	0.8	0.996	0.35	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**83**	**560**	0.2	1.4	0.999	0.987	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.982	0.094	160	3100
Ethylbenzene	**0.49**	**2.1**	0.2	0.9	0.997	0.252	520	62000
p/m-Xylene	**0.58**	**2.5**	0.4	1.7	0.988	0.328	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.774	0.113	95	1400
o-Xylene*	**0.52**	**2.3**	0.2	0.9	0.982	0.326	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.905	0.101	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.911	0.102	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **5.2** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/30/21	Time:	12:00 PM	Field ID:	SV-03R	Collector:	E. Johnson		SV-03
Date Analyzed:	10/1/21	Time:	1:39 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.595	0.014	NA	NA
Trichloromonofluoromethane	600000	4200000	1	7	0.998	0.5	NA	NA
1,1-Dichloroethylene	4600000	18000000	1	4.0	1	0.777	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.485	0.022	770	37000
1,1,2-Trichlorotrifluoroethane	12000000	94000000	1	7.7	0.999	0.743	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.997	0.066	56	50,000
Cis 1,2-Dichloroethylene	1500000	6100000	0.2	0.8	1	0.749	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.964	0.037	6.3	31
1,1,1-Trichloroethane	290000	1600000	0.2	1.1	0.999	0.534	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.85	0.034	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.922	0.106	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.633	0.038	8.6	42
Trichloroethylene	2000000	11000000	0.2	1.1	1	0.806	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	46000	170000	0.2	0.8	0.997	0.323	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	650000	4400000	0.2	1.4	0.997	0.961	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.989	0.185	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.983	0.258	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.977	0.256	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.991	0.07	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.991	0.07	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170000 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/30/21	Time:	11:40 AM	Field ID:	SV-05	Collector:	E. Johnson		SV-05
Date Analyzed:	10/1/21	Time:	12:33 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	**4.3**	**11**	2	5	0.998	0.12	NA	NA
Trichloromonofluoromethane	*0.55*	3.9	1	7	0.995	0.121	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.648	0.04	770	37000
1,1,2-Trichlorotrifluoroethane	**14**	**110**	1	7.7	0.999	0.684	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.946	0.01	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.997	0.199	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.896	0.025	6.3	31
1,1,1-Trichloroethane	**4.2**	**23**	0.2	1.1	0.999	0.677	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	**0.27**	**1.7**	0.2	1.3	0.982	0.113	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.451	0.025	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.772	0.124	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.35**	**1.3**	0.2	0.8	0.999	0.4	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.67**	**4.5**	0.2	1.4	0.991	0.875	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.985	0.212	520	62000
p/m-Xylene	*0.22*	0.94	0.4	1.7	0.987	0.495	1400	6200
Styrene*	**0.43**	**1.8**	0.2	1	0.998	0.572	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.966	0.177	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.995	0.148	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.993	0.148	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.835	0.058	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.353	0.103	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/5/21	Time:	11:10 AM	Field ID:	SG-1	Collector:	E Johnson		SG-01
Date Analyzed:	10/6/21	Time:	1:19 PM	Lab ID:	003	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.506	0.033	NA	NA
Trichloromonofluoromethane	**7.9**	**55**	1	7	1	0.39	NA	NA
1,1-Dichloroethylene	**1.9**	**7.6**	1	4.0	0.987	0.166	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.625	0.028	770	37000
1,1,2-Trichlorotrifluoroethane	**150**	**1200**	1	7.7	0.999	0.723	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.585	0.091	56	50,000
Cis 1,2-Dichloroethylene	**5.6**	**22**	0.2	0.8	0.992	0.498	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**2.7**	**15**	0.2	1.1	0.863	0.277	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.766	0.053	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.833	0.058	8.6	42
Trichloroethylene	**8**	**43**	0.2	1.1	0.999	0.71	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.4**	**5.3**	0.2	0.8	0.999	0.415	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**11**	**78**	0.2	1.4	0.996	0.956	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.4**	**1.7**	0.2	0.9	0.985	0.335	520	62000
p/m-Xylene	**0.47**	**2**	0.4	1.7	0.994	0.401	1400	6200
Styrene*	**0.22**	**0.93**	0.2	1	0.931	0.213	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.957	0.168	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**0.24**	**1.2**	0.2	1.0	0.991	0.182	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.994	0.182	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.426	0.21	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/5/21	Time:	11:05 AM	Field ID:	SG-02	Collector:	E Johnson		SG-02
Date Analyzed:	10/6/21	Time:	2:32 PM	Lab ID:	004	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.878	0.043	NA	NA
Trichloromonofluoromethane	**2.2**	**16**	1	7	0.96	0.188	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**2**	**15**	1	7.7	0.997	0.532	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**0.21**	**0.67**	0.2	0.6	0.86	0.159	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.8**	**6.8**	0.2	0.8	0.999	0.607	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.22**	**1.5**	0.2	1.4	0.818	0.448	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.872	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.997	0.306	520	62000
p/m-Xylene	**0.72**	**3.1**	0.4	1.7	0.999	0.521	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.986	0.356	95	1400
o-Xylene*	**0.21**	**0.89**	0.2	0.9	0.995	0.374	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.774	0.034	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.998	0.132	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.994	0.35	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	10/5/21	Time:	11:35 AM	Field ID:	SG-01	Collector:	E Johnson		SG-01
Date Analyzed:	10/6/21	Time:	3:26 PM	Lab ID:	005	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.956	0.036	19	91
Chloroethane	N.D.	N.D.	2	5	0.827	0.029	NA	NA
Trichloromonofluoromethane	**2**	**14**	1	7	0.995	0.197	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.952	0.002	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.639	0.032	770	37000
1,1,2-Trichlorotrifluoroethane	**110**	**850**	1	7.7	0.999	0.732	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.752	0.043	6.3	31
1,1,1-Trichloroethane	**1.9**	**10**	0.2	1.1	0.999	0.491	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.835	0.075	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**0.26**	**1.4**	0.2	1.1	0.969	0.31	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.81**	**3**	0.2	0.8	1	0.551	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**18**	**120**	0.2	1.4	0.997	0.981	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.974	0.164	520	62000
p/m-Xylene	*0.34*	1.5	0.4	1.7	0.994	0.478	1400	6200
Styrene*	**0.2**	**0.85**	0.2	1	0.985	0.395	95	1400
o-Xylene*	**0.3**	**1.3**	0.2	0.9	0.994	0.478	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.88	0.202	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.994	0.268	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.381	0.138	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	10/5/21	Time:	11:30 AM	Field ID:	SG-02	Collector:	E Johnson		SG-02
Date Analyzed:	10/6/21	Time:	3:57 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.943	0.03	19	91
Chloroethane	N.D.	N.D.	2	5	0.994	0.068	NA	NA
Trichloromonofluoromethane	**48**	**330**	1	7	0.998	0.425	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.624	0.029	770	37000
1,1,2-Trichlorotrifluoroethane	**68**	**520**	1	7.7	0.999	0.726	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.978	0.1	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.898	0.009	56	370
Chloroform	**0.31**	**1.5**	0.2	1.0	0.942	0.264	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**2.7**	**15**	0.2	1.1	0.999	0.552	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.594	0.071	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**2.2**	**12**	0.2	1.1	0.999	0.732	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.72**	**2.7**	0.2	0.8	1	0.511	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**18**	**120**	0.2	1.4	0.997	0.983	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.641	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.992	0.21	520	62000
p/m-Xylene	*0.32*	1.4	0.4	1.7	0.995	0.517	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.949	0.259	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.978	0.295	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.954	0.208	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.987	0.275	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/5/21	Time:	10:45 AM	Field ID:	SV-11	Collector:	E Johnson		SV-11
Date Analyzed:	10/5/21	Time:	6:52 PM	Lab ID:	011	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.846	0.023	NA	NA
Trichloromonofluoromethane	**13**	**88**	1	7	0.993	0.322	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.659	0.207	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.935	0.011	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.617	0.059	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.685	0.062	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.435	0.069	10	50
Toluene	**1.9**	**7.2**	0.2	0.8	0.986	0.252	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**6**	**41**	0.2	1.4	0.988	0.85	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.26**	**1.1**	0.2	0.9	0.929	0.151	520	62000
p/m-Xylene	*0.31*	1.4	0.4	1.7	0.947	0.194	1400	6200
Styrene*	**0.69**	**2.9**	0.2	1	0.844	0.189	95	1400
o-Xylene*	**0.28**	**1.2**	0.2	0.9	0.944	0.194	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.666	0.021	2.8	14
1,3,5-Trimethylbenzene*	**0.23**	**1.2**	0.2	1.0	0.979	0.133	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.985	0.134	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **5.2** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/12/21	Time:	10:20 AM	Field ID:	SV-01	Collector:	E. Johnson		SV-01
Date Analyzed:	10/12/21	Time:	3:01 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.96	0.017	19	91
Chloroethane	N.D.	N.D.	2	5	1	0.101	NA	NA
Trichloromonofluoromethane	*0.94*	6.5	1	7	0.992	0.123	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.644	0.023	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.677	0.021	770	37000
1,1,2-Trichlorotrifluoroethane	**1.4**	**11**	1	7.7	0.997	0.357	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.715	0.081	56	50,000
Cis 1,2-Dichloroethylene	**0.4**	**1.6**	0.2	0.8	0.972	0.227	56	370
Chloroform	**0.73**	**3.6**	0.2	1.0	0.995	0.538	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**0.62**	**3.4**	0.2	1.1	0.992	0.334	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.909	0.087	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**1.9**	**10**	0.2	1.1	0.996	0.725	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.31**	**1.2**	0.2	0.8	0.997	0.411	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**8.7**	**59**	0.2	1.4	0.996	0.978	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.752	0.065	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.983	0.212	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.918	0.282	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.983	0.333	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.959	0.15	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.968	0.169	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.968	0.169	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/12/21	Time:	10:25 AM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	10/12/21	Time:	3:31 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.974	0.045	NA	NA
Trichloromonofluoromethane	**11**	**80**	1	7	0.998	0.402	NA	NA
1,1-Dichloroethylene	**1.1**	**4.6**	1	4.0	0.975	0.222	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.676	0.049	770	37000
1,1,2-Trichlorotrifluoroethane	**51**	**390**	1	7.7	0.998	0.683	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.683	0.148	56	50,000
Cis 1,2-Dichloroethylene	**10**	**40**	0.2	0.8	0.998	0.677	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.993	0.135	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.803	0.027	6.3	31
1,1,1-Trichloroethane	**33**	**180**	0.2	1.1	0.999	0.695	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.876	0.081	160	800
Carbon Tetrachloride	**2.4**	**15**	0.2	1.3	0.986	0.115	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.658	0.043	8.6	42
Trichloroethylene	**44**	**230**	0.2	1.1	0.999	0.81	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.7**	**6.5**	0.2	0.8	1	0.498	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**46**	**310**	0.2	1.4	0.997	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.998	0.194	520	62000
p/m-Xylene	*0.32*	1.4	0.4	1.7	0.997	0.336	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.956	0.331	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.865	0.146	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.952	0.191	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.953	0.191	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/19/21	Time:	10:50 AM	Field ID:	SV-11	Collector:	E. Johnson		SV-11
Date Analyzed:	10/19/21	Time:	4:41 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.994	0.031	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.962	0.08	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.903	0.092	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	**0.21**	**1**	0.2	1.0	0.986	0.198	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**0.53**	**2.9**	0.2	1.1	0.942	0.249	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.777	0.065	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.605	0.05	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.23**	**0.87**	0.2	0.8	0.998	0.31	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**1.4**	**9.8**	0.2	1.4	0.987	0.911	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.951	0.137	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.947	0.184	1400	6200
Styrene*	**0.23**	**0.98**	0.2	1	0.981	0.351	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.945	0.184	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.856	0.082	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.834	0.064	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/21/21	Time:	10:45 AM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	10/21/21	Time:	5:14 PM	Lab ID:	007	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.878	0.056	NA	NA
Trichloromonofluoromethane	**9.4**	**66**	1	7	0.999	0.416	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.748	0.01	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.798	0.109	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.612	0.232	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.896	0.016	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.688	0.045	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.604	0.033	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**3.2**	**12**	0.2	0.8	1	0.599	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.818	0.39	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.993	0.17	520	62000
p/m-Xylene	**0.47**	**2**	0.4	1.7	0.992	0.403	1400	6200
Styrene*	**0.22**	**0.93**	0.2	1	0.962	0.25	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.949	0.228	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.951	0.117	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.995	0.145	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **2.3** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	12:00 PM	Field ID:	TVP-1	Collector:	E. Johnson		TVP-1
Date Analyzed:	10/22/21	Time:	2:14 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.881	0.042	NA	NA
Trichloromonofluoromethane	**210**	**1500**	1	7	0.995	0.234	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.545	0.028	770	37000
1,1,2-Trichlorotrifluoroethane	**14000**	**110000**	1	7.7	0.999	0.719	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.938	0.008	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**14**	**44**	0.2	0.6	0.896	0.139	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.923	0.111	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.965	0.046	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.963	0.046	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**140**	**540**	0.2	0.8	1	0.521	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**54**	**370**	0.2	1.4	0.973	0.711	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**5.8**	**25**	0.2	0.9	0.988	0.11	520	62000
p/m-Xylene	**12**	**50**	0.4	1.7	0.986	0.227	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.755	0.048	95	1400
o-Xylene*	**10**	**45**	0.2	0.9	0.978	0.225	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.802	0.043	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.913	0.042	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.919	0.042	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 85 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/21/21	Time:	12:15 PM	Field ID:	TVP-2	Collector:	E. Johnson		TVP-2
Date Analyzed:	10/22/21	Time:	2:46 PM	Lab ID:	010	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	255	657.9	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.81	0.038	NA	NA
Trichloromonofluoromethane	**300**	**2100**	1	7	0.999	0.218	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.983	0.002	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.568	0.031	770	37000
1,1,2-Trichlorotrifluoroethane	**69000**	**530000**	1	7.7	0.999	0.719	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.956	0.023	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.969	0.068	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**50**	**190**	0.2	0.8	0.998	0.287	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.654	0.069	NA	NA
Tetrachloroethylene	**58**	**400**	0.2	1.4	0.974	0.734	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.874	0.003	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.882	0.004	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.717	0.034	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.479	0.016	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.851	0.032	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.977	0.063	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.515	0.19	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 85 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/21/21	Time:	12:25 PM	Field ID:	TVP-3	Collector:	E. Johnson		TVP-3
Date Analyzed:	10/22/21	Time:	1:39 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.924	0.031	NA	NA
Trichloromonofluoromethane	**16**	**110**	1	7	0.978	0.155	NA	NA
1,1-Dichloroethylene	**9.6**	**38**	1	4.0	0.976	0.153	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.586	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	**2000**	**15000**	1	7.7	0.999	0.716	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.679	0.045	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.681	0.032	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.992	0.037	6.3	31
1,1,1-Trichloroethane	**6.9**	**38**	0.2	1.1	0.989	0.259	210	310,000
Benzene	**6.3**	**20**	0.2	0.6	0.983	0.259	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.538	0.038	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**12**	**62**	0.2	1.1	0.993	0.354	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**7.5**	**28**	0.2	0.8	0.996	0.365	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.446	0.009	NA	NA
Tetrachloroethylene	**39**	**260**	0.2	1.4	0.994	0.936	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.909	0.06	160	3100
Ethylbenzene	**1.7**	**7.2**	0.2	0.9	0.993	0.207	520	62000
p/m-Xylene	**2**	**8.6**	0.4	1.7	0.93	0.248	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.821	0.093	95	1400
o-Xylene*	**0.98**	**4.2**	0.2	0.9	0.913	0.165	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.893	0.03	2.8	14
1,3,5-Trimethylbenzene*	**1.1**	**5.2**	0.2	1.0	0.978	0.118	NA	NA
1,2,4-Trimethylbenzene*	**0.88**	**4.3**	0.2	1.0	0.984	0.119	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.482	0.186	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 10 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	12:40 PM	Field ID:	TVP-4	Collector:	E. Johnson		TVP-4
Date Analyzed:	10/22/21	Time:	12:33 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.653	0.05	NA	NA
Trichloromonofluoromethane	**17**	**120**	1	7	0.998	0.203	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.979	0.091	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.572	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	**560**	**4300**	1	7.7	0.999	0.706	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.9	0.056	56	50,000
Cis 1,2-Dichloroethylene	**5.9**	**24**	0.2	0.8	0.988	0.291	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**8.6**	**47**	0.2	1.1	0.997	0.346	210	310,000
Benzene	**2.5**	**8**	0.2	0.6	0.872	0.192	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.965	0.087	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.636	0.038	8.6	42
Trichloroethylene	**12**	**63**	0.2	1.1	0.996	0.586	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**5.8**	**22**	0.2	0.8	0.999	0.394	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**41**	**280**	0.2	1.4	0.99	0.954	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.81	0.003	160	3100
Ethylbenzene	**1.1**	**4.7**	0.2	0.9	0.993	0.206	520	62000
p/m-Xylene	**1.3**	**5.7**	0.4	1.7	0.915	0.209	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.894	0.049	95	1400
o-Xylene*	**1.2**	**5**	0.2	0.9	0.918	0.21	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.9	0.077	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.933	0.021	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.996	0.054	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.402	0.018	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **6.9** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	12:55 PM	Field ID:	TVP-5	Collector:	E. Johnson		TVP-5
Date Analyzed:	10/22/21	Time:	11:48 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.893	0.024	NA	NA
Trichloromonofluoromethane	**14**	**96**	1	7	0.999	0.197	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.8	0.035	770	37000
1,1,2-Trichlorotrifluoroethane	**160**	**1200**	1	7.7	0.998	0.69	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.675	0.045	56	50,000
Cis 1,2-Dichloroethylene	**4.5**	**18**	0.2	0.8	0.977	0.325	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.92	0.027	6.3	31
1,1,1-Trichloroethane	**5.5**	**30**	0.2	1.1	0.916	0.253	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.792	0.172	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.838	0.087	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.825	0.039	8.6	42
Trichloroethylene	**7.6**	**41**	0.2	1.1	0.997	0.509	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.391	0.081	10	50
Toluene	**4.6**	**17**	0.2	0.8	0.999	0.366	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**31**	**210**	0.2	1.4	0.989	0.953	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.53**	**2.3**	0.2	0.9	0.946	0.135	520	62000
p/m-Xylene	**0.9**	**3.9**	0.4	1.7	0.885	0.136	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.883	0.072	95	1400
o-Xylene*	**0.55**	**2.4**	0.2	0.9	0.978	0.12	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.713	0.094	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.737	0.031	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.442	0.158	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **6.9** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	1:10 PM	Field ID:	TVP-6	Collector:	E. Johnson		TVP-6
Date Analyzed:	10/22/21	Time:	10:47 PM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.728	0.045	19	91
Chloroethane	N.D.	N.D.	2	5	0.99	0.068	NA	NA
Trichloromonofluoromethane	**12**	**85**	1	7	1	0.288	NA	NA
1,1-Dichloroethylene	**3.6**	**14**	1	4.0	0.994	0.172	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.551	0.022	770	37000
1,1,2-Trichlorotrifluoroethane	**190**	**1500**	1	7.7	0.999	0.698	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	**3.8**	**15**	0.2	0.8	0.991	0.286	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.977	0.005	6.3	31
1,1,1-Trichloroethane	**3.7**	**20**	0.2	1.1	0.972	0.231	210	310,000
Benzene	**2**	**6.3**	0.2	0.6	0.923	0.211	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.772	0.038	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.628	0.035	8.6	42
Trichloroethylene	**8.8**	**47**	0.2	1.1	0.998	0.598	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.607	0.011	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**5.5**	**21**	0.2	0.8	0.999	0.452	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**30**	**200**	0.2	1.4	0.996	0.965	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.43**	**1.9**	0.2	0.9	0.997	0.165	520	62000
p/m-Xylene	**1**	**4.5**	0.4	1.7	0.99	0.342	1400	6200
Styrene*	**0.32**	**1.4**	0.2	1	0.843	0.102	95	1400
o-Xylene*	**0.36**	**1.6**	0.2	0.9	0.972	0.19	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**0.4**	**2**	0.2	1.0	0.957	0.136	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.939	0.125	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.476	0.129	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **5.2** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/28/21	Time:	11:05 AM	Field ID:	SV-05	Collector:	E. Johnson		SV-05
Date Analyzed:	10/28/21	Time:	3:51 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.528	0.057	19	91
Chloroethane	**6**	**16**	2	5	0.932	0.17	NA	NA
Trichloromonofluoromethane	**1.2**	**8.3**	0.2	1	0.992	0.505	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.951	0.002	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.646	0.032	770	37000
1,1,2-Trichlorotrifluoroethane	**910**	**7000**	0.2	1.5	0.991	0.733	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.961	0.038	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.31	0.084	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.993	0.675	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.961	0.005	6.3	31
1,1,1-Trichloroethane	**4.2**	**23**	0.2	1.1	0.994	0.71	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	**0.39**	**2.4**	0.2	1.3	0.999	0.117	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.975	0.589	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.997	0.679	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.34**	**2.3**	0.2	1.4	0.979	0.947	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.664	0.016	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.964	0.304	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.606	1400	6200
Styrene*	N.D.	N.D.	1	4	0.995	0.684	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.992	0.181	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.57	0.091	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.977	0.208	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.209	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.833	0.17	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.849	0.127	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.874	0.184	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/2/21	Time:	10:45 AM	Field ID:	155-SG1	Collector:	E. Johnson		Soil Vapor Point 1
Date Analyzed:	11/3/21	Time:	11:35 AM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.9	2.3	0	0	19	91
Chloroethane	*4.8*	*13*	9	24	0.951	0.15	NA	NA
Trichloromonofluoromethane	**4.8**	**33**	0.9	6	0.997	0.206	NA	NA
1,1-Dichloroethylene	*0.24*	*0.95*	0.9	3.6	0.986	0.478	56	12000
Methylene Chloride	N.D.	N.D.	0.9	3.1	0.645	0.038	770	37000
1,1,2-Trichlorotrifluoroethane	**120**	**910**	0.9	6.9	0.99	0.727	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.9	3.6	0.942	0.156	56	50,000
Cis 1,2-Dichloroethylene	**4.6**	**18**	0.9	3.6	0.984	0.785	56	370
Chloroform	N.D.	N.D.	0.9	4.4	0.657	0.093	130	210
1,2-Dichloroethane	N.D.	N.D.	4.5	18.2	0.943	0.005	6.3	31
1,1,1-Trichloroethane	**2.1**	**11**	0.9	4.9	0.812	0.579	210	310,000
Benzene	*0.55*	*1.8*	0.9	2.9	0.997	0.675	160	800
Carbon Tetrachloride	N.D.	N.D.	0.9	5.7	0.953	0.078	38	130
1,2-Dichloropropane	N.D.	N.D.	0.9	4.2	0.602	0.029	8.6	42
Trichloroethylene	**5.7**	**31**	0.9	4.8	0.995	0.821	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.9	4.9	0.279	0.037	10	50
Toluene	**4.5**	**17**	0.9	3.4	0.996	0.717	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.9	6.9	0	0	NA	NA
Tetrachloroethylene	**9.4**	**64**	0.9	6.1	0.994	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.9	4.1	0.53	0.001	160	3100
Ethylbenzene	*0.4*	*1.7*	0.9	3.9	0.988	0.651	520	62000
p/m-Xylene	*1*	*4.4*	1.8	7.8	0.998	0.693	1400	6200
Styrene*	*1.5*	*6.4*	4.5	19	0.997	0.798	95	1400
o-Xylene*	*0.32*	*1.4*	4.5	20	0.968	0.653	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.9	6	0.477	0.002	2.8	14
1,3,5-Trimethylbenzene*	*0.22*	*1.1*	4.5	22	0.953	0.487	NA	NA
1,2,4-Trimethylbenzene*	*0.2*	*0.97*	4.5	22	0.995	0.341	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.9	5	0.926	0.067	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.9	5	0.994	0.039	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.9	5	0.954	0.065	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	9	67	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.9	10	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 4.5 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/2/21	Time:	10:40 AM	Field ID:	155-SG2	Collector:	E. Johnson		Soil Vapor Point 2
Date Analyzed:	11/3/21	Time:	12:07 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.657	0.007	19	91
Chloroethane	**2.6**	**6.9**	2	5	0.905	0.139	NA	NA
Trichloromonofluoromethane	**15**	**100**	0.2	1	1	0.466	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.799	0.003	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.708	0.042	770	37000
1,1,2-Trichlorotrifluoroethane	**21**	**160**	0.2	1.5	0.991	0.722	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.838	0.005	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.635	0.008	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.956	0.378	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.967	0.005	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.658	0.297	210	310,000
Benzene	**1.9**	**6.1**	0.2	0.6	0.996	0.732	160	800
Carbon Tetrachloride	*0.059*	*0.37*	0.2	1.3	0.913	0.333	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.984	0.049	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.741	0.007	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.277	0.042	10	50
Toluene	**17**	**63**	0.2	0.8	0.997	0.742	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.41**	**2.8**	0.2	1.4	0.964	0.949	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.834	0.116	160	3100
Ethylbenzene	**1.3**	**5.7**	0.2	0.9	0.995	0.716	520	62000
p/m-Xylene	**4.1**	**18**	0.4	1.7	0.997	0.678	1400	6200
Styrene*	**2.5**	**10**	1	4	0.995	0.794	95	1400
o-Xylene*	**1.3**	**5.5**	1	4	0.983	0.826	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.51	0.06	2.8	14
1,3,5-Trimethylbenzene*	*0.22*	*1.1*	1	5	0.949	0.326	NA	NA
1,2,4-Trimethylbenzene*	*0.56*	*2.8*	1	5	0.998	0.555	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.773	0.045	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.039	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.954	0.065	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.336	0.15	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	11/2/21	Time:	11:05 AM	Field ID:	157-SG1	Collector:	E. Johnson		Soil Vapor Point 1
Date Analyzed:	11/3/21	Time:	1:19 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0	0	19	91
Chloroethane	*4.5*	*12*	6	16	0.937	0.173	NA	NA
Trichloromonofluoromethane	**63**	**440**	0.6	4	0.999	0.467	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.899	0.013	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.651	0.035	770	37000
1,1,2-Trichlorotrifluoroethane	**87**	**670**	0.6	4.6	0.992	0.734	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.6	2.4	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.817	0.006	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.805	0.004	6.3	31
1,1,1-Trichloroethane	**1.6**	**8.7**	0.6	3.3	0.855	0.647	210	310,000
Benzene	**1.1**	**3.4**	0.6	1.9	0.996	0.727	160	800
Carbon Tetrachloride	N.D.	N.D.	0.6	3.8	0.921	0.094	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0	0	8.6	42
Trichloroethylene	*0.26*	*1.4*	0.6	3.2	0.988	0.507	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0.286	0.04	10	50
Toluene	**3.5**	**13**	0.6	2.3	0.997	0.736	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**14**	**95**	0.6	4.1	0.994	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.6	0.001	160	3100
Ethylbenzene	*0.4*	*1.7*	0.6	2.6	0.993	0.716	520	62000
p/m-Xylene	**1.2**	*5*	1.2	5.2	0.998	0.688	1400	6200
Styrene*	*1.9*	*7.9*	3	13	0.996	0.789	95	1400
o-Xylene*	*0.39*	*1.7*	3	13	0.914	0.674	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3	15	0.992	0.182	NA	NA
1,2,4-Trimethylbenzene*	0.23	1.2	3	15	0.996	0.516	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.809	0.013	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0.994	0.039	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.954	0.065	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.6	6	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	11/2/21	Time:	11:00 AM	Field ID:	157-SG2	Collector:	E. Johnson		Soil Vapor Point 2
Date Analyzed:	11/3/21	Time:	12:42 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.416	0.072	19	91
Chloroethane	**2.1**	**5.6**	2	5	0.922	0.193	NA	NA
Trichloromonofluoromethane	**29**	**200**	0.2	1	0.999	0.468	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.989	0.037	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.672	0.037	770	37000
1,1,2-Trichlorotrifluoroethane	**40**	**300**	0.2	1.5	0.991	0.727	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.998	0.215	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	**0.24**	**1.2**	0.2	1.0	0.984	0.307	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.974	0.006	6.3	31
1,1,1-Trichloroethane	**1.9**	**11**	0.2	1.1	0.983	0.71	210	310,000
Benzene	**0.65**	**2.1**	0.2	0.6	0.995	0.696	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.876	0.178	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**1.2**	**6.6**	0.2	1.1	0.996	0.771	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.737	0.007	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.282	0.043	10	50
Toluene	**4.2**	**16**	0.2	0.8	0.997	0.741	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**10**	**69**	0.2	1.4	0.995	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.743	0.11	160	3100
Ethylbenzene	**0.45**	**1.9**	0.2	0.9	0.996	0.734	520	62000
p/m-Xylene	**1.4**	**6.2**	0.4	1.7	0.998	0.683	1400	6200
Styrene*	**2.4**	**10**	1	4	0.996	0.795	95	1400
o-Xylene*	*0.49*	*2.1*	1	4	0.915	0.744	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.741	0.09	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.952	0.283	NA	NA
1,2,4-Trimethylbenzene*	*0.3*	*1.5*	1	5	0.998	0.477	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.828	0.103	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.039	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.954	0.065	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/2/21	Time:	12:05 PM	Field ID:	TVP-07	Collector:	E. Johnson		TVP-07
Date Analyzed:	11/3/21	Time:	1:51 PM	Lab ID:	010	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.9	2.3	0	0	19	91
Chloroethane	*3.7*	*9.8*	9	24	0.933	0.138	NA	NA
Trichloromonofluoromethane	**1.4**	**9.5**	0.9	6	0.999	0.109	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.9	3.6	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.9	3.1	0.614	0.035	770	37000
1,1,2-Trichlorotrifluoroethane	**19**	**150**	0.9	6.9	0.992	0.716	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.9	3.6	0.777	0.001	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.9	3.6	0.773	0.006	56	370
Chloroform	N.D.	N.D.	0.9	4.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	4.5	18.2	0.886	0.005	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.9	4.9	0.679	0.023	210	310,000
Benzene	**4.7**	**15**	0.9	2.9	0.992	0.809	160	800
Carbon Tetrachloride	N.D.	N.D.	0.9	5.7	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.9	4.2	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.9	4.8	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.9	4.9	0	0	10	50
Toluene	**4.5**	**17**	0.9	3.4	0.997	0.731	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.9	6.9	0	0	NA	NA
Tetrachloroethylene	*0.48*	*3.3*	0.9	6.1	0.959	0.911	98	290
Chlorobenzene	N.D.	N.D.	0.9	4.1	0.976	0.131	160	3100
Ethylbenzene	*0.35*	*1.5*	0.9	3.9	0.998	0.708	520	62000
p/m-Xylene	*0.77*	*3.3*	1.8	7.8	0.996	0.682	1400	6200
Styrene*	N.D.	N.D.	4.5	19	0.996	0.536	95	1400
o-Xylene*	*0.23*	*1*	4.5	20	0.999	0.58	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.9	6	0.844	0.055	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	4.5	22	0.947	0.481	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	4.5	22	0.999	0.361	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.9	5	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.9	5	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.9	5	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	9	67	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.9	10	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 4.5 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland St					Location:
Date Sampled:	11/2/21	Time:	12:10 PM	Field ID:	TVP-8	Collector:	E. Johnson		TVP-8
Date Analyzed:	11/3/21	Time:	2:24 PM	Lab ID:	11	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.9	2.3	0	0	19	91
Chloroethane	*4.2*	*11*	9	24	0.95	0.128	NA	NA
Trichloromonofluoromethane	**23**	**160**	0.9	6	1	0.458	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.9	3.6	0.829	0.013	56	12000
Methylene Chloride	N.D.	N.D.	0.9	3.1	0.654	0.038	770	37000
1,1,2-Trichlorotrifluoroethane	**32**	**240**	0.9	6.9	0.992	0.705	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.9	3.6	0.958	0.006	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.9	3.6	0.468	0.001	56	370
Chloroform	N.D.	N.D.	0.9	4.4	0.772	0.008	130	210
1,2-Dichloroethane	N.D.	N.D.	4.5	18.2	0.911	0.006	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.9	4.9	0.714	0.159	210	310,000
Benzene	**28**	**90**	0.9	2.9	0.996	0.806	160	800
Carbon Tetrachloride	N.D.	N.D.	0.9	5.7	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.9	4.2	0.574	0.002	8.6	42
Trichloroethylene	N.D.	N.D.	0.9	4.8	0.938	0.093	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0.759	0.01	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.9	4.9	0.197	0.036	10	50
Toluene	**24**	**90**	0.9	3.4	0.997	0.688	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.9	6.9	0	0	NA	NA
Tetrachloroethylene	*0.34*	*2.3*	0.9	6.1	0.903	0.828	98	290
Chlorobenzene	N.D.	N.D.	0.9	4.1	0.903	0.056	160	3100
Ethylbenzene	*0.86*	*3.7*	0.9	3.9	0.996	0.58	520	62000
p/m-Xylene	**2.1**	**9.2**	1.8	7.8	0.999	0.195	1400	6200
Styrene*	*1.1*	*4.6*	4.5	19	0.991	0.782	95	1400
o-Xylene*	*0.68*	*2.9*	4.5	20	0.991	0.638	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.9	6	0.806	0.041	2.8	14
1,3,5-Trimethylbenzene*	0.31	1.5	4.5	22	0.925	0.29	NA	NA
1,2,4-Trimethylbenzene*	0.26	1.3	4.5	22	0.999	0.27	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.9	5	0.783	0.009	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.9	5	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.9	5	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	9	67	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.9	10	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 4.5 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/2/21	Time:	12:20 PM	Field ID:	TVP-09	Collector:	E. Johnson		TVP-09
Date Analyzed:	11/3/21	Time:	2:56 PM	Lab ID:	12	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.747	0.034	19	91
Chloroethane	N.D.	N.D.	2	5	0.788	0.167	NA	NA
Trichloromonofluoromethane	**2.9**	**20**	0.2	1	0.997	0.125	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.935	0.001	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.612	0.034	770	37000
1,1,2-Trichlorotrifluoroethane	**2200**	**17000**	0.2	1.5	0.992	0.729	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.868	0.003	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.599	0.003	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.78	0.008	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.972	0.005	6.3	31
1,1,1-Trichloroethane	**0.57**	**3.1**	0.2	1.1	0.903	0.503	210	310,000
Benzene	**9.1**	**29**	0.2	0.6	0.996	0.773	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.886	0.084	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.66	0.002	8.6	42
Trichloroethylene	*0.092*	*0.49*	0.2	1.1	0.994	0.546	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.697	0.006	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.204	0.039	10	50
Toluene	**8.1**	**31**	0.2	0.8	0.997	0.681	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.22**	**1.5**	0.2	1.4	0.929	0.906	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.78	0.048	160	3100
Ethylbenzene	**0.33**	**1.4**	0.2	0.9	0.99	0.598	520	62000
p/m-Xylene	**0.99**	**4.3**	0.4	1.7	0.997	0.254	1400	6200
Styrene*	**2.7**	**11**	1	4	0.996	0.797	95	1400
o-Xylene*	*0.37*	*1.6*	1	4	0.914	0.546	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.521	0.068	2.8	14
1,3,5-Trimethylbenzene*	*0.25*	*1.2*	1	5	0.864	0.152	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.996	0.332	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.322	0.112	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/2/21	Time:	12:35 PM	Field ID:	TVP-10	Collector:	E. Johnson		TVP-10
Date Analyzed:	11/3/21	Time:	3:35 PM	Lab ID:	013	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0.921	0.005	19	91
Chloroethane	**6.6**	**17**	6	16	0.88	0.109	NA	NA
Trichloromonofluoromethane	**7.1**	**49**	0.6	4	0.999	0.193	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.903	0.001	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.63	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	**1800**	**14000**	0.6	4.6	0.992	0.732	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.6	2.4	0.961	0.01	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.6	2.4	0	0	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0.866	0.035	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.935	0.005	6.3	31
1,1,1-Trichloroethane	**0.69**	**3.8**	0.6	3.3	0.828	0.484	210	310,000
Benzene	**5.5**	**18**	0.6	1.9	0.997	0.759	160	800
Carbon Tetrachloride	N.D.	N.D.	0.6	3.8	0.741	0.021	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0.644	0.042	8.6	42
Trichloroethylene	N.D.	N.D.	0.6	3.2	0.972	0.21	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0.314	0.044	10	50
Toluene	**5.9**	**22**	0.6	2.3	0.996	0.727	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	*0.44*	*3*	0.6	4.1	0.962	0.923	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.793	0.104	160	3100
Ethylbenzene	*0.35*	*1.5*	0.6	2.6	0.994	0.67	520	62000
p/m-Xylene	*1.1*	*4.6*	1.2	5.2	0.999	0.641	1400	6200
Styrene*	*1.9*	*8.1*	3	13	0.996	0.76	95	1400
o-Xylene*	*0.38*	*1.7*	3	13	0.914	0.584	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0.934	0.01	2.8	14
1,3,5-Trimethylbenzene*	0.2	0.99	3	15	0.964	0.462	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	0.997	0.398	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.6	6	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/10/21	Time:	8:46 AM	Field ID:	SV-09	Collector:	B. Roden		SV-09
Date Analyzed:	11/10/21	Time:	2:27 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.683	0.021	19	91
Chloroethane	**2**	**5.4**	2	5	0.843	0.21	NA	NA
Trichloromonofluoromethane	**0.24**	**1.6**	0.2	1	0.984	0.122	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.99	0.229	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.773	0.049	770	37000
1,1,2-Trichlorotrifluoroethane	**6.2**	**47**	0.2	1.5	0.992	0.698	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.982	0.192	56	50,000
Cis 1,2-Dichloroethylene	**1.5**	**5.9**	0.2	0.8	0.992	0.732	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.996	0.007	6.3	31
1,1,1-Trichloroethane	**1.1**	**6.2**	0.2	1.1	0.962	0.7	210	310,000
Benzene	**0.39**	**1.3**	0.2	0.6	0.991	0.758	160	800
Carbon Tetrachloride	*0.12*	*0.74*	0.2	1.3	0.976	0.116	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.636	0.026	8.6	42
Trichloroethylene	**4.2**	**23**	0.2	1.1	0.996	0.838	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.772	0.005	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.241	0.035	10	50
Toluene	**0.68**	**2.6**	0.2	0.8	0.998	0.749	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**10**	**70**	0.2	1.4	0.994	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.54	0.063	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.978	0.599	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.702	1400	6200
Styrene*	N.D.	N.D.	1	4	0.99	0.648	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.989	0.517	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.817	0.011	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.931	0.137	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.433	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.576	0.045	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.958	0.013	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.761	0.039	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/10/21	Time:	8:30 AM	Field ID:	SV-11	Collector:	B. Roden		SV-11
Date Analyzed:	11/10/21	Time:	2:59 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.384	0.061	19	91
Chloroethane	**3.5**	**9.2**	2	5	0.938	0.132	NA	NA
Trichloromonofluoromethane	**4**	**28**	0.2	1	0.999	0.442	NA	NA
1,1-Dichloroethylene	**0.28**	**1.1**	0.2	0.8	0.998	0.196	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.744	0.044	770	37000
1,1,2-Trichlorotrifluoroethane	**5.5**	**42**	0.2	1.5	0.992	0.687	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.951	0.227	56	50,000
Cis 1,2-Dichloroethylene	**1.7**	**6.8**	0.2	0.8	0.996	0.789	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.657	0.33	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.971	0.005	6.3	31
1,1,1-Trichloroethane	**1.1**	**6**	0.2	1.1	0.994	0.709	210	310,000
Benzene	**0.2**	**0.64**	0.2	0.6	0.97	0.541	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.802	0.351	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**3.6**	**19**	0.2	1.1	0.995	0.847	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.59**	**2.2**	0.2	0.8	0.998	0.737	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**8.9**	**61**	0.2	1.4	0.994	0.987	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.801	0.146	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.968	0.709	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.994	0.69	1400	6200
Styrene*	*0.79*	*3.4*	1	4	0.994	0.804	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.913	0.525	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.911	0.161	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.345	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.66	0.018	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.958	0.013	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.761	0.039	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/16/21	Time:	12:05 PM	Field ID:	SV-01	Collector:	E. Johnson		SV-01
Date Analyzed:	11/17/21	Time:	12:16 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	19	91
Chloroethane	*1.8*	*4.8*	2	5	0.878	0.167	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.901	0.125	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.589	0.022	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.921	0.074	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.954	0.147	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	**0.26**	**1.3**	0.2	1.0	0.991	0.622	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.971	0.006	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.666	0.019	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.983	0.578	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.943	0.27	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.962	0.343	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.855	0.01	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.306	0.043	10	50
Toluene	**0.8**	**3**	0.2	0.8	0.999	0.721	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.22**	**1.5**	0.2	1.4	0.98	0.934	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.946	0.149	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.536	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.997	0.696	1400	6200
Styrene*	N.D.	N.D.	1	4	0.981	0.447	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.999	0.44	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.901	0.025	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.985	0.238	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.985	0.247	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.926	0.132	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.993	0.234	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.995	0.465	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/16/21	Time:	10:50 AM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	11/17/21	Time:	11:43 AM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.767	0.04	19	91
Chloroethane	*1.8*	*4.8*	2	5	0.868	0.162	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.997	0.077	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.615	0.038	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.988	0.18	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.862	0.079	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.877	0.025	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.923	0.321	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.914	0.005	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.674	0.019	210	310,000
Benzene	**0.3**	**0.97**	0.2	0.6	0.985	0.651	160	800
Carbon Tetrachloride	*0.058*	*0.36*	0.2	1.3	0.963	0.22	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.372	0.119	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.967	0.327	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.75**	**2.8**	0.2	0.8	0.999	0.728	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	*0.15*	*0.99*	0.2	1.4	0.959	0.89	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.442	0.001	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.985	0.518	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.632	1400	6200
Styrene*	N.D.	N.D.	1	4	0.972	0.651	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.995	0.465	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.905	0.298	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.988	0.264	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.934	0.255	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.993	0.234	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.995	0.465	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.345	0.104	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/16/21	Time:	10:40 AM	Field ID:	SV-11	Collector:	E. Johnson		SV-11
Date Analyzed:	11/17/21	Time:	11:06 AM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0	0	19	91
Chloroethane	**7.2**	**19**	6	16	0.836	0.257	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.6	4	0.949	0.127	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.653	0.017	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.988	0.259	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.6	4.6	0.94	0.125	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.6	2.4	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.836	0.045	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0.928	0.273	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.964	0.006	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.6	3.3	0.467	0.117	210	310,000
Benzene	*0.29*	*0.94*	0.6	1.9	0.987	0.646	160	800
Carbon Tetrachloride	N.D.	N.D.	0.6	3.8	0.869	0.009	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.6	3.2	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0	0	10	50
Toluene	**0.67**	**2.5**	0.6	2.3	0.998	0.661	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**0.92**	**6.2**	0.6	4.1	0.985	0.951	98	290
Chlorobenzene	0.072	0.33	0.6	2.8	0.988	0.692	160	3100
Ethylbenzene	N.D.	N.D.	0.6	2.6	0.946	0.233	520	62000
p/m-Xylene	N.D.	N.D.	1.2	5.2	0.996	0.614	1400	6200
Styrene*	0.48	2	3	13	0.998	0.785	95	1400
o-Xylene*	N.D.	N.D.	3	13	0.942	0.314	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0.872	0.038	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3	15	0.969	0.234	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	0.977	0.236	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.991	0.158	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0.993	0.234	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.995	0.465	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.6	6	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/18/21	Time:	10:45 AM	Field ID:	SV-02	Collector:	E Johnson		SV-02
Date Analyzed:	11/19/21	Time:	1:15 PM	Lab ID:	004	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.963	0.023	19	91
Chloroethane	*0.91*	*2.4*	2	5	0.984	0.146	NA	NA
Trichloromonofluoromethane	**0.75**	**5.3**	0.2	1	0.999	0.232	NA	NA
1,1-Dichloroethylene	**0.38**	**1.5**	0.2	0.8	0.969	0.772	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.664	0.031	770	37000
1,1,2-Trichlorotrifluoroethane	**180**	**1400**	0.2	1.5	0.992	0.722	NA	NA
1,1-Dichloroethane	**0.36**	**1.5**	0.2	0.8	0.935	0.415	56	50,000
Cis 1,2-Dichloroethylene	**4.6**	**18**	0.2	0.8	0.994	0.824	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.657	0.387	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.895	0.004	6.3	31
1,1,1-Trichloroethane	**23**	**120**	0.2	1.1	0.995	0.692	210	310,000
Benzene	**0.2**	**0.64**	0.2	0.6	0.982	0.608	160	800
Carbon Tetrachloride	**2.2**	**14**	0.2	1.3	0.996	0.119	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.558	0.029	8.6	42
Trichloroethylene	**16**	**83**	0.2	1.1	0.996	0.845	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.696	0.007	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.24	0.034	10	50
Toluene	**1.8**	**6.6**	0.2	0.8	0.999	0.752	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**15**	**100**	0.2	1.4	0.994	0.987	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.97	0.262	160	3100
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.989	0.589	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.678	1400	6200
Styrene*	N.D.	N.D.	1	4	0.966	0.576	95	1400
o-Xylene*	N.D.	N.D.	1	4	0.997	0.468	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.657	0.029	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.953	0.473	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.993	0.368	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.98	0.315	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.987	0.167	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.981	0.335	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/8/21	Time:	11:40 AM	Field ID:	SV-01	Collector:	E. Johnson		SV-01
Date Analyzed:	12/8/21	Time:	3:28 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0	0	19	91
Chloroethane	N.D.	N.D.	3	8	0.922	0.069	NA	NA
Trichloromonofluoromethane	**4.7**	**33**	0.2	1	0.992	0.325	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**8.3**	**64**	0.2	1.5	0.997	0.541	NA	NA
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.621	0.032	56	370
Chloroform	**0.26**	**1.3**	0.2	1.0	0.933	0.122	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.987	0.008	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**0.21**	**1.1**	0.2	1.1	0.954	0.235	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.33**	**1.3**	0.2	0.8	0.981	0.262	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**2.3**	**16**	0.2	1.4	0.989	0.91	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	1	4.3	0.911	0.162	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.982	0.21	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.977	0.209	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	*0.21*	1	1	4.9	0.991	0.254	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.992	0.254	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/8/21	Time:	11:50 AM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	12/8/21	Time:	4:28 PM	Lab ID:	010	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	5.2	13	0	0	19	91
Chloroethane	N.D.	N.D.	15.6	41	0.948	0.082	NA	NA
Trichloromonofluoromethane	**300**	**2100**	1.0	7	0.999	0.436	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	5.2	21	0	0	56	12000
Methylene Chloride	N.D.	N.D.	1.0	3.6	0.618	0.031	770	37000
1,1,2-Trichlorotrifluoroethane	**540**	**4100**	1.0	8.0	1	0.726	NA	NA
1,1-Dichloroethane	N.D.	N.D.	5.2	21	0.771	0.048	56	50,000
Cis 1,2-Dichloroethylene	**6.9**	**27**	1.0	4.1	0.978	0.383	56	370
Chloroform	N.D.	N.D.	1.0	5.1	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	5.2	21	0	0	6.3	31
1,1,1-Trichloroethane	**18**	**97**	1.0	5.7	0.997	0.533	210	310,000
Benzene	N.D.	N.D.	1.0	3.3	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	1.0	6.5	0.923	0.094	38	130
1,2-Dichloropropane	N.D.	N.D.	1.0	4.8	0.698	0.024	8.6	42
Trichloroethylene	**17**	**91**	1.0	5.6	0.998	0.667	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	1.0	4.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	1.0	4.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	1.0	5.7	0	0	10	50
Toluene	N.D.	N.D.	1.0	3.9	0.541	0.013	3800	310000
1,2-Dibromoethane	N.D.	N.D.	1.0	8.0	0.338	0.046	NA	NA
Tetrachloroethylene	**16**	**110**	1.0	7.1	0.99	0.923	98	290
Chlorobenzene	N.D.	N.D.	1.0	4.8	0.758	0.002	160	3100
Ethylbenzene	N.D.	N.D.	5.2	23	0.876	0.086	520	62000
p/m-Xylene	*0.3*	1.3	2.1	9.0	0.994	0.104	1400	6200
Styrene*	N.D.	N.D.	1.0	4	0	0	95	1400
o-Xylene*	*0.29*	*1.3*	1.0	4.5	0.991	0.104	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	5.2	36	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	5.2	26	0.875	0.07	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	5.2	26	0.877	0.07	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	5.2	31	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1.0	6	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1.0	6	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	10.4	77	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	10.4	111	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/8/21	Time:	12:00 PM	Field ID:	SV-03	Collector:	E. Johnson		SV-03R
Date Analyzed:	12/8/21	Time:	3:58 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	14000	36120	0	0	19	91
Chloroethane	N.D.	N.D.	42000	110880	0.888	0.036	NA	NA
Trichloromonofluoromethane	**28000**	**200000**	2800	19572	0.995	0.293	NA	NA
1,1-Dichloroethylene	**130000**	**510000**	14000	55580	0.999	0.644	56	12000
Methylene Chloride	N.D.	N.D.	2800	9716	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**50000**	**380000**	2800	21448	0.998	0.487	NA	NA
1,1-Dichloroethane	N.D.	N.D.	14000	56700	0.93	0.085	56	50,000
Cis 1,2-Dichloroethylene	**88000**	**350000**	2800	11116	0.999	0.683	56	370
Chloroform	N.D.	N.D.	2800	13664	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	14000	56700	0	0	6.3	31
1,1,1-Trichloroethane	**10000**	**56000**	2800	15288	0.992	0.229	210	310,000
Benzene	N.D.	N.D.	2800	8960	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	2800	17612	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	2800	12936	0	0	8.6	42
Trichloroethylene	**130000**	**680000**	2800	15036	0.999	0.775	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	2800	12712	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	2800	12712	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	2800	15288	0	0	10	50
Toluene	**3000**	**11000**	2800	10556	0.989	0.228	3800	310000
1,2-Dibromoethane	N.D.	N.D.	2800	21504	0	0	NA	NA
Tetrachloroethylene	**620000**	**4200000**	2800	18984	0.997	0.987	98	290
Chlorobenzene	N.D.	N.D.	2800	12880	0.832	0.089	160	3100
Ethylbenzene	*4900*	**21000**	14000	60760	0.99	0.291	520	62000
p/m-Xylene	*3300*	**14000**	5600	24304	0.997	0.273	1400	6200
Styrene*	N.D.	N.D.	2800	11928	0	0	95	1400
o-Xylene*	**4500**	**19000**	2800	12152	0.998	0.299	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	14000	96180	0.84	0.081	2.8	14
1,3,5-Trimethylbenzene*	*1100*	5600	14000	68880	0.949	0.115	NA	NA
1,2,4-Trimethylbenzene*	*820*	4000	14000	68880	0.964	0.108	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	14000	84140	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	2800	16828	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	2800	16828	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	28000	207760	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	28000	298760	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **14000** The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/8/21	Time:	11:45 AM	Field ID:	SV-05	Collector:	E. Johnson		SV-05
Date Analyzed:	12/8/21	Time:	5:00 PM	Lab ID:	11	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3.5	9.0	0.952	0.01	19	91
Chloroethane	N.D.	N.D.	10.5	28	0	0	NA	NA
Trichloromonofluoromethane	**1100**	**7400**	0.7	5	0.991	0.103	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	3.5	13.9	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.7	2.4	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**1900**	**14000**	0.7	5.4	0.737	0.078	NA	NA
1,1-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.7	2.8	0	0	56	370
Chloroform	N.D.	N.D.	0.7	3.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	6.3	31
1,1,1-Trichloroethane	**4.7**	**26**	0.7	3.8	0	0	210	310,000
Benzene	N.D.	N.D.	0.7	2.2	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.7	4.4	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.7	3.2	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.7	3.8	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	10	50
Toluene	**0.73**	**2.8**	0.7	2.6	0.975	0.174	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.7	5.4	0	0	NA	NA
Tetrachloroethylene	**2.2**	**15**	0.7	4.7	0.978	0.81	98	290
Chlorobenzene	N.D.	N.D.	0.7	3.2	0	0	160	3100
Ethylbenzene	*0.29*	*1.3*	3.5	15.2	0.965	0.133	520	62000
p/m-Xylene	N.D.	N.D.	1.4	6.1	0.998	0.152	1400	6200
Styrene*	**1.3**	**5.5**	0.7	3	0	0	95	1400
o-Xylene*	*0.31*	*1.4*	0.7	3.0	0.956	0.149	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	3.5	24.0	0	0	2.8	14
1,3,5-Trimethylbenzene*	*0.26*	*1.3*	3.5	17.2	0.812	0.035	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.819	0.035	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	3.5	21	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.7	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.7	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	7	52	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	7	75	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/8/21	Time:	11:25 AM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	12/8/21	Time:	5:39 PM	Lab ID:	012	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3.5	9.0	0.952	0.01	19	91
Chloroethane	N.D.	N.D.	10.5	28	0	0	NA	NA
Trichloromonofluoromethane	**1.7**	**12**	0.7	5	0.991	0.103	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	3.5	13.9	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.7	2.4	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.7	5.4	0.737	0.078	NA	NA
1,1-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.7	2.8	0	0	56	370
Chloroform	N.D.	N.D.	0.7	3.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	210	310,000
Benzene	N.D.	N.D.	0.7	2.2	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.7	4.4	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.7	3.2	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.7	3.8	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	10	50
Toluene	**0.87**	**3.3**	0.7	2.6	0.975	0.174	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.7	5.4	0	0	NA	NA
Tetrachloroethylene	**3.3**	**22**	0.7	4.7	0.978	0.81	98	290
Chlorobenzene	N.D.	N.D.	0.7	3.2	0	0	160	3100
Ethylbenzene	*0.2*	*0.87*	3.5	15.2	0.965	0.133	520	62000
p/m-Xylene	*0.31*	*1.4*	1.4	6.1	0.998	0.152	1400	6200
Styrene*	N.D.	N.D.	0.7	3	0	0	95	1400
o-Xylene*	*0.27*	*1.2*	0.7	3.0	0.956	0.149	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	3.5	24.0	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.812	0.035	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.819	0.035	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	3.5	21	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.7	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.7	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	7	52	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	7	75	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/8/21	Time:	11:15 AM	Field ID:	SV-10	Collector:	E. Johnson		SV-10
Date Analyzed:	12/8/21	Time:	2:58 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0	0	19	91
Chloroethane	N.D.	N.D.	3	8	0.923	0.04	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**0.28**	**1.5**	0.2	1.1	0.999	0.106	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.33**	**1.3**	0.2	0.8	0.955	0.235	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**4.4**	**30**	0.2	1.4	0.992	0.946	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	1	4.3	0.965	0.227	520	62000
p/m-Xylene	*0.19*	0.82	0.4	1.7	0.998	0.269	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.949	0.15	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.724	0.046	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.984	0.121	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.992	0.295	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/8/21	Time:	11:10 AM	Field ID:	SV-11	Collector:	E. Johnson		SV-11
Date Analyzed:	12/8/21	Time:	2:29 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0	0	19	91
Chloroethane	N.D.	N.D.	3	8	0	0	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.93	0.081	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.968	0.111	NA	NA
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.903	0.046	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**0.66**	**3.6**	0.2	1.1	0.947	0.277	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.27**	**1**	0.2	0.8	0.996	0.19	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**6.5**	**44**	0.2	1.4	0.992	0.945	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.21*	0.92	1	4.3	0.98	0.232	520	62000
p/m-Xylene	*0.23*	1	0.4	1.7	0.996	0.25	1400	6200
Styrene*	**0.44**	**1.9**	0.2	1	0.983	0.4	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.988	0.188	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.997	0.155	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.286	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.406	0.117	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	11:40 AM	Field ID:	155-01	Collector:	E. Johnson		SG-01
Date Analyzed:	12/14/21	Time:	5:34 PM	Lab ID:	013	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	34	87.7	0	0	19	91
Chloroethane	N.D.	N.D.	102	269	0.923	0.042	NA	NA
Trichloromonofluoromethane	**19**	**130**	6.8	48	0.989	0.114	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	34	135.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	6.8	23.6	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**78**	**600**	6.8	52.1	0.989	0.311	NA	NA
1,1-Dichloroethane	N.D.	N.D.	34	137.7	0.737	0.042	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	6.8	27.0	0	0	56	370
Chloroform	N.D.	N.D.	6.8	33.2	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	34	137.7	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	6.8	37.1	0	0	210	310,000
Benzene	N.D.	N.D.	6.8	21.8	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	6.8	42.8	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	6.8	31.4	0	0	8.6	42
Trichloroethylene	**8.3**	**45**	6.8	36.5	0.871	0.158	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	6.8	30.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	6.8	30.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	6.8	37.1	0	0	10	50
Toluene	N.D.	N.D.	6.8	25.6	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	6.8	52.2	0	0	NA	NA
Tetrachloroethylene	**19**	**130**	6.8	46.1	0.974	0.666	98	290
Chlorobenzene	N.D.	N.D.	6.8	31.3	0	0	160	3100
Ethylbenzene	N.D.	N.D.	34	147.6	0	0	520	62000
p/m-Xylene	N.D.	N.D.	13.6	59.0	0	0	1400	6200
Styrene*	N.D.	N.D.	6.8	29	0	0	95	1400
o-Xylene*	N.D.	N.D.	6.8	29.5	0	0	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	34	233.6	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	34	167.3	0.7	0.068	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	34	167.3	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	34	204	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	6.8	41	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	6.8	41	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	68	505	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	68	726	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 34 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS: Sample bag leaked during transport.

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	11:35 AM	Field ID:	155-SG2	Collector:	E. Johnson		SG-2
Date Analyzed:	12/14/21	Time:	1:40 PM	Lab ID:	06	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0	0	19	91
Chloroethane	N.D.	N.D.	3	8	0.581	0.041	NA	NA
Trichloromonofluoromethane	**86**	**600**	0.2	1	0.998	0.44	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.64	0.038	770	37000
1,1,2-Trichlorotrifluoroethane	**150**	**1200**	0.2	1.5	1	0.715	NA	NA
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**0.3**	**0.94**	0.2	0.6	0.964	0.165	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**0.48**	**2.6**	0.2	1.1	0.976	0.267	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.3**	**5**	0.2	0.8	0.999	0.478	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**8.8**	**59**	0.2	1.4	0.994	0.962	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.26*	1.1	1	4.3	0.976	0.24	520	62000
p/m-Xylene	**0.53**	**2.3**	0.4	1.7	0.999	0.418	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.914	0.106	95	1400
o-Xylene*	**0.48**	**2.1**	0.2	0.9	0.986	0.334	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.933	0.045	2.8	14
1,3,5-Trimethylbenzene*	*0.34*	1.7	1	4.9	0.993	0.196	NA	NA
1,2,4-Trimethylbenzene*	*0.54*	2.6	1	4.9	1	0.199	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	12/14/21	Time:	11:20 AM	Field ID:	157-SG1	Collector:	E. Johnson		SG-1
Date Analyzed:	12/14/21	Time:	2:14 PM	Lab ID:	07	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3.5	9.0	0.919	0.021	19	91
Chloroethane	N.D.	N.D.	10.5	28	0	0	NA	NA
Trichloromonofluoromethane	**3.4**	**24**	0.7	5	0.995	0.177	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	3.5	13.9	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.7	2.4	0.674	0.044	770	37000
1,1,2-Trichlorotrifluoroethane	**93**	**710**	0.7	5.4	0.999	0.671	NA	NA
1,1-Dichloroethane	N.D.	N.D.	3.5	14.2	0.908	0.018	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.7	2.8	0	0	56	370
Chloroform	N.D.	N.D.	0.7	3.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	6.3	31
1,1,1-Trichloroethane	**1.9**	**10**	0.7	3.8	0.984	0.196	210	310,000
Benzene	N.D.	N.D.	0.7	2.2	0.813	0.077	160	800
Carbon Tetrachloride	N.D.	N.D.	0.7	4.4	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.7	3.2	0	0	8.6	42
Trichloroethylene	**0.9**	**4.8**	0.7	3.8	0.949	0.252	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	10	50
Toluene	N.D.	N.D.	0.7	2.6	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.7	5.4	0	0	NA	NA
Tetrachloroethylene	**30**	**200**	0.7	4.7	0.995	0.965	98	290
Chlorobenzene	N.D.	N.D.	0.7	3.2	0	0	160	3100
Ethylbenzene	*0.37*	1.6	3.5	15.2	0.985	0.182	520	62000
p/m-Xylene	*0.41*	1.8	1.4	6.1	0.988	0.182	1400	6200
Styrene*	**1.2**	**5**	0.7	3	0.974	0.305	95	1400
o-Xylene*	*0.42*	**1.8**	0.7	3.0	0.97	0.168	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	3.5	24.0	0.601	0.02	2.8	14
1,3,5-Trimethylbenzene*	*0.46*	2.3	3.5	17.2	0.9	0.113	NA	NA
1,2,4-Trimethylbenzene*	*0.52*	2.6	3.5	17.2	0.979	0.161	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	3.5	21	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.7	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.7	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	7	52	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	7	75	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	12/14/21	Time:	11:15 AM	Field ID:	157-SG2	Collector:	E. Johnson		SG-2
Date Analyzed:	12/14/21	Time:	2:44 PM	Lab ID:	08	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3.5	9.0	0	0	19	91
Chloroethane	**19**	**51**	10.5	28	0.997	0.125	NA	NA
Trichloromonofluoromethane	**3.6**	**25**	0.7	5	0.996	0.186	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	3.5	13.9	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.7	2.4	0.574	0.036	770	37000
1,1,2-Trichlorotrifluoroethane	**28**	**210**	0.7	5.4	0.994	0.588	NA	NA
1,1-Dichloroethane	N.D.	N.D.	3.5	14.2	0.777	0.041	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.7	2.8	0	0	56	370
Chloroform	N.D.	N.D.	0.7	3.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.7	3.8	0.995	0.074	210	310,000
Benzene	N.D.	N.D.	0.7	2.2	0.888	0.098	160	800
Carbon Tetrachloride	N.D.	N.D.	0.7	4.4	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.7	3.2	0.826	0.061	8.6	42
Trichloroethylene	**2.1**	**11**	0.7	3.8	0.981	0.351	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	10	50
Toluene	**0.91**	**3.4**	0.7	2.6	0.977	0.209	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.7	5.4	0	0	NA	NA
Tetrachloroethylene	**16**	**110**	0.7	4.7	0.992	0.938	98	290
Chlorobenzene	N.D.	N.D.	0.7	3.2	0	0	160	3100
Ethylbenzene	*0.2*	0.86	3.5	15.2	0.951	0.125	520	62000
p/m-Xylene	*0.51*	2.2	1.4	6.1	0.943	0.176	1400	6200
Styrene*	**1**	**4.3**	0.7	3	0.932	0.299	95	1400
o-Xylene*	*0.58*	**2.5**	0.7	3.0	0.955	0.165	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	3.5	24.0	0	0	2.8	14
1,3,5-Trimethylbenzene*	*0.34*	1.7	3.5	17.2	0.922	0.151	NA	NA
1,2,4-Trimethylbenzene*	*0.43*	2.1	3.5	17.2	0.972	0.149	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	3.5	21	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.7	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.7	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	7	52	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	7	75	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	12:10 PM	Field ID:	SV-01	Collector:	E. Johnson		SV-01
Date Analyzed:	12/14/21	Time:	4:22 PM	Lab ID:	11	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0	0	19	91
Chloroethane	N.D.	N.D.	3	8	0	0	NA	NA
Trichloromonofluoromethane	**8.2**	**57**	0.2	1	0.998	0.402	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.589	0.03	770	37000
1,1,2-Trichlorotrifluoroethane	**15**	**110**	0.2	1.5	0.998	0.63	NA	NA
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	**0.26**	**1.3**	0.2	1.0	0.983	0.224	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.74	0.07	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.415	0.045	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**0.58**	**3.1**	0.2	1.1	0.962	0.327	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.25**	**0.94**	0.2	0.8	0.991	0.222	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**5.7**	**38**	0.2	1.4	0.993	0.952	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	1	4.3	0.991	0.186	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.998	0.237	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**0.2**	**0.85**	0.2	0.9	0.998	0.224	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.76	0.022	2.8	14
1,3,5-Trimethylbenzene*	*0.24*	1.2	1	4.9	0.991	0.21	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.991	0.151	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	12:25 PM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	12/14/21	Time:	4:53 PM	Lab ID:	012	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	5.2	13.4	0	0	19	91
Chloroethane	N.D.	N.D.	15.6	41	0	0	NA	NA
Trichloromonofluoromethane	**4.2**	**29**	1.04	7	0.996	0.173	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	5.2	20.6	0	0	56	12000
Methylene Chloride	N.D.	N.D.	1.04	3.6	0.582	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	**520**	**4000**	1.04	8.0	0.999	0.717	NA	NA
1,1-Dichloroethane	N.D.	N.D.	5.2	21.1	0.935	0.026	56	50,000
Cis 1,2-Dichloroethylene	**7**	**28**	1.04	4.1	0.983	0.378	56	370
Chloroform	N.D.	N.D.	1.04	5.1	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	5.2	21.1	0	0	6.3	31
1,1,1-Trichloroethane	**20**	**110**	1.04	5.7	0.998	0.53	210	310,000
Benzene	N.D.	N.D.	1.04	3.3	0	0	160	800
Carbon Tetrachloride	**1.6**	**10**	1.04	6.5	0.909	0.106	38	130
1,2-Dichloropropane	N.D.	N.D.	1.04	4.8	0	0	8.6	42
Trichloroethylene	**21**	**110**	1.04	5.6	0.998	0.732	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	1.04	4.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	1.04	4.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	1.04	5.7	0	0	10	50
Toluene	*0.8*	3	1.04	3.9	0.983	0.148	3800	310000
1,2-Dibromoethane	N.D.	N.D.	1.04	8.0	0	0	NA	NA
Tetrachloroethylene	**22**	**150**	1.04	7.1	0.996	0.948	98	290
Chlorobenzene	N.D.	N.D.	1.04	4.8	0	0	160	3100
Ethylbenzene	N.D.	N.D.	5.2	22.6	0.974	0.1	520	62000
p/m-Xylene	*0.28*	1.2	2.08	9.0	0.99	0.107	1400	6200
Styrene*	N.D.	N.D.	1.04	4	0	0	95	1400
o-Xylene*	*0.28*	**1.2**	1.04	4.5	0.984	0.107	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	5.2	35.7	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	5.2	25.6	0.879	0.072	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	5.2	25.6	0.881	0.072	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	5.2	31	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	1.04	6	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	1.04	6	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	10.4	77	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	10.4	111	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	12:35 PM	Field ID:	SV-03R	Collector:	E. Johnson		SV-03R
Date Analyzed:	12/14/21	Time:	6:42 PM	Lab ID:	015	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	14000	36120.0	0	0	19	91
Chloroethane	**59000**	**160000**	42000	110880	0.987	0.106	NA	NA
Trichloromonofluoromethane	**49000**	**340000**	2800	19572	0.981	0.354	NA	NA
1,1-Dichloroethylene	**140000**	**540000**	14000	55580.0	1	0.597	56	12000
Methylene Chloride	N.D.	N.D.	2800	9716.0	0.761	0.051	770	37000
1,1,2-Trichlorotrifluoroethane	**87000**	**660000**	2800	21448.0	0.993	0.581	NA	NA
1,1-Dichloroethane	N.D.	N.D.	14000	56700.0	0.898	0.074	56	50,000
Cis 1,2-Dichloroethylene	**80000**	**320000**	2800	11116.0	0.999	0.647	56	370
Chloroform	N.D.	N.D.	2800	13664.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	14000	56700.0	0	0	6.3	31
1,1,1-Trichloroethane	**10000**	**55000**	2800	15288.0	0.922	0.135	210	310,000
Benzene	N.D.	N.D.	2800	8960.0	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	2800	17612.0	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	2800	12936.0	0	0	8.6	42
Trichloroethylene	**120000**	**620000**	2800	15036.0	0.999	0.77	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	2800	12712.0	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	2800	12712.0	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	2800	15288.0	0	0	10	50
Toluene	N.D.	N.D.	2800	10556.0	0.992	0.088	3800	310000
1,2-Dibromoethane	N.D.	N.D.	2800	21504.0	0	0	NA	NA
Tetrachloroethylene	**690000**	**4700000**	2800	18984.0	0.997	0.984	98	290
Chlorobenzene	N.D.	N.D.	2800	12880.0	0.868	0.087	160	3100
Ethylbenzene	*4200*	**18000**	14000	60760.0	0.961	0.167	520	62000
p/m-Xylene	*4700*	**20000**	5600	24304.0	0.966	0.181	1400	6200
Styrene*	N.D.	N.D.	2800	11928	0	0	95	1400
o-Xylene*	**5700**	**25000**	2800	12152.0	0.999	0.31	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	14000	96180.0	0.625	0.048	2.8	14
1,3,5-Trimethylbenzene*	*3200*	16000	14000	68880.0	0.986	0.126	NA	NA
1,2,4-Trimethylbenzene*	*1200*	5800	14000	68880.0	0.965	0.167	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	14000	84140	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	2800	16828	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	2800	16828	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	28000	207760	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	28000	298760	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **14000** The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	12:15 PM	Field ID:	SV-05	Collector:	E. Johnson		SV-05
Date Analyzed:	12/14/21	Time:	6:04 PM	Lab ID:	014	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	2.3	5.9	0	0	19	91
Chloroethane	N.D.	N.D.	6.9	18	0.867	0.048	NA	NA
Trichloromonofluoromethane	**1.4**	**9.9**	0.46	3	0.964	0.11	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	2.3	9.1	0.95	0.001	56	12000
Methylene Chloride	N.D.	N.D.	0.46	1.6	0.61	0.036	770	37000
1,1,2-Trichlorotrifluoroethane	**3400**	**26000**	0.46	3.5	1	0.72	NA	NA
1,1-Dichloroethane	N.D.	N.D.	2.3	9.3	0.927	0.015	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.46	1.8	0	0	56	370
Chloroform	N.D.	N.D.	0.46	2.2	0.646	0.046	130	210
1,2-Dichloroethane	N.D.	N.D.	2.3	9.3	0	0	6.3	31
1,1,1-Trichloroethane	**7.6**	**41**	0.46	2.5	0.997	0.428	210	310,000
Benzene	N.D.	N.D.	0.46	1.5	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.46	2.9	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.46	2.1	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.46	2.5	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.46	2.1	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.46	2.1	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.46	2.5	0	0	10	50
Toluene	N.D.	N.D.	0.46	1.7	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.46	3.5	0	0	NA	NA
Tetrachloroethylene	**5.9**	**40**	0.46	3.1	0.986	0.904	98	290
Chlorobenzene	N.D.	N.D.	0.46	2.1	0	0	160	3100
Ethylbenzene	*0.28*	1.2	2.3	10.0	0.993	0.193	520	62000
p/m-Xylene	*0.31*	1.4	0.92	4.0	0.993	0.186	1400	6200
Styrene*	**1.3**	**5.3**	0.46	2	0.975	0.375	95	1400
o-Xylene*	*0.3*	**1.3**	0.46	2.0	0.996	0.187	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	2.3	15.8	0	0	2.8	14
1,3,5-Trimethylbenzene*	*0.26*	1.3	2.3	11.3	0.998	0.122	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	2.3	11.3	0.994	0.138	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	2.3	14	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.46	3	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.46	3	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	4.6	34	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	4.6	49	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **2.3** The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/14/21	Time:	10:55 AM	Field ID:	SV-09	Collector:	E. Johnson		SV-09
Date Analyzed:	12/14/21	Time:	3:21 PM	Lab ID:	09	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	2.3	5.9	0	0	19	91
Chloroethane	N.D.	N.D.	6.9	18	0.936	0.072	NA	NA
Trichloromonofluoromethane	**0.89**	**6.2**	0.46	3	0.969	0.108	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	2.3	9.1	0.511	0.024	56	12000
Methylene Chloride	N.D.	N.D.	0.46	1.6	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.46	3.5	0.674	0.062	NA	NA
1,1-Dichloroethane	N.D.	N.D.	2.3	9.3	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.46	1.8	0.86	0.063	56	370
Chloroform	N.D.	N.D.	0.46	2.2	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	2.3	9.3	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.46	2.5	0	0	210	310,000
Benzene	N.D.	N.D.	0.46	1.5	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.46	2.9	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.46	2.1	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.46	2.5	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.46	2.1	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.46	2.1	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.46	2.5	0	0	10	50
Toluene	**0.54**	**2**	0.46	1.7	0.991	0.193	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.46	3.5	0	0	NA	NA
Tetrachloroethylene	**7.6**	**51**	0.46	3.1	0.992	0.93	98	290
Chlorobenzene	N.D.	N.D.	0.46	2.1	0	0	160	3100
Ethylbenzene	*0.2*	0.86	2.3	10.0	0.953	0.107	520	62000
p/m-Xylene	*0.29*	1.3	0.92	4.0	0.985	0.173	1400	6200
Styrene*	N.D.	N.D.	0.46	2	0.935	0.098	95	1400
o-Xylene*	*0.28*	**1.2**	0.46	2.0	0.984	0.173	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	2.3	15.8	0.774	0.055	2.8	14
1,3,5-Trimethylbenzene*	*0.36*	1.8	2.3	11.3	0.965	0.109	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	2.3	11.3	0.99	0.169	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	2.3	14	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.46	3	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.46	3	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	4.6	34	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	4.6	49	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 2.3 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/14/21	Time:	10:50 AM	Field ID:	SV-11	Collector:	E. Johnson		SV-11
Date Analyzed:	12/14/21	Time:	3:52 PM	Lab ID:	10	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0.55	0.025	19	91
Chloroethane	N.D.	N.D.	3	8	0	0	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.821	0.075	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.754	0.05	NA	NA
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0.887	0.055	56	50,000
Cis 1,2-Dichloroethylene	**0.37**	**1.5**	0.2	0.8	0.941	0.122	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.649	0.054	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	**0.61**	**3.3**	0.2	1.1	0.951	0.288	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.24**	**0.92**	0.2	0.8	0.993	0.173	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**8.1**	**55**	0.2	1.4	0.994	0.964	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	1	4.3	0.962	0.17	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.951	0.204	1400	6200
Styrene*	**0.69**	**3**	0.2	1	0.984	0.421	95	1400
o-Xylene*	**0.26**	**1.1**	0.2	0.9	0.935	0.258	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.619	0.053	2.8	14
1,3,5-Trimethylbenzene*	*0.38*	1.8	1	4.9	0.994	0.129	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.997	0.173	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.699	0.049	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA			RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street				Location:
Date Sampled:	12/21/21	Time:	10:40 AM	Field ID:	SV-01	Collector:	E. Johnson	SV-01
Date Analyzed:	12/21/21	Time:	1:05 PM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0	0	19	91
Chloroethane	**7.4**	**20**	3	8	0.842	0.281	NA	NA
Trichloromonofluoromethane	**1.5**	**11**	0.6	4	1	0.27	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.6	2.4	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.922	0.126	770	37000
1,1,2-Trichlorotrifluoroethane	**2.7**	**21**	0.6	4.6	0.998	0.579	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.6	2.4	0.578	0.041	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.909	0.382	56	370
Chloroform	N.D.	N.D.	0.6	2.9	1	0.594	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.966	0.005	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.6	3.3	0.691	0.022	210	310,000
Benzene	N.D.	N.D.	0.6	1.9	0.982	0.66	160	800
Carbon Tetrachloride	N.D.	N.D.	0.6	3.8	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0	0	8.6	42
Trichloroethylene	*0.22*	*1.2*	0.6	3.2	0.99	0.802	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0	0	10	50
Toluene	*0.2*	*0.76*	0.6	2.3	1	0.7	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**6.3**	**43**	0.6	4.1	0.998	0.987	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.994	0.578	160	3100
Ethylbenzene	N.D.	N.D.	0.6	2.6	0.996	0.562	520	62000
p/m-Xylene	N.D.	N.D.	1.2	5.2	0.997	0.699	1400	6200
Styrene*	N.D.	N.D.	3	13	0.908	0.186	95	1400
o-Xylene*	N.D.	N.D.	0.6	3	0.996	0.527	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0.952	0.017	2.8	14
1,3,5-Trimethylbenzene*	0.21	1	3	15	0.998	0.23	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	1	0.171	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.86	0.156	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0.856	0.155	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.863	0.156	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0.855	0.104	28	240
HexachloroButadiene*	N.D.	N.D.	3	32	0.388	0.168	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments: Evidence of petroleum in sample: C10 - C12 and UCM

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/21/21	Time:	10:55 AM	Field ID:	SV-02	Collector:	E. Johnson		SV-02
Date Analyzed:	12/21/21	Time:	2:13 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.9	2.3	0.51	0.047	19	91
Chloroethane	**7.4**	**20**	4.5	12	0.899	0.232	NA	NA
Trichloromonofluoromethane	**3.1**	**22**	0.9	6	0.999	0.209	NA	NA
1,1-Dichloroethylene	*0.28*	*1.1*	0.9	3.6	0.987	0.714	56	12000
Methylene Chloride	N.D.	N.D.	0.9	3.1	0.638	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	**270**	**2100**	0.9	6.9	1	0.737	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.9	3.6	0.978	0.11	56	50,000
Cis 1,2-Dichloroethylene	**3**	**12**	0.9	3.6	0.999	0.827	56	370
Chloroform	N.D.	N.D.	0.9	4.4	0.819	0.155	130	210
1,2-Dichloroethane	N.D.	N.D.	4.5	18.2	0.965	0.03	6.3	31
1,1,1-Trichloroethane	**6.1**	**33**	0.9	4.9	0.995	0.706	210	310,000
Benzene	N.D.	N.D.	0.9	2.9	0.999	0.558	160	800
Carbon Tetrachloride	*0.86*	*5.4*	0.9	5.7	0.991	0.109	38	130
1,2-Dichloropropane	N.D.	N.D.	0.9	4.2	0	0	8.6	42
Trichloroethylene	**8.8**	**47**	0.9	4.8	0.999	0.84	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.9	4.1	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.9	4.9	0	0	10	50
Toluene	*0.35*	*1.3*	0.9	3.4	1	0.698	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.9	6.9	0	0	NA	NA
Tetrachloroethylene	**16**	**110**	0.9	6.1	0.999	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.9	4.1	0.926	0.169	160	3100
Ethylbenzene	N.D.	N.D.	0.9	3.9	0.997	0.565	520	62000
p/m-Xylene	N.D.	N.D.	1.8	7.8	0.986	0.693	1400	6200
Styrene*	N.D.	N.D.	4.5	19	0.974	0.169	95	1400
o-Xylene*	N.D.	N.D.	0.9	4	0.997	0.517	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.9	6	0.905	0.045	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	4.5	22	0.987	0.253	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	4.5	22	0.995	0.177	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.9	5	0.909	0.119	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.9	5	0.856	0.155	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.9	5	0.863	0.156	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	9	67	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	4.5	48	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 4.5 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/21/21	Time:	11:05 AM	Field ID:	SV-03	Collector:	E. Johnson		SV-03R
Date Analyzed:	12/21/21	Time:	2:54 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	2717	7010	0	0	19	91
Chloroethane	**74000**	**200000**	13585	35864	0.906	0.168	NA	NA
Trichloromonofluoromethane	**4200**	**29000**	2717	18992	0.995	0.21	NA	NA
1,1-Dichloroethylene	**50000**	**200000**	2717	10786	1	0.802	56	12000
Methylene Chloride	N.D.	N.D.	2717	9428	0.689	0.034	770	37000
1,1,2-Trichlorotrifluoroethane	**53000**	**410000**	2717	20812	1	0.732	NA	NA
1,1-Dichloroethane	*2000*	*8000*	2717	11004	0.984	0.237	56	50,000
Cis 1,2-Dichloroethylene	**44000**	**180000**	2717	10786	1	0.851	56	370
Chloroform	N.D.	N.D.	2717	13259	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	13585	55019	0.948	0.005	6.3	31
1,1,1-Trichloroethane	**4800**	**26000**	2717	14835	0.98	0.749	210	310,000
Benzene	*1200*	*4000*	2717	8694	0.999	0.657	160	800
Carbon Tetrachloride	N.D.	N.D.	2717	17090	0.924	0.085	38	130
1,2-Dichloropropane	N.D.	N.D.	2717	12552	0	0	8.6	42
Trichloroethylene	**72000**	**390000**	2717	14590	0.999	0.829	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	2717	12335	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	2717	12335	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	2717	14835	0	0	10	50
Toluene	*2700*	*10000*	2717	10243	1	0.726	3800	310000
1,2-Dibromoethane	N.D.	N.D.	2717	20866	0	0	NA	NA
Tetrachloroethylene	**490000**	**3300000**	2717	18421	0.998	0.987	98	290
Chlorobenzene	N.D.	N.D.	2717	12498	0.854	0.006	160	3100
Ethylbenzene	*1600*	*7100*	2717	11792	0.998	0.227	520	62000
p/m-Xylene	*1700*	*7500*	5434	23583	0.998	0.575	1400	6200
Styrene*	310	1300	13585	57872	0.994	0.158	95	1400
o-Xylene*	**5200**	**22000**	2717	11792	0.998	0.598	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	*610*	*4200*	2717	18666	0.93	0.106	2.8	14
1,3,5-Trimethylbenzene*	1500	7400	13585	66838	1	0.14	NA	NA
1,2,4-Trimethylbenzene*	1100	5400	13585	66838	0.985	0.218	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	2717	16329	0.871	0.155	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	2717	16329	0.856	0.155	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	2717	16329	0.863	0.156	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	27170	201600	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	13585	144951	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **14000** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/21/21	Time:	10:45 AM	Field ID:	SV-05	Collector:	E. Johnson		SV-05
Date Analyzed:	12/21/21	Time:	1:37 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	0.6	1.5	0.527	0.072	19	91
Chloroethane	**6.1**	**16**	3	8	0.938	0.23	NA	NA
Trichloromonofluoromethane	**2.1**	**15**	0.6	4	1	0.214	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.69	0	56	12000
Methylene Chloride	N.D.	N.D.	0.6	2.1	0.632	0.033	770	37000
1,1,2-Trichlorotrifluoroethane	**780**	**6000**	0.6	4.6	1	0.738	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.6	2.4	0.864	0.001	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.6	2.4	0.981	0.294	56	370
Chloroform	N.D.	N.D.	0.6	2.9	0.878	0.224	130	210
1,2-Dichloroethane	N.D.	N.D.	3	12.2	0.869	0.005	6.3	31
1,1,1-Trichloroethane	**2.3**	**12**	0.6	3.3	0.995	0.713	210	310,000
Benzene	N.D.	N.D.	0.6	1.9	0.922	0.204	160	800
Carbon Tetrachloride	N.D.	N.D.	0.6	3.8	0.948	0.092	38	130
1,2-Dichloropropane	N.D.	N.D.	0.6	2.8	0	0	8.6	42
Trichloroethylene	0.11	0.6	0.6	3.2	0.985	0.658	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.6	2.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.6	3.3	0	0	10	50
Toluene	*0.26*	*0.96*	0.6	2.3	0.999	0.73	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.6	4.6	0	0	NA	NA
Tetrachloroethylene	**2.4**	**16**	0.6	4.1	0.996	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.6	2.8	0.854	0.242	160	3100
Ethylbenzene	N.D.	N.D.	0.6	2.6	0.994	0.467	520	62000
p/m-Xylene	N.D.	N.D.	1.2	5.2	0.995	0.696	1400	6200
Styrene*	N.D.	N.D.	3	13	0.996	0.634	95	1400
o-Xylene*	N.D.	N.D.	0.6	3	0.999	0.474	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.6	4	0.583	0.026	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3	15	1	0.259	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3	15	0.999	0.217	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.6	4	0.879	0.073	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.6	4	0.856	0.155	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.6	4	0.863	0.156	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	6	45	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	3	32	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 The above listed Reporting Limits have been adusted to reflect this dilution factor.

Comments:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	1/27/22	Time:	11:35 AM	Field ID:	155-01	Collector:	B. Roden		SG-01
Date Analyzed:	1/27/22	Time:	3:09 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3.5	9.0	0	0	19	91
Chloroethane	**21**	**56**	10.5	28	0.937	0.131	NA	NA
Trichloromonofluoromethane	**1.8**	**13**	0.7	5	0.957	0.131	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	3.5	13.9	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.7	2.4	0.614	0.036	770	37000
1,1,2-Trichlorotrifluoroethane	**280**	**2200**	0.7	5.4	0.999	0.715	NA	NA
1,1-Dichloroethane	N.D.	N.D.	3.5	14.2	0.91	0.07	56	50,000
Cis 1,2-Dichloroethylene	**3.9**	**15**	0.7	2.8	0.982	0.578	56	370
Chloroform	N.D.	N.D.	0.7	3.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	6.3	31
1,1,1-Trichloroethane	*0.68*	3.7	0.7	3.8	0.991	0.218	210	310,000
Benzene	N.D.	N.D.	0.7	2.2	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.7	4.4	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.7	3.2	0	0	8.6	42
Trichloroethylene	**4.8**	**26**	0.7	3.8	0.994	0.737	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	10	50
Toluene	**0.87**	**3.3**	0.7	2.6	1	0.527	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.7	5.4	0	0	NA	NA
Tetrachloroethylene	**6.5**	**44**	0.7	4.7	0.993	0.957	98	290
Chlorobenzene	N.D.	N.D.	0.7	3.2	0	0	160	3100
Ethylbenzene	*0.21*	0.93	3.5	15.2	0.939	0.315	520	62000
p/m-Xylene	*0.24*	1	1.4	6.1	0.996	0.41	1400	6200
Styrene*	*0.42*	1.8	0.7	3	0.973	0.457	95	1400
o-Xylene*	*0.23*	*0.99*	0.7	3.0	0.995	0.41	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	3.5	24.0	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.947	0.181	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.968	0.19	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	3.5	21	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.7	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.7	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	7	52	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	7	75	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	1/27/22	Time:	11:40 AM	Field ID:	155-02	Collector:	B. Roden		SG-02
Date Analyzed:	1/27/22	Time:	3:39 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0.999	0.009	19	91
Chloroethane	N.D.	N.D.	3	8	0.807	0.005	NA	NA
Trichloromonofluoromethane	**200**	**1400**	0.2	1	0.996	0.434	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.96	0.001	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.618	0.038	770	37000
1,1,2-Trichlorotrifluoroethane	**360**	**2800**	0.2	1.5	0.999	0.715	NA	NA
1,1-Dichloroethane	N.D.	N.D.	1	4.1	0.862	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.65	0.047	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.969	0.177	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.971	0.216	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.943	0.249	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.73**	**2.8**	0.2	0.8	1	0.626	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**1.5**	**10**	0.2	1.4	0.993	0.943	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	1	4.3	0.993	0.279	520	62000
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.991	0.452	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.918	0.317	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.993	0.138	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.997	0.23	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	1/27/22	Time:	10:55 AM	Field ID:	157-01	Collector:	B. Roden		SG-01
Date Analyzed:	1/27/22	Time:	4:09 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3.5	9.0	0	0	19	91
Chloroethane	N.D.	N.D.	10.5	28	0.903	0.099	NA	NA
Trichloromonofluoromethane	**2.5**	**18**	0.7	5	0.995	0.164	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	3.5	13.9	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.7	2.4	0.6	0.04	770	37000
1,1,2-Trichlorotrifluoroethane	**130**	**990**	0.7	5.4	0.999	0.709	NA	NA
1,1-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.7	2.8	0	0	56	370
Chloroform	N.D.	N.D.	0.7	3.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	6.3	31
1,1,1-Trichloroethane	**0.98**	**5.3**	0.7	3.8	0.977	0.288	210	310,000
Benzene	N.D.	N.D.	0.7	2.2	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.7	4.4	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.7	3.2	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.7	3.8	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	10	50
Toluene	**0.77**	**2.9**	0.7	2.6	0.981	0.414	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.7	5.4	0	0	NA	NA
Tetrachloroethylene	**10**	**68**	0.7	4.7	0.996	0.974	98	290
Chlorobenzene	N.D.	N.D.	0.7	3.2	0	0	160	3100
Ethylbenzene	N.D.	N.D.	3.5	15.2	0.982	0.271	520	62000
p/m-Xylene	N.D.	N.D.	1.4	6.1	0.99	0.253	1400	6200
Styrene*	*0.43*	1.8	0.7	3	0.974	0.423	95	1400
o-Xylene*	N.D.	N.D.	0.7	3.0	0.993	0.253	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	3.5	24.0	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.835	0.045	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.847	0.045	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	3.5	21	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.7	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.7	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	7	52	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	7	75	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SOIL GAS DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	1/27/22	Time:	10:50 AM	Field ID:	157-02	Collector:	B. Roden		SG-02
Date Analyzed:	1/27/22	Time:	4:47 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3.5	9.0	0	0	19	91
Chloroethane	N.D.	N.D.	10.5	28	0.691	0.063	NA	NA
Trichloromonofluoromethane	**2**	**14**	0.7	5	0.999	0.192	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	3.5	13.9	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.7	2.4	0.604	0.037	770	37000
1,1,2-Trichlorotrifluoroethane	**430**	**3300**	0.7	5.4	0.999	0.722	NA	NA
1,1-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.7	2.8	0	0	56	370
Chloroform	N.D.	N.D.	0.7	3.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	3.5	14.2	0	0	6.3	31
1,1,1-Trichloroethane	**0.97**	**5.3**	0.7	3.8	0.999	0.28	210	310,000
Benzene	N.D.	N.D.	0.7	2.2	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.7	4.4	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.7	3.2	0	0	8.6	42
Trichloroethylene	**1.1**	**6**	0.7	3.8	0.957	0.56	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.7	3.2	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.7	3.8	0	0	10	50
Toluene	*0.63*	2.4	0.7	2.6	0.967	0.376	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.7	5.4	0	0	NA	NA
Tetrachloroethylene	**9.4**	**64**	0.7	4.7	0.995	0.971	98	290
Chlorobenzene	N.D.	N.D.	0.7	3.2	0	0	160	3100
Ethylbenzene	N.D.	N.D.	3.5	15.2	0.91	0.145	520	62000
p/m-Xylene	N.D.	N.D.	1.4	6.1	0.902	0.159	1400	6200
Styrene*	*0.57*	2.4	0.7	3	0.997	0.429	95	1400
o-Xylene*	N.D.	N.D.	0.7	3.0	0.906	0.16	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	3.5	24.0	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.976	0.134	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	3.5	17.2	0.978	0.134	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	3.5	21	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.7	4	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.7	4	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	7	52	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	7	75	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in purple are > Residential Soil Gas Screening Value; red are > Commercial/Industrial Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 The above listed Reporting Limits have been adusted to reflect this dilution factor

COMMENTS:

MassDEP Indoor Air Data Reports

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/24/21	Time:	8:00 AM	Field ID:	IA-1	Collector:	E. Johnson		Gymnasium
Date Analyzed:	8/25/21	Time:	10:45 AM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	<1	<1	0.27
Chloroethane	**4.7**	**13**	2	5	0.993	0.104	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0.927	0.044	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.933	0.053	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.821	0.073	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.784	0.031	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0.909	0.091	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.674	0.081	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.72**	**2.7**	0.2	0.8	0.999	0.407	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.86	0.047	NA	NA	NA
Tetrachloroethylene	**0.22**	**1.5**	0.2	1.4	0.892	0.484	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.761	0.003	<2.3	<2.3	2.3
Ethylbenzene	*0.12*	*0.5*	0.2	0.9	0.996	0.175	1.5	7.4	7.4
p/m-Xylene	*0.36*	*1.5*	0.4	1.7	0.994	0.361	3.8	21	20
Styrene*	**0.38**	**1.6**	0.2	0.9	0.982	0.402	0.6	1.4	1.4
o-Xylene*	*0.17*	*0.74*	0.2	0.9	0.911	0.192	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.077*	*0.38*	0.2	1.0	0.91	0.127	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.13*	*0.62*	0.2	1.0	0.997	0.209	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.589	0.322	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.503	0.25	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	8/24/21	Time:	8:05 AM	Field ID:	IA-2	Collector:	E. Johnson		Cafeteria
Date Analyzed:	8/25/21	Time:	11:15 AM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	3	7.7	0.477	0.024	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.964	0.081	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0.975	0.041	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.977	0.08	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.585	0.039	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.626	0.023	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.986	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	**0.3**	**0.95**	0.2	0.6	0.987	0.217	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.855	0.045	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.867	0.045	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.62**	**2.3**	0.2	0.8	1	0.454	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	**0.28**	**1.9**	0.2	1.4	0.961	0.678	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.083*	*0.36*	0.2	0.9	0.996	0.241	1.5	7.4	7.4
p/m-Xylene	*0.29*	*1.3*	0.4	1.7	0.997	0.489	3.8	21	20
Styrene*	*0.18*	*0.75*	0.2	0.9	0.997	0.436	0.6	1.4	1.4
o-Xylene*	*0.14*	*0.62*	0.2	0.9	0.913	0.249	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.815	0.034	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.066*	*0.32*	0.2	1.0	0.959	0.21	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.081*	*0.4*	0.2	1.0	0.983	0.242	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.862	0.048	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.385	0.147	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.454	0.159	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	09/07/21	Time:	11:00 AM	Field ID:	IA-01	Collector:	E. Johnson		Gymnasium
Date Analyzed:	09/07/21	Time:	3:07 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.376	0.059	<1	<1	0.27
Chloroethane	*0.59*	*1.5*	2	5	0.877	0.155	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.92	0.077	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.671	0.12	<2	<2	0.8
Methylene Chloride	**0.24**	**0.85**	0.2	0.7	0.991	0.659	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.911	0.077	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.864	0.013	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.247	0.054	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.741	0.018	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.996	0.007	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.664	0.018	0.5	3	3
Benzene	**0.67**	**2.1**	0.2	0.6	0.999	0.718	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.832	0.053	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.844	0.125	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.45**	**1.7**	0.2	0.8	1	0.631	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.11*	*0.73*	0.2	1.4	0.953	0.827	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.858	0.294	<2.3	<2.3	2.3
Ethylbenzene	*0.071*	*0.31*	0.2	0.9	0.986	0.608	1.5	7.4	7.4
p/m-Xylene	*0.26*	*1.1*	0.4	1.7	0.992	0.606	3.8	21	20
Styrene*	*0.49*	*2.1*	1	4.3	0.995	0.75	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.984	0.25	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.455	0.054	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.91	0.379	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.293	NA	NA	NA
1,3-Dichlorobenzene (meta)*	*0.042*	*0.25*	0.2	1.2	0.988	0.258	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.997	0.148	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.985	0.257	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.226	0.076	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)			INDOOR AIR DATA			RTN: 3-19174		
City or Town:	Framingham		Address:	169 Leland Street			Location:	
Date Sampled:	9/7/21	Time:	11:05 AM	Field ID:	IA-02	Collector:	E. Johnson	Cafeteria
Date Analyzed:	9/7/21	Time:	3:40 PM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	*0.87*	*2.3*	2	5	0.913	0.125	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.952	0.031	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.546	0.091	<2	<2	0.8
Methylene Chloride	*0.11*	*0.39*	0.2	0.7	0.964	0.262	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.63	0.021	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.452	0.034	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.671	0.013	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.973	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.668	0.017	0.5	3	3
Benzene	**0.65**	**2.1**	0.2	0.6	0.999	0.751	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.933	0.056	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.522	0.035	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.213	0.04	<2.7	<2.7	0.15
Toluene	**0.62**	**2.3**	0.2	0.8	0.999	0.612	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	**0.22**	**1.5**	0.2	1.4	0.959	0.91	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.841	0.126	<2.3	<2.3	2.3
Ethylbenzene	*0.087*	*0.38*	0.2	0.9	0.995	0.649	1.5	7.4	7.4
p/m-Xylene	*0.32*	*1.4*	0.4	1.7	0.992	0.614	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.99	0.628	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.996	0.51	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.565	0.045	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.912	0.103	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	1	0.385	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.959	0.02	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.976	0.012	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.607	0.027	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Bag blank containd 0.13 ppbV PCE

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	9/7/21	Time:	11:10 AM	Field ID:	IA-3	Collector:	E. Johnson		Office
Date Analyzed:	9/7/21	Time:	4:13 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.542	0.06	<1	<1	0.27
Chloroethane	**5.2**	**14**	2	5	0.856	0.207	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.844	0.081	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.51	0.013	<2	<2	0.8
Methylene Chloride	*0.1*	*0.35*	0.2	0.7	0.998	0.212	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.835	0.013	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.785	0.007	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.947	0.169	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.877	0.017	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.993	0.008	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.673	0.018	0.5	3	3
Benzene	*0.18*	*0.56*	0.2	0.6	0.995	0.569	2.3	11	2.3
Carbon Tetrachloride	*0.045*	*0.28*	0.2	1.3	0.92	0.254	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.314	0.069	<2.7	<2.7	0.15
Toluene	**0.51**	**1.9**	0.2	0.8	1	0.54	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.756	0.504	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.746	0.043	<2.3	<2.3	2.3
Ethylbenzene	*0.055*	*0.24*	0.2	0.9	0.984	0.651	1.5	7.4	7.4
p/m-Xylene	*0.15*	*0.64*	0.4	1.7	0.993	0.496	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.99	0.618	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.948	0.404	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.51	0.094	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.89	0.108	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.989	0.295	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.918	0.007	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.825	0.004	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.944	0.035	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA			RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland				Location:
Date Sampled:	9/21/21	Time:	10:40 AM	Field ID:	IA-03	Collector:	E Johnson	Office
Date Analyzed:	9/21/21	Time:	4:16 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.983	0.077	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0.871	0.053	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.892	0.053	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.88	0.098	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.675	0.042	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0.716	0.111	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.45**	**1.7**	0.2	0.8	0.999	0.386	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.847	0.003	<2.3	<2.3	2.3
Ethylbenzene	*0.051*	*0.22*	0.2	0.9	0.904	0.141	1.5	7.4	7.4
p/m-Xylene	*0.19*	*0.82*	0.4	1.7	0.991	0.386	3.8	21	20
Styrene*	**0.31**	**1.3**	0.2	0.9	0.99	0.483	0.6	1.4	1.4
o-Xylene*	*0.082*	*0.36*	0.2	0.9	0.992	0.25	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.072*	*0.35*	0.2	1.0	0.92	0.154	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.044*	*0.22*	0.2	1.0	0.995	0.201	NA	NA	NA
1,3-Dichlorobenzene (meta)*	**1.5**	**9.3**	0.2	1	0.833	0.106	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	**1.2**	**7.2**	0.2	1	0.832	0.106	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	**1.2**	**7**	0.2	1	0.839	0.107	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Dichlorobenzenes are a possible system contaminant or an indication of the use of deoderizers/ disinfectants in this area.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA			RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street				Location:
Date Sampled:	9/21/21	Time:	10:35 AM	Field ID:	IA-02	Collector:	E Johnson	Cafeteria
Date Analyzed:	9/21/21	Time:	3:46 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	3	7.7	0.561	0.043	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.982	0.085	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0	0	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.48**	**1.8**	0.2	0.8	0.999	0.401	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.051*	*0.22*	0.2	0.9	0.805	0.136	1.5	7.4	7.4
p/m-Xylene	*0.14*	*0.62*	0.4	1.7	0.963	0.296	3.8	21	20
Styrene*	N.D.	N.D.	0.2	0.9	0	0	0.6	1.4	1.4
o-Xylene*	*0.13*	*0.55*	0.2	0.9	0.963	0.296	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.066*	*0.32*	0.2	1.0	0.987	0.199	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.054*	*0.27*	0.2	1.0	0.987	0.199	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.867	0.147	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.832	0.106	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.839	0.107	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	9/21/21	Time:	10:30 AM	Field ID:	IA-01	Collector:	E Johnson		Gym
Date Analyzed:	9/21/21	Time:	3:03 PM	Lab ID:	003	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	<1	<1	0.27
Chloroethane	**4**	**11**	2	5	0.97	0.118	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0.887	0.059	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.855	0.042	<2	<2	0.8
Methylene Chloride	**0.62**	**2.1**	0.2	0.7	0.964	0.187	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.754	0.053	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.669	0.004	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	*0.14*	*0.45*	0.2	0.6	0.963	0.122	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.643	0.108	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.53**	**2**	0.2	0.8	0.998	0.442	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.13*	*0.87*	0.2	1.4	0.822	0.415	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.075*	*0.33*	0.2	0.9	0.972	0.167	1.5	7.4	7.4
p/m-Xylene	*0.25*	*1.1*	0.4	1.7	0.972	0.38	3.8	21	20
Styrene*	**0.47**	**2**	0.2	0.9	0.995	0.583	0.6	1.4	1.4
o-Xylene*	**0.23**	**0.98**	0.2	0.9	0.975	0.381	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.089*	*0.44*	0.2	1.0	0.979	0.171	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.073*	*0.36*	0.2	1.0	0.979	0.171	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.771	0.036	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.832	0.106	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.839	0.107	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Styrerne is a likely bag contaminant.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA			RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street				Location:
Date Sampled:	9/28/21	Time:	10:40 AM	Field ID:	IA 02	Collector:	E. Johnson	Basement
Date Analyzed:	9/28/21	Time:	3:46 PM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.91	0.054	NA	NA	NA
Trichloromonofluoromethane	**1.4**	**9.5**	1	7.0	0.986	0.199	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	<2	<2	0.8
Methylene Chloride	**0.57**	*2*	0.2	0.7	0.986	0.119	1.4	11	11
1,1,2-Trichlorotrifluoroethane	**1.9**	**15**	1	7.7	0.987	0.314	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.728	0.039	<2	<2	0.8
Cis 1,2-Dichloroethylene	**0.54**	**2.1**	0.2	0.8	0.99	0.175	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	**0.29**	**1.6**	0.2	1.1	0.986	0.261	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.908	0.083	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	*0.11*	*0.6*	0.2	1.1	0.945	0.185	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**1.2**	**4.6**	0.2	0.8	0.998	0.587	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	**0.28**	**1.9**	0.2	1.4	0.956	0.645	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.763	0.038	<2.3	<2.3	2.3
Ethylbenzene	*0.15*	*0.63*	0.2	0.9	0.998	0.309	1.5	7.4	7.4
p/m-Xylene	**0.56**	**2.4**	0.4	1.7	0.996	0.546	3.8	21	20
Styrene*	**0.2**	*0.84*	0.2	0.9	0.995	0.392	0.6	1.4	1.4
o-Xylene*	*0.19*	*0.84*	0.2	0.9	0.945	0.377	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.077*	*0.38*	0.2	1.0	0.943	0.155	NA	NA	NA
1,2,4-Trimethylbenzene*	**0.21**	**1**	0.2	1.0	1	0.387	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA			RTN: 3-19174
City or Town:	Framingham		Address:	155 Leland Street			Location:
Date Sampled:	9/28/21	Time:	10:45 AM	Field ID:	IA 01	Collector: E. Johnson	First Floor
Date Analyzed:	9/28/21	Time:	3:02 PM	Lab ID:	003	Analyst: N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	3	7.7	0.674	0.047	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.881	0.048	NA	NA	NA
Trichloromonofluoromethane	*0.61*	*4.3*	1	7.0	0.983	0.113	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.591	0.025	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.372	0.007	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	**0.48**	**1.9**	0.2	0.8	0.994	0.276	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	**0.23**	**1.3**	0.2	1.1	0.996	0.111	0.5	3	3
Benzene	**0.21**	**0.68**	0.2	0.6	0.988	0.235	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.839	0.087	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.477	0.109	<2.7	<2.7	0.15
Toluene	**1.2**	**4.5**	0.2	0.8	1	0.596	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	**0.22**	**1.5**	0.2	1.4	0.921	0.593	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.12*	*0.53*	0.2	0.9	1	0.289	1.5	7.4	7.4
p/m-Xylene	**0.47**	**2.1**	0.4	1.7	0.998	0.564	3.8	21	20
Styrene*	*0.097*	*0.41*	0.2	0.9	0.945	0.253	0.6	1.4	1.4
o-Xylene*	*0.18*	*0.78*	0.2	0.9	0.978	0.324	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.556	0.069	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.075*	*0.37*	0.2	1.0	0.961	0.167	NA	NA	NA
1,2,4-Trimethylbenzene*	**0.23**	**1.1**	0.2	1.0	0.996	0.351	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.24	0.142	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	10/5/21	Time:	10:55 AM	Field ID:	155-IA1	Collector:	E. Johnson		Kitchen (first floor)
Date Analyzed:	10/5/21	Time:	4:51 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.758	0	<1	<1	0.27
Chloroethane	**3.4**	**9**	2	5	0.881	0.164	NA	NA	NA
Trichloromonofluoromethane	*0.04*	*0.28*	0.2	1.4	0.99	0.109	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.762	0.015	<2	<2	0.8
Methylene Chloride	*0.16*	*0.56*	0.2	0.7	0.989	0.473	1.4	11	11
1,1,2-Trichlorotrifluoroethane	*0.056*	*0.43*	0.2	1.5	0.958	0.137	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.548	0.038	<2	<2	0.8
Chloroform	**0.35**	**1.7**	0.2	1.0	0.983	0.141	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.974	0.004	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.712	0.274	0.5	3	3
Benzene	**1.2**	**3.8**	0.2	0.6	0.99	0.733	2.3	11	2.3
Carbon Tetrachloride	*0.049*	*0.31*	0.2	1.3	0.927	0.329	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.728	0.011	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.833	0.16	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.726	0.008	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.282	0.04	<2.7	<2.7	0.15
Toluene	**6.6**	**25**	0.2	0.8	0.998	0.745	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.046*	*0.31*	0.2	1.4	0.876	0.715	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.653	0.077	<2.3	<2.3	2.3
Ethylbenzene	**0.38**	**1.7**	0.2	0.9	0.991	0.666	1.5	7.4	7.4
p/m-Xylene	**1.4**	**6**	0.4	1.7	0.997	0.654	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.991	0.622	0.6	1.4	1.4
o-Xylene*	*0.39*	*1.7*	1	4.3	0.999	0.7	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.82	0.098	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.996	0.273	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.29*	*1.4*	1	4.9	0.999	0.423	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.945	0.019	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.991	0.009	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.59	0.032	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.299	0.122	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0.218	0.086	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol peak, alkanes associated with diesel fuel detected.

MassDEP Field Assessment and Support Team (FAST)			INDOOR AIR DATA			RTN: 3-19174		
City or Town:	Framingham		Address:	155 Leland Street			Location:	
Date Sampled:	10/5/21	Time:	11:00 AM	Field ID:	155-2	Collector:	E. Johnson	Basement
Date Analyzed:	10/5/21	Time:	5:32 PM	Lab ID:	009	Analyst:	J. Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.811	0.003	<1	<1	0.27
Chloroethane	*1.1*	*2.9*	2	5	0.909	0.182	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.99	0.085	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.706	0.008	<2	<2	0.8
Methylene Chloride	*0.043*	*0.15*	0.2	0.7	0.943	0.158	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.797	0.013	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.268	0.075	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.897	0.039	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.971	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.702	0.292	0.5	3	3
Benzene	**0.3**	**0.96**	0.2	0.6	0.98	0.749	2.3	11	2.3
Carbon Tetrachloride	*0.071*	*0.45*	0.2	1.3	0.999	0.599	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.304	0.037	<2.7	<2.7	0.15
Toluene	**0.76**	**2.9**	0.2	0.8	0.996	0.701	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.897	0.662	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.858	0.118	<2.3	<2.3	2.3
Ethylbenzene	*0.14*	*0.62*	0.2	0.9	0.99	0.731	1.5	7.4	7.4
p/m-Xylene	**0.48**	**2.1**	0.4	1.7	0.997	0.681	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.998	0.586	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.999	0.644	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.981	0.095	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.824	0.143	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.994	0.485	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.648	0.059	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.996	0.046	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.763	0.089	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	10/5/21	Time:	11:25 AM	Field ID:	157-2	Collector:	E. Johnson		Basement
Date Analyzed:	10/5/21	Time:	6:05 PM	Lab ID:	010	Analyst:	J. Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.847	0.003	<1	<1	0.27
Chloroethane	**3.3**	**8.8**	2	5	0.88	0.202	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.987	0.026	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.967	0.005	<2	<2	0.8
Methylene Chloride	*0.11*	*0.37*	0.2	0.7	0.985	0.53	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.953	0.086	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.813	0.028	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.943	0.033	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.977	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.664	0.263	0.5	3	3
Benzene	**0.56**	**1.8**	0.2	0.6	0.988	0.695	2.3	11	2.3
Carbon Tetrachloride	*0.048*	*0.3*	0.2	1.3	0.922	0.24	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.285	0.043	<2.7	<2.7	0.15
Toluene	**2.8**	**11**	0.2	0.8	0.998	0.736	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.057*	*0.39*	0.2	1.4	0.839	0.725	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.707	0.07	<2.3	<2.3	2.3
Ethylbenzene	**0.24**	**1**	0.2	0.9	0.996	0.653	1.5	7.4	7.4
p/m-Xylene	**0.81**	**3.5**	0.4	1.7	0.996	0.675	3.8	21	20
Styrene*	*0.2*	*0.86*	1	4.3	0.992	0.611	0.6	1.4	1.4
o-Xylene*	*0.25*	*1.1*	1	4.3	0.998	0.662	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.51	0.005	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.966	0.224	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.26*	*1.3*	1	4.9	0.998	0.485	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.875	0.012	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.881	0.005	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.5	0.018	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.23	0.147	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/5/21	Time:	10:30 AM	Field ID:	IA-02	Collector:	E. Johnson		Cafeteria
Date Analyzed:	10/5/21	Time:	3:42 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	**2.2**	**5.7**	2	5	0.852	0.233	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.919	0.097	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.738	0.091	<2	<2	0.8
Methylene Chloride	*0.047*	*0.16*	0.2	0.7	0.845	0.237	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.676	0.072	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.676	0.04	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.843	0.123	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.977	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.668	0.022	0.5	3	3
Benzene	*0.18*	*0.59*	0.2	0.6	0.984	0.662	2.3	11	2.3
Carbon Tetrachloride	*0.051*	*0.32*	0.2	1.3	0.931	0.29	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.854	0.048	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.57**	**2.1**	0.2	0.8	0.997	0.691	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.553	0.468	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.711	0.001	<2.3	<2.3	2.3
Ethylbenzene	*0.064*	*0.28*	0.2	0.9	0.999	0.607	1.5	7.4	7.4
p/m-Xylene	*0.14*	*0.62*	0.4	1.7	0.997	0.66	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.985	0.618	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.999	0.279	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.732	0.086	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.887	0.161	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.208	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.981	0.016	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.993	0.009	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.616	0.022	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Large ethanol peak

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/05/21	Time:	10:25 AM	Field ID:	IA-1	Collector:	E. Johnson		Gymnasium
Date Analyzed:	10/05/21	Time:	3:10 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.763	0	<1	<1	0.27
Chloroethane	**4.8**	**13**	2	5	0.89	0.2	NA	NA	NA
Trichloromonofluoromethane	**0.21**	**1.4**	0.2	1.4	0.92	0.112	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.57	0.089	<2	<2	0.8
Methylene Chloride	*0.05*	*0.17*	0.2	0.7	0.833	0.363	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.835	0.066	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.671	0.016	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.586	0.08	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.954	0.196	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.992	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.662	0.021	0.5	3	3
Benzene	*0.14*	*0.44*	0.2	0.6	0.984	0.538	2.3	11	2.3
Carbon Tetrachloride	*0.058*	*0.36*	0.2	1.3	0.908	0.413	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.5**	**1.9**	0.2	0.8	0.998	0.707	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.681	0.573	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.973	0.245	<2.3	<2.3	2.3
Ethylbenzene	*0.058*	*0.25*	0.2	0.9	0.992	0.522	1.5	7.4	7.4
p/m-Xylene	*0.15*	*0.63*	0.4	1.7	0.998	0.656	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.996	0.654	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.999	0.415	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.836	0.042	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.893	0.173	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.989	0.256	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.895	0.034	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.973	0.022	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.507	0.016	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.173	0.13	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Large ethanol peak

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/5/21	Time:	10:35 AM	Field ID:	IA-03	Collector:	E. Johnson		Office
Date Analyzed:	10/5/21	Time:	12:00 AM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.701	0.021	<1	<1	0.27
Chloroethane	**2.8**	**7.4**	2	5	0.858	0.19	NA	NA	NA
Trichloromonofluoromethane	**0.77**	**5.4**	0.2	1.4	0.919	0.213	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.817	0.033	<2	<2	0.8
Methylene Chloride	*0.047*	*0.16*	0.2	0.7	0.965	0.375	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.897	0.061	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.18	0.059	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.97	0.083	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.966	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.666	0.021	0.5	3	3
Benzene	**0.26**	**0.82**	0.2	0.6	0.985	0.535	2.3	11	2.3
Carbon Tetrachloride	*0.053*	*0.33*	0.2	1.3	0.938	0.342	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.923	0.229	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.728	0.006	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.345	0.053	<2.7	<2.7	0.15
Toluene	**1**	**3.8**	0.2	0.8	0.998	0.739	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.727	0.589	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.508	0.001	<2.3	<2.3	2.3
Ethylbenzene	*0.084*	*0.36*	0.2	0.9	0.989	0.655	1.5	7.4	7.4
p/m-Xylene	*0.22*	*0.95*	0.4	1.7	0.997	0.674	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.972	0.645	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.998	0.331	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.914	0.077	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.948	0.163	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.246	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.873	0.024	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.977	0.01	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.685	0.028	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol peak

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/19/21	Time:	10:35 AM	Field ID:	IA-01	Collector:	E. Johnson		Gym
Date Analyzed:	10/19/21	Time:	3:08 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	<1	<1	0.27
Chloroethane	**2.7**	**7.1**	2	5	0.942	0.111	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0	0	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.32**	**1.2**	0.2	0.8	0.961	0.334	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.786	0.351	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.11*	*0.49*	0.2	0.9	0.985	0.255	1.5	7.4	7.4
p/m-Xylene	*0.14*	*0.59*	0.4	1.7	0.991	0.322	3.8	21	20
Styrene*	N.D.	N.D.	0.2	0.9	0	0	0.6	1.4	1.4
o-Xylene*	*0.12*	*0.53*	0.2	0.9	0.987	0.32	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.052*	*0.26*	0.2	1.0	0.935	0.202	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.045*	*0.22*	0.2	1.0	0.965	0.22	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.865	0.1	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.861	0.1	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.867	0.1	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.204	0.144	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Toluene and chloroethane were present in blank sample.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/19/21	Time:	10:40 AM	Field ID:	IA-02	Collector:	E. Johnson		Cafeteria
Date Analyzed:	10/19/21	Time:	3:38 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	3	7.7	0.642	0.049	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.957	0.086	NA	NA	NA
Trichloromonofluoromethane	*0.56*	*3.9*	1	7.0	0.979	0.17	NA	NA	NA
1,1-Dichloroethylene	*0.41*	*1.6*	1	4.0	0.816	0.141	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.648	0.102	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.867	0.086	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.819	0.066	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.671	0.141	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	**0.27**	**1.5**	0.2	1.1	0.946	0.304	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.6**	**2.3**	0.2	0.8	0.999	0.47	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.16*	*0.69*	0.2	0.9	0.995	0.334	1.5	7.4	7.4
p/m-Xylene	*0.19*	*0.82*	0.4	1.7	0.995	0.399	3.8	21	20
Styrene*	*0.051*	*0.22*	0.2	0.9	0.919	0.162	0.6	1.4	1.4
o-Xylene*	*0.055*	*0.24*	0.2	0.9	0.946	0.214	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.1*	*0.5*	0.2	1.0	0.872	0.145	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.071*	*0.35*	0.2	1.0	0.994	0.215	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.861	0.1	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.867	0.1	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA			RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street				Location:
Date Sampled:	10/19/21	Time:	10:45 AM	Field ID:	IA-03	Collector:	E. Johnson	Office
Date Analyzed:	10/19/21	Time:	4:09 PM	Lab ID:	008	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	3	7.7	0.925	0.038	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.967	0.088	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7.0	0	0	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	<2	<2	0.8
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.96	0.1	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	0.5	3	3
Benzene	N.D.	N.D.	0.2	0.6	0	0	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.925	0.142	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.29**	**1.1**	0.2	0.8	0.999	0.331	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	*0.12*	*0.53*	0.2	0.9	0.906	0.245	1.5	7.4	7.4
p/m-Xylene	*0.15*	*0.63*	0.4	1.7	0.907	0.291	3.8	21	20
Styrene*	N.D.	N.D.	0.2	0.9	0.89	0.151	0.6	1.4	1.4
o-Xylene*	*0.13*	*0.56*	0.2	0.9	0.911	0.292	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	*0.063*	*0.31*	0.2	1.0	0.984	0.188	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.052*	*0.26*	0.2	1.0	0.989	0.189	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.842	0.056	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.861	0.1	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.867	0.1	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	10/21/21	Time:	10:35 AM	Field ID:	IA-2	Collector:	E. Johnson		Cafeteria
Date Analyzed:	10/21/21	Time:	2:40 PM	Lab ID:	005	Analyst:	Fitzgerlad		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.655	0.078	<1	<1	0.27
Chloroethane	**3.4**	**9.1**	2	5	0.921	0.15	NA	NA	NA
Trichloromonofluoromethane	*0.19*	*1.3*	0.2	1.4	0.916	0.12	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.777	0.011	<2	<2	0.8
Methylene Chloride	*0.058*	*0.2*	0.2	0.7	0.949	0.284	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.626	0.083	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.217	0.061	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.891	0.018	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.945	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.674	0.021	0.5	3	3
Benzene	**0.51**	**1.6**	0.2	0.6	0.987	0.701	2.3	11	2.3
Carbon Tetrachloride	*0.042*	*0.26*	0.2	1.3	0.963	0.316	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.62	0.026	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.762	0.014	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.698	0.008	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.328	0.051	<2.7	<2.7	0.15
Toluene	**1.5**	**5.7**	0.2	0.8	0.999	0.696	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.466	0.071	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.698	0.551	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.912	0.146	<2.3	<2.3	2.3
Ethylbenzene	*0.15*	*0.66*	0.2	0.9	0.997	0.637	1.5	7.4	7.4
p/m-Xylene	**0.44**	**1.9**	0.4	1.7	0.996	0.669	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.992	0.618	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.997	0.469	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.962	0.055	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.883	0.363	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.997	0.354	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.967	0.107	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.984	0.008	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.948	0.102	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/02/21	Time:	10:30 AM	Field ID:	155-IA1	Collector:	E. Johnson		First Floor - Kitchen
Date Analyzed:	11/02/21	Time:	2:56 PM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr µg/m3
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.404	0.014	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.815	0.005	NA	NA	NA
Trichloromonofluoromethane	**0.23**	**1.6**	0.2	1.4	0.83	0.195	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.83	0	<2	<2	0.8
Methylene Chloride	**0.2**	*0.69*	0.2	0.7	0.817	0.136	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.976	0.055	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.997	0.005	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.561	0.118	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.965	0.004	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.955	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.557	0.279	0.5	3	3
Benzene	**1.7**	**5.5**	0.2	0.6	0.994	0.79	2.3	11	2.3
Carbon Tetrachloride	*0.19*	*1.2*	0.2	1.3	0.988	0.567	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.649	0.092	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.848	0.017	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.867	0.003	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.729	0.007	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.103	0.04	<2.7	<2.7	0.15
Toluene	**10**	**38**	0.2	0.8	0.996	0.73	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.064*	*0.43*	0.2	1.4	0.853	0.778	1.4	4.1	1.4
Chlorobenzene	*0.089*	*0.41*	0.2	0.9	0.981	0.287	<2.3	<2.3	2.3
Ethylbenzene	**0.62**	**2.7**	0.2	0.9	0.996	0.717	1.5	7.4	7.4
p/m-Xylene	**2.4**	**10**	0.4	1.7	0.998	0.666	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.994	0.475	0.6	1.4	1.4
o-Xylene*	*0.63*	*2.7*	1	4.3	1	0.615	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	*0.048*	*0.33*	0.2	1.4	0.947	0.117	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.991	0.337	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.47*	*2.3*	1	4.9	0.983	0.469	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.966	0.089	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.976	0.047	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.9	0.099	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.482	0.244	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Very large ethanol peak. 1,1,2,2-Tetrachloroethane outside calibration range.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	11/2/21	Time:	10:35 AM	Field ID:	155-IA2	Collector:	E. Johnson		Basement
Date Analyzed:	11/2/21	Time:	3:41 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	**2.6**	**6.9**	2	5	0.912	0.173	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.882	0.075	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.65	0.057	<2	<2	0.8
Methylene Chloride	*0.15*	*0.53*	0.2	0.7	0.879	0.246	1.4	11	11
1,1,2-Trichlorotrifluoroethane	*0.056*	*0.43*	0.2	1.5	0.867	0.109	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.813	0.004	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.438	0.046	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.974	0.061	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.978	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.539	0.315	0.5	3	3
Benzene	**1.2**	**3.9**	0.2	0.6	0.994	0.694	2.3	11	2.3
Carbon Tetrachloride	*0.058*	*0.36*	0.2	1.3	0.877	0.112	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.623	0.023	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.705	0.006	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.298	0.046	<2.7	<2.7	0.15
Toluene	**6.3**	**24**	0.2	0.8	0.997	0.747	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.071*	*0.48*	0.2	1.4	0.923	0.841	1.4	4.1	1.4
Chlorobenzene	*0.052*	*0.24*	0.2	0.9	0.936	0.157	<2.3	<2.3	2.3
Ethylbenzene	**0.41**	**1.8**	0.2	0.9	0.995	0.686	1.5	7.4	7.4
p/m-Xylene	**1.6**	**6.8**	0.4	1.7	0.998	0.681	3.8	21	20
Styrene*	**1.1**	**4.7**	1	4.3	0.995	0.776	0.6	1.4	1.4
o-Xylene*	*0.48*	*2.1*	1	4.3	0.933	0.783	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.891	0.074	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.928	0.284	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.31*	*1.5*	1	4.9	0.994	0.519	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.991	0.021	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.991	0.012	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.89	0.035	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.194	0.14	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Large ethanol peak

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	11/2/21	Time:	10:55 AM	Field ID:	157-IA2	Collector:	E. Johnson		Basement
Date Analyzed:	11/2/21	Time:	4:48 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.775	0.008	<1	<1	0.27
Chloroethane	**4.7**	**12**	2	5	0.877	0.208	NA	NA	NA
Trichloromonofluoromethane	*0.19*	*1.3*	0.2	1.4	0.954	0.12	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.61	0.046	<2	<2	0.8
Methylene Chloride	*0.048*	*0.17*	0.2	0.7	0.967	0.382	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.856	0.098	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.325	0.085	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.959	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.655	0.107	0.5	3	3
Benzene	*0.18*	*0.56*	0.2	0.6	0.99	0.573	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.53**	**2**	0.2	0.8	0.996	0.75	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.764	0.646	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.667	0.001	<2.3	<2.3	2.3
Ethylbenzene	*0.041*	*0.18*	0.2	0.9	0.946	0.482	1.5	7.4	7.4
p/m-Xylene	*0.12*	*0.51*	0.4	1.7	0.996	0.711	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.983	0.681	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	1	0.472	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.741	0.058	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.981	0.262	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.984	0.263	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.95	0.016	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.987	0.008	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.689	0.041	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/10/21	Time:	8:00 AM	Field ID:	IA-1	Collector:	B. Roden		Gym
Date Analyzed:	11/10/21	Time:	12:20 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.808	0.025	<1	<1	0.27
Chloroethane	**3.8**	**10**	2	5	0.883	0.191	NA	NA	NA
Trichloromonofluoromethane	**0.29**	**2**	0.2	1.4	0.896	0.121	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.891	0.114	<2	<2	0.8
Methylene Chloride	*0.088*	*0.31*	0.2	0.7	0.958	0.155	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.951	0.042	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.993	0.027	<2	<2	0.8
Cis 1,2-Dichloroethylene	**0.45**	**1.8**	0.2	0.8	0.996	0.765	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.877	0.046	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.977	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.703	0.233	0.5	3	3
Benzene	**0.89**	**2.8**	0.2	0.6	0.99	0.807	2.3	11	2.3
Carbon Tetrachloride	*0.049*	*0.31*	0.2	1.3	0.88	0.391	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.907	0.138	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.755	0.008	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.252	0.035	<2.7	<2.7	0.15
Toluene	**2.9**	**11**	0.2	0.8	0.998	0.736	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.11*	*0.73*	0.2	1.4	0.931	0.886	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.853	0.21	<2.3	<2.3	2.3
Ethylbenzene	**0.29**	**1.2**	0.2	0.9	0.993	0.726	1.5	7.4	7.4
p/m-Xylene	**0.78**	**3.4**	0.4	1.7	0.997	0.693	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.986	0.65	0.6	1.4	1.4
o-Xylene*	*0.24*	*1*	1	4.3	0.999	0.63	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.872	0.086	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.98	0.238	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.517	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.961	0.194	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.942	0.113	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.92	0.175	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.313	0.132	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/10/21	Time:	8:05 AM	Field ID:	IA-02	Collector:	B. Roden		Cafeteria
Date Analyzed:	11/10/21	Time:	12:51 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.95	0.036	<1	<1	0.27
Chloroethane	*1.4*	*3.7*	2	5	0.876	0.185	NA	NA	NA
Trichloromonofluoromethane	**0.27**	**1.9**	0.2	1.4	0.972	0.161	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.741	0.065	<2	<2	0.8
Methylene Chloride	*0.1*	*0.36*	0.2	0.7	0.978	0.279	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.898	0.096	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.995	0.066	<2	<2	0.8
Cis 1,2-Dichloroethylene	**0.51**	**2**	0.2	0.8	0.99	0.656	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.845	0.23	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.956	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.673	0.335	0.5	3	3
Benzene	**0.88**	**2.8**	0.2	0.6	0.993	0.807	2.3	11	2.3
Carbon Tetrachloride	*0.048*	*0.3*	0.2	1.3	0.866	0.423	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.967	0.081	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.707	0.007	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.267	0.038	<2.7	<2.7	0.15
Toluene	**3.3**	**13**	0.2	0.8	0.998	0.734	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.11*	*0.77*	0.2	1.4	0.861	0.811	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.851	0.166	<2.3	<2.3	2.3
Ethylbenzene	**0.31**	**1.3**	0.2	0.9	0.995	0.748	1.5	7.4	7.4
p/m-Xylene	**0.79**	**3.4**	0.4	1.7	0.996	0.693	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.984	0.623	0.6	1.4	1.4
o-Xylene*	*0.24*	*1.1*	1	4.3	0.998	0.624	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.951	0.201	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.465	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.982	0.03	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.986	0.016	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.882	0.099	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol peak observed.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/10/21	Time:	8:10 AM	Field ID:	IA-03	Collector:	B. Roden		Office
Date Analyzed:	11/10/21	Time:	1:23 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.943	0.001	<1	<1	0.27
Chloroethane	**3**	**7.9**	2	5	0.853	0.179	NA	NA	NA
Trichloromonofluoromethane	*0.17*	*1.2*	0.2	1.4	0.87	0.141	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.658	0.012	<2	<2	0.8
Methylene Chloride	*0.078*	*0.27*	0.2	0.7	0.985	0.338	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.842	0.033	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	1	0.046	<2	<2	0.8
Cis 1,2-Dichloroethylene	**0.48**	**1.9**	0.2	0.8	0.962	0.604	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.826	0.233	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.983	0.006	<2	<2	0.09
1,1,1-Trichloroethane	*0.093*	*0.51*	0.2	1.1	0.838	0.321	0.5	3	3
Benzene	**0.85**	**2.7**	0.2	0.6	0.987	0.814	2.3	11	2.3
Carbon Tetrachloride	*0.05*	*0.31*	0.2	1.3	0.9	0.501	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.934	0.145	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.727	0.012	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**2.6**	**9.7**	0.2	0.8	0.998	0.737	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.095*	*0.64*	0.2	1.4	0.926	0.854	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.83	0.065	<2.3	<2.3	2.3
Ethylbenzene	**0.26**	**1.1**	0.2	0.9	0.993	0.758	1.5	7.4	7.4
p/m-Xylene	**0.74**	**3.2**	0.4	1.7	0.996	0.693	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.985	0.62	0.6	1.4	1.4
o-Xylene*	*0.24*	*1.1*	1	4.3	0.998	0.674	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.951	0.083	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.887	0.206	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.999	0.533	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.982	0.027	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.988	0.016	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.629	0.071	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.346	0.141	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol peak observed.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/16/21	Time:	10:25 AM	Field ID:	IA-01	Collector:	E. Johnson		Gymnasium
Date Analyzed:	11/16/21	Time:	2:33 AM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.778	0.01	<1	<1	0.27
Chloroethane	*1.4*	*3.6*	2	5	0.871	0.107	NA	NA	NA
Trichloromonofluoromethane	*0.16*	*1.1*	0.2	1.4	0.894	0.158	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.898	0.101	<2	<2	0.8
Methylene Chloride	*0.069*	*0.24*	0.2	0.7	0.954	0.192	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.87	0.087	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.993	0.329	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.944	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.692	0.022	0.5	3	3
Benzene	*0.18*	*0.58*	0.2	0.6	0.984	0.565	2.3	11	2.3
Carbon Tetrachloride	*0.056*	*0.35*	0.2	1.3	0.925	0.336	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.65**	**2.5**	0.2	0.8	0.999	0.705	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.855	0.706	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.993	0.673	<2.3	<2.3	2.3
Ethylbenzene	*0.045*	*0.2*	0.2	0.9	0.992	0.482	1.5	7.4	7.4
p/m-Xylene	*0.1*	*0.44*	0.4	1.7	0.993	0.666	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.997	0.658	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.996	0.451	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.923	0.078	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.989	0.138	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	1	0.39	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.997	0.179	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.993	0.11	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.967	0.398	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.176	0.129	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/16/21	Time:	10:30 AM	Field ID:	IA-02	Collector:	E. Johnson		Cafeteria
Date Analyzed:	11/16/21	Time:	3:06 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.758	0.002	<1	<1	0.27
Chloroethane	**3.1**	**8.2**	2	5	0.928	0.114	NA	NA	NA
Trichloromonofluoromethane	*0.18*	*1.2*	0.2	1.4	0.965	0.162	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.861	0.056	<2	<2	0.8
Methylene Chloride	*0.071*	*0.25*	0.2	0.7	0.991	0.114	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.613	0.104	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.881	0.007	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.391	0.029	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.932	0.167	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.973	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.678	0.021	0.5	3	3
Benzene	*0.16*	*0.5*	0.2	0.6	0.986	0.561	2.3	11	2.3
Carbon Tetrachloride	*0.054*	*0.34*	0.2	1.3	0.955	0.336	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.41**	**1.5**	0.2	0.8	0.999	0.584	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.608	0.464	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.591	0.057	<2.3	<2.3	2.3
Ethylbenzene	*0.041*	*0.18*	0.2	0.9	0.995	0.578	1.5	7.4	7.4
p/m-Xylene	*0.12*	*0.52*	0.4	1.7	0.999	0.381	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.996	0.503	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	1	0.453	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.89	0.078	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.969	0.255	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.998	0.314	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.947	0.227	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.997	0.154	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.91	0.204	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0.142	0.085	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	11/16/21	Time:	10:35 AM	Field ID:	IA-03	Collector:	E. Johnson		Office
Date Analyzed:	11/16/21	Time:	3:38 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.638	0.001	<1	<1	0.27
Chloroethane	N.D.	N.D.	2	5	0.759	0.103	NA	NA	NA
Trichloromonofluoromethane	*0.19*	*1.3*	0.2	1.4	0.987	0.242	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.744	0.154	<2	<2	0.8
Methylene Chloride	*0.068*	*0.24*	0.2	0.7	0.967	0.177	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.595	0.127	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.948	0.018	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.31	0.084	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.674	0.158	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.981	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.69	0.021	0.5	3	3
Benzene	*0.14*	*0.45*	0.2	0.6	0.992	0.578	2.3	11	2.3
Carbon Tetrachloride	*0.051*	*0.32*	0.2	1.3	0.925	0.376	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.761	0.036	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.407	0.069	<2.7	<2.7	0.15
Toluene	**1.1**	**4**	0.2	0.8	0.999	0.705	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.796	0.689	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.89	0.127	<2.3	<2.3	2.3
Ethylbenzene	*0.044*	*0.19*	0.2	0.9	0.976	0.428	1.5	7.4	7.4
p/m-Xylene	*0.11*	*0.49*	0.4	1.7	0.996	0.653	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.995	0.635	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	1	4.3	0.999	0.412	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.552	0.085	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.995	0.206	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.995	0.307	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.962	0.035	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	1	0.018	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.805	0.04	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.319	0.103	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	0.2	2.1	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 7/20/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/14/21	Time:	10:40 AM	Field ID:	IA-1	Collector:	E. Johnson		Gym
Date Analyzed:	12/14/21	Time:	2:47 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.395	0.102	<1	<1	0.27
Chloroethane	*0.5*	*1.3*	1	3	0.887	0.126	NA	NA	NA
Trichloromonofluoromethane	**0.23**	**1.6**	0.2	1.4	0.999	0.243	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.874	0.048	<2	<2	0.8
Methylene Chloride	*0.093*	*0.32*	0.2	0.7	0.999	0.399	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.974	0.149	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.486	0.032	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	1	0.268	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.964	0.007	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.704	0.029	0.5	3	3
Benzene	*0.17*	*0.53*	0.2	0.6	0.999	0.652	2.3	11	2.3
Carbon Tetrachloride	*0.053*	*0.33*	0.2	1.3	0.922	0.328	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.636	0.017	<2.7	<2.7	0.15
Toluene	**0.34**	**1.3**	0.2	0.8	1	0.752	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.789	0.705	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.448	0	<2.3	<2.3	2.3
Ethylbenzene	*0.047*	*0.2*	0.2	0.9	1	0.678	1.5	7.4	7.4
p/m-Xylene	*0.12*	*0.51*	0.4	1.7	1	0.7	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.997	0.636	0.6	1.4	1.4
o-Xylene*	*0.042*	*0.18*	0.2	0.9	0.999	0.509	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.566	0.106	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.906	0.209	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.998	0.307	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.872	0.1	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.869	0.1	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.875	0.1	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.671	0.001	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol present in air sample.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/14/21	Time:	10:45 AM	Field ID:	IA-2	Collector:	E. Johnson		Cafeteria
Date Analyzed:	12/14/21	Time:	3:22 PM	Lab ID:	009	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr µg/m3
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	**4.6**	**12**	1	3	0.833	0.386	NA	NA	NA
Trichloromonofluoromethane	**0.28**	**1.9**	0.2	1.4	1	0.195	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.531	0.109	<2	<2	0.8
Methylene Chloride	*0.093*	*0.32*	0.2	0.7	0.974	0.371	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.652	0.128	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.698	0.007	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.959	0.258	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.875	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.713	0.03	0.5	3	3
Benzene	*0.17*	*0.54*	0.2	0.6	0.999	0.627	2.3	11	2.3
Carbon Tetrachloride	*0.055*	*0.35*	0.2	1.3	0.887	0.501	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.204	0.006	<2.7	<2.7	0.15
Toluene	**0.32**	**1.2**	0.2	0.8	1	0.76	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.861	0.694	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.816	0.142	<2.3	<2.3	2.3
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.999	0.65	1.5	7.4	7.4
p/m-Xylene	*0.082*	*0.36*	0.4	1.7	1	0.71	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.996	0.615	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	0.2	0.9	1	0.538	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.913	0.041	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.885	0.123	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.888	0.124	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.896	0.201	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.897	0.201	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.895	0.2	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.498	0.001	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol and limonene (an ingredient in citrus cleaning solutions) were present.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	12/14/21	Time:	10:35 AM	Field ID:	IA-3	Collector:	E. Johnson		Office
Date Analyzed:	12/14/21	Time:	3:55 PM	Lab ID:	010	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.472	0.052	<1	<1	0.27
Chloroethane	*0.76*	*2*	1	3	0.86	0.147	NA	NA	NA
Trichloromonofluoromethane	*0.19*	*1.3*	0.2	1.4	1	0.19	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.636	0.014	<2	<2	0.8
Methylene Chloride	*0.096*	*0.33*	0.2	0.7	0.98	0.23	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.937	0.044	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.994	0.008	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.748	0.007	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.964	0.204	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.959	0.007	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.71	0.029	0.5	3	3
Benzene	*0.17*	*0.53*	0.2	0.6	0.999	0.716	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.924	0.493	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.678	0.005	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.302	0.014	<2.7	<2.7	0.15
Toluene	**0.46**	**1.7**	0.2	0.8	1	0.723	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.649	0.577	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.38	0	<2.3	<2.3	2.3
Ethylbenzene	*0.048*	*0.21*	0.2	0.9	0.998	0.684	1.5	7.4	7.4
p/m-Xylene	*0.12*	*0.54*	0.4	1.7	0.999	0.712	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.995	0.614	0.6	1.4	1.4
o-Xylene*	*0.041*	*0.18*	0.2	0.9	0.995	0.666	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.906	0.07	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.939	0.253	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.997	0.401	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.865	0.111	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.863	0.11	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.868	0.111	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0.168	0.036	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	11:25 AM	Field ID:	155-1	Collector:	E. Johnson		Kitchen
Date Analyzed:	12/14/21	Time:	1:41 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	N.D.	N.D.	1	3	0.789	0.132	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.999	0.098	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.481	0.076	<2	<2	0.8
Methylene Chloride	*0.18*	*0.64*	0.2	0.7	0.999	0.355	1.4	11	11
1,1,2-Trichlorotrifluoroethane	*0.04*	*0.31*	0.2	1.5	0.875	0.104	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.506	0.035	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.985	0.186	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.867	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.679	0.437	0.5	3	3
Benzene	**0.6**	**1.9**	0.2	0.6	0.999	0.73	2.3	11	2.3
Carbon Tetrachloride	*0.056*	*0.35*	0.2	1.3	0.883	0.185	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.794	0.008	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.267	0.013	<2.7	<2.7	0.15
Toluene	**2.9**	**11**	0.2	0.8	1	0.755	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.364	0.023	NA	NA	NA
Tetrachloroethylene	*0.086*	*0.58*	0.2	1.4	0.921	0.859	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.856	0.152	<2.3	<2.3	2.3
Ethylbenzene	**0.22**	**0.95**	0.2	0.9	0.999	0.678	1.5	7.4	7.4
p/m-Xylene	**0.94**	**4.1**	0.4	1.7	1	0.677	3.8	21	20
Styrene*	*0.36*	*1.5*	1	4.3	0.999	0.715	0.6	1.4	1.4
o-Xylene*	**0.3**	**1.3**	0.2	0.9	0.999	0.744	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.722	0.122	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.846	0.116	NA	NA	NA
1,2,4-Trimethylbenzene*	*0.22*	*1.1*	1	4.9	0.994	0.414	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.768	0.044	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.764	0.044	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.56	0.004	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.844	0.06	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol and limonene (an ingredient in citrus cleaning solutions) were present.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	12/14/21	Time:	11:30 AM	Field ID:	155-2	Collector:	E. Johnson		Basement
Date Analyzed:	12/14/21	Time:	2:15 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.434	0.025	<1	<1	0.27
Chloroethane	*0.62*	*1.6*	1	3	0.927	0.145	NA	NA	NA
Trichloromonofluoromethane	**0.27**	**1.9**	0.2	1.4	1	0.178	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.897	0.029	<2	<2	0.8
Methylene Chloride	*0.19*	*0.65*	0.2	0.7	0.994	0.371	1.4	11	11
1,1,2-Trichlorotrifluoroethane	*0.05*	*0.38*	0.2	1.5	0.881	0.106	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.548	0.021	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.723	0.003	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.943	0.007	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.683	0.509	0.5	3	3
Benzene	**0.39**	**1.2**	0.2	0.6	1	0.704	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.77	0.398	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.762	0.007	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.305	0.015	<2.7	<2.7	0.15
Toluene	**2.3**	**8.5**	0.2	0.8	1	0.756	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.049*	*0.33*	0.2	1.4	0.909	0.785	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.8	0.104	<2.3	<2.3	2.3
Ethylbenzene	*0.18*	*0.76*	0.2	0.9	0.999	0.649	1.5	7.4	7.4
p/m-Xylene	**0.68**	**2.9**	0.4	1.7	1	0.687	3.8	21	20
Styrene*	*0.27*	*1.2*	1	4.3	0.999	0.693	0.6	1.4	1.4
o-Xylene*	**0.23**	**0.99**	0.2	0.9	0.999	0.752	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.734	0.074	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.91	0.189	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.995	0.454	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.786	0.055	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.781	0.055	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.46	0.002	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol and limonene (an ingredient in citrus cleaning solutions) were present.

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	12/14/21	Time:	12:05 PM	Field ID:	157-1	Collector:	E. Johnson		Kitchen
Date Analyzed:	12/14/21	Time:	4:27 PM	Lab ID:	011	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	*0.42*	*1.1*	1	3	0.909	0.175	NA	NA	NA
Trichloromonofluoromethane	**0.43**	**3**	0.2	1.4	0.999	0.297	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.43	0.067	<2	<2	0.8
Methylene Chloride	*0.09*	*0.31*	0.2	0.7	0.962	0.318	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.88	0.106	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.766	0.007	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.95	0.292	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.95	0.007	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.682	0.185	0.5	3	3
Benzene	**0.23**	**0.72**	0.2	0.6	0.999	0.737	2.3	11	2.3
Carbon Tetrachloride	*0.044*	*0.28*	0.2	1.3	0.92	0.497	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.762	0.007	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.208	0.009	<2.7	<2.7	0.15
Toluene	**0.49**	**1.8**	0.2	0.8	1	0.751	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.051*	*0.35*	0.2	1.4	0.875	0.806	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.79	0.111	<2.3	<2.3	2.3
Ethylbenzene	*0.06*	*0.26*	0.2	0.9	1	0.628	1.5	7.4	7.4
p/m-Xylene	*0.13*	*0.56*	0.4	1.7	1	0.705	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.998	0.614	0.6	1.4	1.4
o-Xylene*	*0.049*	*0.21*	0.2	0.9	0.999	0.439	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.95	0.049	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.909	0.122	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.991	0.33	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.736	0.05	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.732	0.05	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.431	0.062	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	12/14/21	Time:	11:10 AM	Field ID:	157-2	Collector:	E. Johnson		Basement
Date Analyzed:	12/14/21	Time:	4:59 PM	Lab ID:	012	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	N.D.	N.D.	1	3	0.827	0.13	NA	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	0.2	1.4	0.898	0.1	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.348	0.004	<2	<2	0.8
Methylene Chloride	*0.069*	*0.24*	0.2	0.7	0.999	0.359	1.4	11	11
1,1,2-Trichlorotrifluoroethane	*0.044*	*0.34*	0.2	1.5	0.851	0.115	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.716	0.006	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.938	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.618	0.322	0.5	3	3
Benzene	*0.14*	*0.44*	0.2	0.6	1	0.741	2.3	11	2.3
Carbon Tetrachloride	*0.046*	*0.29*	0.2	1.3	0.961	0.472	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.162	0.007	<2.7	<2.7	0.15
Toluene	**0.31**	**1.2**	0.2	0.8	1	0.769	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.894	0.801	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.836	0.12	<2.3	<2.3	2.3
Ethylbenzene	*0.052*	*0.23*	0.2	0.9	0.999	0.679	1.5	7.4	7.4
p/m-Xylene	*0.13*	*0.55*	0.4	1.7	0.999	0.72	3.8	21	20
Styrene*	*0.62*	*2.6*	1	4.3	1	0.759	0.6	1.4	1.4
o-Xylene*	*0.052*	*0.23*	0.2	0.9	0.914	0.57	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.853	0.179	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.995	0.413	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.896	0.246	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.893	0.245	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.902	0.248	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	1/27/21	Time:	10:10 AM	Field ID:	IA-01	Collector:	B. Roden		Gym
Date Analyzed:	1/27/21	Time:	2:05 PM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.257	0.121	<1	<1	0.27
Chloroethane	**16**	**42**	1	3	0.83	0.357	NA	NA	NA
Trichloromonofluoromethane	**0.22**	**1.5**	0.2	1.4	0.998	0.398	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.773	0.145	<2	<2	0.8
Methylene Chloride	*0.057*	*0.2*	0.2	0.7	0.991	0.506	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.64	0.255	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.479	0.024	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.999	0.311	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.897	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.698	0.022	0.5	3	3
Benzene	**0.22**	**0.7**	0.2	0.6	0.999	0.775	2.3	11	2.3
Carbon Tetrachloride	*0.055*	*0.35*	0.2	1.3	0.963	0.629	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.22**	**0.84**	0.2	0.8	1	0.752	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.817	0.562	1.4	4.1	1.4
Chlorobenzene	*0.042*	*0.19*	0.2	0.9	0.977	0.605	<2.3	<2.3	2.3
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.632	1.5	7.4	7.4
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.999	0.717	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.971	0.506	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	0.2	0.9	0.997	0.526	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.996	0.468	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.997	0.468	NA	NA	NA
1,3-Dichlorobenzene (meta)*	*0.084*	*0.5*	0.2	1.2	0.996	0.344	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.995	0.343	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	*0.058*	*0.35*	0.2	1.2	0.997	0.344	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.929	0.151	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol present in sample

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	1/27/21	Time:	10:05 AM	Field ID:	IA-02	Collector:	B. Roden		Cafeteria
Date Analyzed:	1/27/21	Time:	2:37 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	**3.5**	**9.2**	1	3	0.842	0.255	NA	NA	NA
Trichloromonofluoromethane	*0.19*	*1.3*	0.2	1.4	0.987	0.21	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.743	0.007	<2	<2	0.8
Methylene Chloride	*0.063*	*0.22*	0.2	0.7	0.974	0.287	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.864	0.016	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.965	0.262	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.837	0.004	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.722	0.023	0.5	3	3
Benzene	*0.18*	*0.59*	0.2	0.6	0.998	0.767	2.3	11	2.3
Carbon Tetrachloride	*0.046*	*0.29*	0.2	1.3	0.963	0.6	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.22**	**0.82**	0.2	0.8	1	0.729	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.774	0.533	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.913	0.215	<2.3	<2.3	2.3
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.993	0.645	1.5	7.4	7.4
p/m-Xylene	N.D.	N.D.	0.4	1.7	1	0.731	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	0.979	0.356	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	0.2	0.9	0.999	0.575	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.905	0.337	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.989	0.446	NA	NA	NA
1,3-Dichlorobenzene (meta)*	*0.053*	*0.32*	0.2	1.2	0.941	0.155	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.939	0.155	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.941	0.155	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol present in sample

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	169 Leland Street					Location:
Date Sampled:	1/27/21	Time:	10:15 AM	Field ID:	IA-03	Collector:	B. Roden		Office
Date Analyzed:	1/27/21	Time:	3:08 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.314	0.127	<1	<1	0.27
Chloroethane	**8.3**	**22**	1	3	0.828	0.339	NA	NA	NA
Trichloromonofluoromethane	*0.19*	*1.3*	0.2	1.4	0.995	0.295	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.734	0.151	<2	<2	0.8
Methylene Chloride	*0.07*	*0.24*	0.2	0.7	0.981	0.415	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.637	0.189	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.492	0.072	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.967	0.169	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.973	0.006	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.698	0.023	0.5	3	3
Benzene	*0.19*	*0.62*	0.2	0.6	0.999	0.758	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.888	0.412	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.28**	**1.1**	0.2	0.8	1	0.766	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.807	0.541	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.8	0.144	<2.3	<2.3	2.3
Ethylbenzene	*0.044*	*0.19*	0.2	0.9	0.997	0.678	1.5	7.4	7.4
p/m-Xylene	*0.098*	*0.43*	0.4	1.7	1	0.726	3.8	21	20
Styrene*	N.D.	N.D.	1	4.3	1	0.771	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	0.2	0.9	0.915	0.567	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.91	0.185	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.997	0.457	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.829	0.061	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.825	0.061	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.83	0.061	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Ethanol present in sample

MassDEP Field Assessment and Support Team (FAST)			INDOOR AIR DATA			RTN: 3-19174		
City or Town:	Framingham		Address:	155 Leland Street			Location:	
Date Sampled:	1/27/21	Time:	11:25 AM	Field ID:	155-01	Collector:	B. Roden	Kitchen
Date Analyzed:	1/27/21	Time:	3:40 PM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.381	0.032	<1	<1	0.27
Chloroethane	N.D.	N.D.	1	3	0.811	0.003	NA	NA	NA
Trichloromonofluoromethane	*0.063*	*0.44*	0.2	1.4	0.911	0.156	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.417	0.04	<2	<2	0.8
Methylene Chloride	*0.14*	*0.48*	0.2	0.7	0.889	0.297	1.4	11	11
1,1,2-Trichlorotrifluoroethane	*0.082*	*0.63*	0.2	1.5	0.926	0.243	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.453	0.075	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.996	0.151	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.937	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.675	0.299	0.5	3	3
Benzene	**0.62**	**2**	0.2	0.6	1	0.752	2.3	11	2.3
Carbon Tetrachloride	*0.041*	*0.26*	0.2	1.3	0.962	0.465	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.646	0.012	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.761	0.007	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.274	0.015	<2.7	<2.7	0.15
Toluene	**1.5**	**5.7**	0.2	0.8	1	0.75	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.14*	*0.95*	0.2	1.4	0.945	0.902	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.851	0.115	<2.3	<2.3	2.3
Ethylbenzene	*0.14*	*0.6*	0.2	0.9	0.999	0.667	1.5	7.4	7.4
p/m-Xylene	**0.44**	**1.9**	0.4	1.7	1	0.681	3.8	21	20
Styrene*	*0.25*	*1.1*	1	4.3	0.999	0.728	0.6	1.4	1.4
o-Xylene*	*0.14*	*0.62*	0.2	0.9	0.988	0.615	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.934	0.057	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.996	0.157	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	1	0.376	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.575	0.021	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.569	0.021	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.578	0.021	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.603	0.021	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	1/27/21	Time:	11:30 PM	Field ID:	155-02	Collector:	B. Roden		Basement
Date Analyzed:	1/27/21	Time:	4:12 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m³		TVr
	ppbV	µg/m³	ppbV	µg/m³			50th%	90th%	µg/m3
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.583	0.001	<1	<1	0.27
Chloroethane	**1.7**	**4.5**	1	3	0.936	0.119	NA	NA	NA
Trichloromonofluoromethane	*0.11*	*0.75*	0.2	1.4	0.992	0.207	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.784	0.128	<2	<2	0.8
Methylene Chloride	*0.13*	*0.43*	0.2	0.7	0.988	0.365	1.4	11	11
1,1,2-Trichlorotrifluoroethane	*0.14*	*1.1*	0.2	1.5	0.992	0.331	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.527	0.077	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0.971	0.117	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.962	0.005	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.68	0.212	0.5	3	3
Benzene	**0.38**	**1.2**	0.2	0.6	1	0.763	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.953	0.357	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.256	0.013	<2.7	<2.7	0.15
Toluene	**1.6**	**5.9**	0.2	0.8	1	0.753	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	*0.15*	*1*	0.2	1.4	0.957	0.904	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.618	0.05	<2.3	<2.3	2.3
Ethylbenzene	*0.13*	*0.56*	0.2	0.9	0.999	0.657	1.5	7.4	7.4
p/m-Xylene	*0.38*	*1.7*	0.4	1.7	1	0.686	3.8	21	20
Styrene*	*0.31*	*1.3*	1	4.3	1	0.719	0.6	1.4	1.4
o-Xylene*	*0.13*	*0.58*	0.2	0.9	0.978	0.689	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0.989	0.019	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.996	0.152	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.998	0.417	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.572	0.017	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.565	0.017	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.576	0.017	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0.722	0.015	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0.267	0.108	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.00	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				INDOOR AIR DATA				RTN:	3-19174
City or Town:	Framingham		Address:	157 Leland Street					Location:
Date Sampled:	01/27/21	Time:	10:45 AM	Field ID:	157-02	Collector:	B. Roden		Basement
Date Analyzed:	01/27/21	Time:	4:46 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Typical µg/m^3		TVr µg/m3
	ppbV	µg/m^3	ppbV	µg/m^3			50th%	90th%	
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	<1	<1	0.27
Chloroethane	**6.6**	**18**	1	3	0.842	0.307	NA	NA	NA
Trichloromonofluoromethane	*0.14*	*1*	0.2	1.4	0.997	0.121	NA	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.564	0.042	<2	<2	0.8
Methylene Chloride	*0.073*	*0.25*	0.2	0.7	0.999	0.501	1.4	11	11
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.647	0.079	NA	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	<2	<2	0.8
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.718	0.005	<2	<2	0.8
Chloroform	N.D.	N.D.	0.2	1.0	0	0	1.9	3	1.9
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.967	0.007	<2	<2	0.09
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.605	0.09	0.5	3	3
Benzene	*0.19*	*0.6*	0.2	0.6	0.998	0.746	2.3	11	2.3
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.971	0.551	0.5	0.9	0.54
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.12
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	0.3	0.8	0.4
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	0.6
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	<2.7	<2.7	0.15
Toluene	**0.22**	**0.81**	0.2	0.8	0.999	0.764	11	54	54
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA	NA
Tetrachloroethylene	**0.55**	**3.7**	0.2	1.4	0.994	0.978	1.4	4.1	1.4
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	<2.3	<2.3	2.3
Ethylbenzene	N.D.	N.D.	0.2	0.9	1	0.657	1.5	7.4	7.4
p/m-Xylene	N.D.	N.D.	0.4	1.7	1	0.719	3.8	21	20
Styrene*	*0.34*	*1.4*	1	4.3	1	0.761	0.6	1.4	1.4
o-Xylene*	N.D.	N.D.	0.2	0.9	0.931	0.604	1.9	7.6	20
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1.4	0	0	<3.4	<3.4	0.04
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.902	0.133	NA	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	4.9	0.998	0.523	NA	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1.2	0.842	0.16	<0.25	0.6	0.6
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1.2	0.846	0.161	0.5	1.5	0.5
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1.2	0.833	0.159	<0.25	0.7	0.7
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	14.8	0	0	<0.25	3.4	0.4
HexachloroButadiene*	N.D.	N.D.	1	10.7	0	0	<0.25	4.6	0.11

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/7/2021

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Italicized = Estimated "J" value (conc is less than RL).

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **1.00** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Vapor Treatment System

Data Reports

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/2/21	Time:	3:15 PM	Field ID:	mid	Collector:	Fitzgerald		Midpoint
Date Analyzed:	8/2/21	Time:	4:16 PM	Lab ID:	012	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0	0	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0	0	1400	6200
Styrene*	**70**	**300**	0.2	1	0.999	0.847	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**0.81**	**4**	0.2	1.0	0.84	0.189	NA	NA
1,2,4-Trimethylbenzene*	**1.3**	**6.3**	0.2	1.0	0.973	0.202	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **43** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/2/21	Time:	10:59 AM	Field ID:	VGAC-I	Collector:	Fitzgerald		Inlet to VGAC
Date Analyzed:	8/2/21	Time:	11:57 AM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	560	1400	3	7.7	0.999	0.305	19	91
Chloroethane	350	920	2	5	0.92	0.147	NA	NA
Trichloromonofluoromethane	28000	200000	1	7	0.998	0.44	NA	NA
1,1-Dichloroethylene	2200	8700	1	4.0	0.999	0.529	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.6	0.028	770	37000
1,1,2-Trichlorotrifluoroethane	40000	310000	1	7.7	0.999	0.746	NA	NA
1,1-Dichloroethane	3000	12000	0.2	0.8	1	0.663	56	50,000
Cis 1,2-Dichloroethylene	88000	350000	0.2	0.8	1	0.831	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.989	0.033	6.3	31
1,1,1-Trichloroethane	240000	1300000	0.2	1.1	1	0.724	210	310,000
Benzene	180	570	0.2	0.6	0.974	0.546	160	800
Carbon Tetrachloride	17000	110000	0.2	1.3	0.999	0.123	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.516	0.032	8.6	42
Trichloroethylene	460000	2500000	0.2	1.1	1	0.821	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.223	0.094	10	50
Toluene	100	390	0.2	0.8	0.994	0.552	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	620000	4200000	0.2	1.4	0.972	0.953	98	290
Chlorobenzene	60	280	0.2	0.9	0.827	0.106	160	3100
Ethylbenzene	14	59	0.4	1.7	0.965	0.108	520	62000
p/m-Xylene	29	130	0.2	0.9	0.939	0.381	1400	6200
Styrene*	240	1000	0.2	1	0.999	0.658	95	1400
o-Xylene*	27	120	0.2	0.9	0.863	0.221	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.719	0.051	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.893	0.093	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.966	0.086	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/2/21	Time:	11:05 AM	Field ID:	VGAC-M	Collector:	Fitzgerald		
Date Analyzed:	8/2/21	Time:	11:14 AM	Lab ID:	5	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.993	0.017	@ 200 CFM
Chloroethane	**5.6**	**15**	2	5	0.918	0.148	0 @ 200 CFM
Trichloromonofluoromethane	**0.51**	**3.6**	0.2	1	0.972	0.172	0 @ 200 CFM
1,1-Dichloroethylene	**23**	**92**	0.2	0.8	0.991	0.749	1 @ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.832	0.055	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	**12**	**91**	0.2	1.5	0.986	0.222	1 @ 200 CFM
1,1-Dichloroethane	**2.2**	**9**	0.2	0.8	0.881	0.213	0 @ 200 CFM
Cis 1,2-Dichloroethylene	**67**	**270**	0.2	0.8	0.988	0.832	2 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.65	0.079	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.967	0.007	@ 200 CFM
1,1,1-Trichloroethane	**230**	**1200**	0.2	1.1	0.995	0.703	8 @ 200 CFM
Benzene	**3.5**	**11**	0.2	0.6	0.999	0.871	0 @ 200 CFM
Carbon Tetrachloride	**17**	**100**	0.2	1.3	0.999	0.105	1 @ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.545	0.034	@ 200 CFM
Trichloroethylene	**400**	**2100**	0.2	1.1	0.998	0.844	14 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.761	0.364	@ 200 CFM
Toluene	**1.4**	**5.3**	0.2	0.8	0.999	0.569	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.911	0.073	@ 200 CFM
Tetrachloroethylene	**880**	**6000**	0.2	1.4	0.988	0.982	39 @ 200 CFM
Chlorobenzene	**0.5**	**2.3**	0.2	0.9	0.88	0.23	0 @ 200 CFM
Ethylbenzene	**0.36**	**1.5**	0.2	0.9	0.998	0.453	0 @ 200 CFM
p/m-Xylene	**0.93**	**4**	0.4	1.7	0.993	0.66	0 @ 200 CFM
Styrene*	*0.65*	*2.8*	1	4	0.987	0.547	0 @ 200 CFM
o-Xylene*	*0.42*	*1.8*	1	4	0.996	0.641	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.959	0.038	@ 200 CFM
1,3,5-Trimethylbenzene*	*0.24*	*1.2*	1	5	0.915	0.248	0 @ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.953	0.101	@ 200 CFM
1,3-Dichlorobenzene (meta)*	**0.61**	**3.7**	0.2	1	0.995	0.203	0 @ 200 CFM
1,4-Dichlorobenzene (para)*	**0.27**	**1.6**	0.2	1	0.998	0.136	0 @ 200 CFM
1,2-Dichlorobenzene (ortho)*	**0.44**	**2.7**	0.2	1	0.937	0.231	0 @ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.321	0.101	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**65 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/2/21	Time:	11:35 AM	Field ID:	VGAC-E	Collector:	E. Johnson		
Date Analyzed:	8/2/21	Time:	11:46 AM	Lab ID:	6	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.51	0.094	@ 200 CFM
Chloroethane	**4**	**10**	2	5	0.882	0.17	0 @ 200 CFM
Trichloromonofluoromethane	**0.26**	**1.8**	0.2	1	0.979	0.106	0 @ 200 CFM
1,1-Dichloroethylene	**1.7**	**6.9**	0.2	0.8	0.983	0.564	0 @ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.911	0.026	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	**0.81**	**6.2**	0.2	1.5	0.983	0.241	0 @ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.932	0.064	@ 200 CFM
Cis 1,2-Dichloroethylene	**4.9**	**20**	0.2	0.8	0.982	0.795	0 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.44	0.012	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.949	0.005	@ 200 CFM
1,1,1-Trichloroethane	**20**	**110**	0.2	1.1	0.99	0.71	1 @ 200 CFM
Benzene	**0.8**	**2.5**	0.2	0.6	1	0.868	0 @ 200 CFM
Carbon Tetrachloride	**1.5**	**9.6**	0.2	1.3	0.998	0.112	0 @ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.536	0.029	@ 200 CFM
Trichloroethylene	**37**	**200**	0.2	1.1	0.993	0.847	1 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.762	0.044	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	**0.44**	**1.6**	0.2	0.8	0.998	0.526	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	**150**	**1000**	0.2	1.4	0.996	0.99	7 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.965	0.191	@ 200 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.937	0.536	@ 200 CFM
p/m-Xylene	*0.31*	*1.3*	0.4	1.7	0.993	0.608	0 @ 200 CFM
Styrene*	*0.27*	*1.1*	1	4	0.992	0.642	0 @ 200 CFM
o-Xylene*	N.D.	N.D.	1	4	0.98	0.679	@ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.82	0.111	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.939	0.189	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.938	0.189	@ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.983	0.371	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.235	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.948	0.353	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.371	0.156	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**9 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/2/21	Time:	3:01 AM	Field ID:	EFF	Collector:	Fitzgerald		
Date Analyzed:	8/2/21	Time:	3:07 PM	Lab ID:	11	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.579	0.005	@ 200 CFM
Chloroethane	**2.8**	**7.5**	2	5	0.893	0.178	0 @ 200 CFM
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.963	0.015	@ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.935	0.132	@ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.815	0.041	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.724	0.01	@ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.863	0.005	@ 200 CFM
Cis 1,2-Dichloroethylene	**0.43**	**1.7**	0.2	0.8	0.981	0.198	0 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.843	0.007	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.912	0.004	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.711	0.542	@ 200 CFM
Benzene	**0.97**	**3.1**	0.2	0.6	0.998	0.787	0 @ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.585	0.033	@ 200 CFM
Trichloroethylene	**1.1**	**6**	0.2	1.1	0.996	0.824	0 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	**0.4**	**1.5**	0.2	0.8	0.999	0.676	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	**3.1**	**21**	0.2	1.4	0.994	0.977	0 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.59	0.001	@ 200 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.977	0.637	@ 200 CFM
p/m-Xylene	**0.48**	**2.1**	0.4	1.7	0.991	0.639	0 @ 200 CFM
Styrene*	*0.34*	*1.5*	1	4	0.988	0.774	0 @ 200 CFM
o-Xylene*	*0.31*	*1.3*	1	4	0.996	0.527	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.904	0.035	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.998	0.19	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.993	0.202	@ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.936	0.202	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.969	0.122	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.941	0.195	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland St					Estimated Flowrate (CFM)
Date Sampled:	8/2/21	Time:	3:22 PM	Field ID:	Inf	Collector:	Fitzgerald		
Date Analyzed:	8/2/21	Time:	3:39 PM	Lab ID:	12	Analyst:	Fitzgerald		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	560	1500	0.2	0.5	0.938	0.568	10 @ 200 CFM
Chloroethane	1100	3000	2	5	0.932	0.205	20 @ 200 CFM
Trichloromonofluoromethane	31000	220000	0.2	1	0.997	0.262	1445 @ 200 CFM
1,1-Dichloroethylene	51000	200000	0.2	0.8	0.994	0.764	1314 @ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.676	0.031	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	43000	330000	0.2	1.5	0.995	0.38	2168 @ 200 CFM
1,1-Dichloroethane	3700	15000	0.2	0.8	0.942	0.386	99 @ 200 CFM
Cis 1,2-Dichloroethylene	66000	260000	0.2	0.8	0.995	0.848	1708 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.891	0.068	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.959	0.007	@ 200 CFM
1,1,1-Trichloroethane	230000	1300000	0.2	1.1	0.998	0.691	8541 @ 200 CFM
Benzene	200	630	0.2	0.6	0.998	0.783	4 @ 200 CFM
Carbon Tetrachloride	19000	120000	0.2	1.3	0.998	0.109	788 @ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.528	0.032	@ 200 CFM
Trichloroethylene	190000	1000000	0.2	1.1	0.998	0.846	6570 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.563	0.254	@ 200 CFM
Toluene	450	1700	0.2	0.8	0.999	0.667	11 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	230000	1500000	0.2	1.4	0.991	0.985	9855 @ 200 CFM
Chlorobenzene	96	440	0.2	0.9	0.913	0.171	3 @ 200 CFM
Ethylbenzene	46	200	0.2	0.9	0.998	0.292	1 @ 200 CFM
p/m-Xylene	90	390	0.4	1.7	0.984	0.597	3 @ 200 CFM
Styrene*	690	2900	1	4	0.987	0.69	19 @ 200 CFM
o-Xylene*	71	310	1	4	0.911	0.39	2 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.907	0.008	@ 200 CFM
1,3,5-Trimethylbenzene*	30	150	1	5	0.963	0.252	1 @ 200 CFM
1,2,4-Trimethylbenzene*	35	170	1	5	0.997	0.105	1 @ 200 CFM
1,3-Dichlorobenzene (meta)*	4.8	29	0.2	1	0.935	0.138	0 @ 200 CFM
1,4-Dichlorobenzene (para)*	19	110	0.2	1	0.999	0.15	1 @ 200 CFM
1,2-Dichlorobenzene (ortho)*	30	180	0.2	1	0.922	0.244	1 @ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.306	0.107	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	32566 @ 200 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/6/21	Time:	10:05 AM	Field ID:	VGCA-M	Collector:	E. Johnson		
Date Analyzed:	8/6/21	Time:	11:51 AM	Lab ID:	4	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.349	0.106	@ 200 CFM
Chloroethane	**51**	**140**	2	5	0.84	0.464	1 @ 200 CFM
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.938	0.08	@ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.635	0.013	@ 200 CFM
Methylene Chloride	**0.24**	**0.84**	0.2	0.7	0.849	0.183	0 @ 200 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.567	0.048	@ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.635	0.009	@ 200 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.46	0.12	@ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.803	0.004	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.643	0.074	@ 200 CFM
Benzene	**2.2**	**7.1**	0.2	0.6	0.996	0.765	0 @ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.882	0.14	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
Trichloroethylene	**0.23**	**1.3**	0.2	1.1	0.96	0.466	0 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	**3.1**	**12**	0.2	0.8	0.995	0.68	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.747	0.142	@ 200 CFM
Tetrachloroethylene	**1.3**	**8.8**	0.2	1.4	0.97	0.923	0 @ 200 CFM
Chlorobenzene	**0.21**	**0.95**	0.2	0.9	0.997	0.597	0 @ 200 CFM
Ethylbenzene	**0.76**	**3.3**	0.2	0.9	0.998	0.659	0 @ 200 CFM
p/m-Xylene	**1.7**	**7.3**	0.4	1.7	0.998	0.664	0 @ 200 CFM
Styrene*	**22**	**94**	1	4	0.992	0.788	1 @ 200 CFM
o-Xylene*	**1.1**	**4.9**	1	4	0.915	0.636	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.854	0.076	@ 200 CFM
1,3,5-Trimethylbenzene*	*0.24*	*1.2*	1	5	0.999	0.174	0 @ 200 CFM
1,2,4-Trimethylbenzene*	*0.56*	*2.7*	1	5	0.998	0.407	0 @ 200 CFM
1,3-Dichlorobenzene (meta)*	**0.49**	**2.9**	0.2	1	0.971	0.301	0 @ 200 CFM
1,4-Dichlorobenzene (para)*	**0.22**	**1.3**	0.2	1	0.998	0.205	0 @ 200 CFM
1,2-Dichlorobenzene (ortho)*	**0.35**	**2.1**	0.2	1	0.937	0.287	0 @ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.442	0.183	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**2 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 9 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Chloroethene and styrene present in blank sample.

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/6/21	Time:	10:10 AM	Field ID:	VGAC-I	Collector:	E. Johnson		
Date Analyzed:	8/6/21	Time:	12:23 PM	Lab ID:	5	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.77	0.205	@ 200 CFM
Chloroethane	810	2100	2	5	0.893	0.195	14 @ 200 CFM
Trichloromonofluoromethane	3200	22000	0.2	1	0.996	0.259	145 @ 200 CFM
1,1-Dichloroethylene	8100	32000	0.2	0.8	0.989	0.807	210 @ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.744	0.042	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	4400	34000	0.2	1.5	0.994	0.383	223 @ 200 CFM
1,1-Dichloroethane	660	2700	0.2	0.8	0.935	0.363	18 @ 200 CFM
Cis 1,2-Dichloroethylene	14000	56000	0.2	0.8	0.993	0.839	368 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.656	0.193	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.987	0.007	@ 200 CFM
1,1,1-Trichloroethane	53000	290000	0.2	1.1	0.997	0.694	1905 @ 200 CFM
Benzene	110	350	0.2	0.6	0.999	0.822	2 @ 200 CFM
Carbon Tetrachloride	4200	27000	0.2	1.3	0.997	0.11	177 @ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.543	0.035	@ 200 CFM
Trichloroethylene	66000	350000	0.2	1.1	0.998	0.843	2300 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.549	0.229	@ 200 CFM
Toluene	230	860	0.2	0.8	0.999	0.703	6 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	87000	590000	0.2	1.4	0.992	0.986	3876 @ 200 CFM
Chlorobenzene	46	210	0.2	0.9	0.892	0.139	1 @ 200 CFM
Ethylbenzene	39	170	0.2	0.9	0.999	0.379	1 @ 200 CFM
p/m-Xylene	70	300	0.4	1.7	0.994	0.596	2 @ 200 CFM
Styrene*	890	3800	1	4	0.987	0.741	25 @ 200 CFM
o-Xylene*	61	270	1	4	0.913	0.625	2 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.818	0.007	@ 200 CFM
1,3,5-Trimethylbenzene*	26	130	1	5	0.944	0.339	1 @ 200 CFM
1,2,4-Trimethylbenzene*	25	120	1	5	0.994	0.118	1 @ 200 CFM
1,3-Dichlorobenzene (meta)*	36	220	0.2	1	0.987	0.165	1 @ 200 CFM
1,4-Dichlorobenzene (para)*	16	97	0.2	1	0.998	0.117	1 @ 200 CFM
1,2-Dichlorobenzene (ortho)*	26	160	0.2	1	0.925	0.19	1 @ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	9280 @ 200 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: Vial sample

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/11/21	Time:	11:35 AM	Field ID:	Inf	Collector:	E Johnson		VGAC - INF - bag
Date Analyzed:	8/11/21	Time:	12:55 PM	Lab ID:	005	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	1400	3800	2	5	0.94	0.198	NA	NA
Trichloromonofluoromethane	1400	10000	1	7	0.991	0.386	NA	NA
1,1-Dichloroethylene	140	540	1	4.0	0.95	0.203	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.788	0.037	770	37000
1,1,2-Trichlorotrifluoroethane	2100	16000	1	7.7	0.998	0.687	NA	NA
1,1-Dichloroethane	340	1400	0.2	0.8	0.992	0.372	56	50,000
Cis 1,2-Dichloroethylene	8200	33000	0.2	0.8	1	0.804	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.982	0.032	6.3	31
1,1,1-Trichloroethane	29000	160000	0.2	1.1	1	0.724	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	2200	14000	0.2	1.3	0.999	0.125	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.652	0.041	8.6	42
Trichloroethylene	67000	360000	0.2	1.1	1	0.818	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	81	300	0.2	0.8	0.969	0.265	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	210000	1400000	0.2	1.4	0.999	0.991	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.795	0.105	160	3100
Ethylbenzene	23	98	0.4	1.7	0.948	0.138	520	62000
p/m-Xylene	34	150	0.2	0.9	0.988	0.262	1400	6200
Styrene*	470	2000	0.2	1	1	0.63	95	1400
o-Xylene*	52	220	0.2	0.9	0.922	0.246	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.737	0.052	2.8	14
1,3,5-Trimethylbenzene*	25	120	0.2	1.0	0.922	0.128	NA	NA
1,2,4-Trimethylbenzene*	21	100	0.2	1.0	0.925	0.129	NA	NA
1,3-Dichlorobenzene (meta)*	530	3200	0.2	1	0.905	0.149	42	50,000
1,4-Dichlorobenzene (para)*	410	2500	0.2	1	0.901	0.148	35	120
1,2-Dichlorobenzene (ortho)*	400	2400	0.2	1	0.906	0.149	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Some values exceed calibration range

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/11/21	Time:	11:30 AM	Field ID:	Inf	Collector:	E Johnson		VGAC - INF (bag)
Date Analyzed:	8/11/21	Time:	12:25 PM	Lab ID:	004	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	**5400**	**14000**	2	5	0.833	0.226	NA	NA
Trichloromonofluoromethane	**1700**	**12000**	1	7	0.992	0.38	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.972	0.094	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**2400**	**18000**	1	7.7	0.998	0.638	NA	NA
1,1-Dichloroethane	**360**	**1500**	0.2	0.8	0.999	0.342	56	50,000
Cis 1,2-Dichloroethylene	**9200**	**37000**	0.2	0.8	1	0.807	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.993	0.035	6.3	31
1,1,1-Trichloroethane	**33000**	**180000**	0.2	1.1	1	0.723	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.754	0.205	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.644	0.04	8.6	42
Trichloroethylene	**74000**	**400000**	0.2	1.1	1	0.816	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**98**	**370**	0.2	0.8	0.995	0.341	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**230000**	**1500000**	0.2	1.4	0.999	0.99	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.62	0.083	160	3100
Ethylbenzene	**36**	**160**	0.4	1.7	0.963	0.188	520	62000
p/m-Xylene	**58**	**250**	0.2	0.9	0.948	0.303	1400	6200
Styrene*	**2000**	**8500**	0.2	1	0.999	0.731	95	1400
o-Xylene*	**52**	**220**	0.2	0.9	0.949	0.303	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.777	0.073	2.8	14
1,3,5-Trimethylbenzene*	**67**	**330**	0.2	1.0	0.995	0.146	NA	NA
1,2,4-Trimethylbenzene*	**56**	**270**	0.2	1.0	0.997	0.146	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.793	0.124	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.901	0.148	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.906	0.149	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **340** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Some values exceed calibration range

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	8/11/21	Time:	2:00 PM	Field ID:	EFF	Collector: E Johnson	VGAC - Effluent
Date Analyzed:	8/11/21	Time:	4:19 PM	Lab ID:	10	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	**8.5**	**23**	2	5	0.841	0.173	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.796	0.045	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**12**	**40**	0.2	0.6	0.999	0.819	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.56**	**2.1**	0.2	0.8	1	0.497	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.89**	**3.9**	0.4	1.7	0.987	0.539	520	62000
p/m-Xylene	**1.1**	**4.6**	0.2	0.9	0.997	0.652	1400	6200
Styrene*	**0.91**	**3.9**	0.2	1	0.996	0.617	95	1400
o-Xylene*	**0.93**	**4**	0.2	0.9	0.983	0.672	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.824	0.11	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.914	0.198	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.901	0.148	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.906	0.149	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/11/21	Time:	11:25 AM	Field ID:	Mid	Collector:	E Johnson		
Date Analyzed:	8/11/21	Time:	12:00 PM	Lab ID:	5	Analyst:	Fitzgerald		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	150	380	0.2	0.5	0.983	0.667	2 @ 200 CFM
Chloroethane	**92**	**240**	2	5	0.845	0.172	2 @ 200 CFM
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0	0	@ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.641	0.017	@ 200 CFM
Methylene Chloride	**0.33**	**1.1**	0.2	0.7	0.995	0.192	0 @ 200 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.555	0.141	@ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.824	0.071	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.94	0.006	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.712	0.167	@ 200 CFM
Benzene	**0.39**	**1.2**	0.2	0.6	0.975	0.455	0 @ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.45	0.067	@ 200 CFM
Trichloroethylene	**0.29**	**1.6**	0.2	1.1	0.992	0.72	0 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	**0.39**	**1.5**	0.2	0.8	1	0.475	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	**2.2**	**15**	0.2	1.4	0.99	0.955	0 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.835	0.001	@ 200 CFM
Ethylbenzene	**0.22**	**0.94**	0.2	0.9	0.989	0.541	0 @ 200 CFM
p/m-Xylene	**0.77**	**3.3**	0.4	1.7	0.996	0.691	0 @ 200 CFM
Styrene*	**7.3**	**31**	1	4	0.988	0.766	0 @ 200 CFM
o-Xylene*	*0.65*	*2.8*	1	4	0.91	0.626	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.755	0.087	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.976	0.341	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.993	0.288	@ 200 CFM
1,3-Dichlorobenzene (meta)*	**0.33**	**2**	0.2	1	0.841	0.124	0 @ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.998	0.161	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.989	0.25	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**4 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/11/21	Time:	2:05 PM	Field ID:	MID	Collector:	E Johnson		
Date Analyzed:	8/11/21	Time:	2:13 PM	Lab ID:	8	Analyst:	Fitzgerald		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	170	430	0.2	0.5	0.991	0.71	3 @ 200 CFM
Chloroethane	110	290	2	5	0.834	0.144	2 @ 200 CFM
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.17	0.003	@ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Methylene Chloride	0.29	1	0.2	0.7	0.921	0.524	0 @ 200 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.651	0.033	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.969	0.006	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.673	0.022	@ 200 CFM
Benzene	N.D.	N.D.	0.2	0.6	0.886	0.268	@ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	N.D.	N.D.	0.2	0.8	0.985	0.205	@ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	*0.13*	*0.85*	0.2	1.4	0.88	0.63	0 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
Ethylbenzene	0.3	1.3	0.2	0.9	0.989	0.615	0 @ 200 CFM
p/m-Xylene	1.3	5.7	0.4	1.7	0.992	0.65	0 @ 200 CFM
Styrene*	1.7	7.3	1	4	0.987	0.754	0 @ 200 CFM
o-Xylene*	1.1	4.9	1	4	0.995	0.473	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.76	0.006	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.848	0.111	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.982	0.244	@ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.84	0.093	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.989	0.071	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.81	0.097	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**5 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland street					Location:
Date Sampled:	8/11/21	Time:	2:10 PM	Field ID:	INF	Collector:	E Johnson		VGAC - Influent (Vial)
Date Analyzed:	8/11/21	Time:	3:34 PM	Lab ID:	009	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	2000	5300	2	5	0.955	0.118	NA	NA
Trichloromonofluoromethane	1800	13000	1	7	0.983	0.327	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	2600	20000	1	7.7	0.998	0.582	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.566	0.126	56	50,000
Cis 1,2-Dichloroethylene	10000	41000	0.2	0.8	0.999	0.805	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.98	0.038	6.3	31
1,1,1-Trichloroethane	33000	180000	0.2	1.1	1	0.715	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	2600	16000	0.2	1.3	0.998	0.13	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.693	0.044	8.6	42
Trichloroethylene	63000	340000	0.2	1.1	0.999	0.809	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	250000	1700000	0.2	1.4	0.998	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	45	200	0.4	1.7	0.871	0.101	520	62000
p/m-Xylene	46	200	0.2	0.9	0.939	0.121	1400	6200
Styrene*	2300	9800	0.2	1	0.998	0.747	95	1400
o-Xylene*	69	300	0.2	0.9	0.896	0.168	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	97	480	0.2	1.0	0.974	0.174	NA	NA
1,2,4-Trimethylbenzene*	81	400	0.2	1.0	0.974	0.174	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.607	0.038	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.901	0.148	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.906	0.149	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/12/21	Time:	10:45 AM	Field ID:	VGAC-I	Collector:	Fitzgerald		VGAC-Inf (Vial)
Date Analyzed:	8/12/21	Time:	12:08 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	990	2600	2	5	0.936	0.148	NA	NA
Trichloromonofluoromethane	1300	8900	1	7	0.99	0.415	NA	NA
1,1-Dichloroethylene	230	900	1	4.0	0.993	0.247	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	1800	14000	1	7.7	0.999	0.722	NA	NA
1,1-Dichloroethane	240	990	0.2	0.8	0.975	0.308	56	50,000
Cis 1,2-Dichloroethylene	10000	40000	0.2	0.8	1	0.822	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.984	0.035	6.3	31
1,1,1-Trichloroethane	26000	140000	0.2	1.1	1	0.728	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	1900	12000	0.2	1.3	0.999	0.119	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.585	0.035	8.6	42
Trichloroethylene	70000	380000	0.2	1.1	0.999	0.826	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	81	300	0.2	0.8	0.997	0.378	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.819	0	NA	NA
Tetrachloroethylene	130000	890000	0.2	1.4	0.999	0.991	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.71	0.089	160	3100
Ethylbenzene	29	120	0.4	1.7	0.953	0.158	520	62000
p/m-Xylene	29	120	0.2	0.9	0.975	0.275	1400	6200
Styrene*	380	1600	0.2	1	0.999	0.682	95	1400
o-Xylene*	26	110	0.2	0.9	0.969	0.273	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.492	0.04	2.8	14
1,3,5-Trimethylbenzene*	26	130	0.2	1.0	0.945	0.16	NA	NA
1,2,4-Trimethylbenzene*	17	84	0.2	1.0	0.878	0.116	NA	NA
1,3-Dichlorobenzene (meta)*	530	3200	0.2	1	0.924	0.184	42	50,000
1,4-Dichlorobenzene (para)*	410	2500	0.2	1	0.92	0.183	35	120
1,2-Dichlorobenzene (ortho)*	400	2400	0.2	1	0.926	0.184	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.31	0.137	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/12/21	Time:	10:35 AM	Field ID:	VGAC-E	Collector:	Fitzgerald		VGAC-Effluent
Date Analyzed:	8/12/21	Time:	11:36 AM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.963	0.097	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.815	0.048	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**0.78**	**2.5**	0.2	0.6	0.917	0.411	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.989	0.267	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.45**	**1.9**	0.4	1.7	0.985	0.545	520	62000
p/m-Xylene	**0.53**	**2.3**	0.2	0.9	0.999	0.679	1400	6200
Styrene*	**1**	**4.4**	0.2	1	0.997	0.763	95	1400
o-Xylene*	**0.44**	**1.9**	0.2	0.9	0.818	0.482	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.837	0.13	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.972	0.231	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.92	0.183	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.926	0.184	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.355	0.146	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				VGAC Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/12/21	Time:	10:40 AM	Field ID:	VGAC-M	Collector:	Fitzgerald		
Date Analyzed:	8/12/21	Time:	10:54 AM	Lab ID:	4	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Day +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	120	310	0.2	0.5	0.989	0.556	0 @ 200 CFM
Chloroethane	**67**	**180**	2	5	0.829	0.134	0 @ 200 CFM
Trichloromonofluoromethane	**1.6**	**11**	0.2	1	0.997	0.406	0 @ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.784	0.025	@ 200 CFM
Methylene Chloride	**0.85**	**2.9**	0.2	0.7	0.998	0.587	0 @ 200 CFM
1,1,2-Trichlorotrifluoroethane	**2.3**	**17**	0.2	1.5	0.998	0.664	0 @ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.993	0.007	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.687	0.022	@ 200 CFM
Benzene	**0.9**	**2.9**	0.2	0.6	0.999	0.805	0 @ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.57	0.062	@ 200 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.491	0.024	@ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	*0.2*	**0.76**	0.2	0.8	1	0.494	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.371	0.051	@ 200 CFM
Tetrachloroethylene	*0.094*	*0.63*	0.2	1.4	0.961	0.778	0 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.546	0.001	@ 200 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.995	0.639	@ 200 CFM
p/m-Xylene	**0.77**	**3.3**	0.4	1.7	0.994	0.654	0 @ 200 CFM
Styrene*	**3.9**	**17**	1	4	0.99	0.77	0 @ 200 CFM
o-Xylene*	*0.66*	*2.9*	1	4	0.939	0.733	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.883	0.374	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.362	@ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.956	0.195	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.965	0.131	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.947	0.182	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.553	0.213	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.8	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				VGAC Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	Gen Chem					Estimated Flowrate (CFM)
Date Sampled:	8/12/21	Time:	10:35 AM	Field ID:	Eff	Collector:	Fitzgerald		
Date Analyzed:	8/12/21	Time:	11:27 AM	Lab ID:	5	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Day +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.676	0.087	@ 200 CFM
Chloroethane	**3.2**	**8.4**	2	5	0.965	0.125	0 @ 200 CFM
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.537	0.013	@ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.873	0.021	@ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.656	0.013	@ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.996	0.032	@ 200 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.764	0.014	@ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.537	0.007	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.882	0.005	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.694	0.019	@ 200 CFM
Benzene	**0.84**	**2.7**	0.2	0.6	0.999	0.684	0 @ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	**0.25**	**0.96**	0.2	0.8	0.999	0.562	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	*0.071*	*0.48*	0.2	1.4	0.908	0.75	0 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.85	0.088	@ 200 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.996	0.609	@ 200 CFM
p/m-Xylene	**0.55**	**2.4**	0.4	1.7	0.993	0.636	0 @ 200 CFM
Styrene*	*0.94*	*4*	1	4	0.989	0.763	0 @ 200 CFM
o-Xylene*	*0.35*	*1.5*	1	4	0.995	0.746	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.678	0.045	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.975	0.307	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.976	0.307	@ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.899	0.062	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.916	0.013	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.946	0.058	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.404	0.218	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: duplicate analysis from ER 003 (8/12/21)

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/13/21	Time:	10:35 AM	Field ID:	VGAC-I	Collector:	E. Johnson		VGAC-Influent
Date Analyzed:	8/13/21	Time:	12:02 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	**4300**	**11000**	2	5	0.867	0.172	NA	NA
Trichloromonofluoromethane	**1400**	**9900**	1	7	0.994	0.301	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.83	0.079	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.878	0.098	770	37000
1,1,2-Trichlorotrifluoroethane	**2000**	**15000**	1	7.7	0.998	0.462	NA	NA
1,1-Dichloroethane	**390**	**1600**	0.2	0.8	0.907	0.117	56	50,000
Cis 1,2-Dichloroethylene	**9800**	**39000**	0.2	0.8	1	0.776	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.413	0.02	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.992	0.034	6.3	31
1,1,1-Trichloroethane	**23000**	**130000**	0.2	1.1	1	0.708	210	310,000
Benzene	**120**	**380**	0.2	0.6	0.95	0.125	160	800
Carbon Tetrachloride	**1700**	**11000**	0.2	1.3	0.996	0.127	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.838	0.047	8.6	42
Trichloroethylene	**52000**	**280000**	0.2	1.1	0.999	0.819	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.783	0.023	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.779	0.023	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.56	0.105	10	50
Toluene	**160**	**610**	0.2	0.8	0.995	0.123	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.921	0.025	NA	NA
Tetrachloroethylene	**110000**	**740000**	0.2	1.4	0.998	0.99	98	290
Chlorobenzene	**54**	**250**	0.2	0.9	0.894	0.105	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.898	0.004	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.922	0.061	1400	6200
Styrene*	**190**	**820**	0.2	1	0.947	0.36	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.927	0.061	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.905	0.05	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.973	0.038	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.974	0.077	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.379	0.12	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **850** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/13/21	Time:	10:25 AM	Field ID:	VGAC-E	Collector:	E. Johnson	VGAC Effluent
Date Analyzed:	8/13/21	Time:	11:31 AM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**4.4**	**11**	3	7.7	0.872	0.161	19	91
Chloroethane	N.D.	N.D.	2	5	0.812	0.093	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.615	0.03	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.721	0.036	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.715	0.023	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.881	0.01	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.986	0.004	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.935	0.028	210	310,000
Benzene	**0.7**	**2.3**	0.2	0.6	0.929	0.288	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.793	0.02	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.506	0.136	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.987	0.179	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.745	0.075	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.721	0.226	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.948	0.187	520	62000
p/m-Xylene	**0.6**	**2.6**	0.2	0.9	0.996	0.496	1400	6200
Styrene*	**0.6**	**2.6**	0.2	1	0.994	0.515	95	1400
o-Xylene*	**0.47**	**2**	0.2	0.9	0.994	0.541	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.903	0.085	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.996	0.089	NA	NA
1,3-Dichlorobenzene (meta)*	**1.5**	**9.2**	0.2	1	0.89	0.115	42	50,000
1,4-Dichlorobenzene (para)*	**1.2**	**7.2**	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	**1.2**	**6.9**	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.555	0.256	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.394	0.142	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				VGAC Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/13/21	Time:	10:30 AM	Field ID:	VGAC-M	Collector:	E. Johnson		
Date Analyzed:	8/13/21	Time:	10:40 AM	Lab ID:	3	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Day +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	110	280	0.2	0.5	0.985	0.636	0 @ 200 CFM
Chloroethane	8.1	21	2	5	0.976	0.299	0 @ 200 CFM
Trichloromonofluoromethane	10	70	0.2	1	0.999	0.416	0 @ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.697	0.042	@ 200 CFM
Methylene Chloride	2.6	9	0.2	0.7	0.998	0.471	0 @ 200 CFM
1,1,2-Trichlorotrifluoroethane	14	110	0.2	1.5	0.997	0.658	0 @ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.933	0.005	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.68	0.022	@ 200 CFM
Benzene	1.7	5.3	0.2	0.6	0.998	0.776	0 @ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	0.3	1.1	0.2	0.8	0.997	0.445	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.673	0.144	@ 200 CFM
Tetrachloroethylene	*0.14*	*0.96*	0.2	1.4	0.974	0.768	0 @ 200 CFM
Chlorobenzene	*0.066*	*0.3*	0.2	0.9	0.955	0.338	0 @ 200 CFM
Ethylbenzene	0.21	0.92	0.2	0.9	0.987	0.567	0 @ 200 CFM
p/m-Xylene	1.1	4.7	0.4	1.7	0.991	0.642	0 @ 200 CFM
Styrene*	3.9	17	1	4	0.989	0.766	0 @ 200 CFM
o-Xylene*	1	4.5	1	4	0.982	0.757	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.986	0.358	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.99	0.36	@ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.974	0.338	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.209	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.969	0.332	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.698	0.403	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/16/21	Time:	3:00 PM	Field ID:	VGAC-E	Collector:	E. Johnson		VGAC - Eff
Date Analyzed:	8/17/21	Time:	11:25 AM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**41**	**100**	3	7.7	0.994	0.346	19	91
Chloroethane	**15**	**38**	2	5	0.897	0.115	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0	0	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.827	0.076	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0	0	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.898	0.038	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**7.2**	**23**	0.2	0.6	0.997	0.677	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.77**	**2.9**	0.2	0.8	0.998	0.397	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.35**	**2.4**	0.2	1.4	0.927	0.524	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.991	0.173	520	62000
p/m-Xylene	**0.54**	**2.3**	0.2	0.9	0.98	0.418	1400	6200
Styrene*	**2.3**	**9.7**	0.2	1	0.999	0.697	95	1400
o-Xylene*	**0.33**	**1.4**	0.2	0.9	0.852	0.239	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.892	0.104	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	1	0.162	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.532	0.028	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.534	0.028	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.521	0.027	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.357	0.153	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.449	0.186	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/16/21	Time:	3:05 PM	Field ID:	VGAC-M	Collector:	E. Johnson		VGAC-Midpoint
Date Analyzed:	8/17/21	Time:	12:00 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**100**	**260**	3	7.7	0.974	0.446	19	91
Chloroethane	**23**	**60**	2	5	0.962	0.126	NA	NA
Trichloromonofluoromethane	**4.9**	**34**	1	7	0.999	0.367	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.557	0.021	56	12000
Methylene Chloride	**3.2**	**11**	0.2	0.7	0.994	0.351	770	37000
1,1,2-Trichlorotrifluoroethane	**7.6**	**58**	1	7.7	0.998	0.462	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.949	0.042	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.997	0.007	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.741	0.019	210	310,000
Benzene	**5**	**16**	0.2	0.6	0.999	0.598	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.5**	**5.7**	0.2	0.8	1	0.449	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.366	0.017	NA	NA
Tetrachloroethylene	**0.3**	**2**	0.2	1.4	0.893	0.48	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.906	0.11	520	62000
p/m-Xylene	**0.37**	**1.6**	0.2	0.9	0.995	0.323	1400	6200
Styrene*	**1.4**	**6**	0.2	1	0.992	0.567	95	1400
o-Xylene*	**0.26**	**1.1**	0.2	0.9	0.867	0.155	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.572	0.019	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.999	0.171	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	1	0.171	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.534	0.028	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.521	0.027	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.367	0.14	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/16/21	Time:	4:00 PM	Field ID:	VGAC-I	Collector:	E. Johnson		VGAC Influent - Vial
Date Analyzed:	8/17/21	Time:	12:35 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.588	0.026	19	91
Chloroethane	N.D.	N.D.	2	5	0.872	0.036	NA	NA
Trichloromonofluoromethane	1300	9200	1	7	0.992	0.291	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	380	1300	0.2	0.7	0.934	0.141	770	37000
1,1,2-Trichlorotrifluoroethane	2000	16000	1	7.7	0.993	0.487	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.927	0.088	56	50,000
Cis 1,2-Dichloroethylene	8400	33000	0.2	0.8	1	0.761	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.705	0.021	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.97	0.025	6.3	31
1,1,1-Trichloroethane	16000	85000	0.2	1.1	0.999	0.698	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.985	0.066	160	800
Carbon Tetrachloride	1100	7100	0.2	1.3	0.997	0.119	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.658	0.037	8.6	42
Trichloroethylene	29000	160000	0.2	1.1	0.999	0.817	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	380	1400	0.2	0.8	1	0.355	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	120000	830000	0.2	1.4	0.999	0.99	98	290
Chlorobenzene	59	270	0.2	0.9	0.945	0.123	160	3100
Ethylbenzene	74	320	0.4	1.7	0.953	0.176	520	62000
p/m-Xylene	89	380	0.2	0.9	0.965	0.225	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.787	0.085	95	1400
o-Xylene*	79	340	0.2	0.9	0.962	0.224	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.57	0.028	2.8	14
1,3,5-Trimethylbenzene*	66	320	0.2	1.0	0.884	0.12	NA	NA
1,2,4-Trimethylbenzene*	55	270	0.2	1.0	0.894	0.121	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.776	0.063	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.534	0.028	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.521	0.027	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/17/21	Time:	10:40 AM	Field ID:	VGAC-E	Collector:	E. Johnson	VGAC-Effluent
Date Analyzed:	8/17/21	Time:	1:38 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**40**	**100**	3	7.7	0.995	0.273	19	91
Chloroethane	N.D.	N.D.	2	5	0.932	0.089	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.998	0.076	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.676	0.047	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.639	0.012	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**6**	**19**	0.2	0.6	0.998	0.548	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.809	0.011	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**75**	**280**	0.2	0.8	1	0.723	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.29**	**2**	0.2	1.4	0.831	0.329	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.28*	1.2	0.4	1.7	0.995	0.175	520	62000
p/m-Xylene	**1.3**	**5.5**	0.2	0.9	0.998	0.404	1400	6200
Styrene*	**1.6**	**7**	0.2	1	0.998	0.512	95	1400
o-Xylene*	**0.5**	**2.2**	0.2	0.9	0.816	0.22	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.673	0.07	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.975	0.107	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.981	0.107	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.534	0.028	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.521	0.027	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/17/21	Time:	10:45 AM	Field ID:	VGAC-M	Collector:	E. Johnson		VGAC-Mid
Date Analyzed:	8/17/21	Time:	2:11 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.783	0.447	19	91
Chloroethane	**11**	**28**	2	5	0.96	0.156	NA	NA
Trichloromonofluoromethane	**13**	**94**	1	7	0.997	0.311	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.697	0.08	56	12000
Methylene Chloride	**7.2**	**25**	0.2	0.7	0.997	0.439	770	37000
1,1,2-Trichlorotrifluoroethane	**19**	**150**	1	7.7	0.998	0.504	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.982	0.083	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.863	0.042	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.797	0.005	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**2**	**6.4**	0.2	0.6	0.964	0.284	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.569	0.043	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.815	0.01	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**43**	**160**	0.2	0.8	1	0.727	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.47	0.047	NA	NA
Tetrachloroethylene	**0.2**	**1.3**	0.2	1.4	0.84	0.372	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.27*	1.2	0.4	1.7	0.999	0.176	520	62000
p/m-Xylene	**0.99**	**4.3**	0.2	0.9	0.992	0.413	1400	6200
Styrene*	**1.3**	**5.4**	0.2	1	0.973	0.482	95	1400
o-Xylene*	**0.39**	**1.7**	0.2	0.9	0.969	0.286	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.76	0.02	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.908	0.119	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.913	0.12	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.534	0.028	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.521	0.027	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/17/21	Time:	10:50 AM	Field ID:	VGAC-I	Collector:	E. Johnson		VGAC-Influent
Date Analyzed:	8/17/21	Time:	2:44 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	2550	6579.0	0	0	19	91
Chloroethane	N.D.	N.D.	1700	4488	0.806	0.042	NA	NA
Trichloromonofluoromethane	*580*	4000	850	5942	0.978	0.199	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	850	3374.5	0	0	56	12000
Methylene Chloride	**580**	**2000**	170	589.9	0.987	0.191	770	37000
1,1,2-Trichlorotrifluoroethane	**2700**	**21000**	850	6511.0	0.999	0.558	NA	NA
1,1-Dichloroethane	N.D.	N.D.	170	688.5	0.882	0.064	56	50,000
Cis 1,2-Dichloroethylene	**9000**	**36000**	170	674.9	0.999	0.774	56	370
Chloroform	N.D.	N.D.	170	829.6	0.955	0.041	130	210
1,2-Dichloroethane	N.D.	N.D.	850	3442.5	0.974	0.032	6.3	31
1,1,1-Trichloroethane	**21000**	**120000**	170	928.2	1	0.704	210	310,000
Benzene	N.D.	N.D.	170	544.0	0	0	160	800
Carbon Tetrachloride	**1500**	**9600**	170	1069.3	0.997	0.116	38	130
1,2-Dichloropropane	N.D.	N.D.	850	3927.0	0.637	0.037	8.6	42
Trichloroethylene	**53000**	**280000**	170	912.9	0.999	0.82	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	170	771.8	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	170	771.8	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	170	928.2	0	0	10	50
Toluene	**190**	**730**	170	640.9	0.995	0.264	3800	310000
1,2-Dibromoethane	N.D.	N.D.	170	1305.6	0	0	NA	NA
Tetrachloroethylene	**140000**	**950000**	170	1152.6	0.999	0.99	98	290
Chlorobenzene	N.D.	N.D.	170	782.0	0.858	0.058	160	3100
Ethylbenzene	*32*	140	340	1475.6	0.984	0.104	520	62000
p/m-Xylene	*39*	170	170	737.8	0.969	0.139	1400	6200
Styrene*	N.D.	N.D.	170	724	0	0	95	1400
o-Xylene*	*52*	230	170	737.8	0.876	0.128	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	850	5839.5	0.801	0.027	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	170	836.4	0.609	0.105	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	170	836.4	0.689	0.016	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	170	1022	0.929	0.058	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	170	1022	0.534	0.028	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	170	1022	0.521	0.027	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	170	1261	0.451	0.146	28	240
HexachloroButadiene*	N.D.	N.D.	170	1814	0.383	0.134	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **850** The Reporting Limits listed above reflect the dilution factor.

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/18/21	Time:	10:55 AM	Field ID:	EFF	Collector:	E. Johnson	VGAC - Effluent
Date Analyzed:	8/18/21	Time:	1:29 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**67**	**170**	3	7.7	0.997	0.695	19	91
Chloroethane	**21**	**57**	2	5	0.867	0.17	NA	NA
Trichloromonofluoromethane	**1.7**	**12**	1	7	0.993	0.261	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.656	0.158	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**2.8**	**9**	0.2	0.6	1	0.661	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.42**	**1.6**	0.2	0.8	0.985	0.308	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.997	0.251	520	62000
p/m-Xylene	*0.19*	**0.81**	0.2	0.9	0.913	0.266	1400	6200
Styrene*	**0.59**	**2.5**	0.2	1	0.988	0.527	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.954	0.181	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.948	0.026	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **2.1** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/18/21	Time:	11:00 AM	Field ID:	MID	Collector:	E. Johnson	VGAC - Midpoint
Date Analyzed:	8/18/21	Time:	2:01 PM	Lab ID:	006	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**130**	**350**	3	7.7	0.901	0.427	19	91
Chloroethane	**13**	**35**	2	5	0.995	0.331	NA	NA
Trichloromonofluoromethane	**7**	**49**	1	7	0.999	0.458	NA	NA
1,1-Dichloroethylene	**4.4**	**17**	1	4.0	0.99	0.135	56	12000
Methylene Chloride	**30**	**100**	0.2	0.7	0.991	0.441	770	37000
1,1,2-Trichlorotrifluoroethane	**71**	**550**	1	7.7	0.999	0.605	NA	NA
1,1-Dichloroethane	**3.9**	**16**	0.2	0.8	1	0.343	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**2.1**	**12**	0.2	1.1	0.995	0.451	210	310,000
Benzene	**1.6**	**5**	0.2	0.6	0.998	0.379	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.3**	**5**	0.2	0.8	0.994	0.402	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.988	0.195	520	62000
p/m-Xylene	**0.36**	**1.5**	0.2	0.9	0.988	0.374	1400	6200
Styrene*	**0.46**	**2**	0.2	1	0.963	0.372	95	1400
o-Xylene*	**0.28**	**1.2**	0.2	0.9	0.907	0.272	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.989	0.106	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.993	0.107	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/18/21	Time:	11:30 AM	Field ID:	INF	Collector:	E. Johnson		VGAC - Influent
Date Analyzed:	8/18/21	Time:	2:32 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.958	0.077	NA	NA
Trichloromonofluoromethane	8100	57000	1	7	0.998	0.552	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	570	2000	0.2	0.7	0.873	0.134	770	37000
1,1,2-Trichlorotrifluoroethane	1100	8400	1	7.7	0.982	0.273	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.708	0.167	56	50,000
Cis 1,2-Dichloroethylene	3600	14000	0.2	0.8	0.995	0.651	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	8700	48000	0.2	1.1	1	0.664	210	310,000
Benzene	300	950	0.2	0.6	0.895	0.205	160	800
Carbon Tetrachloride	650	4100	0.2	1.3	0.983	0.111	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.662	0.04	8.6	42
Trichloroethylene	20000	110000	0.2	1.1	0.999	0.815	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	1100	4200	0.2	0.8	0.995	0.506	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.594	0.092	NA	NA
Tetrachloroethylene	56000	380000	0.2	1.4	0.999	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	89	380	0.4	1.7	0.998	0.131	520	62000
p/m-Xylene	110	460	0.2	0.9	0.941	0.132	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	80	350	0.2	0.9	0.935	0.175	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.862	0.083	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.905	0.077	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1700 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				VGAC Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/24/21	Time:	11:10 AM	Field ID:	EFF	Collector:	E. Johnson		
Date Analyzed:	8/24/21	Time:	11:02 AM	Lab ID:	5	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Day +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	38	97	0.2	0.5	0.994	0.632	0 @ 200 CFM
Chloroethane	N.D.	N.D.	2	5	0.75	0.142	@ 200 CFM
Trichloromonofluoromethane	**8.6**	**60**	0.2	1	0.998	0.343	0 @ 200 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.546	0.047	@ 200 CFM
Methylene Chloride	**0.67**	**2.3**	0.2	0.7	0.921	0.449	0 @ 200 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.917	0.028	@ 200 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	@ 200 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.32	0.031	@ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.912	0.123	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.884	0.005	@ 200 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.711	0.018	@ 200 CFM
Benzene	**5.1**	**16**	0.2	0.6	0.999	0.764	0 @ 200 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.795	0.054	@ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.859	0.08	@ 200 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.266	0.05	@ 200 CFM
Toluene	**2.6**	**9.8**	0.2	0.8	1	0.64	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	*0.15*	*1*	0.2	1.4	0.881	0.71	0 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.957	0.137	@ 200 CFM
Ethylbenzene	**0.23**	**1**	0.2	0.9	0.989	0.516	0 @ 200 CFM
p/m-Xylene	**0.68**	**3**	0.4	1.7	0.987	0.617	0 @ 200 CFM
Styrene*	*0.97*	*4.1*	1	4	0.994	0.72	0 @ 200 CFM
o-Xylene*	*0.31*	*1.3*	1	4	0.995	0.391	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.889	0.055	@ 200 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.958	0.142	@ 200 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.987	0.283	@ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.914	0.088	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.967	0.015	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.922	0.09	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.2	0.147	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 200 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				VGAC Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/24/21	Time:	11:15 AM	Field ID:	MID	Collector:	E. Johnson		
Date Analyzed:	8/24/21	Time:	11:34 AM	Lab ID:	6	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Day +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	94	240	0.2	0.5	0.971	0.132	0 @ 200 CFM
Chloroethane	130	350	2	5	0.93	0.128	0 @ 200 CFM
Trichloromonofluoromethane	300	2100	0.2	1	1	0.475	0 @ 200 CFM
1,1-Dichloroethylene	6200	24000	0.2	0.8	0.997	0.666	0 @ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.888	0.077	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	6500	49000	0.2	1.5	0.998	0.508	1 @ 200 CFM
1,1-Dichloroethane	770	3100	0.2	0.8	0.977	0.442	0 @ 200 CFM
Cis 1,2-Dichloroethylene	14000	54000	0.2	0.8	0.999	0.847	1 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.636	0.045	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.985	0.006	@ 200 CFM
1,1,1-Trichloroethane	28000	150000	0.2	1.1	1	0.661	3 @ 200 CFM
Benzene	16	52	0.2	0.6	0.99	0.591	0 @ 200 CFM
Carbon Tetrachloride	6	38	0.2	1.3	0.908	0.163	0 @ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.614	0.138	@ 200 CFM
Trichloroethylene	210	1100	0.2	1.1	1	0.83	0 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.361	0.076	@ 200 CFM
Toluene	55	210	0.2	0.8	1	0.609	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.681	0.307	@ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.755	0.141	@ 200 CFM
Ethylbenzene	4.1	18	0.2	0.9	0.982	0.361	0 @ 200 CFM
p/m-Xylene	7.6	33	0.4	1.7	0.993	0.517	0 @ 200 CFM
Styrene*	3.7	16	1	4	0.99	0.489	0 @ 200 CFM
o-Xylene*	2.4	10	1	4	0.986	0.359	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.725	0.04	@ 200 CFM
1,3,5-Trimethylbenzene*	2.8	14	1	5	0.95	0.189	0 @ 200 CFM
1,2,4-Trimethylbenzene*	2.3	11	1	5	0.997	0.257	0 @ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.7	0.098	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	1	0.038	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.985	0.075	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	5 @ 200 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	85	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				VGAC Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/24/21	Time:	11:45 AM	Field ID:	INF	Collector:	E. Johnson		
Date Analyzed:	8/25/21	Time:	12:07 PM	Lab ID:	7	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Day +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.756	0.074	@ 200 CFM
Chloroethane	N.D.	N.D.	2	5	0.867	0.056	@ 200 CFM
Trichloromonofluoromethane	3100	22000	0.2	1	0.999	0.563	0 @ 200 CFM
1,1-Dichloroethylene	1400	5700	0.2	0.8	0.998	0.653	0 @ 200 CFM
Methylene Chloride	260	910	0.2	0.7	0.939	0.144	0 @ 200 CFM
1,1,2-Trichlorotrifluoroethane	560	4300	0.2	1.5	0.995	0.437	0 @ 200 CFM
1,1-Dichloroethane	150	590	0.2	0.8	0.971	0.243	0 @ 200 CFM
Cis 1,2-Dichloroethylene	2800	11000	0.2	0.8	0.999	0.822	0 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.649	0.149	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.98	0.006	@ 200 CFM
1,1,1-Trichloroethane	7600	42000	0.2	1.1	1	0.661	1 @ 200 CFM
Benzene	85	270	0.2	0.6	0.992	0.397	0 @ 200 CFM
Carbon Tetrachloride	810	5100	0.2	1.3	0.996	0.128	0 @ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.596	0.038	@ 200 CFM
Trichloroethylene	24000	130000	0.2	1.1	0.999	0.842	2 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.803	0.009	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.283	0.057	@ 200 CFM
Toluene	580	2200	0.2	0.8	1	0.629	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	46000	310000	0.2	1.4	0.999	0.991	6 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.807	0.001	@ 200 CFM
Ethylbenzene	69	300	0.2	0.9	0.995	0.516	0 @ 200 CFM
p/m-Xylene	100	440	0.4	1.7	0.981	0.586	0 @ 200 CFM
Styrene*	31	130	1	4	0.984	0.368	0 @ 200 CFM
o-Xylene*	47	200	1	4	0.992	0.371	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.836	0.069	@ 200 CFM
1,3,5-Trimethylbenzene*	8.5	42	1	5	0.895	0.15	0 @ 200 CFM
1,2,4-Trimethylbenzene*	25	120	1	5	0.999	0.112	0 @ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.597	0.021	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.718	0.024	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.541	0.032	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.398	0.13	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	10 @ 200 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				VGAC Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	8/24/21	Time:	11:15 AM	Field ID:	MID	Collector:	E. Johnson		
Date Analyzed:	8/24/21	Time:	1:35 PM	Lab ID:	8	Analyst:	N. Johnson		200

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Day +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	95	240	0.2	0.5	0.893	0.131	0 @ 200 CFM
Chloroethane	N.D.	N.D.	2	5	0.863	0.082	@ 200 CFM
Trichloromonofluoromethane	520	3600	0.2	1	1	0.497	0 @ 200 CFM
1,1-Dichloroethylene	5600	22000	0.2	0.8	0.997	0.733	0 @ 200 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.897	0.084	@ 200 CFM
1,1,2-Trichlorotrifluoroethane	6600	50000	0.2	1.5	0.998	0.587	1 @ 200 CFM
1,1-Dichloroethane	700	2800	0.2	0.8	0.985	0.452	0 @ 200 CFM
Cis 1,2-Dichloroethylene	12000	50000	0.2	0.8	0.999	0.837	1 @ 200 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.986	0.084	@ 200 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.853	0.004	@ 200 CFM
1,1,1-Trichloroethane	28000	150000	0.2	1.1	1	0.663	3 @ 200 CFM
Benzene	25	80	0.2	0.6	0.976	0.381	0 @ 200 CFM
Carbon Tetrachloride	3100	19000	0.2	1.3	0.997	0.129	0 @ 200 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.605	0.041	@ 200 CFM
Trichloroethylene	190	1000	0.2	1.1	0.999	0.774	0 @ 200 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 200 CFM
Toluene	77	290	0.2	0.8	1	0.561	0 @ 200 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 200 CFM
Tetrachloroethylene	23	160	0.2	1.4	0.952	0.692	0 @ 200 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	@ 200 CFM
Ethylbenzene	5.1	22	0.2	0.9	0.931	0.178	0 @ 200 CFM
p/m-Xylene	10	44	0.4	1.7	0.965	0.452	0 @ 200 CFM
Styrene*	4.8	20	1	4	0.945	0.325	0 @ 200 CFM
o-Xylene*	8.5	37	1	4	0.981	0.444	0 @ 200 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 200 CFM
1,3,5-Trimethylbenzene*	4.1	20	1	5	0.991	0.189	0 @ 200 CFM
1,2,4-Trimethylbenzene*	3.7	18	1	5	0.995	0.19	0 @ 200 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.59	0.075	@ 200 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.833	0.03	@ 200 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.81	0.055	@ 200 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 200 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 200 CFM
						Total Mass Flux +/- in pounds per year --->	5 @ 200 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	340	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	Gen Chemical					Location:
Date Sampled:	8/26/21	Time:	11:45 AM	Field ID:	EFF	Collector:	E Johnson		
Date Analyzed:	8/27/21	Time:	1:04 PM	Lab ID:	004	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**180**	**450**	3	7.7	0.999	0.544	19	91
Chloroethane	N.D.	N.D.	2	5	0.763	0.109	NA	NA
Trichloromonofluoromethane	**5.9**	**41**	1	7	0.997	0.196	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.638	0.114	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**6.2**	**20**	0.2	0.6	0.991	0.491	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.631	0.061	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.741	0.013	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**47**	**180**	0.2	0.8	1	0.706	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.33*	1.4	0.4	1.7	0.995	0.156	520	62000
p/m-Xylene	**1.6**	**6.8**	0.2	0.9	0.992	0.459	1400	6200
Styrene*	**1.8**	**7.5**	0.2	1	0.993	0.473	95	1400
o-Xylene*	**0.92**	**4**	0.2	0.9	0.844	0.288	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**0.25**	**1.2**	0.2	1.0	0.983	0.113	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.988	0.114	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3.5	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)			SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	Gen Chem			Location:
Date Sampled:	8/26/21	Time:	11:55 AM	Field ID:	INF	Collector:	E Johnson
Date Analyzed:	8/27/21	Time:	12:32 PM	Lab ID:	003	Analyst:	Fitzgerald

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	**2100**	**15000**	1	7	0.998	0.404	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.59	0.037	770	37000
1,1,2-Trichlorotrifluoroethane	**550**	**4200**	1	7.7	0.943	0.127	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.654	0.102	56	50,000
Cis 1,2-Dichloroethylene	**1800**	**7100**	0.2	0.8	0.995	0.519	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.994	0.007	6.3	31
1,1,1-Trichloroethane	**7600**	**42000**	0.2	1.1	0.999	0.676	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.543	0.055	8.6	42
Trichloroethylene	**24000**	**130000**	0.2	1.1	0.999	0.805	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**270**	**1000**	0.2	0.8	0.979	0.225	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**47000**	**320000**	0.2	1.4	0.999	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.702	0.034	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.983	0.08	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.815	0.067	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.976	0.085	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.902	0.049	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.906	0.049	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	Gen Chemical					Location:
Date Sampled:	8/26/21	Time:	11:50 AM	Field ID:	MID	Collector:	E Johnson		
Date Analyzed:	8/26/21	Time:	5:19 PM	Lab ID:	003	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.733	0.021	NA	NA
Trichloromonofluoromethane	**2800**	**20000**	1	7	0.998	0.52	NA	NA
1,1-Dichloroethylene	**410**	**1600**	1	4.0	0.985	0.146	56	12000
Methylene Chloride	**450**	**1600**	0.2	0.7	0.977	0.153	770	37000
1,1,2-Trichlorotrifluoroethane	**5100**	**39000**	1	7.7	0.999	0.677	NA	NA
1,1-Dichloroethane	**430**	**1800**	0.2	0.8	1	0.254	56	50,000
Cis 1,2-Dichloroethylene	**10000**	**41000**	0.2	0.8	0.999	0.784	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.991	0.03	6.3	31
1,1,1-Trichloroethane	**29000**	**160000**	0.2	1.1	1	0.718	210	310,000
Benzene	**48**	**150**	0.2	0.6	0.918	0.1	160	800
Carbon Tetrachloride	**2100**	**13000**	0.2	1.3	0.999	0.125	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**310**	**1600**	0.2	1.1	0.995	0.492	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**180**	**690**	0.2	0.8	0.993	0.379	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**20**	**89**	0.4	1.7	0.976	0.176	520	62000
p/m-Xylene	**25**	**110**	0.2	0.9	0.99	0.223	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**22**	**95**	0.2	0.9	0.989	0.223	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.876	0.06	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.975	0.08	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.388	0.127	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **340** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)			SSDS Discharge			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/1/21	Time: 11:55 AM	Field ID:	EFF	Collector:	E. Johnson	EFF
Date Analyzed:	9/1/21	Time: 4:23 PM	Lab ID:	007	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**97**	**250**	3	7.7	0.999	0.398	19	91
Chloroethane	N.D.	N.D.	2	5	0.94	0.094	NA	NA
Trichloromonofluoromethane	**11**	**78**	1	7	0.997	0.323	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.576	0.038	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.605	0.184	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**3.4**	**11**	0.2	0.6	0.989	0.388	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**5.7**	**21**	0.2	0.8	0.999	0.546	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.43**	**1.9**	0.4	1.7	0.954	0.197	520	62000
p/m-Xylene	**0.51**	**2.2**	0.2	0.9	0.928	0.22	1400	6200
Styrene*	**0.24**	**1**	0.2	1	0.916	0.143	95	1400
o-Xylene*	**0.46**	**2**	0.2	0.9	0.936	0.221	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.838	0.05	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.847	0.05	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: PID = 0.4 ppmV

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/1/21	Time:	12:05 PM	Field ID:	MID	Collector:	E. Johnson	MID
Date Analyzed:	9/1/21	Time:	4:54 PM	Lab ID:	008	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.986	0.073	NA	NA
Trichloromonofluoromethane	950	6700	1	7	0.992	0.395	NA	NA
1,1-Dichloroethylene	1100	4500	1	4.0	0.994	0.45	56	12000
Methylene Chloride	410	1400	0.2	0.7	0.978	0.226	770	37000
1,1,2-Trichlorotrifluoroethane	2400	19000	1	7.7	0.998	0.624	NA	NA
1,1-Dichloroethane	360	1400	0.2	0.8	0.984	0.196	56	50,000
Cis 1,2-Dichloroethylene	8300	33000	0.2	0.8	1	0.803	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.984	0.033	6.3	31
1,1,1-Trichloroethane	21000	120000	0.2	1.1	1	0.709	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.714	0.047	160	800
Carbon Tetrachloride	1500	9300	0.2	1.3	0.999	0.12	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.651	0.041	8.6	42
Trichloroethylene	15000	82000	0.2	1.1	1	0.814	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	170	650	0.2	0.8	0.992	0.349	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	24	100	0.4	1.7	0.954	0.173	520	62000
p/m-Xylene	29	120	0.2	0.9	0.96	0.216	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	26	110	0.2	0.9	0.958	0.216	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.975	0.086	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.968	0.094	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: PID = 43.5

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/1/21	Time:	12:10 AM	Field ID:	INF	Collector:	E. Johnson	INF
Date Analyzed:	9/1/21	Time:	5:24 PM	Lab ID:	009	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	1600	11000	1	7	0.967	0.291	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	290	1000	0.2	0.7	0.935	0.131	770	37000
1,1,2-Trichlorotrifluoroethane	1400	11000	1	7.7	0.998	0.4	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.882	0.092	56	50,000
Cis 1,2-Dichloroethylene	3800	15000	0.2	0.8	1	0.66	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.992	0.031	6.3	31
1,1,1-Trichloroethane	7100	39000	0.2	1.1	1	0.682	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.696	0.042	8.6	42
Trichloroethylene	16000	88000	0.2	1.1	1	0.803	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	360	1300	0.2	0.8	0.995	0.394	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	46000	310000	0.2	1.4	0.998	0.987	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	66	290	0.4	1.7	0.996	0.206	520	62000
p/m-Xylene	78	340	0.2	0.9	0.941	0.207	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	68	300	0.2	0.9	0.971	0.157	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.943	0.034	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.903	0.077	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: PID = 191

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/3/21	Time:	11:50 AM	Field ID:	EFF	Collector:	E Johnson		VGAC Effluent
Date Analyzed:	9/3/21	Time:	2:21 PM	Lab ID:	003	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	82	210	3	7.7	0.997	0.263	19	91
Chloroethane	N.D.	N.D.	2	5	0.999	0.098	NA	NA
Trichloromonofluoromethane	10	70	1	7	0.986	0.294	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.79	0.046	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	9.6	73	1	7.7	0.986	0.32	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	5.7	18	0.2	0.6	0.992	0.406	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.91	0.04	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.863	0.053	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.823	0.1	1400	6200
Styrene*	0.38	1.6	0.2	1	0.948	0.19	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.82	0.1	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.96	0.1	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.961	0.1	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	5.2	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/3/21	Time:	12:00 PM	Field ID:	INF	Collector:	E Johnson		VGAC Influent
Date Analyzed:	9/3/21	Time:	3:34 PM	Lab ID:	005	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.906	0.074	NA	NA
Trichloromonofluoromethane	**1900**	**13000**	1	7	0.977	0.301	NA	NA
1,1-Dichloroethylene	**940**	**3700**	1	4.0	0.933	0.198	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.977	0.073	770	37000
1,1,2-Trichlorotrifluoroethane	**760**	**5800**	1	7.7	0.981	0.213	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.903	0.054	56	50,000
Cis 1,2-Dichloroethylene	**2700**	**11000**	0.2	0.8	0.993	0.548	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.953	0.031	6.3	31
1,1,1-Trichloroethane	**5300**	**29000**	0.2	1.1	1	0.6	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.698	0.048	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.755	0.05	8.6	42
Trichloroethylene	**24000**	**130000**	0.2	1.1	1	0.794	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**300**	**1100**	0.2	0.8	0.996	0.268	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**31000**	**210000**	0.2	1.4	0.998	0.982	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.585	0.021	160	3100
Ethylbenzene	**43**	**190**	0.4	1.7	0.963	0.109	520	62000
p/m-Xylene	**51**	**220**	0.2	0.9	0.976	0.144	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**46**	**200**	0.2	0.9	0.974	0.143	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.456	0.017	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.744	0.038	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **850** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/3/21	Time:	11:55 AM	Field ID:	MID	Collector:	E Johnson		VGAC Midpoint
Date Analyzed:	9/3/21	Time:	3:01 PM	Lab ID:	004	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.618	0.044	19	91
Chloroethane	N.D.	N.D.	2	5	0.976	0.04	NA	NA
Trichloromonofluoromethane	**830**	**5800**	1	7	0.997	0.338	NA	NA
1,1-Dichloroethylene	**730**	**2900**	1	4.0	0.953	0.369	56	12000
Methylene Chloride	**320**	**1100**	0.2	0.7	0.945	0.127	770	37000
1,1,2-Trichlorotrifluoroethane	**2200**	**17000**	1	7.7	1	0.576	NA	NA
1,1-Dichloroethane	**360**	**1500**	0.2	0.8	0.965	0.22	56	50,000
Cis 1,2-Dichloroethylene	**6900**	**27000**	0.2	0.8	1	0.764	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.994	0.035	6.3	31
1,1,1-Trichloroethane	**15000**	**83000**	0.2	1.1	0.999	0.7	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.782	0.105	160	800
Carbon Tetrachloride	**1200**	**7700**	0.2	1.3	0.999	0.129	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.692	0.044	8.6	42
Trichloroethylene	**14000**	**73000**	0.2	1.1	1	0.808	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**120**	**470**	0.2	0.8	1	0.257	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.446	0.004	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.905	0.092	520	62000
p/m-Xylene	**27**	**120**	0.2	0.9	0.883	0.119	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**24**	**110**	0.2	0.9	0.875	0.118	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.825	0.084	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.911	0.058	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	340	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/7/21	Time:	12:25 PM	Field ID:	EFF	Collector:	E. Johnson	VGAC-Effluent
Date Analyzed:	9/7/21	Time:	3:20 PM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**87**	**230**	3	7.7	0.988	0.275	19	91
Chloroethane	**20**	**53**	2	5	0.994	0.104	NA	NA
Trichloromonofluoromethane	**8.8**	**62**	1	7	0.995	0.322	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	**4.3**	**15**	0.2	0.7	0.976	0.187	770	37000
1,1,2-Trichlorotrifluoroethane	**42**	**320**	1	7.7	0.999	0.638	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.598	0.024	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.6**	**6**	0.2	0.8	0.936	0.311	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.21*	0.9	0.4	1.7	0.823	0.108	520	62000
p/m-Xylene	**0.54**	**2.3**	0.2	0.9	0.957	0.219	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**0.29**	**1.2**	0.2	0.9	0.924	0.113	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.829	0.005	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.843	0.005	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **5.2** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/7/21	Time:	12:30 PM	Field ID:	MID	Collector:	E. Johnson	VGAC - midpoint
Date Analyzed:	9/7/21	Time:	3:50 PM	Lab ID:	004	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.861	0.061	NA	NA
Trichloromonofluoromethane	1400	10000	1	7	0.988	0.355	NA	NA
1,1-Dichloroethylene	1700	6800	1	4.0	0.964	0.306	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	2800	22000	1	7.7	0.994	0.533	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.963	0.075	56	50,000
Cis 1,2-Dichloroethylene	6600	26000	0.2	0.8	1	0.726	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.924	0.032	6.3	31
1,1,1-Trichloroethane	19000	100000	0.2	1.1	1	0.706	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	1200	7500	0.2	1.3	0.988	0.107	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.715	0.047	8.6	42
Trichloroethylene	27000	140000	0.2	1.1	0.999	0.796	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	250	930	0.2	0.8	0.986	0.239	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.95	0.003	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.513	0.031	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.545	0.118	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.629	0.029	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/7/21	Time:	12:35 PM	Field ID:		Collector:	E. Johnson	VGAC - Influent
Date Analyzed:	9/7/21	Time:	4:21 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	**1100**	**2900**	2	5	0.814	0.14	NA	NA
Trichloromonofluoromethane	**5800**	**41000**	1	7	0.998	0.493	NA	NA
1,1-Dichloroethylene	**3600**	**14000**	1	4.0	0.997	0.523	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	**4700**	**36000**	1	7.7	0.999	0.591	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.654	0.122	56	50,000
Cis 1,2-Dichloroethylene	**3600**	**14000**	0.2	0.8	0.999	0.66	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**6400**	**35000**	0.2	1.1	1	0.646	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	**490**	**3100**	0.2	1.3	0.972	0.109	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.66	0.044	8.6	42
Trichloroethylene	**29000**	**160000**	0.2	1.1	0.999	0.797	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**730**	**2700**	0.2	0.8	0.995	0.428	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**38000**	**260000**	0.2	1.4	0.998	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.611	0.032	160	3100
Ethylbenzene	*84*	*360*	0.4	1.7	0.994	0.165	520	62000
p/m-Xylene	*130*	*580*	0.2	0.9	0.983	0.327	1400	6200
Styrene*	*55*	*230*	0.2	1	0.996	0.166	95	1400
o-Xylene*	*78*	*340*	0.2	0.9	0.982	0.231	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	*90*	*440*	0.2	1.0	0.959	0.143	NA	NA
1,2,4-Trimethylbenzene*	*75*	*370*	0.2	1.0	0.965	0.144	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.668	0.054	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **850** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: PID = 152 ppm

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/9/21	Time:	10:40 AM	Field ID:	EFF	Collector:	E Johnson	VGAC Effluent
Date Analyzed:	9/9/21	Time:	4:17 PM	Lab ID:	004	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.78	0.331	19	91
Chloroethane	**36**	**96**	2	5	0.927	0.101	NA	NA
Trichloromonofluoromethane	**24**	**170**	1	7	0.932	0.297	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	**17**	**59**	0.2	0.7	0.962	0.238	770	37000
1,1,2-Trichlorotrifluoroethane	**150**	**1100**	1	7.7	0.998	0.718	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**10**	**57**	0.2	1.1	0.998	0.526	210	310,000
Benzene	**4.8**	**15**	0.2	0.6	0.965	0.442	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.978	0.074	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**3.3**	**12**	0.2	0.8	0.993	0.382	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.32*	1.4	0.4	1.7	0.971	0.143	520	62000
p/m-Xylene	**0.38**	**1.7**	0.2	0.9	0.953	0.16	1400	6200
Styrene*	**0.46**	**1.9**	0.2	1	0.993	0.214	95	1400
o-Xylene*	**0.34**	**1.5**	0.2	0.9	0.957	0.161	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.572	0.167	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.753	0.045	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **5.2** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/9/21	Time:	10:50 AM	Field ID:	INF	Collector:	E Johnson		VGAC Influent
Date Analyzed:	9/9/21	Time:	5:17 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	850	6000	1	7	0.991	0.231	NA	NA
1,1-Dichloroethylene	9700	38000	1	4.0	1	0.73	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.549	0.024	770	37000
1,1,2-Trichlorotrifluoroethane	12000	94000	1	7.7	0.999	0.697	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.602	0.133	56	50,000
Cis 1,2-Dichloroethylene	5700	23000	0.2	0.8	1	0.749	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	9200	50000	0.2	1.1	1	0.67	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	730	4600	0.2	1.3	0.983	0.107	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.672	0.041	8.6	42
Trichloroethylene	34000	180000	0.2	1.1	1	0.815	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	280	1000	0.2	0.8	0.976	0.331	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	46000	310000	0.2	1.4	0.998	0.987	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	45	200	0.4	1.7	1	0.131	520	62000
p/m-Xylene	53	230	0.2	0.9	0.865	0.116	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	74	320	0.2	0.9	0.994	0.204	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.91	0.058	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.92	0.059	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/9/21	Time:	10:45 AM	Field ID:	MID	Collector:	E Johnson	VGAC Midpoint
Date Analyzed:	9/9/21	Time:	4:47 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.976	0.054	NA	NA
Trichloromonofluoromethane	1300	9000	1	7	0.998	0.3	NA	NA
1,1-Dichloroethylene	6400	25000	1	4.0	0.999	0.641	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	6100	47000	1	7.7	0.998	0.68	NA	NA
1,1-Dichloroethane	540	2200	0.2	0.8	0.996	0.197	56	50,000
Cis 1,2-Dichloroethylene	11000	45000	0.2	0.8	1	0.784	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.985	0.033	6.3	31
1,1,1-Trichloroethane	31000	170000	0.2	1.1	0.999	0.724	210	310,000
Benzene	110	340	0.2	0.6	0.9	0.197	160	800
Carbon Tetrachloride	2100	13000	0.2	1.3	0.993	0.116	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.709	0.042	8.6	42
Trichloroethylene	52000	280000	0.2	1.1	1	0.82	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	320	1200	0.2	0.8	0.994	0.325	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.758	0.002	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.725	0.003	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.485	0.036	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.491	0.037	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/14/21	Time:	10:55 AM	Field ID:	EFF	Collector:	E. Johnson	VGAC - Effluent
Date Analyzed:	9/14/21	Time:	2:36 PM	Lab ID:	005	Analyst:	N. Johnon	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.784	0.23	19	91
Chloroethane	590	1500	2	5	0.81	0.175	NA	NA
Trichloromonofluoromethane	21	150	1	7	0.998	0.341	NA	NA
1,1-Dichloroethylene	660	2600	1	4.0	1	0.481	56	12000
Methylene Chloride	450	1600	0.2	0.7	0.935	0.161	770	37000
1,1,2-Trichlorotrifluoroethane	7400	57000	1	7.7	1	0.736	NA	NA
1,1-Dichloroethane	99	400	0.2	0.8	0.999	0.603	56	50,000
Cis 1,2-Dichloroethylene	240	960	0.2	0.8	1	0.783	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.914	0.05	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.987	0.033	6.3	31
1,1,1-Trichloroethane	6800	37000	0.2	1.1	1	0.726	210	310,000
Benzene	4.8	15	0.2	0.6	0.976	0.264	160	800
Carbon Tetrachloride	460	2900	0.2	1.3	0.999	0.119	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	6.2	23	0.2	0.8	1	0.365	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	1.2	5.3	0.4	1.7	0.996	0.194	520	62000
p/m-Xylene	1.5	6.4	0.2	0.9	0.968	0.237	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	1.3	5.6	0.2	0.9	0.97	0.217	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.82	0.035	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.811	0.034	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 10 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/14/21	Time:	11:05 AM	Field ID:	Inf	Collector:	E. Johnson	VGAC - Influent
Date Analyzed:	9/14/21	Time:	3:37 PM	Lab ID:	007	Analyst:	N. Johnon	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.606	0.024	19	91
Chloroethane	N.D.	N.D.	2	5	0.952	0.055	NA	NA
Trichloromonofluoromethane	4400	31000	1	7	0.995	0.324	NA	NA
1,1-Dichloroethylene	27000	110000	1	4.0	0.999	0.707	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.695	0.045	770	37000
1,1,2-Trichlorotrifluoroethane	25000	190000	1	7.7	0.999	0.711	NA	NA
1,1-Dichloroethane	1200	4800	0.2	0.8	0.995	0.163	56	50,000
Cis 1,2-Dichloroethylene	13000	52000	0.2	0.8	0.998	0.719	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.955	0.03	6.3	31
1,1,1-Trichloroethane	18000	96000	0.2	1.1	0.999	0.646	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	1000	6600	0.2	1.3	0.987	0.112	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.682	0.044	8.6	42
Trichloroethylene	67000	360000	0.2	1.1	1	0.808	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	620	2400	0.2	0.8	0.989	0.292	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	69000	470000	0.2	1.4	0.998	0.984	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.931	0.097	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.907	0.027	520	62000
p/m-Xylene	140	590	0.2	0.9	0.975	0.203	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	120	530	0.2	0.9	0.97	0.202	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.81	0.039	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.803	0.051	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.977	0.071	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1700 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/14/21	Time:	11:00 AM	Field ID:	MID	Collector:	E. Johnson		VGAC - Midpoint
Date Analyzed:	9/14/21	Time:	3:07 PM	Lab ID:	006	Analyst:	N. Johnon		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.737	0.045	19	91
Chloroethane	N.D.	N.D.	2	5	0.896	0.085	NA	NA
Trichloromonofluoromethane	1000	7200	1	7	0.994	0.209	NA	NA
1,1-Dichloroethylene	14000	54000	1	4.0	0.999	0.69	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.775	0.038	770	37000
1,1,2-Trichlorotrifluoroethane	19000	140000	1	7.7	0.999	0.715	NA	NA
1,1-Dichloroethane	930	3800	0.2	0.8	0.964	0.201	56	50,000
Cis 1,2-Dichloroethylene	15000	58000	0.2	0.8	1	0.784	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.99	0.036	6.3	31
1,1,1-Trichloroethane	46000	250000	0.2	1.1	1	0.715	210	310,000
Benzene	230	730	0.2	0.6	0.963	0.183	160	800
Carbon Tetrachloride	3400	21000	0.2	1.3	0.992	0.119	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.627	0.04	8.6	42
Trichloroethylene	100000	540000	0.2	1.1	1	0.814	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	130	490	0.2	0.8	1	0.155	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	4800	32000	0.2	1.4	0.995	0.957	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.913	0.003	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.758	0.005	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)			SSDS Discharge			RTN: 3-19174	
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/16/21	Time: 10:35 AM	Field ID:	EFF	Collector:	E. Johnson	VGAC - Effluent
Date Analyzed:	9/17/21	Time: 10:29 PM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.983	0.066	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	**0.42**	**1.5**	0.2	0.7	0.947	0.12	770	37000
1,1,2-Trichlorotrifluoroethane	*0.86*	6.6	1	7.7	0.897	0.145	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.966	0.052	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**1.4**	**7.6**	0.2	1.1	0.99	0.4	210	310,000
Benzene	**2.3**	**7.4**	0.2	0.6	0.991	0.541	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**0.3**	**1.1**	0.2	0.8	0.999	0.327	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.952	0.268	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.975	0.319	1400	6200
Styrene*	**0.29**	**1.3**	0.2	1	0.969	0.447	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.899	0.157	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.83	0.103	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.829	0.09	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.86	0.078	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.538	0.256	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/16/21	Time:	10:45 AM	Field ID:	INF	Collector:	E. Johnson		VGAC - INF
Date Analyzed:	9/17/21	Time:	11:30 AM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	2550	6579.0	0	0	19	91
Chloroethane	N.D.	N.D.	1700	4488	0.998	0.084	NA	NA
Trichloromonofluoromethane	**11000**	**74000**	850	5942	0.966	0.399	NA	NA
1,1-Dichloroethylene	**13000**	**50000**	850	3374.5	0.999	0.725	56	12000
Methylene Chloride	N.D.	N.D.	170	589.9	0.614	0.021	770	37000
1,1,2-Trichlorotrifluoroethane	**15000**	**120000**	850	6511.0	0.999	0.73	NA	NA
1,1-Dichloroethane	**490**	**2000**	170	688.5	0.977	0.141	56	50,000
Cis 1,2-Dichloroethylene	**7200**	**29000**	170	674.9	1	0.753	56	370
Chloroform	N.D.	N.D.	170	829.6	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	850	3442.5	0.987	0.032	6.3	31
1,1,1-Trichloroethane	**12000**	**64000**	170	928.2	1	0.68	210	310,000
Benzene	N.D.	N.D.	170	544.0	0	0	160	800
Carbon Tetrachloride	**800**	**5100**	170	1069.3	0.991	0.122	38	130
1,2-Dichloropropane	N.D.	N.D.	850	3927.0	0.697	0.044	8.6	42
Trichloroethylene	**37000**	**200000**	170	912.9	0.999	0.806	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	170	771.8	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	170	771.8	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	170	928.2	0	0	10	50
Toluene	N.D.	N.D.	170	640.9	0	0	3800	310000
1,2-Dibromoethane	N.D.	N.D.	170	1305.6	0	0	NA	NA
Tetrachloroethylene	**85000**	**580000**	170	1152.6	0.999	0.989	98	290
Chlorobenzene	N.D.	N.D.	170	782.0	0.769	0.063	160	3100
Ethylbenzene	*100*	430	340	1475.6	0.979	0.217	520	62000
p/m-Xylene	*90*	390	170	737.8	0.991	0.206	1400	6200
Styrene*	N.D.	N.D.	170	724	0	0	95	1400
o-Xylene*	*61*	260	170	737.8	0.956	0.164	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	850	5839.5	0	0	2.8	14
1,3,5-Trimethylbenzene*	*72*	360	170	836.4	0.972	0.103	NA	NA
1,2,4-Trimethylbenzene*	*48*	230	170	836.4	0.903	0.107	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	170	1022	0.738	0.08	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	170	1022	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	170	1022	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	170	1261	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	170	1814	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **850** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/16/21	Time:	10:40 AM	Field ID:	MID	Collector:	E. Johnson		VGAC - Midpoint
Date Analyzed:	9/17/21	Time:	10:59 AM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	204	526.3	0.899	0.063	19	91
Chloroethane	**630**	**1700**	136	359	0.976	0.113	NA	NA
Trichloromonofluoromethane	*30*	210	68	475	0.905	0.107	NA	NA
1,1-Dichloroethylene	**2400**	**9400**	68	270.0	1	0.611	56	12000
Methylene Chloride	**1100**	**3700**	14	47.2	0.934	0.151	770	37000
1,1,2-Trichlorotrifluoroethane	**11000**	**86000**	68	520.9	0.999	0.71	NA	NA
1,1-Dichloroethane	**170**	**680**	14	55.1	0.99	0.432	56	50,000
Cis 1,2-Dichloroethylene	**370**	**1500**	14	54.0	0.998	0.719	56	370
Chloroform	N.D.	N.D.	14	66.4	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	68	275.4	0.987	0.034	6.3	31
1,1,1-Trichloroethane	**4000**	**22000**	14	74.3	1	0.711	210	310,000
Benzene	**21**	**68**	14	43.5	0.943	0.22	160	800
Carbon Tetrachloride	**300**	**1900**	14	85.5	0.999	0.121	38	130
1,2-Dichloropropane	N.D.	N.D.	68	314.2	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	14	73.0	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	14	61.7	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	14	61.7	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	14	74.3	0	0	10	50
Toluene	N.D.	N.D.	14	51.3	0.633	0.066	3800	310000
1,2-Dibromoethane	N.D.	N.D.	14	104.4	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	14	92.2	0	0	98	290
Chlorobenzene	N.D.	N.D.	14	62.6	0	0	160	3100
Ethylbenzene	N.D.	N.D.	27	118.0	0.882	0.002	520	62000
p/m-Xylene	N.D.	N.D.	14	59.0	0.671	0.004	1400	6200
Styrene*	N.D.	N.D.	14	58	0	0	95	1400
o-Xylene*	N.D.	N.D.	14	59.0	0.481	0.244	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	68	467.2	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	14	66.9	0.864	0.02	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	14	66.9	0.875	0.02	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	14	82	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	14	82	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	14	82	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	14	101	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	14	145	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	68	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/21/21	Time:	12:00 PM	Field ID:	VGAC-eff	Collector:	E Johnson		VGAC Effluent
Date Analyzed:	9/21/21	Time:	4:55 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**12**	**30**	3	7.7	0.963	0.111	19	91
Chloroethane	**19**	**50**	2	5	0.827	0.104	NA	NA
Trichloromonofluoromethane	**12**	**81**	1	7	0.998	0.465	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.715	0.307	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.763	0.067	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.4**	**5.2**	0.2	0.8	0.99	0.305	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.33*	1.4	0.4	1.7	0.935	0.204	520	62000
p/m-Xylene	**0.38**	**1.7**	0.2	0.9	0.954	0.252	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.811	0.103	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.941	0.147	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.844	0.086	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.959	0.056	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.745	0.062	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.748	0.063	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **5.2** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/21/21	Time:	12:10 PM	Field ID:	VGAC-inf	Collector:	E Johnson		VGAC Influent
Date Analyzed:	9/21/21	Time:	6:05 PM	Lab ID:	008	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.816	0.042	NA	NA
Trichloromonofluoromethane	1800	13000	1	7	0.999	0.422	NA	NA
1,1-Dichloroethylene	69000	270000	1	4.0	1	0.81	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.553	0.022	770	37000
1,1,2-Trichlorotrifluoroethane	58000	440000	1	7.7	0.999	0.778	NA	NA
1,1-Dichloroethane	1200	4700	0.2	0.8	0.971	0.285	56	50,000
Cis 1,2-Dichloroethylene	18000	73000	0.2	0.8	1	0.796	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.978	0.034	6.3	31
1,1,1-Trichloroethane	34000	180000	0.2	1.1	1	0.712	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	2600	17000	0.2	1.3	0.997	0.126	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.627	0.037	8.6	42
Trichloroethylene	68000	370000	0.2	1.1	0.999	0.821	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	330	1300	0.2	0.8	0.998	0.395	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	110000	730000	0.2	1.4	0.999	0.992	98	290
Chlorobenzene	160	750	0.2	0.9	0.831	0.114	160	3100
Ethylbenzene	200	850	0.4	1.7	0.998	0.336	520	62000
p/m-Xylene	140	620	0.2	0.9	0.99	0.38	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	160	690	0.2	0.9	0.966	0.294	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.832	0.035	2.8	14
1,3,5-Trimethylbenzene*	110	540	0.2	1.0	0.968	0.108	NA	NA
1,2,4-Trimethylbenzene*	230	1100	0.2	1.0	0.999	0.191	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.75	0.063	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.745	0.062	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.748	0.063	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/21/21	Time:	12:05 PM	Field ID:	VGAC-Mid	Collector:	E Johnson		VGAC Midpoint
Date Analyzed:	9/21/21	Time:	5:31 PM	Lab ID:	007	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.763	0.034	19	91
Chloroethane	N.D.	N.D.	2	5	0.934	0.079	NA	NA
Trichloromonofluoromethane	270	1900	1	7	0.998	0.458	NA	NA
1,1-Dichloroethylene	2800	11000	1	4.0	0.999	0.754	56	12000
Methylene Chloride	420	1500	0.2	0.7	0.897	0.119	770	37000
1,1,2-Trichlorotrifluoroethane	5000	39000	1	7.7	0.999	0.733	NA	NA
1,1-Dichloroethane	210	860	0.2	0.8	1	0.493	56	50,000
Cis 1,2-Dichloroethylene	600	2400	0.2	0.8	1	0.766	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.916	0.027	6.3	31
1,1,1-Trichloroethane	1800	9900	0.2	1.1	1	0.697	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	130	830	0.2	1.3	0.997	0.126	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	32	120	0.2	0.8	0.985	0.364	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	4.1	18	0.4	1.7	0.906	0.118	520	62000
p/m-Xylene	4.9	21	0.2	0.9	0.916	0.154	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	4.3	19	0.2	0.9	0.912	0.153	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.616	0.119	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.745	0.062	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.748	0.063	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 85 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/23/21	Time:	11:25 AM	Field ID:	Eff	Collector:	E Johnson		VGAC Effluent
Date Analyzed:	9/23/21	Time:	3:50 PM	Lab ID:	003	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**180**	**470**	3	7.7	0.986	0.355	19	91
Chloroethane	N.D.	N.D.	2	5	0.812	0.048	NA	NA
Trichloromonofluoromethane	**17**	**120**	1	7	0.992	0.327	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.614	0.022	770	37000
1,1,2-Trichlorotrifluoroethane	**87**	**670**	1	7.7	0.999	0.649	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.925	0.096	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**2.5**	**9.5**	0.2	0.8	0.993	0.244	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.94**	**4.1**	0.4	1.7	0.98	0.209	520	62000
p/m-Xylene	**1.1**	**4.9**	0.2	0.9	0.988	0.281	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**1**	**4.3**	0.2	0.9	0.984	0.28	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**0.44**	**2.2**	0.2	1.0	0.968	0.112	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.966	0.112	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Check standard for Vinyl Chloride was 161% which means presented value is likely biased high

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/23/21	Time:	11:35 AM	Field ID:	Inf	Collector: E Johnson	VGAC Influent
Date Analyzed:	9/23/21	Time:	4:50 PM	Lab ID:	005	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.936	0.067	NA	NA
Trichloromonofluoromethane	4400	30000	1	7	0.998	0.369	NA	NA
1,1-Dichloroethylene	70000	280000	1	4.0	1	0.794	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.66	0.043	770	37000
1,1,2-Trichlorotrifluoroethane	54000	420000	1	7.7	0.999	0.738	NA	NA
1,1-Dichloroethane	2400	9700	0.2	0.8	0.973	0.234	56	50,000
Cis 1,2-Dichloroethylene	28000	110000	0.2	0.8	0.999	0.745	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.958	0.028	6.3	31
1,1,1-Trichloroethane	62000	340000	0.2	1.1	1	0.7	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	4700	29000	0.2	1.3	0.992	0.125	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.705	0.043	8.6	42
Trichloroethylene	110000	610000	0.2	1.1	1	0.799	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	720	2700	0.2	0.8	0.995	0.29	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.448	0.029	NA	NA
Tetrachloroethylene	180000	1200000	0.2	1.4	0.999	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.688	0.074	160	3100
Ethylbenzene	660	2900	0.4	1.7	0.992	0.311	520	62000
p/m-Xylene	860	3700	0.2	0.9	0.991	0.409	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	550	2400	0.2	0.9	0.969	0.336	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.833	0.043	2.8	14
1,3,5-Trimethylbenzene*	510	2500	0.2	1.0	0.975	0.12	NA	NA
1,2,4-Trimethylbenzene*	1000	4900	0.2	1.0	0.986	0.268	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.352	0.149	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1700 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/23/21	Time:	11:30 AM	Field ID:	Mid	Collector:	E Johnson		VGAC Midpoint
Date Analyzed:	9/23/21	Time:	4:20 PM	Lab ID:	004	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.89	0.061	19	91
Chloroethane	N.D.	N.D.	2	5	0.967	0.043	NA	NA
Trichloromonofluoromethane	270	1900	1	7	0.963	0.344	NA	NA
1,1-Dichloroethylene	41000	160000	1	4.0	1	0.827	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.758	0.051	770	37000
1,1,2-Trichlorotrifluoroethane	20000	160000	1	7.7	0.999	0.709	NA	NA
1,1-Dichloroethane	660	2700	0.2	0.8	1	0.53	56	50,000
Cis 1,2-Dichloroethylene	4100	16000	0.2	0.8	1	0.792	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.381	0.021	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.989	0.033	6.3	31
1,1,1-Trichloroethane	6400	35000	0.2	1.1	1	0.714	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.922	0.072	160	800
Carbon Tetrachloride	450	2900	0.2	1.3	0.998	0.117	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.563	0.052	8.6	42
Trichloroethylene	32	170	0.2	1.1	0.922	0.249	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.604	0.125	10	50
Toluene	39	150	0.2	0.8	0.989	0.254	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	7.2	31	0.4	1.7	0.954	0.158	520	62000
p/m-Xylene	22	97	0.2	0.9	0.983	0.337	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	20	86	0.2	0.9	0.989	0.339	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.948	0.052	2.8	14
1,3,5-Trimethylbenzene*	5.3	26	0.2	1.0	0.946	0.102	NA	NA
1,2,4-Trimethylbenzene*	4.3	21	0.2	1.0	0.947	0.102	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 85 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/28/21	Time:	11:45 AM	Field ID:	Eff	Collector: E Johnson	VGAC Effluent
Date Analyzed:	9/28/21	Time:	4:17 PM	Lab ID:	005	Analyst: N Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.783	0.193	19	91
Chloroethane	**440**	**1200**	2	5	0.899	0.149	NA	NA
Trichloromonofluoromethane	**2800**	**20000**	1	7	0.998	0.431	NA	NA
1,1-Dichloroethylene	**420**	**1700**	1	4.0	0.999	0.554	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.81	0.078	770	37000
1,1,2-Trichlorotrifluoroethane	**4000**	**31000**	1	7.7	0.999	0.718	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.65	0.105	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.86	0.05	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**4.2**	**16**	0.2	0.8	0.911	0.172	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.899	0.051	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.767	0.062	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.48	0.084	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.648	0.062	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.656	0.063	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **34** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/28/21	Time:	11:55 AM	Field ID:	Inf	Collector:	E Johnson		VGAC Influent
Date Analyzed:	9/28/21	Time:	5:49 PM	Lab ID:	008	Analyst:	N Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.804	0.071	NA	NA
Trichloromonofluoromethane	760	5300	1	7	0.993	0.154	NA	NA
1,1-Dichloroethylene	52000	210000	1	4.0	0.999	0.78	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.651	0.042	770	37000
1,1,2-Trichlorotrifluoroethane	36000	280000	1	7.7	0.999	0.76	NA	NA
1,1-Dichloroethane	1700	6800	0.2	0.8	0.986	0.255	56	50,000
Cis 1,2-Dichloroethylene	24000	94000	0.2	0.8	1	0.78	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.987	0.033	6.3	31
1,1,1-Trichloroethane	41000	230000	0.2	1.1	1	0.711	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	2900	18000	0.2	1.3	0.995	0.122	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.631	0.04	8.6	42
Trichloroethylene	180000	950000	0.2	1.1	0.999	0.811	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	650	2500	0.2	0.8	0.981	0.389	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	300000	2000000	0.2	1.4	0.999	0.992	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.786	0.099	160	3100
Ethylbenzene	850	3700	0.4	1.7	0.999	0.39	520	62000
p/m-Xylene	690	3000	0.2	0.9	0.977	0.402	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.733	0.075	95	1400
o-Xylene*	650	2800	0.2	0.9	0.995	0.435	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.803	0.072	2.8	14
1,3,5-Trimethylbenzene*	670	3300	0.2	1.0	0.992	0.138	NA	NA
1,2,4-Trimethylbenzene*	1300	6300	0.2	1.0	1	0.234	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.653	0.062	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.648	0.062	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.656	0.063	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1700	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	9/30/21	Time:	11:15 AM	Field ID:	EFF	Collector: E. Johnson	VGAC - effluent
Date Analyzed:	9/30/21	Time:	5:10 PM	Lab ID:	006	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.933	0.015	19	91
Chloroethane	**640**	**1700**	2	5	0.906	0.163	NA	NA
Trichloromonofluoromethane	**320**	**2300**	1	7	0.998	0.479	NA	NA
1,1-Dichloroethylene	**34000**	**140000**	1	4.0	1	0.797	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.804	0.071	770	37000
1,1,2-Trichlorotrifluoroethane	**29000**	**220000**	1	7.7	0.999	0.7	NA	NA
1,1-Dichloroethane	**80**	**330**	0.2	0.8	0.999	0.305	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.494	0.018	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.907	0.006	6.3	31
1,1,1-Trichloroethane	**190**	**1000**	0.2	1.1	0.999	0.594	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.893	0.096	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.984	0.096	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.757	0.063	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**23**	**86**	0.2	0.8	0.992	0.327	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.736	0.029	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.907	0.04	160	3100
Ethylbenzene	**11**	**48**	0.4	1.7	0.983	0.336	520	62000
p/m-Xylene	**13**	**57**	0.2	0.9	0.991	0.401	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.81	0.097	95	1400
o-Xylene*	**3.9**	**17**	0.2	0.9	0.956	0.16	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	**3.8**	**18**	0.2	1.0	0.978	0.111	NA	NA
1,2,4-Trimethylbenzene*	**3.1**	**15**	0.2	1.0	0.982	0.111	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 85 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/30/21	Time:	12:30 PM	Field ID:	INF	Collector:	E. Johnson		INF
Date Analyzed:	10/1/21	Time:	12:01 PM	Lab ID:	005	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.636	0.033	19	91
Chloroethane	N.D.	N.D.	2	5	0.99	0.056	NA	NA
Trichloromonofluoromethane	1200	8300	1	7	0.991	0.422	NA	NA
1,1-Dichloroethylene	26000	100000	1	4.0	1	0.798	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.605	0.019	770	37000
1,1,2-Trichlorotrifluoroethane	13000	100000	1	7.7	0.999	0.756	NA	NA
1,1-Dichloroethane	750	3000	0.2	0.8	0.985	0.251	56	50,000
Cis 1,2-Dichloroethylene	15000	59000	0.2	0.8	1	0.803	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.98	0.032	6.3	31
1,1,1-Trichloroethane	7500	41000	0.2	1.1	0.999	0.695	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.858	0.088	160	800
Carbon Tetrachloride	550	3400	0.2	1.3	0.997	0.121	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.572	0.034	8.6	42
Trichloroethylene	110000	570000	0.2	1.1	1	0.818	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.358	0.128	10	50
Toluene	420	1600	0.2	0.8	0.992	0.449	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.492	0.016	NA	NA
Tetrachloroethylene	220000	1500000	0.2	1.4	0.999	0.992	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.781	0.097	160	3100
Ethylbenzene	610	2600	0.4	1.7	1	0.358	520	62000
p/m-Xylene	440	1900	0.2	0.9	0.999	0.542	1400	6200
Styrene*	37	160	0.2	1	0.863	0.161	95	1400
o-Xylene*	500	2200	0.2	0.9	0.998	0.543	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	26	180	1	6.9	0.867	0.103	2.8	14
1,3,5-Trimethylbenzene*	640	3200	0.2	1.0	0.99	0.139	NA	NA
1,2,4-Trimethylbenzene*	970	4800	0.2	1.0	0.999	0.179	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.547	0.019	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.416	0.14	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.356	0.158	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/30/21	Time:	12:25 PM	Field ID:	MID	Collector:	E. Johnson		VGAC - Midpoint
Date Analyzed:	10/1/21	Time:	10:55 AM	Lab ID:	003	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.807	0.041	NA	NA
Trichloromonofluoromethane	1900	13000	1	7	0.998	0.463	NA	NA
1,1-Dichloroethylene	67000	270000	1	4.0	1	0.832	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.333	0.01	770	37000
1,1,2-Trichlorotrifluoroethane	38000	290000	1	7.7	0.999	0.757	NA	NA
1,1-Dichloroethane	2200	8800	0.2	0.8	1	0.438	56	50,000
Cis 1,2-Dichloroethylene	51000	200000	0.2	0.8	1	0.818	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.736	0.049	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.989	0.036	6.3	31
1,1,1-Trichloroethane	90000	490000	0.2	1.1	1	0.724	210	310,000
Benzene	160	520	0.2	0.6	0.971	0.21	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.81	0.081	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.499	0.029	8.6	42
Trichloroethylene	270000	1500000	0.2	1.1	1	0.825	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.792	0.008	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	190	700	0.2	0.8	0.999	0.328	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.493	0.055	NA	NA
Tetrachloroethylene	200	1400	0.2	1.4	0.953	0.737	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.764	0.002	160	3100
Ethylbenzene	30	130	0.4	1.7	0.989	0.19	520	62000
p/m-Xylene	120	510	0.2	0.9	0.998	0.387	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	40	170	0.2	0.9	0.99	0.189	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	24	120	0.2	1.0	0.916	0.115	NA	NA
1,2,4-Trimethylbenzene*	20	96	0.2	1.0	0.922	0.116	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.617	0.032	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/5/21	Time:	12:05 PM	Field ID:	V-EFF	Collector:	E. Johnson	VGAC Effluent
Date Analyzed:	10/5/21	Time:	3:38 PM	Lab ID:	005	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	180	470	3	7.7	0.885	0.275	19	91
Chloroethane	95	250	2	5	0.925	0.145	NA	NA
Trichloromonofluoromethane	20	140	1	7	0.988	0.398	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	26	91	0.2	0.7	0.998	0.6	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.981	0.095	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	2.6	14	0.2	1.1	0.965	0.266	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	1.4	5.4	0.2	0.8	0.996	0.15	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	0.53	2.3	0.4	1.7	0.907	0.107	520	62000
p/m-Xylene	0.63	2.8	0.2	0.9	0.848	0.111	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	0.56	2.4	0.2	0.9	0.852	0.111	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.968	0.049	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.84	0.019	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.545	0.237	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/5/21	Time:	1:00 PM	Field ID:	V-INF	Collector:	E. Johnson		VGAC - Influent
Date Analyzed:	10/5/21	Time:	4:39 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.98	0.073	NA	NA
Trichloromonofluoromethane	3100	21000	1	7	0.999	0.388	NA	NA
1,1-Dichloroethylene	20000	81000	1	4.0	0.999	0.75	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	12000	92000	1	7.7	0.999	0.702	NA	NA
1,1-Dichloroethane	1500	6000	0.2	0.8	0.991	0.284	56	50,000
Cis 1,2-Dichloroethylene	18000	73000	0.2	0.8	0.999	0.769	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.884	0.039	6.3	31
1,1,1-Trichloroethane	5100	28000	0.2	1.1	0.999	0.615	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.991	0.097	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.664	0.042	8.6	42
Trichloroethylene	90000	480000	0.2	1.1	1	0.806	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.764	0.033	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.749	0.033	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.54	0.121	10	50
Toluene	660	2500	0.2	0.8	0.997	0.374	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	450000	3000000	0.2	1.4	0.999	0.992	98	290
Chlorobenzene	740	3400	0.2	0.9	0.83	0.105	160	3100
Ethylbenzene	1500	6500	0.4	1.7	1	0.405	520	62000
p/m-Xylene	1400	6200	0.2	0.9	0.994	0.554	1400	6200
Styrene*	66	280	0.2	1	0.836	0.108	95	1400
o-Xylene*	1500	6600	0.2	0.9	0.997	0.535	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.815	0.022	2.8	14
1,3,5-Trimethylbenzene*	5100	25000	0.2	1.0	0.999	0.158	NA	NA
1,2,4-Trimethylbenzene*	9400	46000	0.2	1.0	1	0.225	NA	NA
1,3-Dichlorobenzene (meta)*	1300	7900	0.2	1	0.963	0.108	42	50,000
1,4-Dichlorobenzene (para)*	1000	6200	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	990	6000	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.215	0.098	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.329	0.105	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Some petroleum (diesel) in sample: C10 and C11 alkanes detected plus UCM.

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/5/21	Time:	12:50 PM	Field ID:	V-MID	Collector:	E. Johnson		VGAC - Midpoint
Date Analyzed:	10/5/21	Time:	4:09 PM	Lab ID:	006	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.989	0.024	19	91
Chloroethane	N.D.	N.D.	2	5	0.941	0.085	NA	NA
Trichloromonofluoromethane	820	5700	1	7	0.996	0.404	NA	NA
1,1-Dichloroethylene	49000	190000	1	4.0	1	0.835	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.734	0.043	770	37000
1,1,2-Trichlorotrifluoroethane	16000	120000	1	7.7	0.999	0.624	NA	NA
1,1-Dichloroethane	1400	5700	0.2	0.8	0.999	0.476	56	50,000
Cis 1,2-Dichloroethylene	7200	28000	0.2	0.8	1	0.8	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.998	0.034	6.3	31
1,1,1-Trichloroethane	4900	27000	0.2	1.1	1	0.694	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	400	2500	0.2	1.3	0.985	0.116	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.481	0.032	8.6	42
Trichloroethylene	130	680	0.2	1.1	0.978	0.376	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	63	240	0.2	0.8	0.962	0.169	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	9.9	43	0.4	1.7	0.926	0.113	520	62000
p/m-Xylene	12	52	0.2	0.9	0.957	0.145	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.853	0.06	95	1400
o-Xylene*	11	46	0.2	0.9	0.955	0.144	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.882	0.032	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.895	0.033	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174	
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/7/21	Time:	1:00 PM	Field ID:	Eff	Collector:	E Johnson	VGAC Effluent
Date Analyzed:	10/7/21	Time:	3:50 PM	Lab ID:	005	Analyst:	Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.783	0.32	19	91
Chloroethane	N.D.	N.D.	2	5	0.831	0.053	NA	NA
Trichloromonofluoromethane	**25**	**180**	1	7	0.997	0.336	NA	NA
1,1-Dichloroethylene	**20000**	**78000**	1	4.0	0.999	0.818	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.901	0.099	770	37000
1,1,2-Trichlorotrifluoroethane	**3200**	**24000**	1	7.7	0.999	0.517	NA	NA
1,1-Dichloroethane	**13**	**53**	0.2	0.8	0.949	0.224	56	50,000
Cis 1,2-Dichloroethylene	**2.6**	**10**	0.2	0.8	0.962	0.138	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.992	0.008	6.3	31
1,1,1-Trichloroethane	**2.7**	**15**	0.2	1.1	0.949	0.194	210	310,000
Benzene	**4.1**	**13**	0.2	0.6	0.97	0.358	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.749	0.051	8.6	42
Trichloroethylene	**7.8**	**42**	0.2	1.1	0.997	0.597	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.478	0.102	10	50
Toluene	**1.8**	**6.7**	0.2	0.8	0.995	0.278	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.611	0.172	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.34*	1.5	0.4	1.7	0.968	0.122	520	62000
p/m-Xylene	**0.42**	**1.8**	0.2	0.9	0.942	0.136	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.877	0.108	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.837	0.104	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.926	0.035	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.93	0.034	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.519	0.015	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.675	0.073	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **5.2** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/7/21	Time:	11:50 AM	Field ID:	Inf	Collector:	E Johnson		VGAC Influent
Date Analyzed:	10/7/21	Time:	12:00 AM	Lab ID:	007	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.948	0.056	NA	NA
Trichloromonofluoromethane	2700	19000	1	7	0.994	0.436	NA	NA
1,1-Dichloroethylene	6200	25000	1	4.0	0.998	0.603	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	2600	20000	1	7.7	0.997	0.503	NA	NA
1,1-Dichloroethane	570	2300	0.2	0.8	0.884	0.14	56	50,000
Cis 1,2-Dichloroethylene	7500	30000	0.2	0.8	0.999	0.703	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.952	0.026	6.3	31
1,1,1-Trichloroethane	1900	10000	0.2	1.1	0.992	0.499	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.896	0.067	160	800
Carbon Tetrachloride	230	1400	0.2	1.3	0.97	0.118	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.682	0.046	8.6	42
Trichloroethylene	21000	110000	0.2	1.1	1	0.793	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	450	1700	0.2	0.8	0.999	0.344	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	130000	890000	0.2	1.4	0.999	0.989	98	290
Chlorobenzene	230	1100	0.2	0.9	0.901	0.11	160	3100
Ethylbenzene	440	1900	0.4	1.7	0.996	0.354	520	62000
p/m-Xylene	510	2200	0.2	0.9	0.99	0.436	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.82	0.098	95	1400
o-Xylene*	450	1900	0.2	0.9	0.984	0.372	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.881	0.029	2.8	14
1,3,5-Trimethylbenzene*	810	4000	0.2	1.0	0.998	0.154	NA	NA
1,2,4-Trimethylbenzene*	2100	10000	0.2	1.0	0.999	0.242	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.527	0.016	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.519	0.015	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.675	0.073	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.376	0.16	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.323	0.149	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/7/21	Time:	11:45 AM	Field ID:	Mid	Collector:	E Johnson		VGAC Midpoint
Date Analyzed:	10/7/21	Time:	4:25 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.783	0.018	19	91
Chloroethane	N.D.	N.D.	2	5	0.857	0.03	NA	NA
Trichloromonofluoromethane	**1400**	**9700**	1	7	0.985	0.435	NA	NA
1,1-Dichloroethylene	**81000**	**320000**	1	4.0	1	0.827	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.375	0.01	770	37000
1,1,2-Trichlorotrifluoroethane	**46000**	**350000**	1	7.7	0.999	0.731	NA	NA
1,1-Dichloroethane	**4100**	**17000**	0.2	0.8	1	0.598	56	50,000
Cis 1,2-Dichloroethylene	**77000**	**310000**	0.2	0.8	1	0.817	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.719	0.082	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.916	0.011	6.3	31
1,1,1-Trichloroethane	**79000**	**430000**	0.2	1.1	1	0.716	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.878	0.055	160	800
Carbon Tetrachloride	**5800**	**37000**	0.2	1.3	0.998	0.123	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.704	0.045	8.6	42
Trichloroethylene	**1900**	**10000**	0.2	1.1	0.999	0.753	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.396	0.062	10	50
Toluene	**87**	**330**	0.2	0.8	0.987	0.243	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.83	0.055	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.752	0.257	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.938	0.004	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.812	0.085	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.824	0.086	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.939	0.016	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.941	0.016	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.519	0.015	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.675	0.073	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **340** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/12/21	Time:	11:45 AM	Field ID:	V-Eff	Collector:	E. Johnson
Date Analyzed:	10/12/21	Time:	2:31 PM	Lab ID:	005	Analyst:	N. Johnson

VGAC - Effluent

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**15**	**38**	3	7.7	0.913	0.147	19	91
Chloroethane	N.D.	N.D.	2	5	0.881	0.052	NA	NA
Trichloromonofluoromethane	**18**	**130**	1	7	0.997	0.419	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.927	0.015	56	12000
Methylene Chloride	**1.2**	**4.3**	0.2	0.7	0.94	0.208	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.579	0.217	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.828	0.117	210	310,000
Benzene	**0.88**	**2.8**	0.2	0.6	0.97	0.255	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.922	0.206	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.8**	**7**	0.2	0.8	0.998	0.54	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.862	0.032	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.783	0.266	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.94	0.141	520	62000
p/m-Xylene	**0.36**	**1.6**	0.2	0.9	0.984	0.348	1400	6200
Styrene*	*0.19*	**0.81**	0.2	1	0.949	0.181	95	1400
o-Xylene*	**0.32**	**1.4**	0.2	0.9	0.988	0.35	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.99	0.109	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.994	0.109	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/12/21	Time:	11:55 AM	Field ID:	V-INF	Collector:	E. Johnson
Date Analyzed:	10/12/21	Time:	4:33 PM	Lab ID:	009	Analyst:	N. Johnson

VGAC - Influent

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.866	0.047	NA	NA
Trichloromonofluoromethane	3600	25000	1	7	1	0.395	NA	NA
1,1-Dichloroethylene	4800	19000	1	4.0	0.994	0.592	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.848	0.096	770	37000
1,1,2-Trichlorotrifluoroethane	2200	17000	1	7.7	0.993	0.587	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.603	0.137	56	50,000
Cis 1,2-Dichloroethylene	6000	24000	0.2	0.8	0.999	0.721	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	1200	6800	0.2	1.1	0.999	0.509	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.887	0.105	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.643	0.039	8.6	42
Trichloroethylene	15000	78000	0.2	1.1	0.999	0.804	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	590	2200	0.2	0.8	0.998	0.495	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	83000	560000	0.2	1.4	0.998	0.99	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.464	0.049	160	3100
Ethylbenzene	220	960	0.4	1.7	0.998	0.353	520	62000
p/m-Xylene	260	1100	0.2	0.9	0.997	0.476	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	270	1200	0.2	0.9	0.997	0.455	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.808	0.065	2.8	14
1,3,5-Trimethylbenzene*	540	2700	0.2	1.0	0.997	0.172	NA	NA
1,2,4-Trimethylbenzene*	1100	5600	0.2	1.0	0.998	0.244	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.547	0.016	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.339	0.115	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.295	0.141	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Evidence of petroleum (C10-C11, UCM)

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/12/21	Time:	11:50 AM	Field ID:	V-MID	Collector:	E. Johnson		VGAC - Midpoint
Date Analyzed:	10/12/21	Time:	4:02 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.769	0.066	NA	NA
Trichloromonofluoromethane	**530**	**3700**	1	7	0.995	0.394	NA	NA
1,1-Dichloroethylene	**4300**	**17000**	1	4.0	1	0.771	56	12000
Methylene Chloride	**350**	**1200**	0.2	0.7	0.928	0.167	770	37000
1,1,2-Trichlorotrifluoroethane	**290**	**2200**	1	7.7	0.995	0.413	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	**43**	**170**	0.2	0.8	0.986	0.29	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**190**	**1000**	0.2	1.1	0.998	0.725	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**76**	**290**	0.2	0.8	1	0.538	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.852	0.001	160	3100
Ethylbenzene	**9.1**	**40**	0.4	1.7	0.97	0.29	520	62000
p/m-Xylene	**11**	**47**	0.2	0.9	0.944	0.312	1400	6200
Styrene*	**6.2**	**27**	0.2	1	0.907	0.176	95	1400
o-Xylene*	**3.2**	**14**	0.2	0.9	0.85	0.186	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.989	0.065	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.989	0.065	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 85 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/14/21	Time:	11:25 AM	Field ID:	Eff	Collector: E Johnson	VGAC Effluent
Date Analyzed:	10/14/21	Time:	4:21 PM	Lab ID:	005	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**130**	**320**	3	7.7	0.997	0.437	19	91
Chloroethane	**35**	**92**	2	5	0.864	0.115	NA	NA
Trichloromonofluoromethane	**24**	**170**	1	7	0.998	0.408	NA	NA
1,1-Dichloroethylene	**14**	**57**	1	4.0	0.995	0.54	56	12000
Methylene Chloride	**8**	**28**	0.2	0.7	0.988	0.433	770	37000
1,1,2-Trichlorotrifluoroethane	**3.3**	**25**	1	7.7	0.969	0.267	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**2.4**	**7.6**	0.2	0.6	0.968	0.367	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**0.89**	**4.8**	0.2	1.1	0.981	0.299	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**2.1**	**7.9**	0.2	0.8	0.998	0.446	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.45**	**1.9**	0.4	1.7	0.983	0.281	520	62000
p/m-Xylene	**0.53**	**2.3**	0.2	0.9	0.996	0.362	1400	6200
Styrene*	**0.23**	**0.99**	0.2	1	0.997	0.175	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.986	0.263	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.924	0.132	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.923	0.132	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.42	0.01	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.747	0.083	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **3.5** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/14/21	Time:	11:35 AM	Field ID:	Inf	Collector: E Johnson	VGAC Influent
Date Analyzed:	10/14/21	Time:	5:25 PM	Lab ID:	007	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0	0	NA	NA
Trichloromonofluoromethane	5500	39000	1	7	0.999	0.48	NA	NA
1,1-Dichloroethylene	5600	22000	1	4.0	0.998	0.654	56	12000
Methylene Chloride	580	2000	0.2	0.7	0.843	0.135	770	37000
1,1,2-Trichlorotrifluoroethane	1900	15000	1	7.7	0.995	0.511	NA	NA
1,1-Dichloroethane	430	1700	0.2	0.8	0.955	0.169	56	50,000
Cis 1,2-Dichloroethylene	6700	27000	0.2	0.8	0.999	0.735	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	1200	6500	0.2	1.1	0.996	0.463	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.944	0.113	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.926	0.078	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.734	0.054	8.6	42
Trichloroethylene	13000	70000	0.2	1.1	1	0.794	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	770	2900	0.2	0.8	0.999	0.522	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	72000	490000	0.2	1.4	0.999	0.99	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.716	0.086	160	3100
Ethylbenzene	210	920	0.4	1.7	0.998	0.311	520	62000
p/m-Xylene	360	1600	0.2	0.9	0.99	0.452	1400	6200
Styrene*	50	210	0.2	1	0.969	0.197	95	1400
o-Xylene*	240	1000	0.2	0.9	0.996	0.458	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.871	0.042	2.8	14
1,3,5-Trimethylbenzene*	450	2200	0.2	1.0	0.989	0.174	NA	NA
1,2,4-Trimethylbenzene*	920	4500	0.2	1.0	1	0.211	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.424	0.01	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.42	0.01	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.747	0.083	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.199	0.098	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.299	0.111	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/14/21	Time:	11:30 AM	Field ID:	Mid	Collector: E Johnson	VGAC Midpoint
Date Analyzed:	10/14/21	Time:	4:54 PM	Lab ID:	006	Analyst: Fitzgerald	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.896	0.047	19	91
Chloroethane	530	1400	2	5	0.943	0.116	NA	NA
Trichloromonofluoromethane	560	3900	1	7	0.995	0.546	NA	NA
1,1-Dichloroethylene	35000	140000	1	4.0	0.999	0.833	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.728	0.049	770	37000
1,1,2-Trichlorotrifluoroethane	1600	12000	1	7.7	0.999	0.679	NA	NA
1,1-Dichloroethane	62	250	0.2	0.8	0.979	0.222	56	50,000
Cis 1,2-Dichloroethylene	43	170	0.2	0.8	0.989	0.263	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.581	0.114	10	50
Toluene	70	260	0.2	0.8	0.996	0.474	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.558	0.048	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	6.4	28	0.4	1.7	0.906	0.166	520	62000
p/m-Xylene	14	63	0.2	0.9	0.991	0.366	1400	6200
Styrene*	4.7	20	0.2	1	0.941	0.221	95	1400
o-Xylene*	6.1	27	0.2	0.9	0.901	0.165	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.663	0.033	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.42	0.01	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.747	0.083	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 85 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	10/19/21	Time:	11:55 AM	Field ID:	V-Eff	Collector:	E. Johnson		
Date Analyzed:	10/19/21	Time:	2:21 PM	Lab ID:	4	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	41	110	0.2	0.5	0.97	0.664	0 @ 0 CFM
Chloroethane	28	73	2	5	0.826	0.198	0 @ 0 CFM
Trichloromonofluoromethane	8.1	57	0.2	1	0.999	0.469	0 @ 0 CFM
1,1-Dichloroethylene	17	68	0.2	0.8	0.992	0.682	0 @ 0 CFM
Methylene Chloride	4.4	15	0.2	0.7	0.986	0.27	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	10	79	0.2	1.5	0.99	0.68	0 @ 0 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.664	0.134	@ 0 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	@ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.946	0.402	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.962	0.005	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.661	0.021	@ 0 CFM
Benzene	1.4	4.4	0.2	0.6	0.984	0.834	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	*0.072*	*0.39*	0.2	1.1	0.927	0.578	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	1.3	5.1	0.2	0.8	0.995	0.77	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	*0.14*	*0.98*	0.2	1.4	0.942	0.848	0 @ 0 CFM
Chlorobenzene	*0.15*	*0.68*	0.2	0.9	0.995	0.682	0 @ 0 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.98	0.384	@ 0 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.985	0.689	@ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.98	0.475	@ 0 CFM
o-Xylene*	N.D.	N.D.	1	4	0.997	0.404	@ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.784	0.046	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.882	0.127	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.984	0.257	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.996	0.504	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.998	0.298	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.99	0.321	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.52	0.242	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	10/19/21	Time:	12:50 AM	Field ID:	V-Inf	Collector:	E. Johnson		
Date Analyzed:	10/19/21	Time:	3:24 PM	Lab ID:	6	Analyst:	N. Johnson		312

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	140	350	0.2	0.5	0.869	0.236	4 @ 312 CFM
Chloroethane	2000	5300	2	5	0.853	0.223	54 @ 312 CFM
Trichloromonofluoromethane	890	6200	0.2	1	0.997	0.393	64 @ 312 CFM
1,1-Dichloroethylene	3200	13000	0.2	0.8	0.992	0.807	133 @ 312 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.936	0.084	@ 312 CFM
1,1,2-Trichlorotrifluoroethane	1800	14000	0.2	1.5	0.992	0.707	143 @ 312 CFM
1,1-Dichloroethane	380	1500	0.2	0.8	0.955	0.407	15 @ 312 CFM
Cis 1,2-Dichloroethylene	7500	30000	0.2	0.8	0.989	0.844	307 @ 312 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 312 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.901	0.005	@ 312 CFM
1,1,1-Trichloroethane	1900	10000	0.2	1.1	0.992	0.703	102 @ 312 CFM
Benzene	150	480	0.2	0.6	0.992	0.815	5 @ 312 CFM
Carbon Tetrachloride	150	910	0.2	1.3	0.993	0.115	9 @ 312 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.543	0.028	@ 312 CFM
Trichloroethylene	9500	51000	0.2	1.1	0.993	0.839	523 @ 312 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 312 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 312 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.301	0.038	@ 312 CFM
Toluene	560	2100	0.2	0.8	0.996	0.749	22 @ 312 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 312 CFM
Tetrachloroethylene	49000	330000	0.2	1.4	0.997	0.992	3382 @ 312 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.803	0.037	@ 312 CFM
Ethylbenzene	240	1000	0.2	0.9	0.996	0.469	10 @ 312 CFM
p/m-Xylene	330	1400	0.4	1.7	0.994	0.639	14 @ 312 CFM
Styrene*	68	290	1	4	0.994	0.336	3 @ 312 CFM
o-Xylene*	260	1100	1	4	1	0.613	11 @ 312 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.867	0.027	@ 312 CFM
1,3,5-Trimethylbenzene*	450	2200	1	5	0.999	0.193	23 @ 312 CFM
1,2,4-Trimethylbenzene*	670	3300	1	5	0.999	0.21	34 @ 312 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.816	0.031	@ 312 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.859	0.002	@ 312 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.506	0.047	@ 312 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 312 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 312 CFM
						Total Mass Flux +/- in pounds per year --->	4859 @ 312 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	10/19/21	Time:	12:00 PM	Field ID:	V-Mid	Collector:	E. Johnson		
Date Analyzed:	10/19/21	Time:	2:52 PM	Lab ID:	5	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	160	420	0.2	0.5	0.98	0.228	0 @ 0 CFM
Chloroethane	100	270	2	5	0.905	0.18	0 @ 0 CFM
Trichloromonofluoromethane	460	3200	0.2	1	0.997	0.396	0 @ 0 CFM
1,1-Dichloroethylene	10000	41000	0.2	0.8	0.99	0.806	0 @ 0 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.819	0.044	@ 0 CFM
1,1,2-Trichlorotrifluoroethane	12000	90000	0.2	1.5	0.991	0.583	0 @ 0 CFM
1,1-Dichloroethane	670	2700	0.2	0.8	0.977	0.485	0 @ 0 CFM
Cis 1,2-Dichloroethylene	8600	34000	0.2	0.8	0.988	0.845	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.657	0.292	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.956	0.005	@ 0 CFM
1,1,1-Trichloroethane	4600	25000	0.2	1.1	0.992	0.696	0 @ 0 CFM
Benzene	49	160	0.2	0.6	0.988	0.815	0 @ 0 CFM
Carbon Tetrachloride	390	2500	0.2	1.3	0.998	0.12	0 @ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.523	0.026	@ 0 CFM
Trichloroethylene	2500	13000	0.2	1.1	0.994	0.841	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	110	400	0.2	0.8	0.996	0.753	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	2200	15000	0.2	1.4	0.995	0.989	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.426	0	@ 0 CFM
Ethylbenzene	3.9	17	0.2	0.9	0.974	0.527	0 @ 0 CFM
p/m-Xylene	9.2	40	0.4	1.7	0.99	0.641	0 @ 0 CFM
Styrene*	1.7	7.2	1	4	0.984	0.363	0 @ 0 CFM
o-Xylene*	2.7	12	1	4	0.999	0.333	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.971	0.156	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.978	0.157	@ 0 CFM
1,3-Dichlorobenzene (meta)*	2.2	13	0.2	1	0.988	0.211	0 @ 0 CFM
1,4-Dichlorobenzene (para)*	1	6.1	0.2	1	0.99	0.131	0 @ 0 CFM
1,2-Dichlorobenzene (ortho)*	1.5	9.2	0.2	1	0.99	0.213	0 @ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/21/21	Time:	11:15 AM	Field ID:	V-Eff	Collector:	E. Johnson
Date Analyzed:	10/21/21	Time:	3:30 PM	Lab ID:	004	Analyst:	Fitzgerald

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.78	0.37	19	91
Chloroethane	**80**	**210**	2	5	0.878	0.163	NA	NA
Trichloromonofluoromethane	**24**	**170**	1	7	0.997	0.435	NA	NA
1,1-Dichloroethylene	**360**	**1400**	1	4.0	1	0.797	56	12000
Methylene Chloride	**30**	**100**	0.2	0.7	0.902	0.113	770	37000
1,1,2-Trichlorotrifluoroethane	**56**	**430**	1	7.7	0.998	0.725	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**2.5**	**7.9**	0.2	0.6	0.96	0.393	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**7.6**	**29**	0.2	0.8	1	0.648	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	**0.31**	**2.1**	0.2	1.4	0.847	0.373	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	*0.24*	1	0.4	1.7	0.979	0.186	520	62000
p/m-Xylene	**0.73**	**3.2**	0.2	0.9	0.978	0.356	1400	6200
Styrene*	**0.2**	**0.84**	0.2	1	0.92	0.186	95	1400
o-Xylene*	**0.65**	**2.8**	0.2	0.9	0.976	0.356	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.973	0.147	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.97	0.147	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.667	0.068	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.671	0.068	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.379	0.16	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3.5 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	11:25 AM	Field ID:	V-Inf	Collector:	E. Johnson		VGAC Influent
Date Analyzed:	10/21/21	Time:	4:43 PM	Lab ID:	006	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.862	0.065	NA	NA
Trichloromonofluoromethane	4800	33000	1	7	0.999	0.498	NA	NA
1,1-Dichloroethylene	3500	14000	1	4.0	0.999	0.569	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.662	0.035	770	37000
1,1,2-Trichlorotrifluoroethane	1300	9900	1	7.7	0.996	0.433	NA	NA
1,1-Dichloroethane	330	1400	0.2	0.8	0.967	0.108	56	50,000
Cis 1,2-Dichloroethylene	5300	21000	0.2	0.8	1	0.723	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.451	0.038	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.94	0.004	6.3	31
1,1,1-Trichloroethane	1300	7100	0.2	1.1	0.994	0.449	210	310,000
Benzene	100	320	0.2	0.6	0.932	0.13	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.931	0.091	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	6000	32000	0.2	1.1	0.999	0.77	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	1600	5900	0.2	0.8	1	0.619	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	41000	280000	0.2	1.4	0.999	0.988	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.828	0.085	160	3100
Ethylbenzene	120	530	0.4	1.7	0.999	0.283	520	62000
p/m-Xylene	230	1000	0.2	0.9	0.987	0.416	1400	6200
Styrene*	55	230	0.2	1	0.925	0.151	95	1400
o-Xylene*	120	500	0.2	0.9	0.992	0.28	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.923	0.051	2.8	14
1,3,5-Trimethylbenzene*	160	780	0.2	1.0	0.992	0.17	NA	NA
1,2,4-Trimethylbenzene*	380	1900	0.2	1.0	0.999	0.206	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.67	0.068	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.667	0.068	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.671	0.068	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.229	0.101	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.375	0.14	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	11:20 AM	Field ID:	V-mid	Collector:	E. Johnson		VGAC Midpoint
Date Analyzed:	10/21/21	Time:	4:10 PM	Lab ID:	005	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.979	0.059	NA	NA
Trichloromonofluoromethane	730	5100	1	7	0.998	0.474	NA	NA
1,1-Dichloroethylene	22000	89000	1	4.0	1	0.832	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.719	0.045	770	37000
1,1,2-Trichlorotrifluoroethane	11000	82000	1	7.7	0.999	0.658	NA	NA
1,1-Dichloroethane	770	3100	0.2	0.8	1	0.545	56	50,000
Cis 1,2-Dichloroethylene	13000	52000	0.2	0.8	1	0.814	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0.322	0.019	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.996	0.034	6.3	31
1,1,1-Trichloroethane	4200	23000	0.2	1.1	1	0.715	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	310	1900	0.2	1.3	0.996	0.116	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.643	0.041	8.6	42
Trichloroethylene	4900	26000	0.2	1.1	0.999	0.81	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.474	0.09	10	50
Toluene	260	1000	0.2	0.8	1	0.63	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	8400	57000	0.2	1.4	0.999	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	7	30	0.4	1.7	0.97	0.133	520	62000
p/m-Xylene	18	78	0.2	0.9	0.984	0.296	1400	6200
Styrene*	10	44	0.2	1	0.891	0.143	95	1400
o-Xylene*	11	46	0.2	0.9	0.807	0.126	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	4.9	24	0.2	1.0	0.988	0.106	NA	NA
1,2,4-Trimethylbenzene*	4.1	20	0.2	1.0	0.989	0.106	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.667	0.068	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.671	0.068	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/26/21	Time:	10:50 AM	Field ID:	V-Eff	Collector:	E. Johnson	VGAC - Effluent
Date Analyzed:	10/26/21	Time:	2:33 PM	Lab ID:	003	Analyst:	N. Johnson	

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.797	0.328	19	91
Chloroethane	**170**	**440**	2	5	0.838	0.176	NA	NA
Trichloromonofluoromethane	**12**	**83**	1	7	0.993	0.265	NA	NA
1,1-Dichloroethylene	**1200**	**4600**	1	4.0	1	0.79	56	12000
Methylene Chloride	**97**	**330**	0.2	0.7	0.856	0.105	770	37000
1,1,2-Trichlorotrifluoroethane	**620**	**4700**	1	7.7	0.999	0.631	NA	NA
1,1-Dichloroethane	**7.6**	**31**	0.2	0.8	0.986	0.271	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.545	0.155	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	**2**	**11**	0.2	1.1	0.855	0.104	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**2.2**	**8.2**	0.2	0.8	0.999	0.392	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.4**	**1.7**	0.4	1.7	0.965	0.212	520	62000
p/m-Xylene	**0.47**	**2**	0.2	0.9	0.963	0.265	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**0.42**	**1.8**	0.2	0.9	0.964	0.266	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.66	0.043	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/26/21	Time:	11:00 AM	Field ID:	V-INF	Collector:	E. Johnson
Date Analyzed:	10/26/21	Time:	3:34 PM	Lab ID:	005	Analyst:	N. Johnson

VGAC - influent

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	9000	24000	2	5	0.929	0.104	NA	NA
Trichloromonofluoromethane	1400	10000	1	7	0.991	0.265	NA	NA
1,1-Dichloroethylene	4300	17000	1	4.0	0.999	0.626	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.795	0.082	770	37000
1,1,2-Trichlorotrifluoroethane	2000	15000	1	7.7	0.981	0.572	NA	NA
1,1-Dichloroethane	370	1500	0.2	0.8	0.989	0.178	56	50,000
Cis 1,2-Dichloroethylene	7800	31000	0.2	0.8	1	0.766	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	1100	6200	0.2	1.1	0.994	0.394	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.702	0.049	8.6	42
Trichloroethylene	7700	41000	0.2	1.1	1	0.773	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	480	1800	0.2	0.8	0.996	0.432	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	49000	330000	0.2	1.4	0.997	0.985	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.514	0.051	160	3100
Ethylbenzene	120	530	0.4	1.7	0.986	0.229	520	62000
p/m-Xylene	150	650	0.2	0.9	0.997	0.409	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	120	530	0.2	0.9	0.983	0.259	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.873	0.051	2.8	14
1,3,5-Trimethylbenzene*	190	940	0.2	1.0	0.987	0.134	NA	NA
1,2,4-Trimethylbenzene*	360	1800	0.2	1.0	0.988	0.181	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.736	0.066	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.281	0.13	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.346	0.122	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Evidence of petrolem (C10-C12 and UCM).

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/26/21	Time:	10:55 AM	Field ID:	V-Mid	Collector:	E. Johnson		VGAC - midpoint
Date Analyzed:	10/26/21	Time:	3:03 PM	Lab ID:	004	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	1100	2800	2	5	0.951	0.102	NA	NA
Trichloromonofluoromethane	800	5600	1	7	0.992	0.37	NA	NA
1,1-Dichloroethylene	15000	61000	1	4.0	1	0.781	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.805	0.086	770	37000
1,1,2-Trichlorotrifluoroethane	12000	93000	1	7.7	0.999	0.758	NA	NA
1,1-Dichloroethane	740	3000	0.2	0.8	0.999	0.406	56	50,000
Cis 1,2-Dichloroethylene	11000	45000	0.2	0.8	1	0.784	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.955	0.034	6.3	31
1,1,1-Trichloroethane	7600	41000	0.2	1.1	1	0.693	210	310,000
Benzene	44	140	0.2	0.6	0.909	0.153	160	800
Carbon Tetrachloride	510	3200	0.2	1.3	0.984	0.117	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.746	0.051	8.6	42
Trichloroethylene	10000	55000	0.2	1.1	0.999	0.789	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	250	950	0.2	0.8	0.994	0.463	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	62000	420000	0.2	1.4	0.998	0.989	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.653	0.057	160	3100
Ethylbenzene	52	230	0.4	1.7	0.99	0.21	520	62000
p/m-Xylene	44	190	0.2	0.9	0.973	0.324	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.947	0.165	95	1400
o-Xylene*	39	170	0.2	0.9	0.976	0.325	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.726	0.027	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.855	0.015	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.711	0.024	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/28/21	Time:	11:25 AM	Field ID:	V-EFF	Collector:	E. Johnon
Date Analyzed:	10/28/21	Time:	3:34 PM	Lab ID:	008	Analyst:	N. Johnson

VGAC - Effluent

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.667	0.022	19	91
Chloroethane	N.D.	N.D.	2	5	0.9	0.058	NA	NA
Trichloromonofluoromethane	N.D.	N.D.	1	7	0.91	0.031	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0.93	0.04	56	12000
Methylene Chloride	**1.1**	**4**	0.2	0.7	0.997	0.352	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.843	0.033	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	**0.49**	**1.6**	0.2	0.6	0.963	0.199	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	N.D.	N.D.	0.2	0.8	0.964	0.065	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.898	0.004	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.842	0.006	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.471	0.197	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.908	0.033	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.913	0.033	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 1 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/28/21	Time:	11:35 AM	Field ID:	V-INF	Collector:	E. Johnon
Date Analyzed:	10/28/21	Time:	4:38 PM	Lab ID:	010	Analyst:	N. Johnson

VGAC-Influent

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.878	0.048	NA	NA
Trichloromonofluoromethane	490	3400	1	7	0.986	0.216	NA	NA
1,1-Dichloroethylene	3400	14000	1	4.0	0.997	0.652	56	12000
Methylene Chloride	430	1500	0.2	0.7	0.871	0.129	770	37000
1,1,2-Trichlorotrifluoroethane	1600	12000	1	7.7	0.997	0.571	NA	NA
1,1-Dichloroethane	310	1300	0.2	0.8	0.958	0.155	56	50,000
Cis 1,2-Dichloroethylene	5000	20000	0.2	0.8	0.999	0.739	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	540	3000	0.2	1.1	0.999	0.426	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0.941	0.074	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.86	0.054	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.724	0.048	8.6	42
Trichloroethylene	5900	31000	0.2	1.1	0.999	0.788	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	98	370	0.2	0.8	0.996	0.235	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	37000	250000	0.2	1.4	0.998	0.988	98	290
Chlorobenzene	48	220	0.2	0.9	0.928	0.122	160	3100
Ethylbenzene	50	220	0.4	1.7	0.963	0.153	520	62000
p/m-Xylene	46	200	0.2	0.9	0.931	0.147	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0.782	0.076	95	1400
o-Xylene*	32	140	0.2	0.9	0.934	0.195	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.959	0.06	2.8	14
1,3,5-Trimethylbenzene*	110	550	0.2	1.0	0.994	0.11	NA	NA
1,2,4-Trimethylbenzene*	220	1100	0.2	1.0	0.986	0.203	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.768	0.073	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.243	0.102	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.259	0.11	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS: Petroleum present in sample (alkane peaks and UCM)

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge			RTN: 3-19174
City or Town:	Framingham		Address:	133 Leland Street			Location:
Date Sampled:	10/28/21	Time:	11:30 AM	Field ID:	V-MID	Collector:	E. Johnon
Date Analyzed:	10/28/21	Time:	4:04 PM	Lab ID:	009	Analyst:	N. Johnson

VGAC - Midpoint

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.994	0.052	NA	NA
Trichloromonofluoromethane	**6.5**	**45**	1	7	0.994	0.232	NA	NA
1,1-Dichloroethylene	**4.5**	**18**	1	4.0	0.991	0.23	56	12000
Methylene Chloride	**1.3**	**4.5**	0.2	0.7	0.916	0.147	770	37000
1,1,2-Trichlorotrifluoroethane	**3.7**	**29**	1	7.7	0.925	0.231	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.748	0.032	56	50,000
Cis 1,2-Dichloroethylene	**7.4**	**30**	0.2	0.8	0.997	0.475	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.855	0.022	6.3	31
1,1,1-Trichloroethane	**13**	**70**	0.2	1.1	0.997	0.541	210	310,000
Benzene	**17**	**55**	0.2	0.6	0.997	0.69	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.979	0.089	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.768	0.109	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**1.4**	**5.4**	0.2	0.8	0.998	0.236	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.923	0.037	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	**0.42**	**1.8**	0.4	1.7	0.989	0.158	520	62000
p/m-Xylene	**0.51**	**2.2**	0.2	0.9	0.987	0.181	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	**0.21**	**0.9**	0.2	0.9	0.934	0.102	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.896	0.042	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.825	0.054	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.826	0.054	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.463	0.155	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 5.2 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/2/21	Time:	11:30 AM	Field ID:	V-EFF	Collector:	E. Johnson		VGAC - Effluent
Date Analyzed:	11/2/21	Time:	3:45 PM	Lab ID:	007	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	**140**	**350**	3	7.7	0.972	0.46	19	91
Chloroethane	**47**	**120**	2	5	0.942	0.127	NA	NA
Trichloromonofluoromethane	**8**	**56**	1	7	0.997	0.328	NA	NA
1,1-Dichloroethylene	N.D.	N.D.	1	4.0	0	0	56	12000
Methylene Chloride	**2.8**	**9.8**	0.2	0.7	0.984	0.301	770	37000
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	1	7.7	0.698	0.209	NA	NA
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	56	50,000
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**2.1**	**7.8**	0.2	0.8	0.992	0.37	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0.946	0.146	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0.955	0.213	1400	6200
Styrene*	*0.19*	**0.83**	0.2	1	0.922	0.13	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0.949	0.211	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.635	0.148	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **3.5** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/2/21	Time:	11:40 AM	Field ID:	V-INF	Collector:	E. Johnson		VGAC-Influent
Date Analyzed:	11/2/21	Time:	4:49 PM	Lab ID:	009	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0	0	19	91
Chloroethane	N.D.	N.D.	2	5	0.999	0.066	NA	NA
Trichloromonofluoromethane	1200	8300	1	7	0.98	0.33	NA	NA
1,1-Dichloroethylene	3000	12000	1	4.0	0.994	0.666	56	12000
Methylene Chloride	350	1200	0.2	0.7	0.915	0.115	770	37000
1,1,2-Trichlorotrifluoroethane	1700	13000	1	7.7	0.996	0.622	NA	NA
1,1-Dichloroethane	280	1100	0.2	0.8	0.993	0.243	56	50,000
Cis 1,2-Dichloroethylene	4400	18000	0.2	0.8	0.999	0.761	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	320	1800	0.2	1.1	0.991	0.378	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0.921	0.068	8.6	42
Trichloroethylene	4900	26000	0.2	1.1	0.999	0.793	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	99	370	0.2	0.8	0.979	0.201	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	32000	220000	0.2	1.4	0.998	0.988	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.874	0.084	160	3100
Ethylbenzene	26	110	0.4	1.7	0.99	0.189	520	62000
p/m-Xylene	43	190	0.2	0.9	0.991	0.249	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	51	220	0.2	0.9	0.873	0.209	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.641	0.062	2.8	14
1,3,5-Trimethylbenzene*	100	490	0.2	1.0	0.982	0.141	NA	NA
1,2,4-Trimethylbenzene*	190	950	0.2	1.0	0.991	0.177	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.753	0.081	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0.247	0.126	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0.34	0.154	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/2/21	Time:	11:35 AM	Field ID:	V-MID	Collector:	E. Johnson		VGAC - Midpoint
Date Analyzed:	11/2/21	Time:	4:19 PM	Lab ID:	008	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	3	7.7	0.783	0.038	19	91
Chloroethane	**530**	**1400**	2	5	0.839	0.126	NA	NA
Trichloromonofluoromethane	**23**	**160**	1	7	1	0.155	NA	NA
1,1-Dichloroethylene	**2400**	**9400**	1	4.0	0.999	0.745	56	12000
Methylene Chloride	**280**	**970**	0.2	0.7	0.948	0.214	770	37000
1,1,2-Trichlorotrifluoroethane	**550**	**4200**	1	7.7	0.998	0.712	NA	NA
1,1-Dichloroethane	**29**	**120**	0.2	0.8	0.97	0.181	56	50,000
Cis 1,2-Dichloroethylene	**170**	**690**	0.2	0.8	0.999	0.649	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.873	0.038	6.3	31
1,1,1-Trichloroethane	**70**	**380**	0.2	1.1	1	0.441	210	310,000
Benzene	**14**	**44**	0.2	0.6	0.991	0.341	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.705	0.059	38	130
1,2-Dichloropropane	N.D.	N.D.	1	4.6	0	0	8.6	42
Trichloroethylene	**41**	**220**	0.2	1.1	0.996	0.65	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	**6.3**	**24**	0.2	0.8	0.991	0.185	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	N.D.	N.D.	0.4	1.7	0	0	520	62000
p/m-Xylene	N.D.	N.D.	0.2	0.9	0	0	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	N.D.	N.D.	0.2	0.9	0	0	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0	0	2.8	14
1,3,5-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0.665	0.161	NA	NA
1,2,4-Trimethylbenzene*	N.D.	N.D.	0.2	1.0	0	0	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	0.2	1	0	0	28	240
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **34** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/4/21	Time:	11:55 PM	Field ID:	Eff	Collector:	E Johnson		
Date Analyzed:	11/4/21	Time:	3:09 PM	Lab ID:	4	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	45	120	0.2	0.5	0.818	0.643	0 @ 0 CFM
Chloroethane	**6.5**	**17**	2	5	0.982	0.219	0 @ 0 CFM
Trichloromonofluoromethane	**0.64**	**4.5**	0.2	1	0.995	0.265	0 @ 0 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.998	0.051	@ 0 CFM
Methylene Chloride	**1.7**	**5.9**	0.2	0.7	0.991	0.635	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	**2.6**	**20**	0.2	1.5	0.994	0.601	0 @ 0 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0	0	@ 0 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.346	0.079	@ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.937	0.006	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.666	0.021	@ 0 CFM
Benzene	**1.3**	**4.1**	0.2	0.6	0.992	0.83	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	**0.65**	**2.5**	0.2	0.8	0.997	0.767	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	*0.069*	*0.47*	0.2	1.4	0.928	0.765	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.58	0.001	@ 0 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.939	0.155	@ 0 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.582	@ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.942	0.227	@ 0 CFM
o-Xylene*	N.D.	N.D.	1	4	0.955	0.279	@ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.825	0.022	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.828	0.094	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.862	0.241	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.992	0.153	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.852	0.203	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/4/21	Time:	12:05 PM	Field ID:	Inf	Collector:	E Johnson		
Date Analyzed:	11/4/21	Time:	4:17 PM	Lab ID:	6	Analyst:	Fitzgerald		321

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	78	200	0.2	0.5	0.994	0.258	2 @ 321 CFM
Chloroethane	44	120	2	5	0.827	0.128	1 @ 321 CFM
Trichloromonofluoromethane	54	380	0.2	1	0.994	0.124	4 @ 321 CFM
1,1-Dichloroethylene	2000	7800	0.2	0.8	0.999	0.751	82 @ 321 CFM
Methylene Chloride	180	630	0.2	0.7	0.947	0.112	7 @ 321 CFM
1,1,2-Trichlorotrifluoroethane	1400	11000	0.2	1.5	0.992	0.739	116 @ 321 CFM
1,1-Dichloroethane	240	990	0.2	0.8	0.972	0.419	10 @ 321 CFM
Cis 1,2-Dichloroethylene	5100	20000	0.2	0.8	0.997	0.841	211 @ 321 CFM
Chloroform	20	99	0.2	1.0	0.977	0.103	1 @ 321 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.961	0.005	@ 321 CFM
1,1,1-Trichloroethane	300	1600	0.2	1.1	0.994	0.628	17 @ 321 CFM
Benzene	89	280	0.2	0.6	0.978	0.772	3 @ 321 CFM
Carbon Tetrachloride	33	210	0.2	1.3	0.973	0.129	2 @ 321 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.516	0.029	@ 321 CFM
Trichloroethylene	4200	22000	0.2	1.1	0.998	0.843	232 @ 321 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 321 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 321 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.303	0.045	@ 321 CFM
Toluene	200	770	0.2	0.8	0.999	0.73	8 @ 321 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 321 CFM
Tetrachloroethylene	24000	160000	0.2	1.4	0.997	0.992	1687 @ 321 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.821	0.012	@ 321 CFM
Ethylbenzene	58	250	0.2	0.9	0.998	0.359	3 @ 321 CFM
p/m-Xylene	64	280	0.4	1.7	0.993	0.575	3 @ 321 CFM
Styrene*	11	48	1	4	0.989	0.248	1 @ 321 CFM
o-Xylene*	56	240	1	4	0.998	0.591	3 @ 321 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.881	0.04	@ 321 CFM
1,3,5-Trimethylbenzene*	120	590	1	5	0.998	0.125	6 @ 321 CFM
1,2,4-Trimethylbenzene*	190	950	1	5	1	0.178	10 @ 321 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.859	0.058	@ 321 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.856	0.032	@ 321 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.588	0.052	@ 321 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.296	0.128	@ 321 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 321 CFM
						Total Mass Flux +/- in pounds per year --->	2409 @ 321 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	340	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/4/21	Time:	12:00 PM	Field ID:	Mid	Collector:	E Johnson		
Date Analyzed:	11/4/21	Time:	3:46 PM	Lab ID:	5	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m³	ppbV	µg/m³			
Vinyl Chloride	39	100	0.2	0.5	0.817	0.313	0 @ 0 CFM
Chloroethane	240	630	2	5	0.806	0.143	0 @ 0 CFM
Trichloromonofluoromethane	6.7	47	0.2	1	0.997	0.15	0 @ 0 CFM
1,1-Dichloroethylene	710	2800	0.2	0.8	0.998	0.706	0 @ 0 CFM
Methylene Chloride	120	400	0.2	0.7	0.984	0.206	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	160	1300	0.2	1.5	0.991	0.382	0 @ 0 CFM
1,1-Dichloroethane	11	44	0.2	0.8	0.995	0.433	0 @ 0 CFM
Cis 1,2-Dichloroethylene	74	290	0.2	0.8	0.993	0.816	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.898	0.071	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.955	0.006	@ 0 CFM
1,1,1-Trichloroethane	21	120	0.2	1.1	0.962	0.643	0 @ 0 CFM
Benzene	5.6	18	0.2	0.6	0.94	0.605	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.881	0.254	@ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	6.5	25	0.2	0.8	0.994	0.601	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0	0	@ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.754	0.089	@ 0 CFM
Ethylbenzene	0.76	3.3	0.2	0.9	0.98	0.288	0 @ 0 CFM
p/m-Xylene	0.68	2.9	0.4	1.7	0.977	0.27	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 0 CFM
o-Xylene*	*0.59*	*2.6*	1	4	0.996	0.263	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.6	0.234	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.714	0.095	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.91	0.202	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.961	0.125	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.84	0.111	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	85	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/8/21	Time:	11:05 AM	Field ID:	Eff	Collector:	B. Roden		
Date Analyzed:	11/8/21	Time:	2:08 PM	Lab ID:	4	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	28	72	0.2	0.5	0.818	0.499	0 @ 0 CFM
Chloroethane	**4.5**	**12**	2	5	0.966	0.191	0 @ 0 CFM
Trichloromonofluoromethane	**1.3**	**8.8**	0.2	1	0.995	0.173	0 @ 0 CFM
1,1-Dichloroethylene	**2.1**	**8.5**	0.2	0.8	0.995	0.17	0 @ 0 CFM
Methylene Chloride	**5.5**	**19**	0.2	0.7	0.987	0.656	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	**4.9**	**38**	0.2	1.5	0.993	0.55	0 @ 0 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.855	0.018	@ 0 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.821	0.019	@ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.885	0.005	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.424	0.028	@ 0 CFM
Benzene	**1.7**	**5.4**	0.2	0.6	0.995	0.79	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.704	0.066	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.507	0.011	@ 0 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.959	0.346	@ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	**1.2**	**4.6**	0.2	0.8	0.994	0.71	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	*0.075*	*0.51*	0.2	1.4	0.958	0.776	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.994	0.358	@ 0 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.953	0.152	@ 0 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.993	0.512	@ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.974	0.254	@ 0 CFM
o-Xylene*	N.D.	N.D.	1	4	0.999	0.347	@ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.612	0.033	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.968	0.157	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.973	0.157	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.944	0.106	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.949	0.052	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.949	0.111	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.452	0.141	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/8/21	Time:	11:15 AM	Field ID:	INF	Collector:	B. Roden		
Date Analyzed:	11/8/21	Time:	3:25 PM	Lab ID:	6	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	180	470	0.2	0.5	0.933	0.484	0 @ 0 CFM
Chloroethane	530	1400	2	5	0.916	0.149	0 @ 0 CFM
Trichloromonofluoromethane	76	530	0.2	1	0.987	0.128	0 @ 0 CFM
1,1-Dichloroethylene	3800	15000	0.2	0.8	0.995	0.787	0 @ 0 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.937	0.092	@ 0 CFM
1,1,2-Trichlorotrifluoroethane	3400	26000	0.2	1.5	0.993	0.732	0 @ 0 CFM
1,1-Dichloroethane	490	2000	0.2	0.8	0.966	0.424	0 @ 0 CFM
Cis 1,2-Dichloroethylene	8200	32000	0.2	0.8	0.993	0.843	0 @ 0 CFM
Chloroform	52	260	0.2	1.0	0.993	0.112	0 @ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.9	0.005	@ 0 CFM
1,1,1-Trichloroethane	1200	6500	0.2	1.1	0.994	0.696	0 @ 0 CFM
Benzene	170	530	0.2	0.6	0.99	0.783	0 @ 0 CFM
Carbon Tetrachloride	110	680	0.2	1.3	0.946	0.106	0 @ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.514	0.027	@ 0 CFM
Trichloroethylene	8400	45000	0.2	1.1	0.996	0.838	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.849	0.009	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.3	0.073	@ 0 CFM
Toluene	380	1400	0.2	0.8	0.996	0.727	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	49000	330000	0.2	1.4	0.998	0.993	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.811	0.023	@ 0 CFM
Ethylbenzene	83	360	0.2	0.9	0.997	0.404	0 @ 0 CFM
p/m-Xylene	110	480	0.4	1.7	0.996	0.643	0 @ 0 CFM
Styrene*	21	90	1	4	0.996	0.205	0 @ 0 CFM
o-Xylene*	89	390	1	4	0.999	0.569	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.879	0.038	@ 0 CFM
1,3,5-Trimethylbenzene*	130	620	1	5	0.994	0.153	0 @ 0 CFM
1,2,4-Trimethylbenzene*	190	920	1	5	1	0.174	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.953	0.025	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.918	0.002	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.513	0.04	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.285	0.127	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	340	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/8/21	Time:	11:10 AM	Field ID:	MID	Collector:	B. Roden		
Date Analyzed:	11/8/21	Time:	2:41 PM	Lab ID:	5	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.7	0.291	@ 0 CFM
Chloroethane	N.D.	N.D.	2	5	0.765	0.128	@ 0 CFM
Trichloromonofluoromethane	**18**	**120**	0.2	1	0.978	0.15	0 @ 0 CFM
1,1-Dichloroethylene	**820**	**3300**	0.2	0.8	0.995	0.733	0 @ 0 CFM
Methylene Chloride	**130**	**470**	0.2	0.7	0.983	0.186	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	**180**	**1400**	0.2	1.5	0.994	0.372	0 @ 0 CFM
1,1-Dichloroethane	**11**	**45**	0.2	0.8	0.993	0.41	0 @ 0 CFM
Cis 1,2-Dichloroethylene	**73**	**290**	0.2	0.8	0.989	0.796	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.743	0.032	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.976	0.006	@ 0 CFM
1,1,1-Trichloroethane	**33**	**180**	0.2	1.1	0.955	0.56	0 @ 0 CFM
Benzene	**2.5**	**8.2**	0.2	0.6	0.994	0.55	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.301	0.046	@ 0 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	**11**	**41**	0.2	0.8	0.994	0.645	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.645	0.024	@ 0 CFM
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.825	0.363	@ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.69	0.001	@ 0 CFM
Ethylbenzene	**1.4**	**5.9**	0.2	0.9	0.982	0.354	0 @ 0 CFM
p/m-Xylene	**1.2**	**5.2**	0.4	1.7	0.988	0.352	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 0 CFM
o-Xylene*	**1.1**	**4.8**	1	4	0.995	0.329	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.765	0.043	@ 0 CFM
1,3,5-Trimethylbenzene*	*0.42*	*2.1*	1	5	0.894	0.103	0 @ 0 CFM
1,2,4-Trimethylbenzene*	*0.34*	*1.7*	1	5	0.907	0.104	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	**0.68**	**4.1**	0.2	1	0.915	0.195	0 @ 0 CFM
1,4-Dichlorobenzene (para)*	**0.34**	**2**	0.2	1	0.96	0.124	0 @ 0 CFM
1,2-Dichlorobenzene (ortho)*	**0.51**	**3.1**	0.2	1	0.982	0.242	0 @ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = **85** If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/10/21	Time:	10:50 AM	Field ID:	Eff	Collector:	B. Roden		
Date Analyzed:	11/10/21	Time:	3:32 PM	Lab ID:	10	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	54	140	0.2	0.5	0.972	0.574	0 @ 0 CFM
Chloroethane	*1.5*	*4.1*	2	5	0.972	0.188	0 @ 0 CFM
Trichloromonofluoromethane	**2.3**	**16**	0.2	1	0.983	0.205	0 @ 0 CFM
1,1-Dichloroethylene	**11**	**42**	0.2	0.8	0.996	0.219	0 @ 0 CFM
Methylene Chloride	**26**	**90**	0.2	0.7	0.986	0.664	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	**15**	**110**	0.2	1.5	0.989	0.226	0 @ 0 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.991	0.198	@ 0 CFM
Cis 1,2-Dichloroethylene	**0.59**	**2.3**	0.2	0.8	0.903	0.588	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.917	0.005	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.713	0.509	@ 0 CFM
Benzene	**1.4**	**4.5**	0.2	0.6	0.992	0.839	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.956	0.048	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	**0.84**	**4.5**	0.2	1.1	0.995	0.842	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.536	0.005	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.217	0.029	@ 0 CFM
Toluene	**5.3**	**20**	0.2	0.8	0.998	0.76	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	**2.3**	**16**	0.2	1.4	0.99	0.984	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.751	0.074	@ 0 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.881	0.323	@ 0 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.996	0.672	@ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.968	0.331	@ 0 CFM
o-Xylene*	N.D.	N.D.	1	4	0.993	0.364	@ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.947	0.242	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.935	0.269	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/10/21	Time:	11:05 AM	Field ID:	INF	Collector:	B. Roden		
Date Analyzed:	11/10/21	Time:	4:37 PM	Lab ID:	12	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	67	170	0.2	0.5	0.806	0.271	0 @ 0 CFM
Chloroethane	60	160	2	5	0.906	0.105	0 @ 0 CFM
Trichloromonofluoromethane	74	520	0.2	1	0.999	0.179	0 @ 0 CFM
1,1-Dichloroethylene	1400	5500	0.2	0.8	0.996	0.717	0 @ 0 CFM
Methylene Chloride	180	610	0.2	0.7	0.973	0.137	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	1500	12000	0.2	1.5	0.993	0.719	0 @ 0 CFM
1,1-Dichloroethane	230	930	0.2	0.8	0.96	0.398	0 @ 0 CFM
Cis 1,2-Dichloroethylene	4900	20000	0.2	0.8	0.995	0.848	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.966	0.005	@ 0 CFM
1,1,1-Trichloroethane	300	1700	0.2	1.1	0.992	0.671	0 @ 0 CFM
Benzene	110	340	0.2	0.6	0.984	0.813	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.921	0.085	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.542	0.028	@ 0 CFM
Trichloroethylene	4200	23000	0.2	1.1	0.996	0.84	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	300	1100	0.2	0.8	0.999	0.756	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	28000	190000	0.2	1.4	0.995	0.99	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.875	0.035	@ 0 CFM
Ethylbenzene	53	230	0.2	0.9	0.996	0.406	0 @ 0 CFM
p/m-Xylene	55	240	0.4	1.7	0.995	0.634	0 @ 0 CFM
Styrene*	10	44	1	4	0.986	0.419	0 @ 0 CFM
o-Xylene*	51	220	1	4	0.998	0.585	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.757	0.068	@ 0 CFM
1,3,5-Trimethylbenzene*	92	450	1	5	1	0.143	0 @ 0 CFM
1,2,4-Trimethylbenzene*	140	690	1	5	1	0.183	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.94	0.036	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.997	0.027	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.604	0.052	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.305	0.105	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 350 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/10/21	Time:	11:00 AM	Field ID:	Mid	Collector:	B. Roden		
Date Analyzed:	11/10/21	Time:	4:05 PM	Lab ID:	11	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	77	200	0.2	0.5	0.879	0.233	0 @ 0 CFM
Chloroethane	N.D.	N.D.	2	5	0.79	0.126	@ 0 CFM
Trichloromonofluoromethane	51	360	0.2	1	0.991	0.191	0 @ 0 CFM
1,1-Dichloroethylene	2500	9800	0.2	0.8	0.995	0.741	0 @ 0 CFM
Methylene Chloride	290	1000	0.2	0.7	0.978	0.159	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	310	2400	0.2	1.5	0.99	0.303	0 @ 0 CFM
1,1-Dichloroethane	21	86	0.2	0.8	0.995	0.454	0 @ 0 CFM
Cis 1,2-Dichloroethylene	160	620	0.2	0.8	0.992	0.822	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.959	0.006	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.682	0.435	@ 0 CFM
Benzene	N.D.	N.D.	0.2	0.6	0.77	0.378	@ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	87	330	0.2	0.8	0.998	0.777	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	N.D.	N.D.	0.2	1.4	0.891	0.599	@ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.63	0.001	@ 0 CFM
Ethylbenzene	3.4	15	0.2	0.9	0.952	0.473	0 @ 0 CFM
p/m-Xylene	3.1	13	0.4	1.7	0.995	0.57	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 0 CFM
o-Xylene*	2.5	11	1	4	0.99	0.522	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.859	0.121	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.863	0.122	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/16/21	Time:	11:15 AM	Field ID:	EFF	Collector:	E. Johnson		
Date Analyzed:	11/16/21	Time:	5:18 PM	Lab ID:	9	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	41	110	0.2	0.5	0.966	0.59	0 @ 0 CFM
Chloroethane	N.D.	N.D.	2	5	0.863	0.02	@ 0 CFM
Trichloromonofluoromethane	**1.1**	**7.9**	0.2	1	0.999	0.192	0 @ 0 CFM
1,1-Dichloroethylene	37	150	0.2	0.8	0.997	0.323	0 @ 0 CFM
Methylene Chloride	**45**	**160**	0.2	0.7	0.993	0.608	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	**8.7**	**66**	0.2	1.5	0.996	0.682	0 @ 0 CFM
1,1-Dichloroethane	*0.2*	*0.81*	0.2	0.8	0.988	0.26	0 @ 0 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.88	0.211	@ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.896	0.005	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.669	0.021	@ 0 CFM
Benzene	**1.1**	**3.4**	0.2	0.6	0.991	0.788	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.978	0.373	@ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	**1.4**	**5.3**	0.2	0.8	0.998	0.7	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	*0.15*	*1*	0.2	1.4	0.969	0.891	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.483	0.001	@ 0 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.988	0.275	@ 0 CFM
p/m-Xylene	*0.22*	*0.94*	0.4	1.7	0.995	0.704	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.872	0.267	@ 0 CFM
o-Xylene*	N.D.	N.D.	1	4	1	0.407	@ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.884	0.217	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.99	0.217	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.681	0.048	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.788	0.045	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.634	0.044	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 3 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/16/21	Time:	11:25 AM	Field ID:	INF	Collector:	E. Johnson		
Date Analyzed:	11/16/21	Time:	4:12 PM	Lab ID:	7	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	150	380	0.2	0.5	0.998	0.261	0 @ 0 CFM
Chloroethane	450	1200	2	5	0.93	0.122	0 @ 0 CFM
Trichloromonofluoromethane	270	1900	0.2	1	0.999	0.212	0 @ 0 CFM
1,1-Dichloroethylene	2100	8500	0.2	0.8	0.999	0.674	0 @ 0 CFM
Methylene Chloride	400	1400	0.2	0.7	0.953	0.152	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	4100	32000	0.2	1.5	0.993	0.648	0 @ 0 CFM
1,1-Dichloroethane	340	1400	0.2	0.8	0.974	0.389	0 @ 0 CFM
Cis 1,2-Dichloroethylene	6000	24000	0.2	0.8	0.997	0.833	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.657	0.124	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.974	0.006	@ 0 CFM
1,1,1-Trichloroethane	900	4900	0.2	1.1	0.998	0.681	0 @ 0 CFM
Benzene	250	810	0.2	0.6	0.991	0.773	0 @ 0 CFM
Carbon Tetrachloride	90	570	0.2	1.3	0.947	0.11	0 @ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.514	0.029	@ 0 CFM
Trichloroethylene	9400	50000	0.2	1.1	0.998	0.832	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.846	0.018	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.311	0.053	@ 0 CFM
Toluene	800	3000	0.2	0.8	0.999	0.716	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	95000	640000	0.2	1.4	0.996	0.991	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.861	0.046	@ 0 CFM
Ethylbenzene	230	1000	0.2	0.9	0.998	0.392	0 @ 0 CFM
p/m-Xylene	300	1300	0.4	1.7	0.998	0.602	0 @ 0 CFM
Styrene*	66	280	1	4	0.998	0.435	0 @ 0 CFM
o-Xylene*	190	820	1	4	0.999	0.629	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.875	0.035	@ 0 CFM
1,3,5-Trimethylbenzene*	280	1400	1	5	0.998	0.147	0 @ 0 CFM
1,2,4-Trimethylbenzene*	420	2100	1	5	1	0.222	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.925	0.016	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.855	0.022	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.424	0.028	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.148	0.044	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 340 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/16/21	Time:	11:20 AM	Field ID:	MID	Collector:	E. Johnson		
Date Analyzed:	11/16/21	Time:	4:46 PM	Lab ID:	8	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	77	200	0.2	0.5	0.95	0.281	0 @ 0 CFM
Chloroethane	60	160	2	5	0.861	0.132	0 @ 0 CFM
Trichloromonofluoromethane	96	670	0.2	1	0.999	0.209	0 @ 0 CFM
1,1-Dichloroethylene	4400	18000	0.2	0.8	0.998	0.809	0 @ 0 CFM
Methylene Chloride	340	1200	0.2	0.7	0.935	0.106	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	810	6200	0.2	1.5	0.992	0.32	0 @ 0 CFM
1,1-Dichloroethane	60	240	0.2	0.8	0.999	0.45	0 @ 0 CFM
Cis 1,2-Dichloroethylene	600	2400	0.2	0.8	0.995	0.829	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.843	0.005	@ 0 CFM
1,1,1-Trichloroethane	140	760	0.2	1.1	0.986	0.689	0 @ 0 CFM
Benzene	17	56	0.2	0.6	0.993	0.644	0 @ 0 CFM
Carbon Tetrachloride	11	69	0.2	1.3	0.921	0.107	0 @ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	77	410	0.2	1.1	0.997	0.807	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	73	280	0.2	0.8	0.999	0.685	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	220	1500	0.2	1.4	0.99	0.975	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.82	0.09	@ 0 CFM
Ethylbenzene	3.9	17	0.2	0.9	0.876	0.264	0 @ 0 CFM
p/m-Xylene	8.5	37	0.4	1.7	0.998	0.568	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.969	0.282	@ 0 CFM
o-Xylene*	1.9	8.1	1	4	1	0.306	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	1.2	5.8	1	5	0.912	0.188	0 @ 0 CFM
1,2,4-Trimethylbenzene*	1.2	5.8	1	5	0.924	0.19	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.898	0.094	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.938	0.059	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.92	0.09	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	170	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/18/21	Time:	11:15 AM	Field ID:	EFF	Collector:	E. Johnson		
Date Analyzed:	11/18/21	Time:	4:17 PM	Lab ID:	9	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	93	240	0.2	0.5	0.962	0.511	0 @ 0 CFM
Chloroethane	N.D.	N.D.	2	5	0.802	0.021	@ 0 CFM
Trichloromonofluoromethane	1.1	7.4	0.2	1	0.909	0.109	0 @ 0 CFM
1,1-Dichloroethylene	180	720	0.2	0.8	0.998	0.428	0 @ 0 CFM
Methylene Chloride	150	510	0.2	0.7	0.993	0.511	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	31	240	0.2	1.5	0.99	0.122	0 @ 0 CFM
1,1-Dichloroethane	0.95	3.9	0.2	0.8	0.992	0.512	0 @ 0 CFM
Cis 1,2-Dichloroethylene	0.61	2.4	0.2	0.8	0.899	0.564	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.724	0.065	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.981	0.007	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.695	0.258	@ 0 CFM
Benzene	1.6	5.1	0.2	0.6	0.991	0.697	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.979	0.271	@ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	3.2	12	0.2	0.8	1	0.725	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	*0.069*	*0.47*	0.2	1.4	0.928	0.65	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.812	0.075	@ 0 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.902	0.204	@ 0 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.988	0.589	@ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.899	0.284	@ 0 CFM
o-Xylene*	N.D.	N.D.	1	4	0.993	0.299	@ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.876	0.35	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.999	0.31	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.971	0.136	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.883	0.047	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.967	0.138	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/18/21	Time:	11:10 AM	Field ID:	INF	Collector:	E. Johnson		
Date Analyzed:	11/18/21	Time:	4:49 PM	Lab ID:	10	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	130	330	0.2	0.5	0.964	0.108	0 @ 0 CFM
Chloroethane	N.D.	N.D.	2	5	0.993	0.034	@ 0 CFM
Trichloromonofluoromethane	320	2200	0.2	1	1	0.126	0 @ 0 CFM
1,1-Dichloroethylene	1300	5200	0.2	0.8	0.999	0.402	0 @ 0 CFM
Methylene Chloride	450	1600	0.2	0.7	0.981	0.181	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	3000	23000	0.2	1.5	0.993	0.695	0 @ 0 CFM
1,1-Dichloroethane	230	940	0.2	0.8	0.98	0.351	0 @ 0 CFM
Cis 1,2-Dichloroethylene	3900	15000	0.2	0.8	0.995	0.833	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.995	0.067	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.962	0.005	@ 0 CFM
1,1,1-Trichloroethane	530	2900	0.2	1.1	0.977	0.645	0 @ 0 CFM
Benzene	290	920	0.2	0.6	0.984	0.624	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.927	0.093	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.536	0.03	@ 0 CFM
Trichloroethylene	6600	36000	0.2	1.1	0.998	0.834	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.959	0.137	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.314	0.049	@ 0 CFM
Toluene	990	3700	0.2	0.8	1	0.71	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	96000	650000	0.2	1.4	0.997	0.992	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.735	0.096	@ 0 CFM
Ethylbenzene	150	640	0.2	0.9	0.994	0.396	0 @ 0 CFM
p/m-Xylene	170	740	0.4	1.7	0.993	0.568	0 @ 0 CFM
Styrene*	11	47	1	4	0.966	0.197	0 @ 0 CFM
o-Xylene*	110	470	1	4	0.996	0.573	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.858	0.041	@ 0 CFM
1,3,5-Trimethylbenzene*	230	1100	1	5	0.996	0.159	0 @ 0 CFM
1,2,4-Trimethylbenzene*	310	1500	1	5	1	0.238	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.97	0.021	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.877	0.003	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.5	0.035	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.34	0.132	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments: UCM and alkane peaks indicative of diesel-range petroleum in sample

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/18/21	Time:	11:20 AM	Field ID:	Mid	Collector:	E. Johnson		
Date Analyzed:	11/18/21	Time:	5:24 PM	Lab ID:	11	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	160	410	0.2	0.5	0.818	0.273	0 @ 0 CFM
Chloroethane	N.D.	N.D.	2	5	0.76	0.047	@ 0 CFM
Trichloromonofluoromethane	45	310	0.2	1	0.998	0.102	0 @ 0 CFM
1,1-Dichloroethylene	12000	48000	0.2	0.8	0.997	0.798	0 @ 0 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.936	0.091	@ 0 CFM
1,1,2-Trichlorotrifluoroethane	3000	23000	0.2	1.5	0.993	0.245	0 @ 0 CFM
1,1-Dichloroethane	270	1100	0.2	0.8	0.998	0.554	0 @ 0 CFM
Cis 1,2-Dichloroethylene	2600	10000	0.2	0.8	0.997	0.843	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.654	0.091	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.924	0.005	@ 0 CFM
1,1,1-Trichloroethane	360	2000	0.2	1.1	0.993	0.7	0 @ 0 CFM
Benzene	58	180	0.2	0.6	0.988	0.659	0 @ 0 CFM
Carbon Tetrachloride	40	250	0.2	1.3	0.992	0.118	0 @ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	430	2300	0.2	1.1	0.997	0.846	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.299	0.043	@ 0 CFM
Toluene	120	440	0.2	0.8	0.999	0.717	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	220	1500	0.2	1.4	0.992	0.982	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.835	0.114	@ 0 CFM
Ethylbenzene	3.7	16	0.2	0.9	0.959	0.392	0 @ 0 CFM
p/m-Xylene	3.4	15	0.4	1.7	0.986	0.421	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0.814	0.112	@ 0 CFM
o-Xylene*	2.9	13	1	4	0.995	0.395	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	1	5	1	5	0.85	0.178	0 @ 0 CFM
1,2,4-Trimethylbenzene*	*0.85*	*4.2*	1	5	0.996	0.164	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.469	0.053	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.557	0.053	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.476	0.055	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	170	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street - VGAC					Estimated Flowrate (CFM)
Date Sampled:	11/22/21	Time:	11:00 AM	Field ID:	Eff	Collector:	E Johnson		
Date Analyzed:	11/2/21	Time:	4:18 PM	Lab ID:	9	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	83	210	0.2	0.5	0.818	0.606	0 @ 0 CFM
Chloroethane	14	38	2	5	0.841	0.128	0 @ 0 CFM
Trichloromonofluoromethane	1	7	0.2	1	0.996	0.143	0 @ 0 CFM
1,1-Dichloroethylene	340	1300	0.2	0.8	0.993	0.482	0 @ 0 CFM
Methylene Chloride	230	790	0.2	0.7	0.991	0.462	0 @ 0 CFM
1,1,2-Trichlorotrifluoroethane	56	430	0.2	1.5	0.988	0.125	0 @ 0 CFM
1,1-Dichloroethane	1.9	7.8	0.2	0.8	0.98	0.606	0 @ 0 CFM
Cis 1,2-Dichloroethylene	1.7	6.8	0.2	0.8	0.971	0.756	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.626	0.052	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.969	0.004	@ 0 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.687	0.313	@ 0 CFM
Benzene	1.2	3.9	0.2	0.6	0.994	0.777	0 @ 0 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
Trichloroethylene	*0.084*	*0.45*	0.2	1.1	0.968	0.442	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 0 CFM
Toluene	1	3.9	0.2	0.8	0.998	0.734	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	0.26	1.7	0.2	1.4	0.973	0.912	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.629	0.001	@ 0 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.908	0.272	@ 0 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.993	0.636	@ 0 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 0 CFM
o-Xylene*	N.D.	N.D.	1	4	0.997	0.31	@ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.863	0.277	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.997	0.318	@ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street - VGAC Inf VIAL					Estimated Flowrate (CFM)
Date Sampled:	11/22/21	Time:	11:10 AM	Field ID:	Inf	Collector:	E Johnson		
Date Analyzed:	11/22/21	Time:	1:18 PM	Lab ID:	4	Analyst:	Fitzgerald		325

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	24.0303375			
	ppbV	µg/m^3	ppbV	µg/m^3						
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.935	0.003		@	325	CFM
Chloroethane	1200	3000	2	5	0.852	0.161	32	@	325	CFM
Trichloromonofluoromethane	210	1500	0.2	1	0.999	0.12	16	@	325	CFM
1,1-Dichloroethylene	890	3500	0.2	0.8	0.995	0.536	37	@	325	CFM
Methylene Chloride	280	980	0.2	0.7	0.991	0.221	10	@	325	CFM
1,1,2-Trichlorotrifluoroethane	2500	19000	0.2	1.5	0.991	0.651	203	@	325	CFM
1,1-Dichloroethane	210	860	0.2	0.8	0.932	0.304	9	@	325	CFM
Cis 1,2-Dichloroethylene	3400	13000	0.2	0.8	0.992	0.83	139	@	325	CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.964	0.074		@	325	CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.92	0.005		@	325	CFM
1,1,1-Trichloroethane	490	2700	0.2	1.1	0.985	0.649	29	@	325	CFM
Benzene	300	960	0.2	0.6	0.994	0.768	10	@	325	CFM
Carbon Tetrachloride	50	320	0.2	1.3	0.98	0.102	3	@	325	CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.542	0.028		@	325	CFM
Trichloroethylene	6900	37000	0.2	1.1	0.995	0.836	395	@	325	CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0		@	325	CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0		@	325	CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.303	0.039		@	325	CFM
Toluene	740	2800	0.2	0.8	0.998	0.714	30	@	325	CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0		@	325	CFM
Tetrachloroethylene	110000	730000	0.2	1.4	0.997	0.992	7794	@	325	CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.716	0.102		@	325	CFM
Ethylbenzene	160	700	0.2	0.9	0.991	0.418	7	@	325	CFM
p/m-Xylene	220	970	0.4	1.7	0.996	0.606	10	@	325	CFM
Styrene*	37	160	1	4	0.986	0.246	2	@	325	CFM
o-Xylene*	140	600	1	4	0.999	0.491	6	@	325	CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.875	0.034		@	325	CFM
1,3,5-Trimethylbenzene*	280	1400	1	5	0.994	0.145	15	@	325	CFM
1,2,4-Trimethylbenzene*	420	2100	1	5	1	0.264	22	@	325	CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.859	0.018		@	325	CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.927	0.006		@	325	CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.412	0.034		@	325	CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.336	0.161		@	325	CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0		@	325	CFM
						Total Mass Flux +/- in pounds per year --->	8771	@	325	CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street - VGAC					Estimated Flowrate (CFM)
Date Sampled:	11/22/21	Time:	11:05 AM	Field ID:	Mid	Collector:	E Johnson		
Date Analyzed:	11/2/21	Time:	3:41 PM	Lab ID:	8	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	170	440	0.2	0.5	0.924	0.356	0 @ 0 CFM
Chloroethane	330	860	2	5	0.87	0.126	0 @ 0 CFM
Trichloromonofluoromethane	41	290	0.2	1	0.965	0.103	0 @ 0 CFM
1,1-Dichloroethylene	14000	54000	0.2	0.8	0.992	0.814	0 @ 0 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.904	0.072	@ 0 CFM
1,1,2-Trichlorotrifluoroethane	8100	62000	0.2	1.5	0.992	0.513	0 @ 0 CFM
1,1-Dichloroethane	710	2900	0.2	0.8	0.987	0.528	0 @ 0 CFM
Cis 1,2-Dichloroethylene	8700	35000	0.2	0.8	0.991	0.847	0 @ 0 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.977	0.093	@ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.934	0.005	@ 0 CFM
1,1,1-Trichloroethane	1700	9500	0.2	1.1	0.993	0.711	0 @ 0 CFM
Benzene	56	180	0.2	0.6	0.985	0.78	0 @ 0 CFM
Carbon Tetrachloride	140	890	0.2	1.3	0.985	0.112	0 @ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.512	0.027	@ 0 CFM
Trichloroethylene	1500	7900	0.2	1.1	0.995	0.836	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.532	0.21	@ 0 CFM
Toluene	49	190	0.2	0.8	0.996	0.689	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 0 CFM
Tetrachloroethylene	390	2700	0.2	1.4	0.993	0.984	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.487	0.001	@ 0 CFM
Ethylbenzene	3.7	16	0.2	0.9	0.982	0.438	0 @ 0 CFM
p/m-Xylene	3.4	15	0.4	1.7	0.933	0.398	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 0 CFM
o-Xylene*	1	4.4	1	4	0.998	0.214	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	1	5	1	5	0.904	0.125	0 @ 0 CFM
1,2,4-Trimethylbenzene*	1.2	5.8	1	5	0.992	0.173	0 @ 0 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	0 @ 0 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	170	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Estimated Flowrate (CFM)
Date Sampled:	11/24/21	Time:	10:20 AM	Field ID:	MID	Collector:	E. Johnson		
Date Analyzed:	11/24/21	Time:	1:20 PM	Lab ID:	7	Analyst:	N. Johnson		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	98	250	0.2	0.5	0.803	0.323	0 @ 0 CFM
Chloroethane	300	800	2	5	0.918	0.163	0 @ 0 CFM
Trichloromonofluoromethane	64	440	0.2	1	0.974	0.143	0 @ 0 CFM
1,1-Dichloroethylene	7900	31000	0.2	0.8	0.994	0.786	0 @ 0 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.904	0.076	@ 0 CFM
1,1,2-Trichlorotrifluoroethane	5200	40000	0.2	1.5	0.99	0.457	0 @ 0 CFM
1,1-Dichloroethane	420	1700	0.2	0.8	0.987	0.524	0 @ 0 CFM
Cis 1,2-Dichloroethylene	5600	22000	0.2	0.8	0.993	0.848	0 @ 0 CFM
Chloroform	43	210	0.2	1.0	0.985	0.114	0 @ 0 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.931	0.005	@ 0 CFM
1,1,1-Trichloroethane	940	5100	0.2	1.1	0.995	0.709	0 @ 0 CFM
Benzene	46	150	0.2	0.6	0.993	0.765	0 @ 0 CFM
Carbon Tetrachloride	80	500	0.2	1.3	0.998	0.125	0 @ 0 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.459	0.039	@ 0 CFM
Trichloroethylene	2000	11000	0.2	1.1	0.996	0.84	0 @ 0 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 0 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.271	0.034	@ 0 CFM
Toluene	72	270	0.2	0.8	0.996	0.773	0 @ 0 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0.601	0.044	@ 0 CFM
Tetrachloroethylene	650	4400	0.2	1.4	0.992	0.987	0 @ 0 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.638	0.001	@ 0 CFM
Ethylbenzene	4.4	19	0.2	0.9	0.959	0.543	0 @ 0 CFM
p/m-Xylene	4.1	18	0.4	1.7	0.99	0.607	0 @ 0 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 0 CFM
o-Xylene*	3.4	15	1	4	1	0.583	0 @ 0 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 0 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.972	0.228	@ 0 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.979	0.23	@ 0 CFM
1,3-Dichlorobenzene (meta)*	7.5	45	0.2	1	0.873	0.273	0 @ 0 CFM
1,4-Dichlorobenzene (para)*	3.4	20	0.2	1	0.905	0.155	0 @ 0 CFM
1,2-Dichlorobenzene (ortho)*	5.4	33	0.2	1	0.883	0.257	0 @ 0 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 0 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 0 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 0 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 170 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street - VGAC Effluent					Estimated Flowrate (CFM)
Date Sampled:	11/26/21	Time:	9:56 AM	Field ID:	Eff	Collector:	E Johnson		
Date Analyzed:	11/26/21	Time:	2:18 PM	Lab ID:	6	Analyst:	Fitzgerald		338

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)			
	ppbV	µg/m^3	ppbV	µg/m^3						
Vinyl Chloride	59	150	0.2	0.5	0.883	0.476	2	@	338	CFM
Chloroethane	N.D.	N.D.	2	5	0.744	0.189		@	338	CFM
Trichloromonofluoromethane	61	430	0.2	1	0.834	0.102	5	@	338	CFM
1,1-Dichloroethylene	540	2200	0.2	0.8	0.996	0.572	24	@	338	CFM
Methylene Chloride	220	760	0.2	0.7	0.993	0.366	8	@	338	CFM
1,1,2-Trichlorotrifluoroethane	85	650	0.2	1.5	0.989	0.121	7	@	338	CFM
1,1-Dichloroethane	4	16	0.2	0.8	0.946	0.614	0	@	338	CFM
Cis 1,2-Dichloroethylene	3.2	13	0.2	0.8	0.962	0.784	0	@	338	CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.798	0.093		@	338	CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.955	0.006		@	338	CFM
1,1,1-Trichloroethane	0.52	2.9	0.2	1.1	0.914	0.4	0	@	338	CFM
Benzene	0.86	2.7	0.2	0.6	0.994	0.76	0	@	338	CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.862	0.061		@	338	CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0		@	338	CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.939	0.404		@	338	CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0		@	338	CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0		@	338	CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.302	0.041		@	338	CFM
Toluene	2.3	8.5	0.2	0.8	1	0.723	0	@	338	CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0		@	338	CFM
Tetrachloroethylene	0.96	6.5	0.2	1.4	0.983	0.931	0	@	338	CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.942	0.248		@	338	CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.97	0.225		@	338	CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.992	0.532		@	338	CFM
Styrene*	N.D.	N.D.	1	4	0.906	0.251		@	338	CFM
o-Xylene*	N.D.	N.D.	1	4	0.999	0.237		@	338	CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0		@	338	CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.993	0.267		@	338	CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.995	0.268		@	338	CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.993	0.332		@	338	CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.998	0.205		@	338	CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.985	0.171		@	338	CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0		@	338	CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0		@	338	CFM
						Total Mass Flux +/- in pounds per year --->	**47**	**@**	**338**	**CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street - VGAC Influent					Estimated Flowrate (CFM)
Date Sampled:	11/26/21	Time:	10:05 AM	Field ID:	Inf	Collector:	E Johnson		
Date Analyzed:	11/26/21	Time:	1:12 PM	Lab ID:	4	Analyst:	Fitzgerald		338

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.574	0.116	@ 338 CFM
Chloroethane	1100	3000	2	5	0.875	0.124	33 @ 338 CFM
Trichloromonofluoromethane	1100	7900	0.2	1	0.999	0.43	88 @ 338 CFM
1,1-Dichloroethylene	730	2900	0.2	0.8	0.998	0.496	32 @ 338 CFM
Methylene Chloride	240	820	0.2	0.7	0.98	0.233	9 @ 338 CFM
1,1,2-Trichlorotrifluoroethane	1600	12000	0.2	1.5	0.992	0.666	133 @ 338 CFM
1,1-Dichloroethane	180	740	0.2	0.8	0.946	0.331	8 @ 338 CFM
Cis 1,2-Dichloroethylene	3000	12000	0.2	0.8	0.995	0.836	133 @ 338 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.654	0.036	@ 338 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.978	0.006	@ 338 CFM
1,1,1-Trichloroethane	380	2100	0.2	1.1	0.959	0.629	23 @ 338 CFM
Benzene	220	690	0.2	0.6	0.989	0.739	8 @ 338 CFM
Carbon Tetrachloride	62	390	0.2	1.3	0.89	0.115	4 @ 338 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.504	0.027	@ 338 CFM
Trichloroethylene	4500	24000	0.2	1.1	0.998	0.834	266 @ 338 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 338 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 338 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.333	0.07	@ 338 CFM
Toluene	410	1500	0.2	0.8	0.997	0.668	17 @ 338 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 338 CFM
Tetrachloroethylene	77000	520000	0.2	1.4	0.996	0.992	5774 @ 338 CFM
Chlorobenzene	370	1700	0.2	0.9	0.916	0.176	19 @ 338 CFM
Ethylbenzene	98	430	0.2	0.9	0.999	0.382	5 @ 338 CFM
p/m-Xylene	120	520	0.4	1.7	0.998	0.59	6 @ 338 CFM
Styrene*	N.D.	N.D.	1	4	0.973	0.164	@ 338 CFM
o-Xylene*	89	390	1	4	0.997	0.506	4 @ 338 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.954	0.066	@ 338 CFM
1,3,5-Trimethylbenzene*	200	1000	1	5	1	0.158	11 @ 338 CFM
1,2,4-Trimethylbenzene*	290	1400	1	5	1	0.249	16 @ 338 CFM
1,3-Dichlorobenzene (meta)*	100	620	0.2	1	0.987	0.383	7 @ 338 CFM
1,4-Dichlorobenzene (para)*	46	280	0.2	1	0.992	0.238	3 @ 338 CFM
1,2-Dichlorobenzene (ortho)*	75	450	0.2	1	0.977	0.395	5 @ 338 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.757	0.443	@ 338 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 338 CFM
						Total Mass Flux +/- in pounds per year --->	6605 @ 338 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Effluent					Estimated Flowrate (CFM)
Date Sampled:	11/29/21	Time:	11:30 AM	Field ID:	Eff	Collector:	E Johnson		
Date Analyzed:	11/29/21	Time:	3:55 PM	Lab ID:	7	Analyst:	Fitzgerald		344

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	47	120	0.2	0.5	0.957	0.464	1 @ 344 CFM
Chloroethane	N.D.	N.D.	2	5	0.745	0.192	@ 344 CFM
Trichloromonofluoromethane	120	830	0.2	1	0.919	0.142	9 @ 344 CFM
1,1-Dichloroethylene	770	3000	0.2	0.8	0.996	0.664	34 @ 344 CFM
Methylene Chloride	220	770	0.2	0.7	0.993	0.302	9 @ 344 CFM
1,1,2-Trichlorotrifluoroethane	160	1300	0.2	1.5	0.993	0.189	15 @ 344 CFM
1,1-Dichloroethane	8.3	34	0.2	0.8	0.988	0.719	0 @ 344 CFM
Cis 1,2-Dichloroethylene	7.7	31	0.2	0.8	0.993	0.846	0 @ 344 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.166	0.053	@ 344 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.926	0.005	@ 344 CFM
1,1,1-Trichloroethane	1.6	8.8	0.2	1.1	0.938	0.683	0 @ 344 CFM
Benzene	0.69	2.2	0.2	0.6	0.993	0.798	0 @ 344 CFM
Carbon Tetrachloride	*0.14*	*0.87*	0.2	1.3	0.964	0.117	0 @ 344 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.86	0.083	@ 344 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.781	0.124	@ 344 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 344 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 344 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 344 CFM
Toluene	0.29	1.1	0.2	0.8	0.999	0.663	0 @ 344 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 344 CFM
Tetrachloroethylene	0.3	2	0.2	1.4	0.986	0.957	0 @ 344 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.574	0.001	@ 344 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.848	0.116	@ 344 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.983	0.604	@ 344 CFM
Styrene*	N.D.	N.D.	1	4	0.943	0.135	@ 344 CFM
o-Xylene*	N.D.	N.D.	1	4	0.986	0.211	@ 344 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 344 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.931	0.126	@ 344 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.974	0.203	@ 344 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.975	0.135	@ 344 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.994	0.085	@ 344 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.864	0.111	@ 344 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.41	0.136	@ 344 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 344 CFM
						Total Mass Flux +/- in pounds per year --->	**69 @ 344 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	1.8	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC- influent- BAG					Estimated Flowrate (CFM)
Date Sampled:	11/29/21	Time:	11:40 AM	Field ID:	Inf-bag	Collector:	E Johnson		
Date Analyzed:	11/29/21	Time:	2:47 PM	Lab ID:	5	Analyst:	Fitzgerald		344

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.813	0.093	@ 344 CFM
Chloroethane	1400	3700	2	5	0.836	0.175	42 @ 344 CFM
Trichloromonofluoromethane	980	6800	0.2	1	0.995	0.408	77 @ 344 CFM
1,1-Dichloroethylene	650	2600	0.2	0.8	0.998	0.489	29 @ 344 CFM
Methylene Chloride	230	780	0.2	0.7	0.986	0.246	9 @ 344 CFM
1,1,2-Trichlorotrifluoroethane	1400	10000	0.2	1.5	0.992	0.652	113 @ 344 CFM
1,1-Dichloroethane	180	730	0.2	0.8	0.957	0.355	8 @ 344 CFM
Cis 1,2-Dichloroethylene	2800	11000	0.2	0.8	0.998	0.844	124 @ 344 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.655	0.077	@ 344 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.962	0.006	@ 344 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.755	0.531	@ 344 CFM
Benzene	160	520	0.2	0.6	0.991	0.753	6 @ 344 CFM
Carbon Tetrachloride	32	200	0.2	1.3	0.894	0.153	2 @ 344 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.521	0.028	@ 344 CFM
Trichloroethylene	3000	16000	0.2	1.1	0.998	0.838	181 @ 344 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 344 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.841	0.012	@ 344 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 344 CFM
Toluene	380	1400	0.2	0.8	0.999	0.712	16 @ 344 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 344 CFM
Tetrachloroethylene	46000	310000	0.2	1.4	0.996	0.991	3503 @ 344 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.827	0.028	@ 344 CFM
Ethylbenzene	70	310	0.2	0.9	0.998	0.321	4 @ 344 CFM
p/m-Xylene	78	340	0.4	1.7	0.995	0.626	4 @ 344 CFM
Styrene*	6.8	29	1	4	0.981	0.273	0 @ 344 CFM
o-Xylene*	57	250	1	4	0.996	0.539	3 @ 344 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.913	0.044	@ 344 CFM
1,3,5-Trimethylbenzene*	140	680	1	5	0.998	0.148	8 @ 344 CFM
1,2,4-Trimethylbenzene*	190	930	1	5	0.999	0.205	11 @ 344 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.939	0.061	@ 344 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.999	0.028	@ 344 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.848	0.071	@ 344 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.384	0.145	@ 344 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 344 CFM
						Total Mass Flux +/- in pounds per year --->	**4139 @ 344 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Midpoint					Estimated Flowrate (CFM)
Date Sampled:	11/29/21	Time:	11:35 AM	Field ID:	Mid	Collector:	E Johnson		
Date Analyzed:	11/29/21	Time:	3:21 PM	Lab ID:	6	Analyst:	Fitzgerald		344

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	130	340	0.2	0.5	0.814	0.477	4 @ 344 CFM
Chloroethane	750	2000	2	5	0.905	0.178	23 @ 344 CFM
Trichloromonofluoromethane	6000	42000	0.2	1	0.998	0.326	475 @ 344 CFM
1,1-Dichloroethylene	9100	36000	0.2	0.8	0.998	0.771	407 @ 344 CFM
Methylene Chloride	N.D.	N.D.	0.2	0.7	0.901	0.077	@ 344 CFM
1,1,2-Trichlorotrifluoroethane	8300	63000	0.2	1.5	0.992	0.491	712 @ 344 CFM
1,1-Dichloroethane	760	3100	0.2	0.8	0.982	0.462	35 @ 344 CFM
Cis 1,2-Dichloroethylene	12000	47000	0.2	0.8	0.996	0.845	531 @ 344 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.943	0.078	@ 344 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.955	0.006	@ 344 CFM
1,1,1-Trichloroethane	2800	15000	0.2	1.1	0.997	0.699	170 @ 344 CFM
Benzene	180	560	0.2	0.6	0.995	0.807	6 @ 344 CFM
Carbon Tetrachloride	240	1500	0.2	1.3	0.948	0.109	17 @ 344 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.498	0.027	@ 344 CFM
Trichloroethylene	6600	36000	0.2	1.1	0.998	0.833	407 @ 344 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 344 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0.788	0.008	@ 344 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0.477	0.172	@ 344 CFM
Toluene	220	840	0.2	0.8	0.999	0.728	9 @ 344 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 344 CFM
Tetrachloroethylene	15000	100000	0.2	1.4	0.997	0.991	1130 @ 344 CFM
Chlorobenzene	1.4	6.2	0.2	0.9	0.97	0.221	0 @ 344 CFM
Ethylbenzene	5.4	24	0.2	0.9	0.981	0.429	0 @ 344 CFM
p/m-Xylene	4.8	21	0.4	1.7	0.997	0.475	0 @ 344 CFM
Styrene*	N.D.	N.D.	1	4	0.854	0.113	@ 344 CFM
o-Xylene*	1.4	5.9	1	4	0.992	0.244	0 @ 344 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 344 CFM
1,3,5-Trimethylbenzene*	1	5	1	5	0.851	0.162	0 @ 344 CFM
1,2,4-Trimethylbenzene*	1	5	1	5	0.991	0.205	0 @ 344 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.989	0.318	@ 344 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.993	0.183	@ 344 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.988	0.307	@ 344 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 344 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 344 CFM
						Total Mass Flux +/- in pounds per year --->	3926 @ 344 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	170	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Effluent					Estimated Flowrate (CFM)
Date Sampled:	12/2/21	Time:	10:35 AM	Field ID:	eff	Collector:	E Johnson		
Date Analyzed:	12/2/12	Time:	4:54 PM	Lab ID:	8	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.436	0.096	@ 346 CFM
Chloroethane	**2.1**	**5.6**	2	5	0.93	0.153	0 @ 346 CFM
Trichloromonofluoromethane	N.D.	N.D.	0.2	1	0.997	0.076	@ 346 CFM
1,1-Dichloroethylene	**0.8**	**3.2**	0.2	0.8	0.999	0.296	0 @ 346 CFM
Methylene Chloride	**0.92**	**3.2**	0.2	0.7	0.995	0.56	0 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.596	0.041	@ 346 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.663	0.021	@ 346 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	@ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.929	0.005	@ 346 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.673	0.021	@ 346 CFM
Benzene	**0.43**	**1.4**	0.2	0.6	0.982	0.665	0 @ 346 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	**0.47**	**1.8**	0.2	0.8	1	0.691	0 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	**0.25**	**1.7**	0.2	1.4	0.979	0.885	0 @ 346 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.62	0.001	@ 346 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.987	0.271	@ 346 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.995	0.528	@ 346 CFM
Styrene*	N.D.	N.D.	1	4	0.919	0.242	@ 346 CFM
o-Xylene*	N.D.	N.D.	1	4	0.97	0.229	@ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 346 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.978	0.192	@ 346 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.983	0.233	@ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.685	0.026	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.897	0.026	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.726	0.028	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 346 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	3	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Influent Bag					Estimated Flowrate (CFM)
Date Sampled:	12/2/21	Time:	12:15 PM	Field ID:	inf-b	Collector:	E Johnson		
Date Analyzed:	12/2/12	Time:	3:46 PM	Lab ID:	6	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	@ 346 CFM
Chloroethane	530	1400	2	5	0.894	0.11	16 @ 346 CFM
Trichloromonofluoromethane	1200	8500	0.2	1	0.999	0.43	97 @ 346 CFM
1,1-Dichloroethylene	930	3700	0.2	0.8	0.998	0.685	42 @ 346 CFM
Methylene Chloride	120	420	0.2	0.7	0.938	0.13	5 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	1700	13000	0.2	1.5	0.994	0.687	148 @ 346 CFM
1,1-Dichloroethane	190	750	0.2	0.8	0.979	0.374	9 @ 346 CFM
Cis 1,2-Dichloroethylene	3400	14000	0.2	0.8	0.998	0.837	159 @ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.95	0.006	@ 346 CFM
1,1,1-Trichloroethane	480	2600	0.2	1.1	0.938	0.635	30 @ 346 CFM
Benzene	110	350	0.2	0.6	0.983	0.615	4 @ 346 CFM
Carbon Tetrachloride	51	320	0.2	1.3	0.899	0.127	4 @ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.537	0.031	@ 346 CFM
Trichloroethylene	2900	15000	0.2	1.1	0.999	0.834	170 @ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	300	1100	0.2	0.8	1	0.694	13 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	63000	430000	0.2	1.4	0.997	0.991	4887 @ 346 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.721	0.097	@ 346 CFM
Ethylbenzene	61	270	0.2	0.9	0.99	0.35	3 @ 346 CFM
p/m-Xylene	87	380	0.4	1.7	0.994	0.585	4 @ 346 CFM
Styrene*	N.D.	N.D.	1	4	0.943	0.094	@ 346 CFM
o-Xylene*	49	210	1	4	0.995	0.462	2 @ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.968	0.042	@ 346 CFM
1,3,5-Trimethylbenzene*	140	690	1	5	0.992	0.161	8 @ 346 CFM
1,2,4-Trimethylbenzene*	210	1000	1	5	1	0.255	11 @ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.886	0.02	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.975	0.009	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.458	0.034	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.392	0.12	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	5611 @ 346 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Influent Vial					Estimated Flowrate (CFM)
Date Sampled:	12/2/21	Time:	12:15 PM	Field ID:	inf-V	Collector:	E Johnson		
Date Analyzed:	12/2/12	Time:	3:14 PM	Lab ID:	5	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	72	190	0.2	0.5	0.92	0.132	2 @ 346 CFM
Chloroethane	680	1800	2	5	0.885	0.117	20 @ 346 CFM
Trichloromonofluoromethane	1200	8100	0.2	1	0.98	0.415	92 @ 346 CFM
1,1-Dichloroethylene	920	3700	0.2	0.8	0.999	0.645	42 @ 346 CFM
Methylene Chloride	140	480	0.2	0.7	0.922	0.115	5 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	1600	12000	0.2	1.5	0.992	0.718	136 @ 346 CFM
1,1-Dichloroethane	200	790	0.2	0.8	0.984	0.373	9 @ 346 CFM
Cis 1,2-Dichloroethylene	3300	13000	0.2	0.8	0.998	0.834	148 @ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.941	0.005	@ 346 CFM
1,1,1-Trichloroethane	510	2800	0.2	1.1	0.892	0.601	32 @ 346 CFM
Benzene	79	250	0.2	0.6	0.972	0.676	3 @ 346 CFM
Carbon Tetrachloride	62	390	0.2	1.3	0.976	0.121	4 @ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.879	0.052	@ 346 CFM
Trichloroethylene	2700	15000	0.2	1.1	0.999	0.835	170 @ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	310	1200	0.2	0.8	0.999	0.665	14 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	61000	410000	0.2	1.4	0.996	0.991	4660 @ 346 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.765	0.099	@ 346 CFM
Ethylbenzene	77	340	0.2	0.9	0.994	0.426	4 @ 346 CFM
p/m-Xylene	110	460	0.4	1.7	0.996	0.536	5 @ 346 CFM
Styrene*	7.6	33	1	4	0.906	0.287	0 @ 346 CFM
o-Xylene*	62	270	1	4	0.996	0.408	3 @ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.95	0.048	@ 346 CFM
1,3,5-Trimethylbenzene*	150	740	1	5	0.989	0.149	8 @ 346 CFM
1,2,4-Trimethylbenzene*	210	1000	1	5	1	0.245	11 @ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.842	0.023	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.937	0.006	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.477	0.036	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.627	0.216	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	5371 @ 346 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Midpoint					Estimated Flowrate (CFM)
Date Sampled:	12/2/21	Time:	10:40 AM	Field ID:	mid	Collector:	E Johnson		
Date Analyzed:	12/2/12	Time:	4:18 PM	Lab ID:	7	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	110	290	0.2	0.5	0.814	0.326	3 @ 346 CFM
Chloroethane	N.D.	N.D.	2	5	0.797	0.131	@ 346 CFM
Trichloromonofluoromethane	300	2100	0.2	1	0.874	0.124	24 @ 346 CFM
1,1-Dichloroethylene	2700	11000	0.2	0.8	0.999	0.585	125 @ 346 CFM
Methylene Chloride	1000	3600	0.2	0.7	0.995	0.355	41 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	420	3200	0.2	1.5	0.99	0.154	36 @ 346 CFM
1,1-Dichloroethane	36	150	0.2	0.8	0.984	0.517	2 @ 346 CFM
Cis 1,2-Dichloroethylene	88	350	0.2	0.8	0.997	0.772	4 @ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.922	0.006	@ 346 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.712	0.289	@ 346 CFM
Benzene	9	29	0.2	0.6	0.981	0.48	0 @ 346 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.844	0.085	@ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	34	130	0.2	0.8	0.997	0.689	1 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	46	310	0.2	1.4	0.987	0.95	4 @ 346 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.527	0.001	@ 346 CFM
Ethylbenzene	2.5	11	0.2	0.9	0.895	0.19	0 @ 346 CFM
p/m-Xylene	4.4	19	0.4	1.7	0.974	0.474	0 @ 346 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 346 CFM
o-Xylene*	3.7	16	1	4	0.991	0.464	0 @ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 346 CFM
1,3,5-Trimethylbenzene*	1.2	5.8	1	5	0.957	0.101	0 @ 346 CFM
1,2,4-Trimethylbenzene*	1.5	7.5	1	5	0.998	0.337	0 @ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.823	0.08	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.815	0.048	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.827	0.075	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	241 @ 346 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	170	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street - VGAC Effluent					Estimated Flowrate (CFM)
Date Sampled:	12/3/21	Time:	10:30 AM	Field ID:	eff	Collector:	E Johnson		
Date Analyzed:	12/3/21	Time:	2:35 PM	Lab ID:	7	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	@ 346 CFM
Chloroethane	N.D.	N.D.	2	5	0.77	0.311	@ 346 CFM
Trichloromonofluoromethane	**0.53**	**3.7**	0.2	1	0.999	0.135	0 @ 346 CFM
1,1-Dichloroethylene	N.D.	N.D.	0.2	0.8	0.99	0.154	@ 346 CFM
Methylene Chloride	**0.23**	**0.81**	0.2	0.7	0.997	0.49	0 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	N.D.	N.D.	0.2	1.5	0.572	0.071	@ 346 CFM
1,1-Dichloroethane	N.D.	N.D.	0.2	0.8	0.786	0.046	@ 346 CFM
Cis 1,2-Dichloroethylene	N.D.	N.D.	0.2	0.8	0	0	@ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.902	0.005	@ 346 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.665	0.021	@ 346 CFM
Benzene	**0.22**	**0.7**	0.2	0.6	0.99	0.692	0 @ 346 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.783	0.076	@ 346 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0.724	0.14	@ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	**0.3**	**1.1**	0.2	0.8	0.998	0.704	0 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	*0.072*	*0.49*	0.2	1.4	0.959	0.789	0 @ 346 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.548	0.001	@ 346 CFM
Ethylbenzene	N.D.	N.D.	0.2	0.9	0.928	0.11	@ 346 CFM
p/m-Xylene	N.D.	N.D.	0.4	1.7	0.99	0.615	@ 346 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 346 CFM
o-Xylene*	N.D.	N.D.	1	4	0.996	0.274	@ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 346 CFM
1,3,5-Trimethylbenzene*	N.D.	N.D.	1	5	0.936	0.142	@ 346 CFM
1,2,4-Trimethylbenzene*	N.D.	N.D.	1	5	0.979	0.236	@ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0	0	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0	0	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0	0	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	**0 @ 346 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	2	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Influent Bag					Estimated Flowrate (CFM)
Date Sampled:	12/3/21	Time:	10:40 AM	Field ID:	inf-B	Collector:	E Johnson		
Date Analyzed:	12/3/21	Time:	1:24 PM	Lab ID:	5	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0	0	@ 346 CFM
Chloroethane	590	1600	2	5	0.891	0.119	18 @ 346 CFM
Trichloromonofluoromethane	130	910	0.2	1	0.999	0.12	10 @ 346 CFM
1,1-Dichloroethylene	660	2600	0.2	0.8	0.998	0.681	30 @ 346 CFM
Methylene Chloride	97	340	0.2	0.7	0.917	0.109	4 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	1400	10000	0.2	1.5	0.995	0.711	114 @ 346 CFM
1,1-Dichloroethane	140	570	0.2	0.8	0.97	0.354	6 @ 346 CFM
Cis 1,2-Dichloroethylene	2400	9600	0.2	0.8	0.998	0.842	109 @ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.941	0.005	@ 346 CFM
1,1,1-Trichloroethane	450	2400	0.2	1.1	0.865	0.618	27 @ 346 CFM
Benzene	93	300	0.2	0.6	0.978	0.705	3 @ 346 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0.966	0.099	@ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
Trichloroethylene	2100	11000	0.2	1.1	0.998	0.837	125 @ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	230	860	0.2	0.8	0.999	0.714	10 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	43000	290000	0.2	1.4	0.996	0.991	3296 @ 346 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.771	0.105	@ 346 CFM
Ethylbenzene	42	180	0.2	0.9	0.989	0.406	2 @ 346 CFM
p/m-Xylene	66	290	0.4	1.7	0.991	0.513	3 @ 346 CFM
Styrene*	N.D.	N.D.	1	4	0	0	@ 346 CFM
o-Xylene*	47	200	1	4	0.997	0.518	2 @ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.982	0.051	@ 346 CFM
1,3,5-Trimethylbenzene*	95	470	1	5	0.989	0.148	5 @ 346 CFM
1,2,4-Trimethylbenzene*	130	650	1	5	0.999	0.232	7 @ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.941	0.034	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.915	0.151	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.783	0.218	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.255	0.049	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	**3773 @ 346 CFM**

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street VGAC Influent Vial					Estimated Flowrate (CFM)
Date Sampled:	12/3/21	Time:	10:40 AM	Field ID:	Inf-V	Collector:	E Johnson		
Date Analyzed:	12/3/21	Time:	12:50 PM	Lab ID:	4	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	51	130	0.2	0.5	0.812	0.101	1 @ 346 CFM
Chloroethane	800	2100	2	5	0.896	0.138	24 @ 346 CFM
Trichloromonofluoromethane	160	1100	0.2	1	0.994	0.119	13 @ 346 CFM
1,1-Dichloroethylene	640	2500	0.2	0.8	0.999	0.612	28 @ 346 CFM
Methylene Chloride	83	290	0.2	0.7	0.914	0.109	3 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	1400	11000	0.2	1.5	0.993	0.668	125 @ 346 CFM
1,1-Dichloroethane	130	530	0.2	0.8	0.949	0.317	6 @ 346 CFM
Cis 1,2-Dichloroethylene	2300	9300	0.2	0.8	0.997	0.838	106 @ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0.906	0.082	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.972	0.005	@ 346 CFM
1,1,1-Trichloroethane	440	2400	0.2	1.1	0.963	0.681	27 @ 346 CFM
Benzene	58	180	0.2	0.6	0.94	0.656	2 @ 346 CFM
Carbon Tetrachloride	48	300	0.2	1.3	0.963	0.109	3 @ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
Trichloroethylene	2000	11000	0.2	1.1	0.998	0.843	125 @ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	230	860	0.2	0.8	0.999	0.676	10 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	41000	270000	0.2	1.4	0.996	0.991	3069 @ 346 CFM
Chlorobenzene	79	360	0.2	0.9	0.83	0.137	4 @ 346 CFM
Ethylbenzene	56	240	0.2	0.9	0.995	0.402	3 @ 346 CFM
p/m-Xylene	76	330	0.4	1.7	0.991	0.578	4 @ 346 CFM
Styrene*	5.9	25	1	4	0.95	0.138	0 @ 346 CFM
o-Xylene*	45	200	1	4	0.996	0.383	2 @ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0.778	0.167	@ 346 CFM
1,3,5-Trimethylbenzene*	88	430	1	5	0.999	0.135	5 @ 346 CFM
1,2,4-Trimethylbenzene*	130	620	1	5	1	0.232	7 @ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.878	0.056	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.995	0.021	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.909	0.048	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.233	0.073	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	3568 @ 346 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	850	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street - VGAC Midpoint					Estimated Flowrate (CFM)
Date Sampled:	12/3/21	Time:	10:35 AM	Field ID:	mid	Collector:	E Johnson		
Date Analyzed:	12/3/21	Time:	1:56 PM	Lab ID:	6	Analyst:	Fitzgerald		346

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	Estimated Mass Flux (Pounds per Year +/-)
	ppbV	µg/m^3	ppbV	µg/m^3			
Vinyl Chloride	N.D.	N.D.	0.2	0.5	0.785	0.147	@ 346 CFM
Chloroethane	61	160	2	5	0.837	0.131	2 @ 346 CFM
Trichloromonofluoromethane	28	190	0.2	1	0.993	0.101	2 @ 346 CFM
1,1-Dichloroethylene	1700	6800	0.2	0.8	0.998	0.611	77 @ 346 CFM
Methylene Chloride	600	2100	0.2	0.7	0.995	0.366	24 @ 346 CFM
1,1,2-Trichlorotrifluoroethane	180	1400	0.2	1.5	0.99	0.264	16 @ 346 CFM
1,1-Dichloroethane	16	63	0.2	0.8	0.968	0.386	1 @ 346 CFM
Cis 1,2-Dichloroethylene	56	220	0.2	0.8	0.984	0.723	3 @ 346 CFM
Chloroform	N.D.	N.D.	0.2	1.0	0	0	@ 346 CFM
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0.886	0.004	@ 346 CFM
1,1,1-Trichloroethane	N.D.	N.D.	0.2	1.1	0.702	0.214	@ 346 CFM
Benzene	4.9	16	0.2	0.6	0.891	0.419	0 @ 346 CFM
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	@ 346 CFM
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
Trichloroethylene	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	@ 346 CFM
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	@ 346 CFM
Toluene	23	88	0.2	0.8	0.997	0.66	1 @ 346 CFM
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	@ 346 CFM
Tetrachloroethylene	40	270	0.2	1.4	0.98	0.943	3 @ 346 CFM
Chlorobenzene	N.D.	N.D.	0.2	0.9	0.664	0.001	@ 346 CFM
Ethylbenzene	4.4	19	0.2	0.9	0.982	0.531	0 @ 346 CFM
p/m-Xylene	4.1	18	0.4	1.7	0.956	0.5	0 @ 346 CFM
Styrene*	N.D.	N.D.	1	4	0.871	0.14	@ 346 CFM
o-Xylene*	1.2	5.2	1	4	0.946	0.22	0 @ 346 CFM
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	0.2	1	0	0	@ 346 CFM
1,3,5-Trimethylbenzene*	1.2	5.8	1	5	0.973	0.241	0 @ 346 CFM
1,2,4-Trimethylbenzene*	1	5	1	5	0.979	0.243	0 @ 346 CFM
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	0.2	1	0.983	0.102	@ 346 CFM
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.995	0.051	@ 346 CFM
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.977	0.096	@ 346 CFM
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0	0	@ 346 CFM
HexachloroButadiene*	N.D.	N.D.	0.2	2	0	0	@ 346 CFM
						Total Mass Flux +/- in pounds per year --->	129 @ 346 CFM

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calib Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor =	170	If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

Comments:

MassDEP Field Assessment and Support Team (FAST)				SSDS Discharge				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	12/6/21	Time:	11:00 AM	Field ID:	Inf-vial	Collector:	Roden		VGAC Influent vial
Date Analyzed:	12/6/21	Time:	1:14 PM	Lab ID:	003	Analyst:	Fitzgerald		

Method Analytes	Concentration		Reporting Limit		Peak Fit	Peak Purity	SG Screen µg/m3	
	ppbV	µg/m^3	ppbV	µg/m^3			Resident	Com/Indust
Vinyl Chloride	N.D.	N.D.	1	2.6	0	0	19	91
Chloroethane	N.D.	N.D.	3	8	0.799	0.048	NA	NA
Trichloromonofluoromethane	180	1200	0.2	1	0.884	0.15	NA	NA
1,1-Dichloroethylene	830	3300	1	4.0	0.993	0.362	56	12000
Methylene Chloride	N.D.	N.D.	0.2	0.7	0	0	770	37000
1,1,2-Trichlorotrifluoroethane	1600	12000	0.2	1.5	0.996	0.515	NA	NA
1,1-Dichloroethane	160	660	1	4.1	0.956	0.123	56	50,000
Cis 1,2-Dichloroethylene	2000	8000	0.2	0.8	0.999	0.641	56	370
Chloroform	N.D.	N.D.	0.2	1.0	0	0	130	210
1,2-Dichloroethane	N.D.	N.D.	1	4.1	0	0	6.3	31
1,1,1-Trichloroethane	410	2300	0.2	1.1	0.993	0.371	210	310,000
Benzene	N.D.	N.D.	0.2	0.6	0	0	160	800
Carbon Tetrachloride	N.D.	N.D.	0.2	1.3	0	0	38	130
1,2-Dichloropropane	N.D.	N.D.	0.2	0.9	0.806	0.039	8.6	42
Trichloroethylene	1900	10000	0.2	1.1	0.998	0.729	28	120
cis-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
trans-1,3-Dichloropropene	N.D.	N.D.	0.2	0.9	0	0	41	200
1,1,2-Trichloroethane	N.D.	N.D.	0.2	1.1	0	0	10	50
Toluene	110	420	0.2	0.8	0.999	0.226	3800	310000
1,2-Dibromoethane	N.D.	N.D.	0.2	1.5	0	0	NA	NA
Tetrachloroethylene	40000	270000	0.2	1.4	0.996	0.986	98	290
Chlorobenzene	N.D.	N.D.	0.2	0.9	0	0	160	3100
Ethylbenzene	61	260	1	4.3	0.834	0.18	520	62000
p/m-Xylene	66	290	0.4	1.7	0.979	0.236	1400	6200
Styrene*	N.D.	N.D.	0.2	1	0	0	95	1400
o-Xylene*	65	280	0.2	0.9	0.986	0.238	Part Total Xylenes	
1,1,2,2-Tetrachloroethane*	N.D.	N.D.	1	6.9	0.892	0.052	2.8	14
1,3,5-Trimethylbenzene*	84	410	1	4.9	0.994	0.127	NA	NA
1,2,4-Trimethylbenzene*	120	600	1	4.9	0.999	0.217	NA	NA
1,3-Dichlorobenzene (meta)*	N.D.	N.D.	1	6	0.784	0.028	42	50,000
1,4-Dichlorobenzene (para)*	N.D.	N.D.	0.2	1	0.836	0.036	35	120
1,2-Dichlorobenzene (ortho)*	N.D.	N.D.	0.2	1	0.834	0.036	50	50,000
1,2,4-Trichlorobenzene*	N.D.	N.D.	2	15	0.639	0.333	28	240
HexachloroButadiene*	N.D.	N.D.	2	21	0.446	0.167	7.4	320

Samples obtained in 0.5-1L bags (e.g., Kynar). Results for analytes with * likely biased low by up to factor of 2+/- due to sorption onto bag.

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (RL) is lowest calib standard Calibration Date: 12/1/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Values in red are > Residential Soil Gas Screening Value

Peak Fit=agreement w/ spectral database; Peak Purity=interference from coeluting compounds. Fit >0.5 likely, >0.85 very likely match

Dilution Factor = 850 If sample was diluted, the Reporting Limits listed above must be multiplied by this Dilution Factor

COMMENTS:

MassDEP Condensate Treatment System

Data Reports

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/24/21	Time:	12:15 PM	Field ID:	EFF	Collector:	E. Johnson	LGAC - Effluent
Date Analyzed:	8/25/21	Time:	11:46 AM	Lab ID:	005	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	8/24/21	Time:	12:20 PM	Field ID:	INF	Collector:	E. Johnson	LGAC - Influent
Date Analyzed:	8/25/21	Time:	12:52 PM	Lab ID:	007	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	2	N.D.	170	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	30	N.D.	170	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	30	N.D.	170	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	2	N.D.	170	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	20	N.D.	170	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	30	N.D.	170	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	9	N.D.	170	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**40**	10	6	170	1016	0.167	70	20	50,000
Chloroform	N.D.	8	N.D.	170	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	20	N.D.	170	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**30**	3	10	170	1689	0.705	200	4000	20,000
Benzene	N.D.	4	N.D.	170	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	3	N.D.	170	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	9	N.D.	170	N.D.	0.116	5	3	50,000
Trichloroethylene	**200**	4	48	170	8145	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	2	N.D.	170	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	5	N.D.	170	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	40	N.D.	170	N.D.	0.034	5	900	50,000
Toluene	N.D.	4	N.D.	170	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	50	N.D.	170	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**300**	3	86	170	14635	0.7257	5	50	30,000
Chlorobenzene	**20**	9	2	170	338	0.128	100	200	1000
Ethylbenzene	N.D.	4	N.D.	170	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	4	N.D.	170	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	9	N.D.	170	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	5	N.D.	170	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	100	N.D.	170	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	30	N.D.	170	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	40	N.D.	170	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	30	N.D.	170	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	90	N.D.	170	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	20	N.D.	170	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				LGAC System				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	8/26/21	Time:		Field ID:	EFF	Collector:	E Johnson		Effluent
Date Analyzed:	8/27/21	Time:	1:51 PM	Lab ID:	005	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/1/21	Time:		Field ID:	EFF	Collector:	E Johnson		LGAC Effluent
Date Analyzed:	9/1/21	Time:	5:55 PM	Lab ID:	010	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/1/21	Time:	12:45 PM	Field ID:	INF	Collector:	E Johnson		LGAC Influent
Date Analyzed:	9/1/21	Time:	6:31 PM	Lab ID:	011	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	2	N.D.	170	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	30	N.D.	170	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	30	N.D.	170	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	2	N.D.	170	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	20	N.D.	170	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	30	N.D.	170	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	9	N.D.	170	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**300**	10	57	170	9724	0.167	70	20	50,000
Chloroform	N.D.	8	N.D.	170	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	20	N.D.	170	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**50**	3	17	170	2853	0.705	200	4000	20,000
Benzene	**5**	4	1	170	225	0.116	5	1000	10,000
Carbon Tetrachloride	**3**	3	1	170	214	1.132	5	2	5000
1,2-Dichloropropane	N.D.	9	N.D.	170	N.D.	0.116	5	3	50,000
Trichloroethylene	**200**	4	64	170	10900	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	2	N.D.	170	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	5	N.D.	170	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	40	N.D.	170	N.D.	0.034	5	900	50,000
Toluene	N.D.	4	N.D.	170	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	50	N.D.	170	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**400**	3	102	170	17377	0.7257	5	50	30,000
Chlorobenzene	**30**	9	4	170	679	0.128	100	200	1000
Ethylbenzene	N.D.	4	N.D.	170	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	4	N.D.	170	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	9	N.D.	170	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	5	N.D.	170	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	100	N.D.	170	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	30	N.D.	170	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	40	N.D.	170	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	30	N.D.	170	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	90	N.D.	170	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	20	N.D.	170	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)					GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/1/21	Time:	12:40 PM	Field ID:	LGACMID	Collector:	E Johnson		LGAC Midpoint sample
Date Analyzed:	9/2/21	Time:	5:57 PM	Lab ID:	008	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/3/21	Time:	11:40 AM	Field ID:	INF	Collector:	E. Johnson	LGAC - Influent
Date Analyzed:	9/3/21	Time:	4:39 PM	Lab ID:	007	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**80**	50	3	850	2370	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**30**	15	2	850	1886	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**300**	20	14	850	11569	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**300**	15	15	850	12699	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/3/21	Time:	11:45 AM	Field ID:	MID	Collector:	E. Johnson	LGAC - Midpoint
Date Analyzed:	9/3/21	Time:	4:06 PM	Lab ID:	006	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/7/21	Time:	1:00 PM	Field ID:	INF	Collector:	E Johnson		LGAC Influent
Date Analyzed:	9/7/21	Time:	6:10 PM	Lab ID:	008	Analyst:	N Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**10**	10	1	850	1070	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**80**	50	3	850	2442	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**40**	15	3	850	2253	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**300**	20	13	850	11195	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**200**	15	12	850	10047	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER		RTN:	3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/7/21	Time:	12:55 PM	Field ID:	MID	Collector:	E Johnson
Date Analyzed:	9/7/21	Time:	5:36 PM	Lab ID:	007	Analyst:	N Johnson

LGAC Midpoint sample

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/7/21	Time:	12:50 PM	Field ID:	EFF	Collector:	E Johnson	LGAC Effluent
Date Analyzed:	9/7/21	Time:	4:52 PM	Lab ID:	006	Analyst:	N Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/9/21	Time:	11:15 AM	Field ID:	Inf	Collector:	E Johnson	LGAC Influent
Date Analyzed:	9/9/21	Time:	4:32 PM	Lab ID:	007	Analyst:	N Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	100	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	100	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**10**	8	2	850	1469	0.634	7	80	30,000
Methylene Chloride	N.D.	90	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	200	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	50	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**100**	60	3	850	2814	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**30**	10	2	850	2111	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	10	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	50	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**200**	20	11	850	9597	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	20	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	300	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**200**	20	13	850	10719	0.7257	5	50	30,000
Chlorobenzene	N.D.	40	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	40	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	30	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	60	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	100	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	100	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	200	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	400	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	90	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/9/21	Time:	11:10 AM	Field ID:	MID	Collector:	E Johnson	LGAC Midpoint
Date Analyzed:	9/9/21	Time:	4:01 PM	Lab ID:	006	Analyst:	N Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	2	N.D.	170	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	30	N.D.	170	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	30	N.D.	170	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	2	N.D.	170	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	20	N.D.	170	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	30	N.D.	170	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	9	N.D.	170	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	10	N.D.	170	N.D.	0.167	70	20	50,000
Chloroform	N.D.	8	N.D.	170	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	20	N.D.	170	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	3	N.D.	170	N.D.	0.705	200	4000	20,000
Benzene	N.D.	4	N.D.	170	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	3	N.D.	170	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	9	N.D.	170	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	4	N.D.	170	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	2	N.D.	170	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	5	N.D.	170	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	40	N.D.	170	N.D.	0.034	5	900	50,000
Toluene	N.D.	4	N.D.	170	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	50	N.D.	170	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	3	N.D.	170	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	9	N.D.	170	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	4	N.D.	170	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	4	N.D.	170	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	9	N.D.	170	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	5	N.D.	170	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	100	N.D.	170	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	30	N.D.	170	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	40	N.D.	170	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	30	N.D.	170	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	90	N.D.	170	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	20	N.D.	170	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/14/21	Time:	11:45 AM	Field ID:	LGAC-I	Collector:	E. Johnson	LGAC Influent (headspace)
Date Analyzed:	9/14/21	Time:	4:45 PM	Lab ID:	009	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**20**	10	3	850	2199	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**100**	50	5	850	3956	0.167	70	20	50,000
Chloroform	**90**	40	2	850	1873	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**40**	15	3	850	2290	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**200**	20	11	850	9197	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**200**	15	10	850	8417	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/14/21	Time:	11:40 AM	Field ID:	LGAC-M	Collector:	E. Johnson	LGAC Midpoint (headspace)
Date Analyzed:	9/14/21	Time:	4:08 PM	Lab ID:	008	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/16/21	Time:	11:25 AM	Field ID:	EFF	Collector:	E. Johnson		LGAC - Effluent
Date Analyzed:	9/17/21	Time:	1:23 PM	Lab ID:	008	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/16/21	Time:	11:35 AM	Field ID:	INF	Collector:	E. Johnson		LGAC - Influent
Date Analyzed:	9/17/21	Time:	12:33 PM	Lab ID:	007	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**20**	10	3	850	2281	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**100**	50	5	850	4100	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**40**	15	3	850	2289	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**300**	20	15	850	13048	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**200**	15	14	850	12215	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/16/21	Time:	11:30 AM	Field ID:	MID	Collector:	E. Johnson	LGAC - Midpoint
Date Analyzed:	9/17/21	Time:	12:02 PM	Lab ID:	006	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: 1,1,1-TCA present below reporting limit.

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/21/21	Time:	12:25 PM	Field ID:	LGAC-eff	Collector:	E Johnson		LGAC effluent
Date Analyzed:	9/21/21	Time:	4:46 PM	Lab ID:	007	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	2	N.D.	170	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	30	N.D.	170	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	30	N.D.	170	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	2	N.D.	170	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	20	N.D.	170	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	30	N.D.	170	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	9	N.D.	170	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	10	N.D.	170	N.D.	0.167	70	20	50,000
Chloroform	N.D.	8	N.D.	170	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	20	N.D.	170	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	3	N.D.	170	N.D.	0.705	200	4000	20,000
Benzene	N.D.	4	N.D.	170	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	3	N.D.	170	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	9	N.D.	170	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	4	N.D.	170	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	2	N.D.	170	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	5	N.D.	170	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	40	N.D.	170	N.D.	0.034	5	900	50,000
Toluene	N.D.	4	N.D.	170	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	50	N.D.	170	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	3	N.D.	170	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	9	N.D.	170	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	4	N.D.	170	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	4	N.D.	170	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	9	N.D.	170	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	5	N.D.	170	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	100	N.D.	170	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	30	N.D.	170	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	40	N.D.	170	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	30	N.D.	170	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	90	N.D.	170	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	20	N.D.	170	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/21/21	Time:	12:35 PM	Field ID:	LGAC Inf	Collector:	E Johnson		LGFAC Influent
Date Analyzed:	9/21/21	Time:	4:09 PM	Lab ID:	006	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	--	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	--	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	--	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**100**	--	14	850	12240	0.634	7	80	30,000
Methylene Chloride	N.D.	--	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	--	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**500**	--	17	850	14807	0.167	70	20	50,000
Chloroform	N.D.	--	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**200**	--	13	850	10931	0.705	200	4000	20,000
Benzene	N.D.	--	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	**20**	--	1	850	1072	1.132	5	2	5000
1,2-Dichloropropane	N.D.	--	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**600**	--	32	850	26911	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	--	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	--	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	--	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**500**	--	28	850	23936	0.7257	5	50	30,000
Chlorobenzene	N.D.	--	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	--	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	--	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	--	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	--	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	--	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	--	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	--	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	--	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	--	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	--	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/21/21	Time:	12:30 PM	Field ID:	LGAC-mid	Collector:	E Johnson	LGAC Midpoint
Date Analyzed:	9/21/21	Time:	3:29 PM	Lab ID:	005	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	2	N.D.	170	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	30	N.D.	170	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	30	N.D.	170	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	2	N.D.	170	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	20	N.D.	170	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	30	N.D.	170	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	9	N.D.	170	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	10	N.D.	170	N.D.	0.167	70	20	50,000
Chloroform	N.D.	8	N.D.	170	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	20	N.D.	170	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**6**	3	2	170	337	0.705	200	4000	20,000
Benzene	N.D.	4	N.D.	170	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	3	N.D.	170	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	9	N.D.	170	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	4	N.D.	170	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	2	N.D.	170	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	5	N.D.	170	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	40	N.D.	170	N.D.	0.034	5	900	50,000
Toluene	N.D.	4	N.D.	170	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	50	N.D.	170	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	3	N.D.	170	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	9	N.D.	170	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	4	N.D.	170	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	4	N.D.	170	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	9	N.D.	170	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	5	N.D.	170	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	100	N.D.	170	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	30	N.D.	170	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	40	N.D.	170	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	30	N.D.	170	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	90	N.D.	170	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	20	N.D.	170	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/23/21	Time:	12:20 PM	Field ID:	Eff	Collector: E Johnson	LGAC Effluent
Date Analyzed:	9/24/21	Time:	12:38 PM	Lab ID:	005	Analyst: Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/23/21	Time:	12:20 PM	Field ID:	Inf	Collector:	E Johnson		LGAC Influent
Date Analyzed:	9/24/21	Time:	1:28 PM	Lab ID:	006	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	--	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	--	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	--	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**200**	--	20	850	17187	0.634	7	80	30,000
Methylene Chloride	N.D.	--	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	--	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**800**	--	27	850	22959	0.167	70	20	50,000
Chloroform	N.D.	--	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**400**	--	31	850	26410	0.705	200	4000	20,000
Benzene	N.D.	--	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	**40**	--	3	850	2459	1.132	5	2	5000
1,2-Dichloropropane	N.D.	--	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**1000**	--	51	850	43248	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	--	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	--	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	--	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**600**	--	37	850	31688	0.7257	5	50	30,000
Chlorobenzene	N.D.	--	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	--	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	--	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	--	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	--	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	--	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	--	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	--	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	--	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	--	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	--	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/23/21	Time:	12:25 PM	Field ID:	Mid	Collector:	E Johnson		LGAC Midpoint
Date Analyzed:	9/24/21	Time:	12:01 PM	Lab ID:	004	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**0.6**	0	2	43	64	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**9**	1	13	43	553	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	**0.7**	1	1	43	47	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Dtreet					Location:
Date Sampled:	9/28/21	Time:	12:25 PM	Field ID:	Eff	Collector:	E Johnson		LGAC Effluent
Date Analyzed:	9/28/21	Time:	6:19 PM	Lab ID:	009	Analyst:	N Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	**20**	7	59	43	2524	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Chloroethane likely a laboratory contaminant.

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	155 Leland Street					Location:
Date Sampled:	9/28/21	Time:	12:35 PM	Field ID:	Inf	Collector:	E Johnson		LGAC Influent
Date Analyzed:	9/28/21	Time:	5:57 PM	Lab ID:	010	Analyst:	N Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**200**	10	20	850	17417	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**1000**	50	36	850	31017	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**500**	15	35	850	29742	0.705	200	4000	20,000
Benzene	**50**	20	3	850	2436	0.116	5	1000	10,000
Carbon Tetrachloride	**40**	15	3	850	2595	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**2000**	20	122	850	103913	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	**200**	20	10	850	8109	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**2000**	15	116	850	98889	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	**20**	20	1	850	1091	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	**40**	25	2	850	1289	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	**70**	50	2	850	1896	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/28/21	Time:	12:30 PM	Field ID:	Mid	Collector:	E Johnson		LGAC Midpoint
Date Analyzed:	9/28/21	Time:	6:50 PM	Lab ID:	010	Analyst:	N Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**20**	1	32	43	1364	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	**1**	1	2	43	100	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	9/30/21	Time:	1:00 PM	Field ID:	EFF	Collector:	E. Johnson
Date Analyzed:	10/1/21	Time:	10:28 AM	Lab ID:	004	Analyst:	N. Johnson

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Large unresolved peak at 11-18 minutes retention time, some indications of petroleum (decane)

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	9/30/21	Time:	1:10 PM	Field ID:	INF	Collector:	E. Johnson		LGAC - Influent
Date Analyzed:	10/1/21	Time:	11:31 AM	Lab ID:	006	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	**300**	150	38	850	32317	0.275	NS	NS	NS
Trichloromonofluoromethane	**200**	150	25	850	21123	4.51	NS	NS	NS
1,1-Dichloroethene	**800**	10	94	850	79892	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	**200**	45	10	850	8442	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**6000**	50	210	850	178568	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**2000**	15	122	850	103607	0.705	200	4000	20,000
Benzene	**30**	20	2	850	1420	0.116	5	1000	10,000
Carbon Tetrachloride	**100**	15	9	850	8009	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**20000**	20	795	850	675436	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	**300**	20	16	850	13498	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**20000**	15	1192	850	1012988	0.7257	5	50	30,000
Chlorobenzene	**100**	45	3	850	2561	0.128	100	200	1000
Ethylbenzene	**400**	20	19	850	15836	0.323	700	20,000	5000
p/m-Xylene	**200**	20	7	850	6363	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	**500**	25	19	850	16397	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	**500**	50	20	850	17408	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	**1000**	50	33	850	27974	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Large unresolved peak at 11-18 minutes retention time, some indications of petroleum (e.g., decane)

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	9/30/21	Time:	1:05 PM	Field ID:	MID	Collector:	E. Johnson	LGAC - midpoint
Date Analyzed:	10/1/21	Time:	11:00 AM	Lab ID:	005	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	2	N.D.	170	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	30	N.D.	170	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	30	N.D.	170	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	2	N.D.	170	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	20	N.D.	170	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	30	N.D.	170	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	9	N.D.	170	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	10	N.D.	170	N.D.	0.167	70	20	50,000
Chloroform	N.D.	8	N.D.	170	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	20	N.D.	170	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**20**	3	6	170	1090	0.705	200	4000	20,000
Benzene	N.D.	4	N.D.	170	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	3	N.D.	170	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	9	N.D.	170	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	4	N.D.	170	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	2	N.D.	170	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	5	N.D.	170	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	40	N.D.	170	N.D.	0.034	5	900	50,000
Toluene	N.D.	4	N.D.	170	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	50	N.D.	170	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	3	N.D.	170	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	9	N.D.	170	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	4	N.D.	170	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	4	N.D.	170	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	9	N.D.	170	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	5	N.D.	170	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	100	N.D.	170	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	10	N.D.	170	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	30	N.D.	170	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	40	N.D.	170	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	30	N.D.	170	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	90	N.D.	170	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	20	N.D.	170	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Large unresolved peak at 11-18 minutes retention time, some indications of petroleum (decane)

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	10/5/21	Time:	12:45 PM	Field ID:	Eff	Collector:	E Johnson	LGAC Effluent
Date Analyzed:	10/6/21	Time:	12:34 PM	Lab ID:	003	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/5/21	Time:	1:00 PM	Field ID:	Inf	Collector:	E Johnson		LGAC Influent
Date Analyzed:	10/6/21	Time:	2:34 PM	Lab ID:	005	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**10**	10	2	850	1533	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**300**	50	10	850	8713	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**20**	15	2	850	1276	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**400**	20	22	850	18675	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	**40**	20	2	850	1793	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**1000**	15	64	850	54647	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	**30**	20	1	850	1140	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	**40**	25	2	850	1276	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	**60**	50	2	850	1767	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/5/21	Time:	12:50 PM	Field ID:	Mid	Collector:	E Johnson		LGAC Midpoint
Date Analyzed:	10/6/21	Time:	1:44 PM	Lab ID:	004	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	57	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	9	N.D.	57	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	10	N.D.	57	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**1**	1	2	57	101	0.634	7	80	30,000
Methylene Chloride	N.D.	6	N.D.	57	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	10	N.D.	57	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	3	N.D.	57	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	4	N.D.	57	N.D.	0.167	70	20	50,000
Chloroform	N.D.	3	N.D.	57	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	7	N.D.	57	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**10**	1	12	57	694	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	57	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	57	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	3	N.D.	57	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	57	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	57	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	2	N.D.	57	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	10	N.D.	57	N.D.	0.034	5	900	50,000
Toluene	**1**	1	1	57	66	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	20	N.D.	57	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	57	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	3	N.D.	57	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	57	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	57	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	3	N.D.	57	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	2	N.D.	57	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	30	N.D.	57	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	3	N.D.	57	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	4	N.D.	57	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	9	N.D.	57	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	10	N.D.	57	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	9	N.D.	57	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	30	N.D.	57	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	6	N.D.	57	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/7/21	Time:	12:35 PM	Field ID:	L-EFF	Collector:	E. Johnson	LGAC - Effluent
Date Analyzed:	10/8/21	Time:	10:57 AM	Lab ID:	003	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0.4	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Petroleum present in sample (C10 - C12 and UCM)

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/7/21	Time:	12:25 PM	Field ID:	L-INF	Collector:	E. Johnson	LGAC - Influent
Date Analyzed:	10/8/21	Time:	12:04 PM	Lab ID:	005	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**20**	10	2	850	1604	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	8	850	6698	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**200**	20	10	850	8747	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**600**	15	35	850	29444	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Petroleum present in sample (C10 - C12 and UCM)

MassDEP Field Assessment and Support Team (FAST)					GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:						Location:
Date Sampled:	10/7/21	Time:	12:30 PM	Field ID:	L-MID	Collector:	E. Johnson		LGAC - Midpoint
Date Analyzed:	10/8/21	Time:	11:28 AM	Lab ID:	004	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	57	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	9	N.D.	57	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	10	N.D.	57	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**0.6**	1	1	57	61	0.634	7	80	30,000
Methylene Chloride	N.D.	6	N.D.	57	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	10	N.D.	57	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	3	N.D.	57	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**4**	4	2	57	125	0.167	70	20	50,000
Chloroform	N.D.	3	N.D.	57	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	7	N.D.	57	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**4**	1	5	57	265	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	57	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	57	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	3	N.D.	57	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	57	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	57	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	2	N.D.	57	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	10	N.D.	57	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	57	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	20	N.D.	57	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	57	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	3	N.D.	57	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	57	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	57	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	3	N.D.	57	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	2	N.D.	57	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	30	N.D.	57	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	3	N.D.	57	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	4	N.D.	57	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	9	N.D.	57	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	10	N.D.	57	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	9	N.D.	57	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	30	N.D.	57	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	6	N.D.	57	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Petroleum present in sample (C10 - C12 and UCM)

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/12/21	Time:	11:10 AM	Field ID:	L-EFF	Collector:	E. Johnson		LGAC - Effluent
Date Analyzed:	10/12/21	Time:	2:13 PM	Lab ID:	006	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	**30**	7	87	43	3680	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	**1**	1	1	43	46	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:						Location:
Date Sampled:	10/12/21	Time:		Field ID:		Collector:	E. Johnson		
Date Analyzed:	10/12/21	Time:	3:25 PM	Lab ID:	008	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**10**	10	1	850	1031	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	6	850	5502	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**200**	20	10	850	8398	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	**20**	20	1	850	1047	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**600**	15	37	850	31765	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Evidence of petroleum (C10-C12 and UCM).

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/12/21	Time:	11:15 AM	Field ID:	L-Mid	Collector:	E. Johnson		LGAC - Midpoint
Date Analyzed:	10/12/21	Time:	2:46 PM	Lab ID:	007	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	57	N.D.	1.14	2	2	50,000
Chloroethane	**30**	9	70	57	3967	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	10	N.D.	57	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**1**	1	3	57	147	0.634	7	80	30,000
Methylene Chloride	N.D.	6	N.D.	57	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	10	N.D.	57	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	3	N.D.	57	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**10**	4	5	57	306	0.167	70	20	50,000
Chloroform	**4**	3	1	57	81	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	7	N.D.	57	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**9**	1	9	57	526	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	57	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	57	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	3	N.D.	57	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	57	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	57	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	2	N.D.	57	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	10	N.D.	57	N.D.	0.034	5	900	50,000
Toluene	**2**	1	1	57	79	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	20	N.D.	57	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	57	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	3	N.D.	57	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	57	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	57	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	3	N.D.	57	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	2	N.D.	57	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	30	N.D.	57	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	3	N.D.	57	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	4	N.D.	57	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	9	N.D.	57	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	10	N.D.	57	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	9	N.D.	57	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	30	N.D.	57	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	6	N.D.	57	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Evidence of petroleum (C10-C12 and UCM).

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/14/21	Time:	12:30 PM	Field ID:	Eff	Collector:	E Johnson	LGAC Effluent
Date Analyzed:	10/15/21	Time:	12:22 PM	Lab ID:	003	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	**1**	1	1	43	52	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/14/21	Time:	12:40 PM	Field ID:	Inf	Collector:	E Johnson		LGAC Influent
Date Analyzed:	10/15/21	Time:	1:35 PM	Lab ID:	005	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	7	850	5912	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**200**	20	8	850	7108	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	**30**	20	1	850	1271	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**500**	15	30	850	25152	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/14/21	Time:	12:35 PM	Field ID:	Mid	Collector:	E Johnson		LGAC Midpoint
Date Analyzed:	10/15/21	Time:	1:00 PM	Lab ID:	004	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	85	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	10	N.D.	85	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	10	N.D.	85	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**2**	1	2	85	208	0.634	7	80	30,000
Methylene Chloride	N.D.	9	N.D.	85	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	20	N.D.	85	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	5	N.D.	85	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**20**	6	5	85	434	0.167	70	20	50,000
Chloroform	N.D.	4	N.D.	85	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	10	N.D.	85	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**5**	1	4	85	313	0.705	200	4000	20,000
Benzene	N.D.	2	N.D.	85	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	85	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	5	N.D.	85	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	2	N.D.	85	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	85	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	2	N.D.	85	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	20	N.D.	85	N.D.	0.034	5	900	50,000
Toluene	**3**	2	2	85	133	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	30	N.D.	85	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	2	N.D.	85	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	4	N.D.	85	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	2	N.D.	85	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	2	N.D.	85	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	4	N.D.	85	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	3	N.D.	85	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	50	N.D.	85	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	5	N.D.	85	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	6	N.D.	85	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	10	N.D.	85	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	20	N.D.	85	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	10	N.D.	85	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	40	N.D.	85	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	9	N.D.	85	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER		RTN:	3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	10/19/21	Time:	12:10 PM	Field ID:	Eff	Collector:	E Johnson	LGAC Effluent
Date Analyzed:	10/20/21	Time:	1:43 PM	Lab ID:	003	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/19/21	Time:	12:20 PM	Field ID:	Inf	Collector:	E Johnson		LGAC Influent
Date Analyzed:	10/20/21	Time:	3:28 PM	Lab ID:	005	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**10**	10	2	850	1385	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	7	850	5749	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**100**	20	6	850	5430	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**500**	15	30	850	25143	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/19/21	Time:	12:15 PM	Field ID:	Mid	Collector:	E Johnson		LGAC Midpoint
Date Analyzed:	10/20/21	Time:	2:18 PM	Lab ID:	004	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	85	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	10	N.D.	85	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	10	N.D.	85	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**4**	1	5	85	462	0.634	7	80	30,000
Methylene Chloride	N.D.	9	N.D.	85	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	20	N.D.	85	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	5	N.D.	85	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**40**	6	13	85	1085	0.167	70	20	50,000
Chloroform	N.D.	4	N.D.	85	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	10	N.D.	85	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**9**	1	7	85	573	0.705	200	4000	20,000
Benzene	N.D.	2	N.D.	85	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	85	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	5	N.D.	85	N.D.	0.116	5	3	50,000
Trichloroethylene	**2**	2	1	85	91	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	85	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	2	N.D.	85	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	20	N.D.	85	N.D.	0.034	5	900	50,000
Toluene	N.D.	2	N.D.	85	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	30	N.D.	85	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**3**	2	2	85	150	0.7257	5	50	30,000
Chlorobenzene	N.D.	4	N.D.	85	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	2	N.D.	85	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	2	N.D.	85	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	4	N.D.	85	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	3	N.D.	85	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	50	N.D.	85	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	5	N.D.	85	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	6	N.D.	85	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	10	N.D.	85	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	20	N.D.	85	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	10	N.D.	85	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	40	N.D.	85	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	9	N.D.	85	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	2:20 PM	Field ID:	L-Eff	Collector:	E. Johnson		LGAC - Effluent
Date Analyzed:	10/22/21	Time:	10:12 AM	Lab ID:	003	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	2:30 PM	Field ID:	L-Inf	Collector:	E. Johnson		LGAC - Influent
Date Analyzed:	10/22/21	Time:	11:18 AM	Lab ID:	005	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**10**	10	1	850	1046	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	7	850	5906	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**20**	15	1	850	1065	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**100**	20	5	850	4593	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**500**	15	26	850	22321	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/21/21	Time:	2:25 PM	Field ID:	L-mid	Collector:	E. Johnson		LGAC - Midpoint
Date Analyzed:	10/22/21	Time:	10:45 AM	Lab ID:	004	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	85	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	10	N.D.	85	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	10	N.D.	85	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**2**	1	3	85	245	0.634	7	80	30,000
Methylene Chloride	N.D.	9	N.D.	85	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	20	N.D.	85	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	5	N.D.	85	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**30**	6	9	85	759	0.167	70	20	50,000
Chloroform	**4**	4	1	85	91	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	10	N.D.	85	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**8**	1	5	85	460	0.705	200	4000	20,000
Benzene	N.D.	2	N.D.	85	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	85	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	5	N.D.	85	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	2	N.D.	85	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	85	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	2	N.D.	85	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	20	N.D.	85	N.D.	0.034	5	900	50,000
Toluene	N.D.	2	N.D.	85	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	30	N.D.	85	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	2	N.D.	85	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	4	N.D.	85	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	2	N.D.	85	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	2	N.D.	85	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	4	N.D.	85	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	3	N.D.	85	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	50	N.D.	85	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	5	N.D.	85	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	6	N.D.	85	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	10	N.D.	85	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	20	N.D.	85	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	10	N.D.	85	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	40	N.D.	85	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	9	N.D.	85	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/26/21	Time:	11:20 AM	Field ID:	L-EFF	Collector:	E. Johnson		LGAC - Effluent
Date Analyzed:	10/26/21	Time:	2:48 PM	Lab ID:	005	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	**80**	7	218	43	9271	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	10/26/21	Time:	11:30 AM	Field ID:	L-INF	Collector:	E. Johnson	LGAC - influent
Date Analyzed:	10/26/21	Time:	3:20 PM	Lab ID:	006	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**100**	50	5	850	4223	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**10**	15	1	850	857	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**70**	20	4	850	3089	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**400**	15	23	850	19406	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Petroleum (diesel range) is present in sample.

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/26/21	Time:	11:25 AM	Field ID:	L-MID	Collector:	E. Johnson		LGAC - Mid
Date Analyzed:	10/26/21	Time:	3:52 PM	Lab ID:	007	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	85	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	10	N.D.	85	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	10	N.D.	85	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**4**	1	5	85	400	0.634	7	80	30,000
Methylene Chloride	N.D.	9	N.D.	85	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	20	N.D.	85	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	**6**	5	2	85	204	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**60**	6	21	85	1801	0.167	70	20	50,000
Chloroform	N.D.	4	N.D.	85	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	10	N.D.	85	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	**9**	1	7	85	575	0.705	200	4000	20,000
Benzene	N.D.	2	N.D.	85	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	85	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	5	N.D.	85	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	2	N.D.	85	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	85	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	2	N.D.	85	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	20	N.D.	85	N.D.	0.034	5	900	50,000
Toluene	N.D.	2	N.D.	85	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	30	N.D.	85	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	2	N.D.	85	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	4	N.D.	85	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	2	N.D.	85	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	2	N.D.	85	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	4	N.D.	85	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	3	N.D.	85	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	50	N.D.	85	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	5	N.D.	85	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	6	N.D.	85	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	10	N.D.	85	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	20	N.D.	85	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	10	N.D.	85	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	40	N.D.	85	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	9	N.D.	85	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)					GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/28/21	Time:	11:40 AM	Field ID:	L-EFF	Collector:	E. Johnson		LGAC - Effluent
Date Analyzed:	10/29/21	Time:	10:36 AM	Lab ID:	003	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Late eluting UCM present.

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/28/21	Time:	11:50 AM	Field ID:	L-INF	Collector:	E. Johnson		LGAC - Influent
Date Analyzed:	10/29/21	Time:	11:39 AM	Lab ID:	005	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	**10**	10	2	850	1411	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	5	850	4544	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**80**	20	4	850	3352	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**300**	15	19	850	16031	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Alkanes (C9 - C13) and UCM consistent with the presence of weathered No. 2 fuel oil.

MassDEP Field Assessment and Support Team (FAST)					GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/28/21	Time:	11:45 AM	Field ID:	L-MID	Collector:	E. Johnson		LGAC - Midpoint
Date Analyzed:	10/29/21	Time:	11:06 AM	Lab ID:	004	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Late eluting UCM and dodecane consistent with weathered No. 2 fuel oil.

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/2/21	Time:	1:20 PM	Field ID:	L-EFF	Collector:	E. Johnson	LGAC - Effluent
Date Analyzed:	11/3/21	Time:	10:31 AM	Lab ID:	004	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Evidence of petroleum: C9-C12 alkane peaks and large, late-eluting UCM

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/2/21	Time:	1:30 PM	Field ID:	L-INF	Collector:	E. Johnson		LGAC - Influent
Date Analyzed:	11/3/21	Time:	11:02 AM	Lab ID:	005	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**100**	50	3	850	2950	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**30**	20	2	850	1479	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**100**	15	8	850	7083	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: UCM and alkane peaks suggest petroleum present in sample.

MassDEP Field Assessment and Support Team (FAST)					GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/2/21	Time:	1:25 PM	Field ID:	L-MID	Collector:	E. Johnson		LGAC - Midpoint
Date Analyzed:	11/3/21	Time:	9:58 AM	Lab ID:	003	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Evidence of petroleum: C9-C12 alkane peaks and large, late-eluting UCM

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/4/21	Time:	12:25 PM	Field ID:	Eff	Collector:	E Johnson	LGAC Effluent
Date Analyzed:	11/5/21	Time:	1:05 PM	Lab ID:	005	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/4/21	Time:	12:35 PM	Field ID:	Inf	Collector:	E Johnson	LGAC Influent
Date Analyzed:	11/5/21	Time:	2:12 PM	Lab ID:	007	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**100**	50	5	850	3913	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**50**	20	2	850	2069	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**200**	15	11	850	9274	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/4/21	Time:	12:30 PM	Field ID:	Mid	Collector:	E Johnson		LGAC Midpoint
Date Analyzed:	11/5/21	Time:	1:39 PM	Lab ID:	006	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/8/21	Time:	11:45 AM	Field ID:	EFF	Collector: B. Roden	LGAC - effluent
Date Analyzed:	11/8/21	Time:	5:43 PM	Lab ID:	010	Analyst: Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/8/21	Time:	11:55 AM	Field ID:	INF	Collector:	B. Roden	LGAC - influent
Date Analyzed:	11/8/21	Time:	6:51 PM	Lab ID:	012	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	6	850	4703	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**50**	20	3	850	2212	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**200**	15	13	850	11348	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/8/21	Time:	11:50 AM	Field ID:	MID	Collector:	B. Roden	LGAC - midpoint
Date Analyzed:	11/8/21	Time:	6:17 PM	Lab ID:	011	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	**20**	7	43	43	1830	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	**10**	4	6	43	242	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	**4**	1	5	43	203	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/10/21	Time:	10:50 AM	Field ID:	Eff	Collector:	Roden	LGAC Effluent
Date Analyzed:	11/10/21	Time:	5:42 PM	Lab ID:	014	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/10/21	Time:	11:05 AM	Field ID:	Inf	Collector:	Roden	LGAC Influent
Date Analyzed:	11/10/21	Time:	6:46 PM	Lab ID:	016	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**100**	50	5	850	4271	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**60**	20	3	850	2549	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	**70**	20	4	850	3303	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**200**	15	12	850	10362	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/10/21	Time:	11:00 AM	Field ID:	Mid	Collector:	Roden	LGAC Influent
Date Analyzed:	11/10/21	Time:	6:14 PM	Lab ID:	015	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	**4**	1	4	43	177	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/16/21	Time:	11:40 AM	Field ID:	EFF	Collector:	E. Johnson	LGAC - Effluent
Date Analyzed:	11/17/21	Time:	12:47 PM	Lab ID:	006	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Evidence of petroleum: C10+ and UCM

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/16/21	Time:	11:50 AM	Field ID:	INF	Collector:	E. Johnson	LGAC Influent
Date Analyzed:	11/17/21	Time:	2:00 PM	Lab ID:	008	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	--	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	--	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	--	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	--	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	--	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	--	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	--	8	850	7148	0.167	70	20	50,000
Chloroform	N.D.	--	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	--	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	--	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	--	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	--	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**100**	--	5	850	4377	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	--	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	--	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	--	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**500**	--	30	850	25730	0.7257	5	50	30,000
Chlorobenzene	N.D.	--	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	--	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	--	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	--	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	--	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	--	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	--	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	--	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	--	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	--	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	--	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Evidence of petroleum: C10+ and UCM

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/16/21	Time:	11:45 AM	Field ID:	MID	Collector:	E. Johnson	LGAC Midpoint
Date Analyzed:	11/17/21	Time:	1:19 PM	Lab ID:	007	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Evidence of petroleum: C10+ and UCM

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/18/21	Time:	11:50 AM	Field ID:	Eff	Collector:	E Johnson	LGAC Effluent
Date Analyzed:	11/19/21	Time:	1:48 PM	Lab ID:	005	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER		RTN:	3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/18/21	Time:	12:00 PM	Field ID:	Inf	Collector:	E Johnson	LGAC Influent
Date Analyzed:	11/19/21	Time:	2:58 PM	Lab ID:	007	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**300**	50	10	850	8815	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**100**	20	5	850	4396	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**400**	15	26	850	21743	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/18/21	Time:	11:55 SAM	Field ID:	Mid	Collector:	E Johnson	LGAC Midpoint
Date Analyzed:	11/19/21	Time:	2:27 PM	Lab ID:	006	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	5	4	2	43	86	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/22/21	Time:	11:15 AM	Field ID:	Eff	Collector:	E. Johnson
Date Analyzed:	11/23/21	Time:	10:29 AM	Lab ID:	003	Analyst:	N. Johnson

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	11/22/21	Time:	11:25 AM	Field ID:	INF	Collector:	E. Johnson	LGAC - Influent
Date Analyzed:	11/23/21	Time:	11:32 AM	Lab ID:	005	Analyst:	N. Johnson	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**400**	50	13	850	10668	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**100**	20	7	850	5579	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**600**	15	36	850	30983	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/22/21	Time:	11:20 AM	Field ID:	Mid	Collector:	E. Johnson		LGAC - midpoint
Date Analyzed:	11/23/21	Time:	11:00 AM	Lab ID:	004	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	5	4	2	43	98	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/24/21	Time:	9:35 AM	Field ID:	Eff	Collector:	E. Johnson		LGAC - Effluent
Date Analyzed:	11/24/21	Time:	3:28 PM	Lab ID:	011	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	7	7	21	43	876	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/24/21	Time:	9:45 AM	Field ID:	Inf	Collector:	E. Johnson		LGAC - Influent
Date Analyzed:	11/24/21	Time:	5:05 PM	Lab ID:	014	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	50	8	850	6765	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**100**	20	6	850	4708	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**600**	15	35	850	30124	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/24/21	Time:	9:40 AM	Field ID:	Mid	Collector:	E. Johnson		LGAC - Midpoint
Date Analyzed:	11/24/21	Time:	4:01 PM	Lab ID:	12	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**2**	1	2	43	105	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER		RTN:	3-19174
City or Town:	Framingham	Address:	144 Leland Street				Location:
Date Sampled:	11/29/21	Time:	11:30 AM	Field ID:	Eff	Collector:	E Johnson	LGAC Effluent
Date Analyzed:	11/29/21	Time:	5:44 PM	Lab ID:	010	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	**10**	7	42	43	1781	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS: Chloroethane likely a lab contaminant

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	11/29/21	Time:	11:40 AM	Field ID:	Inf	Collector:	E Johnson	LGAC Influent
Date Analyzed:	11/29/21	Time:	7:01 PM	Lab ID:	012	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	--	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	--	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	--	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	--	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	--	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	--	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**200**	--	7	850	5562	0.167	70	20	50,000
Chloroform	N.D.	--	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	--	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	--	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	--	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	--	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	--	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**70**	--	4	850	3115	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	--	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	--	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	--	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	--	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**700**	--	41	850	34442	0.7257	5	50	30,000
Chlorobenzene	N.D.	--	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	--	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	--	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	--	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	--	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	--	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	--	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	--	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	--	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	--	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	--	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	--	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	11/29/21	Time:	11:35 AM	Field ID:	Mid	Collector:	E Johnson		LGAC Midpoint
Date Analyzed:	11/29/21	Time:	6:28 PM	Lab ID:	011	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	**6**	4	3	43	111	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**5**	3	3	43	133	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**3**	1	4	43	168	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	12/2/21	Time:	11:25 AM	Field ID:	eff	Collector: E Johnson	LGAC Effluent
Date Analyzed:	12/3/21	Time:	3:08 PM	Lab ID:	008	Analyst: Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	N.D.	3	N.D.	43	N.D.	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	N.D.	1	N.D.	43	N.D.	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				GROUNDWATER			RTN: 3-19174
City or Town:	Framingham	Address:	133 Leland Street				Location:
Date Sampled:	12/2/21	Time:	11:35 AM	Field ID:	Inf	Collector:	E Johnson	LGAC Influent
Date Analyzed:	12/3/21	Time:	4:16 PM	Lab ID:	010	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	10	N.D.	850	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	150	N.D.	850	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	150	N.D.	850	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	10	N.D.	850	N.D.	0.634	7	80	30,000
Methylene Chloride	N.D.	100	N.D.	850	N.D.	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	150	N.D.	850	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	45	N.D.	850	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**500**	50	17	850	14731	0.167	70	20	50,000
Chloroform	N.D.	40	N.D.	850	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	100	N.D.	850	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	15	N.D.	850	N.D.	0.705	200	4000	20,000
Benzene	N.D.	20	N.D.	850	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	15	N.D.	850	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	45	N.D.	850	N.D.	0.116	5	3	50,000
Trichloroethylene	**80**	20	4	850	3607	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	10	N.D.	850	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	25	N.D.	850	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	200	N.D.	850	N.D.	0.034	5	900	50,000
Toluene	N.D.	20	N.D.	850	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	250	N.D.	850	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**900**	15	55	850	46801	0.7257	5	50	30,000
Chlorobenzene	N.D.	45	N.D.	850	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	20	N.D.	850	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	20	N.D.	850	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	45	N.D.	850	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	25	N.D.	850	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	500	N.D.	850	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	50	N.D.	850	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	150	N.D.	850	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	200	N.D.	850	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	150	N.D.	850	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	450	N.D.	850	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	100	N.D.	850	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)					GROUNDWATER		RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street				Location:
Date Sampled:	12/2/21	Time:	11:30 AM	Field ID:	mid	Collector:	E Johnson	LGAC Midpoint
Date Analyzed:	12/3/21	Time:	3:41 PM	Lab ID:	009	Analyst:	Fitzgerald	

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	MCP Method 1 Standards		
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	GW-1	GW-2	GW-3
Vinyl Chloride	N.D.	1	N.D.	43	N.D.	1.14	2	2	50,000
Chloroethane	N.D.	7	N.D.	43	N.D.	0.275	NS	NS	NS
Trichloromonofluoromethane	N.D.	7	N.D.	43	N.D.	4.51	NS	NS	NS
1,1-Dichloroethene	N.D.	0	N.D.	43	N.D.	0.634	7	80	30,000
Methylene Chloride	**5**	4	2	43	91	0.090	5	2000	50,000
1,1,2-Trichlorotrifluoroethane	N.D.	9	N.D.	43	N.D.	14.34	NS	NS	NS
1,1-Dichloroethane	N.D.	2	N.D.	43	N.D.	0.0124	70	2000	20,000
Cis 1,2-Dichloroethylene	**4**	3	3	43	115	0.167	70	20	50,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	50	20,000
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	5	20,000
1,1,1-Trichloroethane	N.D.	1	N.D.	43	N.D.	0.705	200	4000	20,000
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	1000	10,000
Carbon Tetrachloride	N.D.	1	N.D.	43	N.D.	1.132	5	2	5000
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	3	50,000
Trichloroethylene	N.D.	1	N.D.	43	N.D.	0.197	5	5	5000
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	NS	NS
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	NS	NS
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	900	50,000
Toluene	N.D.	1	N.D.	43	N.D.	0.2722	1,000	50,000	40,000
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NS	NS
Tetrachloroethylene	**0.9**	1	1	43	43	0.7257	5	50	30,000
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	200	1000
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	20,000	5000
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	3000	5000
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	100	6000
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	10	50,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	NS	NS
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	NS	NS
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	6000	50,000
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	60	8000
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	8000	2000
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	200	50,000
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	50	3000

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Interanl Stds, dly blk, dly calib check stnd N.D =Not Detected = 20% to 40% of RL

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

R.L.= est aqueous conc K = dimensionless Henry's Law Constant

COMMENTS:

MassDEP Surface Water Data Reports

MassDEP Field Assessment and Support Team (FAST)				SURFACE WATER				RTN:	3-19174
City or Town:	Framingham		Address:	Drainage Ditch South of General Chemical					Location:
Date Sampled:	8/26/21	Time:	1:40 PM	Field ID:	SW-10	Collector:	E Johnson		
Date Analyzed:	8/27/21	Time:	2:43 PM	Lab ID:	006	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	DW	Aquatic Toxicty µg/L	
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	µg/L	Acute	Chronic
Vinyl Chloride	**200**	1	780	43	33136	1.14	2	400,000	40,000
Chloroethane	**10**	7	31	43	1305	0.275	NS	NA	NA
Trichloromonofluoromethane	N.D.	7	8	43	N.D.	4.51	NS	NA	NA
1,1-Dichloroethene	**20**	0	56	43	2398	0.634	7	12,000	1,200
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.0898	5	NA	6,700
1,1,2-Trichlorotrifluoroethane	**40**	9	97	43	4142	14.34	NS	NA	NA
1,1-Dichloroethane	**90**	2	76	43	3212	0.0124	70	NA	990
Cis 1,2-Dichloroethylene	**1000**	3	920	43	39114	0.167	70	140,000	14,000
Chloroform	N.D.	2	N.D.	43	N.D.	0.151	70	NA	970
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	NA	990
1,1,1-Trichloroethane	**200**	1	240	43	10188	0.705	200	9000	900
Benzene	N.D.	1	N.D.	43	N.D.	0.116	5	4600	460
Carbon Tetrachloride	**10**	1	17	43	711	1.132	5	2000	200
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	NA	25,000
Trichloroethylene	**90**	1	98	43	4182	0.197	5	1900	190
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	90	9
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	90	9
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	NA	15,000
Toluene	**4**	1	4	43	180	0.2722	1,000	1400	1,400
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NA	9600
Tetrachloroethylene	**40**	1	50	43	2143	0.7257	5	NA	1,100
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	NA	38
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	1800	180
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	200	200
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	2500	250
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	NA	4,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	5400	540
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	5400	540
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	NA	1500
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	NA	310
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	780	78
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	NA	340
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	NA	13

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib std Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

N.D. = Not Detected K = dimensionless Henry's Law Constant DW = Drinking Water standard NA = Information Not Available

Aquatic Toxicity values from various sources as selected in MassDEP Method 1 Standard calculations for GW-3 (2014)

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SURFACE WATER				RTN:	3-19174
City or Town:	Framingham		Address:	EXELON					Location:
Date Sampled:	9/30/21	Time:	2:00 PM	Field ID:	SW-10	Collector:	E. Johnson		SW-10
Date Analyzed:	10/1/21	Time:	12:12 PM	Lab ID:	007	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	DW	Aquatic Toxicty µg/L	
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	µg/L	Acute	Chronic
Vinyl Chloride	**200**	1	731	43	31053	1.14	2	400,000	40,000
Chloroethane	N.D.	7	19	43	N.D.	0.275	NS	NA	NA
Trichloromonofluoromethane	**20**	7	65	43	2765	4.51	NS	NA	NA
1,1-Dichloroethene	**20**	0	46	43	1973	0.634	7	12,000	1,200
Methylene Chloride	N.D.	4	N.D.	43	N.D.	0.0898	5	NA	6,700
1,1,2-Trichlorotrifluoroethane	**40**	9	90	43	3840	14.34	NS	NA	NA
1,1-Dichloroethane	**200**	2	132	43	5598	0.0124	70	NA	990
Cis 1,2-Dichloroethylene	**800**	3	528	43	22449	0.167	70	140,000	14,000
Chloroform	**30**	2	16	43	665	0.151	70	NA	970
1,2-Dichloroethane	N.D.	6	N.D.	43	N.D.	0.0237	5	NA	990
1,1,1-Trichloroethane	**100**	1	160	43	6797	0.705	200	9000	900
Benzene	N.D.	1	0	43	N.D.	0.116	5	4600	460
Carbon Tetrachloride	**8**	1	12	43	517	1.132	5	2000	200
1,2-Dichloropropane	N.D.	2	N.D.	43	N.D.	0.116	5	NA	25,000
Trichloroethylene	**10**	1	13	43	537	0.197	5	1900	190
cis-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.1455	NS	90	9
trans-1,3-Dichloropropene	N.D.	1	N.D.	43	N.D.	0.0357	NS	90	9
1,1,2-Trichloroethane	N.D.	9	N.D.	43	N.D.	0.034	5	NA	15,000
Toluene	N.D.	1	1	43	N.D.	0.2722	1,000	1400	1,400
1,2-Dibromoethane	N.D.	10	N.D.	43	N.D.	0.0294	NS	NA	9600
Tetrachloroethylene	**10**	1	11	43	481	0.7257	5	NA	1,100
Chlorobenzene	N.D.	2	N.D.	43	N.D.	0.128	100	NA	38
Ethylbenzene	N.D.	1	N.D.	43	N.D.	0.323	700	1800	180
p/m-Xylene	N.D.	1	N.D.	43	N.D.	0.27	10,000	200	200
Styrene	N.D.	2	N.D.	43	N.D.	0.1128	100	2500	250
o-Xylene	N.D.	1	N.D.	43	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	20	N.D.	43	N.D.	0.015	5	NA	4,000
1,3,5-Trimethylbenzene	N.D.	2	N.D.	43	N.D.	0.272	NS	5400	540
1,2,4-Trimethylbenzene	N.D.	3	N.D.	43	N.D.	0.212	NS	5400	540
1,3-Dichlorobenzene (meta)	N.D.	7	N.D.	43	N.D.	0.108	100	NA	1500
1,4-Dichlorobenzene (para)	N.D.	9	N.D.	43	N.D.	0.0988	5	NA	310
1,2-Dichlorobenzene (ortho)	N.D.	7	N.D.	43	N.D.	0.0787	600	780	78
1,2,4-Trichlorobenzene	N.D.	20	N.D.	43	N.D.	0.0582	70	NA	340
HexachloroButadiene	N.D.	5	N.D.	43	N.D.	0.334	0.6	NA	13

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 7/20/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

N.D. = Not Detected K = dimensionless Henry's Law Constant DW = Drinking Water standard NA = Information Not Available

Aquatic Toxicity values from various sources as selected in MassDEP Method 1 Standard calculations for GW-3 (2014)

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SURFACE WATER				RTN:	3-19174
City or Town:	Framingham		Address:	133 Leland Street					Location:
Date Sampled:	10/28/21	Time:	12:45 PM	Field ID:	SW-10	Collector:	E. Johnson		SW-10
Date Analyzed:	10/29/21	Time:	12:45 PM	Lab ID:	007	Analyst:	N. Johnson		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	DW	Aquatic Toxicty µg/L	
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	µg/L	Acute	Chronic
Vinyl Chloride	**100**	4	56	340	19013	1.14	2	400,000	40,000
Chloroethane	N.D.	60	14	340	N.D.	0.275	NS	NA	NA
Trichloromonofluoromethane	N.D.	60	2	340	N.D.	4.51	NS	NA	NA
1,1-Dichloroethene	**10**	4	4	340	1280	0.634	7	12,000	1,200
Methylene Chloride	N.D.	40	N.D.	340	N.D.	0.0898	5	NA	6,700
1,1,2-Trichlorotrifluoroethane	N.D.	60	7	340	N.D.	14.34	NS	NA	NA
1,1-Dichloroethane	**60**	18	7	340	2313	0.0124	70	NA	990
Cis 1,2-Dichloroethylene	**600**	20	53	340	17874	0.167	70	140,000	14,000
Chloroform	N.D.	16	N.D.	340	N.D.	0.151	70	NA	970
1,2-Dichloroethane	N.D.	40	N.D.	340	N.D.	0.0237	5	NA	990
1,1,1-Trichloroethane	**80**	6	14	340	4862	0.705	200	9000	900
Benzene	N.D.	8	N.D.	340	N.D.	0.116	5	4600	460
Carbon Tetrachloride	**5**	6	1	340	370	1.132	5	2000	200
1,2-Dichloropropane	N.D.	18	N.D.	340	N.D.	0.116	5	NA	25,000
Trichloroethylene	**30**	8	3	340	1188	0.197	5	1900	190
cis-1,3-Dichloropropene	N.D.	4	N.D.	340	N.D.	0.1455	NS	90	9
trans-1,3-Dichloropropene	N.D.	10	N.D.	340	N.D.	0.0357	NS	90	9
1,1,2-Trichloroethane	N.D.	80	N.D.	340	N.D.	0.034	5	NA	15,000
Toluene	**8**	8	1	340	345	0.2722	1,000	1400	1,400
1,2-Dibromoethane	N.D.	100	N.D.	340	N.D.	0.0294	NS	NA	9600
Tetrachloroethylene	**10**	6	2	340	657	0.7257	5	NA	1,100
Chlorobenzene	N.D.	18	N.D.	340	N.D.	0.128	100	NA	38
Ethylbenzene	N.D.	8	N.D.	340	N.D.	0.323	700	1800	180
p/m-Xylene	N.D.	8	N.D.	340	N.D.	0.27	10,000	200	200
Styrene	N.D.	18	N.D.	340	N.D.	0.1128	100	2500	250
o-Xylene	N.D.	10	N.D.	340	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	200	N.D.	340	N.D.	0.015	5	NA	4,000
1,3,5-Trimethylbenzene	N.D.	20	N.D.	340	N.D.	0.272	NS	5400	540
1,2,4-Trimethylbenzene	N.D.	20	N.D.	340	N.D.	0.212	NS	5400	540
1,3-Dichlorobenzene (meta)	N.D.	60	N.D.	340	N.D.	0.108	100	NA	1500
1,4-Dichlorobenzene (para)	N.D.	80	N.D.	340	N.D.	0.0988	5	NA	310
1,2-Dichlorobenzene (ortho)	N.D.	60	N.D.	340	N.D.	0.0787	600	780	78
1,2,4-Trichlorobenzene	N.D.	180	N.D.	340	N.D.	0.0582	70	NA	340
HexachloroButadiene	N.D.	40	N.D.	340	N.D.	0.334	0.6	NA	13

Instrument: HAPSITE ER GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib std Calibration Date: 4/15/21

Quality Control: 4-8 pt calib w/ %RSD<30 or 7-8 pt calib w/ r2>0.99. Intnl Stds, daily blnk, daily calib check std. N.D.=Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

N.D. = Not Detected K = dimensionless Henry's Law Constant DW = Drinking Water standard NA = Information Not Available

Aquatic Toxicity values from various sources as selected in MassDEP Method 1 Standard calculations for GW-3 (2014)

COMMENTS:

MassDEP Field Assessment and Support Team (FAST)				SURFACE WATER				RTN:	3-19174
City or Town:	Framingham		Address:	Exelon Properties					Location:
Date Sampled:	12/14/21	Time:	12:50 PM	Field ID:	SV-10	Collector:	E. Johnson		SW-10
Date Analyzed:	12/14/21	Time:	6:40 PM	Lab ID:	015	Analyst:	Fitzgerald		

NOTE - ALL REPORTED VALUES ARE ESTIMATES, BASED UPON HEADSPACE ANALYSIS AND APPLICATION OF HENRY'S LAW

Method Analytes	Est Conc µg/L		Sample	Dilution	Hdspc	K	DW	Aquatic Toxicty µg/L	
	Result	R.L.	ppbV	Factor	ppbV	(25°C)	µg/L	Acute	Chronic
Vinyl Chloride	**100**	4	71	340	24031	1.14	2	400,000	40,000
Chloroethane	N.D.	60	N.D.	340	N.D.	0.275	NS	NA	NA
Trichloromonofluoromethane	N.D.	60	18	340	N.D.	4.51	NS	NA	NA
1,1-Dichloroethene	**50**	4	15	340	4978	0.634	7	12,000	1,200
Methylene Chloride	N.D.	40	N.D.	340	N.D.	0.0898	5	NA	6,700
1,1,2-Trichlorotrifluoroethane	**80**	60	23	340	7800	14.34	NS	NA	NA
1,1-Dichloroethane	**200**	18	18	340	6222	0.0124	70	NA	990
Cis 1,2-Dichloroethylene	**2000**	20	156	340	52880	0.167	70	140,000	14,000
Chloroform	N.D.	16	N.D.	340	N.D.	0.151	70	NA	970
1,2-Dichloroethane	N.D.	40	N.D.	340	N.D.	0.0237	5	NA	990
1,1,1-Trichloroethane	**200**	6	30	340	10095	0.705	200	9000	900
Benzene	N.D.	8	N.D.	340	N.D.	0.116	5	4600	460
Carbon Tetrachloride	**20**	6	4	340	1238	1.132	5	2000	200
1,2-Dichloropropane	N.D.	18	N.D.	340	N.D.	0.116	5	NA	25,000
Trichloroethylene	**40**	8	6	340	1922	0.197	5	1900	190
cis-1,3-Dichloropropene	N.D.	4	N.D.	340	N.D.	0.1455	NS	90	9
trans-1,3-Dichloropropene	N.D.	10	N.D.	340	N.D.	0.0357	NS	90	9
1,1,2-Trichloroethane	N.D.	80	N.D.	340	N.D.	0.034	5	NA	15,000
Toluene	**10**	8	1	340	467	0.2722	1,000	1400	1,400
1,2-Dibromoethane	N.D.	100	N.D.	340	N.D.	0.0294	NS	NA	9600
Tetrachloroethylene	**40**	6	6	340	1897	0.7257	5	NA	1,100
Chlorobenzene	N.D.	18	N.D.	340	N.D.	0.128	100	NA	38
Ethylbenzene	N.D.	8	N.D.	340	N.D.	0.323	700	1800	180
p/m-Xylene	N.D.	8	N.D.	340	N.D.	0.27	10,000	200	200
Styrene	N.D.	18	N.D.	340	N.D.	0.1128	100	2500	250
o-Xylene	N.D.	10	N.D.	340	N.D.	0.114	part of total Xylenes		
1,1,2,2-Tetrachloroethane	N.D.	200	N.D.	340	N.D.	0.015	5	NA	4,000
1,3,5-Trimethylbenzene	N.D.	20	N.D.	340	N.D.	0.272	NS	5400	540
1,2,4-Trimethylbenzene	N.D.	20	N.D.	340	N.D.	0.212	NS	5400	540
1,3-Dichlorobenzene (meta)	N.D.	60	N.D.	340	N.D.	0.108	100	NA	1500
1,4-Dichlorobenzene (para)	N.D.	80	N.D.	340	N.D.	0.0988	5	NA	310
1,2-Dichlorobenzene (ortho)	N.D.	60	N.D.	340	N.D.	0.0787	600	780	78
1,2,4-Trichlorobenzene	N.D.	180	N.D.	340	N.D.	0.0582	70	NA	340
HexachloroButadiene	N.D.	40	N.D.	340	N.D.	0.334	0.6	NA	13

Instrument: HAPSITE Smart Plus GC/MS Method: FAST TO-14 Reporting Limit (R.L.) is lowest calib standard Calibration Date: 12/7/21

Quality Control: 5-8 pt calib w/ %RSD<30 or linear w/ r^2>0.99, Internal Stds, dly blk, dly calib check stnd N.D =Not Detected

Headspace procedure involves half-filling a 40 mL vial and shaking it vigorously 30 seconds twice over a minimum 10 minute time period, at about 25°C. Calculated aqueous concentration assumes 75% of equilbrium conditions using Henry's Law.

N.D. = Not Detected K = dimensionless Henry's Law Constant DW = Drinking Water standard NA = Information Not Available

Aquatic Toxicity values from various sources as selected in MassDEP Method 1 Standard calculations for GW-3 (2014)

COMMENTS:

Appendix D

Alpha Analytical Data Reports

ANALYTICAL REPORT

Lab Number:	L2143908
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	FORMER GCC
Project Number:	102046.00
Report Date:	08/18/21

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2143908-01	EFF-0101	WATER	FRAMINGHAM	08/16/21 15:30	08/16/21
L2143908-02	FIELD BLANK	WATER	FRAMINGHAM	08/16/21 15:30	08/16/21
L2143908-03	TRIP BLANK	WATER	FRAMINGHAM	08/16/21 00:00	08/16/21

Project Name:	FORMER GCC	**Lab Number:**	L2143908
Project Number:	102046.00	**Report Date:**	08/18/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site. This is considered acceptable since the samples were in the process of cooling.

Volatile Organics by Method 624

The WG1536382-3 LCS recoveries, associated with L2143908-01 and -03, are above the acceptance criteria for carbon tetrachloride (140%) and bromoform (160%); however, the associated samples are non-detect to the RL for these target analytes. The results of the original analysis are reported.

Perfluorinated Alkyl Acids

WG1535893-3: The Matrix Spike level is at the Reporting Limit (RL) with acceptance criteria of 50-150%. Any detections below the RL in the native sample are not included in the % Recovery calculation.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Sebastian Corbin

Title: Technical Director/Representative Date: 08/18/21

ORGANICS

VOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143908-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM
Date Collected: 08/16/21 15:30
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 08/17/21 19:51
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143908-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM
Date Collected: 08/16/21 15:30
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	86		60-140
Fluorobenzene	83		60-140
4-Bromofluorobenzene	90		60-140

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143908-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 00:00
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 08/17/21 18:37
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143908-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM
Date Collected: 08/16/21 00:00
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	87		60-140
Fluorobenzene	98		60-140
4-Bromofluorobenzene	91		60-140

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 08/17/21 17:21
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1536382-4					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	ND		ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
Trichloroethene	ND		ug/l	1.0	0.33
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 08/17/21 17:21
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1536382-4					
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	87		60-140
Fluorobenzene	96		60-140
4-Bromofluorobenzene	87		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1536382-3								
Methylene chloride	95		-		60-140	-		28
1,1-Dichloroethane	100		-		50-150	-		49
Chloroform	95		-		70-135	-		54
Carbon tetrachloride	**140**	Q	-		70-130	-		41
1,2-Dichloropropane	100		-		35-165	-		55
Dibromochloromethane	120		-		70-135	-		50
1,1,2-Trichloroethane	85		-		70-130	-		45
2-Chloroethylvinyl ether	60		-		1-225	-		71
Tetrachloroethene	75		-		70-130	-		39
Chlorobenzene	85		-		65-135	-		53
1,2-Dichloroethane	100		-		70-130	-		49
1,1,1-Trichloroethane	110		-		70-130	-		36
Bromodichloromethane	110		-		65-135	-		56
trans-1,3-Dichloropropene	100		-		50-150	-		86
cis-1,3-Dichloropropene	90		-		25-175	-		58
Bromoform	**160**	Q	-		70-130	-		42
1,1,2,2-Tetrachloroethane	110		-		60-140	-		61
Benzene	100		-		65-135	-		61
Toluene	80		-		70-130	-		41
Ethylbenzene	90		-		60-140	-		63
Chloromethane	105		-		1-205	-		60
Bromomethane	65		-		15-185	-		61
Vinyl chloride	110		-		5-195	-		66

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1536382-3								
Chloroethane	105		-		40-160	-		78
1,1-Dichloroethene	95		-		50-150	-		32
trans-1,2-Dichloroethene	95		-		70-130	-		45
Trichloroethene	90		-		65-135	-		48
1,2-Dichlorobenzene	80		-		65-135	-		57
1,3-Dichlorobenzene	80		-		70-130	-		43
1,4-Dichlorobenzene	80		-		65-135	-		57
Acrolein	120		-		60-140	-		30
Acrylonitrile	120		-		60-140	-		60

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	90				60-140
Fluorobenzene	97				60-140
4-Bromofluorobenzene	87				60-140

SEMIVOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143908-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 15:30
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 133,537.1
Analytical Date: 08/17/21 15:03
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/17/21 10:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.84	0.613	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.84	0.613	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	1.84	0.613	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.84	0.613	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.84	0.613	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.84	0.613	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.84	0.613	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.84	0.613	1
Perfluorooctanesulfonic Acid (PFOS)	0.734	J	ng/l	1.84	0.613	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.84	0.613	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.84	0.613	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.84	0.613	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.84	0.613	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	0.613	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	0.613	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.84	0.613	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	0.613	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.84	0.613	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	96		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	97		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	87		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	98		70-130

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143908-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 15:30
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 133,537.1
Analytical Date: 08/17/21 15:21
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/17/21 10:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.96	0.654	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.96	0.654	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	1.96	0.654	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.96	0.654	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.96	0.654	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.96	0.654	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.96	0.654	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.96	0.654	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.96	0.654	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.96	0.654	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.96	0.654	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.96	0.654	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.96	0.654	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.96	0.654	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.96	0.654	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.96	0.654	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.96	0.654	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.96	0.654	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	93		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	101		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	93		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	107		70-130

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 133,537.1
Analytical Date: 08/17/21 14:46
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/17/21 10:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab for sample(s): 01-02 Batch: WG1535893-1					
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.668
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.668
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.00	0.668
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.668
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.668
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	0.668
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.668
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.668
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.668
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.668
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	0.668
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.668
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.668
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.668
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.668
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	0.668
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.668
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.668

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	94		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	105		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	95		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	106		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1535893-2								
Perfluorobutanesulfonic Acid (PFBS)	95		-		70-130	-		30
Perfluorohexanoic Acid (PFHxA)	86		-		70-130	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	90		-		70-130	-		30
Perfluoroheptanoic Acid (PFHpA)	98		-		70-130	-		30
Perfluorohexanesulfonic Acid (PFHxS)	96		-		70-130	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	106		-		70-130	-		30
Perfluorooctanoic Acid (PFOA)	100		-		70-130	-		30
Perfluorononanoic Acid (PFNA)	94		-		70-130	-		30
Perfluorooctanesulfonic Acid (PFOS)	80		-		70-130	-		30
Perfluorodecanoic Acid (PFDA)	90		-		70-130	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	79		-		70-130	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	84		-		70-130	-		30
Perfluoroundecanoic Acid (PFUnA)	96		-		70-130	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	110		-		70-130	-		30
Perfluorododecanoic Acid (PFDoA)	96		-		70-130	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	112		-		70-130	-		30
Perfluorotridecanoic Acid (PFTrDA)	110		-		70-130	-		30
Perfluorotetradecanoic Acid (PFTA)	122		-		70-130	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2143908

Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1535893-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	96				70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	101				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	89				70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	105				70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2143908

Report Date: 08/18/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-3 QC Sample: L2143908-01 Client ID: EFF-0101												
Perfluorobutanesulfonic Acid (PFBS)	ND	1.66	1.57J	94		-	-		70-130	-		30
Perfluorohexanoic Acid (PFHxA)	ND	1.87	1.76J	94		-	-		70-130	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	1.87	1.31J	70		-	-		70-130	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	1.87	2.02	108		-	-		70-130	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	1.71	1.72J	100		-	-		70-130	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	1.77	1.87	106		-	-		70-130	-		30
Perfluorooctanoic Acid (PFOA)	ND	1.87	2.06	110		-	-		70-130	-		30
Perfluorononanoic Acid (PFNA)	ND	1.87	1.98	106		-	-		70-130	-		30
Perfluorooctanesulfonic Acid (PFOS)	0.734J	1.74	1.87	108		-	-		70-130	-		30
Perfluorodecanoic Acid (PFDA)	ND	1.87	1.72J	92		-	-		70-130	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	1.75	1.61J	92		-	-		70-130	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.87	1.84J	98		-	-		70-130	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	1.87	1.84J	98		-	-		70-130	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.87	2.28	122		-	-		70-130	-		30
Perfluorododecanoic Acid (PFDoA)	ND	1.87	1.72J	92		-	-		70-130	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	1.77	1.24J	70		-	-		70-130	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	1.87	1.84J	98		-	-		70-130	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	1.87	1.95	104		-	-		70-130	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2143908

Report Date: 08/18/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-3 QC Sample: L2143908-01 Client ID: EFF-0101												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	104				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	89				70-130
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	95				70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	98				70-130

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-4 QC Sample: L2143912-01 Client ID: DUP Sample						
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/l	NC		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-4 QC Sample: L2143912-01 Client ID: DUP Sample

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	87		89		70-130
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	85		84		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	102		107		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**124**		**132**	Q	70-130

INORGANICS
&
MISCELLANEOUS

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143908-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 15:30
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.3		SU	-	NA	1	-	08/17/21 17:15	121,4500H+-B	AS

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2143908

Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1536127-1								
pH	101		-		99-101	-		5

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2143908

Report Date: 08/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1536127-2 QC Sample: L2143908-01 Client ID: EFF-0101						
pH (H)	7.3	7.2	SU	1		5

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2143908
Report Date: 08/18/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2143908-01A	Vial Na2S2O3 preserved	A	NA		24.2	Y	Absent		624.1-TTO(3)
L2143908-01B	Vial Na2S2O3 preserved	A	NA		24.2	Y	Absent		624.1-TTO(3)
L2143908-01C	Vial Na2S2O3 preserved	A	NA		24.2	Y	Absent		624.1-TTO(3)
L2143908-01D	Plastic 60ml unpreserved	A	7	7	24.2	Y	Absent		PH-4500(.01)
L2143908-01E	Plastic 250ml Trizma preserved	A	NA		24.2	Y	Absent		A2-537.1(14)
L2143908-01F	Plastic 250ml Trizma preserved	A	NA		24.2	Y	Absent		A2-537.1(14)
L2143908-02A	Plastic 250ml Trizma preserved	A	NA		24.2	Y	Absent		A2-537.1(14)
L2143908-03A	Vial Na2S2O3 preserved	A	NA		24.2	Y	Absent		624.1-TTO(3)
L2143908-03B	Vial Na2S2O3 preserved	A	NA		24.2	Y	Absent		624.1-TTO(3)

*Values in parentheses indicate holding time in days

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2143908
Report Date: 08/18/21

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	FORMER GCC	**Lab Number:**	L2143908
Project Number:	102046.00	**Report Date:**	08/18/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2143908
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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2143908
Project Number:	102046.00	**Report Date:**	08/18/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2143908
Project Number:	102046.00	**Report Date:**	08/18/21

REFERENCES

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

133 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537.1, EPA/600/R-18/352. Version 1.0, November 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

MASSDEP DRINKING WATER CHAIN OF CUSTODY

Page 1 of 1

Date Rec'd in Lab: 8/16/21

ALPHA Job # L2143708

ALPHA Analytical Laboratories
Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 508-822-3288

Client Information
Client: MassDEP - NERO
Address: 205B LOWELL ST
WILMINGTON MA
Phone: 978-694-3392
Fax:
Email: Erik.Johnson@mass.gov

Project Information
Project Name: FORMER GCC ("GCC-DEP")
PWS Name:
Project Location: FRAMINGHAM
Project PWS ID#
Project Manager: ERIK JOHNSON
ALPHA Quote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☒ Time: 48 HR

These samples have been previously analyzed by Alpha ☐

Other Project Specific Requirements/ Comments/Detection Limits
PFAS glassware - Trisma pres

Report Information — Data Deliverables
☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client Info
PO #

Please Indicate PWS Class Below
☐ COM
☐ NTNC
☐ TNC

SUBJECT TO MCL REPORTING

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Check Below)

ALPHA Lab ID (Lab Use Only)	DEP Location Code	DEP Location Name	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS 537.1	VOCs TO 624.1	pH SM 4500H+B	Source(1) Multiple	Source(1) Single	Type Raw	Type Finished	Sample(2) Routine	Sample(2) Special	Total Bottles
43708-01		EFF-0101	8/16/21	1530	W	EJ	X	X	X							6
-02		FIELD BLANK	8/16/21	1530	W	EJ	X									2
-03		TRIP BLANK	8/16/21	—	TB			X								2

Container Type: P | V | P
Preservative: O | H | A

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Preservative Code:
A = None
B = HCl
C = HNO3
D = H2SO4
E = NaOH
F = MeOH
G = NaHSO4
H = Na2S2O3
I = Ascorbic Acid
J = NH4Cl
K = Zn Acetate
O = Other

(1) List connected sources if Multiple

(2) Explain if sample type is Special

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/16/21 1705	Mike Desoli	8/16/21 1705

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-24 HC (rev 18-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2143912
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	GCC DEP
Project Number:	102046.00
Report Date:	08/18/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2143912-01	EFF-PT	WATER	FRAMINGHAM	08/16/21 14:20	08/16/21
L2143912-02	FIELD BLANK	WATER	FRAMINGHAM	08/16/21 14:20	08/16/21
L2143912-03	TRIP BLANK	WATER	FRAMINGHAM	08/16/21 00:00	08/16/21

Project Name:	GCC DEP	**Lab Number:**	L2143912
Project Number:	102046.00	**Report Date:**	08/18/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCC DEP	**Lab Number:**	L2143912
Project Number:	102046.00	**Report Date:**	08/18/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site. This is considered acceptable since the samples were in the process of cooling.

Volatile Organics by Method 624

The WG1536382-3 LCS recoveries, associated with L2143912-01 and -03, are above the acceptance criteria for carbon tetrachloride (140%), bromoform (160%); however, the associated samples are non-detect to the RL for these target analytes. The results of the original analysis are reported.

Perfluorinated Alkyl Acids

WG1535893-4: The surrogate recovery is above the acceptance criteria for n-deuterioethylperfluoro-1-octanesulfonamidoacetic acid (d5-netfosaa) (132%). Since the sample was non-detect for all target analytes, re-analysis was not required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Sebastian Corbin

Title: Technical Director/Representative Date: 08/18/21

ORGANICS

VOLATILES

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143912-01
Client ID: EFF-PT
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 14:20
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 08/17/21 20:29
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143912-01
Client ID: EFF-PT
Sample Location: FRAMINGHAM
Date Collected: 08/16/21 14:20
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	89		60-140
Fluorobenzene	96		60-140
4-Bromofluorobenzene	87		60-140

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143912-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM
Date Collected: 08/16/21 00:00
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 08/17/21 19:14
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143912-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM
Date Collected: 08/16/21 00:00
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	88		60-140
Fluorobenzene	97		60-140
4-Bromofluorobenzene	89		60-140

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 08/17/21 17:21
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1536382-4					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	ND		ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
Trichloroethene	ND		ug/l	1.0	0.33
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 08/17/21 17:21
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1536382-4					
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	87		60-140
Fluorobenzene	96		60-140
4-Bromofluorobenzene	87		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1536382-3								
Methylene chloride	95		-		60-140	-		28
1,1-Dichloroethane	100		-		50-150	-		49
Chloroform	95		-		70-135	-		54
Carbon tetrachloride	**140**	Q	-		70-130	-		41
1,2-Dichloropropane	100		-		35-165	-		55
Dibromochloromethane	120		-		70-135	-		50
1,1,2-Trichloroethane	85		-		70-130	-		45
2-Chloroethylvinyl ether	60		-		1-225	-		71
Tetrachloroethene	75		-		70-130	-		39
Chlorobenzene	85		-		65-135	-		53
1,2-Dichloroethane	100		-		70-130	-		49
1,1,1-Trichloroethane	110		-		70-130	-		36
Bromodichloromethane	110		-		65-135	-		56
trans-1,3-Dichloropropene	100		-		50-150	-		86
cis-1,3-Dichloropropene	90		-		25-175	-		58
Bromoform	**160**	Q	-		70-130	-		42
1,1,2,2-Tetrachloroethane	110		-		60-140	-		61
Benzene	100		-		65-135	-		61
Toluene	80		-		70-130	-		41
Ethylbenzene	90		-		60-140	-		63
Chloromethane	105		-		1-205	-		60
Bromomethane	65		-		15-185	-		61
Vinyl chloride	110		-		5-195	-		66

Lab Control Sample Analysis
Batch Quality Control

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1536382-3								
Chloroethane	105		-		40-160	-		78
1,1-Dichloroethene	95		-		50-150	-		32
trans-1,2-Dichloroethene	95		-		70-130	-		45
Trichloroethene	90		-		65-135	-		48
1,2-Dichlorobenzene	80		-		65-135	-		57
1,3-Dichlorobenzene	80		-		70-130	-		43
1,4-Dichlorobenzene	80		-		65-135	-		57
Acrolein	120		-		60-140	-		30
Acrylonitrile	120		-		60-140	-		60

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	90				60-140
Fluorobenzene	97				60-140
4-Bromofluorobenzene	87				60-140

SEMIVOLATILES

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143912-01
Client ID: EFF-PT
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 14:20
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 133,537.1
Analytical Date: 08/17/21 15:30
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/17/21 10:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.689	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.689	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.00	0.689	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.689	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.689	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	0.689	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.689	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.689	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.689	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.689	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	0.689	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.689	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.689	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.689	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.689	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	0.689	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.689	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.689	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	87		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	85		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	102		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	124		70-130

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143912-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 14:20
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 133,537.1
Analytical Date: 08/17/21 15:47
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/17/21 10:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab						
Perfluorobutanesulfonic Acid (PFBS)	0.703	J	ng/l	1.85	0.618	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.85	0.618	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	1.85	0.618	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.85	0.618	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.85	0.618	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.85	0.618	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.85	0.618	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.85	0.618	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.85	0.618	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.85	0.618	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.85	0.618	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	0.618	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.85	0.618	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	0.618	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.85	0.618	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.85	0.618	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.85	0.618	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.85	0.618	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	97		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	105		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	96		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	100		70-130

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 133,537.1
Analytical Date: 08/17/21 14:46
Analyst: JW

Extraction Method: EPA 537.1
Extraction Date: 08/17/21 10:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab for sample(s): 01-02 Batch: WG1535893-1					
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.668
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.668
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	2.00	0.668
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.668
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.668
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	0.668
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.668
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.668
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.668
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.668
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	0.668
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.668
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.668
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.668
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.668
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	0.668
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.668
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.668

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	94		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	105		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	95		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	106		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1535893-2								
Perfluorobutanesulfonic Acid (PFBS)	95		-		70-130	-		30
Perfluorohexanoic Acid (PFHxA)	86		-		70-130	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	90		-		70-130	-		30
Perfluoroheptanoic Acid (PFHpA)	98		-		70-130	-		30
Perfluorohexanesulfonic Acid (PFHxS)	96		-		70-130	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	106		-		70-130	-		30
Perfluorooctanoic Acid (PFOA)	100		-		70-130	-		30
Perfluorononanoic Acid (PFNA)	94		-		70-130	-		30
Perfluorooctanesulfonic Acid (PFOS)	80		-		70-130	-		30
Perfluorodecanoic Acid (PFDA)	90		-		70-130	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	79		-		70-130	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	84		-		70-130	-		30
Perfluoroundecanoic Acid (PFUnA)	96		-		70-130	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	110		-		70-130	-		30
Perfluorododecanoic Acid (PFDoA)	96		-		70-130	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	112		-		70-130	-		30
Perfluorotridecanoic Acid (PFTrDA)	110		-		70-130	-		30
Perfluorotetradecanoic Acid (PFTA)	122		-		70-130	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCC DEP

Project Number: 102046.00

Lab Number: L2143912

Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1535893-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	96				70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	101				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	89				70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	105				70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GCC DEP
Project Number: 102046.00
Lab Number: L2143912
Report Date: 08/18/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-3 QC Sample: L2143908-01 Client ID: MS Sample												
Perfluorobutanesulfonic Acid (PFBS)	ND	1.66	1.57J	94		-	-		70-130	-		30
Perfluorohexanoic Acid (PFHxA)	ND	1.87	1.76J	94		-	-		70-130	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	1.87	1.31J	70		-	-		70-130	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	1.87	2.02	108		-	-		70-130	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	1.71	1.72J	100		-	-		70-130	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	1.77	1.87	106		-	-		70-130	-		30
Perfluorooctanoic Acid (PFOA)	ND	1.87	2.06	110		-	-		70-130	-		30
Perfluorononanoic Acid (PFNA)	ND	1.87	1.98	106		-	-		70-130	-		30
Perfluorooctanesulfonic Acid (PFOS)	0.734J	1.74	1.87	108		-	-		70-130	-		30
Perfluorodecanoic Acid (PFDA)	ND	1.87	1.72J	92		-	-		70-130	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	1.75	1.61J	92		-	-		70-130	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.87	1.84J	98		-	-		70-130	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	1.87	1.84J	98		-	-		70-130	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.87	2.28	122		-	-		70-130	-		30
Perfluorododecanoic Acid (PFDoA)	ND	1.87	1.72J	92		-	-		70-130	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	1.77	1.24J	70		-	-		70-130	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	1.87	1.84J	98		-	-		70-130	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	1.87	1.95	104		-	-		70-130	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GCC DEP

Project Number: 102046.00

Lab Number: L2143912

Report Date: 08/18/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-3 QC Sample: L2143908-01 Client ID: MS Sample												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	98				70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	104				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	89				70-130
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	95				70-130

Lab Duplicate Analysis
Batch Quality Control

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-4 QC Sample: L2143912-01 Client ID: EFF-PT						
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/l	NC		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1535893-4 QC Sample: L2143912-01 Client ID: EFF-PT

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	87		89		70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	85		84		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	102		107		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**124**		**132**	Q	70-130

INORGANICS
&
MISCELLANEOUS

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

SAMPLE RESULTS

Lab ID: L2143912-01
Client ID: EFF-PT
Sample Location: FRAMINGHAM

Date Collected: 08/16/21 14:20
Date Received: 08/16/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.1		SU	-	NA	1	-	08/17/21 17:15	121,4500H+-B	AS

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCC DEP

Project Number: 102046.00

Lab Number: L2143912

Report Date: 08/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1536127-1								
pH	101		-		99-101	-		5

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCC DEP

Project Number: 102046.00

Lab Number: L2143912

Report Date: 08/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1536127-2 QC Sample: L2143908-01 Client ID: DUP Sample						
pH	7.3	7.2	SU	1		5

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2143912-01A	Vial Na2S2O3 preserved	B	NA		24.1	Y	Absent		624.1-TTO(3)
L2143912-01B	Vial Na2S2O3 preserved	B	NA		24.1	Y	Absent		624.1-TTO(3)
L2143912-01C	Vial Na2S2O3 preserved	B	NA		24.1	Y	Absent		624.1-TTO(3)
L2143912-01D	Plastic 60ml unpreserved	B	7	7	24.1	Y	Absent		PH-4500(.01)
L2143912-01E	Plastic 250ml Trizma preserved	B	NA		24.1	Y	Absent		A2-537.1(14)
L2143912-01F	Plastic 250ml Trizma preserved	B	NA		24.1	Y	Absent		A2-537.1(14)
L2143912-02A	Plastic 250ml Trizma preserved	B	NA		24.1	Y	Absent		A2-537.1(14)
L2143912-03A	Vial Na2S2O3 preserved	B	NA		24.1	Y	Absent		624.1-TTO(3)
L2143912-03B	Vial Na2S2O3 preserved	B	NA		24.1	Y	Absent		624.1-TTO(3)

*Values in parentheses indicate holding time in days

Project Name: GCC DEP
Project Number: 102046.00

Lab Number: L2143912
Report Date: 08/18/21

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	GCC DEP	**Lab Number:**	L2143912
Project Number:	102046.00	**Report Date:**	08/18/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCC DEP	**Lab Number:**	L2143912
Project Number:	102046.00	**Report Date:**	08/18/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCC DEP	**Lab Number:**	L2143912
Project Number:	102046.00	**Report Date:**	08/18/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name:	GCC DEP	**Lab Number:**	L2143912
Project Number:	102046.00	**Report Date:**	08/18/21

REFERENCES

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

133 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537.1, EPA/600/R-18/352. Version 1.0, November 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF COUSTODY

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

PAGE ____ OF ____

Date Rec'd in Lab: 8/16/21

ALPHA Job #: L2143912

Project Information

Project Name: GCC - DEP
Project Location: FRAMINGHAM
Project #:
Project Manager: E. Johnson
ALPHA Quote #:

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: MASS DEP - NERO
Address: 205B LOWELL ST WILMINGTON, MA
Phone: 978-694-3392
Email: Erik.Johnson@mass.gov

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ____ Criteria ____

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)
Date Due: 48 HR TAT

Additional Project Information:
PFAS glassware - Trizma pres

ANALYSIS: VOC: ☐ 8260 ☒ 624, ☐ 524.2 TTO | SVOC: ☐ ABN ☐ PAH | METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15 | METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13 | EPH: ☐ Ranges & Targets ☐ Ranges Only | VPH: ☐ Ranges & Targets ☐ Ranges Only | ☐ PCB ☐ PEST | TPH: ☐ Quant Only ☐ Fingerprint | pH SM 4500 H+B | PFAS 537.1

SAMPLE INFO — Filtration: ☐ Field ☐ Lab to do; Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC 624 TTO	SVOC	METALS (MCP)	METALS (RCRA)	EPH	VPH	PCB/PEST	TPH	pH SM 4500 H+B	PFAS 537.1	Sample Comments	Total # Bottles
43912-01	EFF - PT	8/16/21	1420	W	EJ	X								X	X		6
-02	FIELD BLANK	8/16/21	1420	W	EJ										X		2
-03	TRIP BLANK			W		X											2
Container Type						V								P	P		
Preservative						H								A	O		

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Erik Johnson	8/16/21 / 1705	[signature]	8/16/21 1705

ANALYTICAL REPORT

Lab Number:	L2144760
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	FORMER GCC
Project Number:	102046.00
Report Date:	08/23/21

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2144760-01	EFF-0101	WATER	FRAMINGHAM	08/19/21 14:45	08/19/21
L2144760-02	FIELD BLANK	WATER	FRAMINGHAM	08/19/21 14:45	08/19/21

Project Name:	FORMER GCC	**Lab Number:**	L2144760
Project Number:	102046.00	**Report Date:**	08/23/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 08/23/21

ORGANICS

SEMIVOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2144760
Report Date: 08/23/21

SAMPLE RESULTS

Lab ID: L2144760-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM

Date Collected: 08/19/21 14:45
Date Received: 08/19/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/20/21 20:38
Analyst: MP

Extraction Method: ALPHA 23528
Extraction Date: 08/20/21 03:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.83	0.374	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.83	0.363	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.83	0.218	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.83	0.301	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.83	0.225	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.83	0.206	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.83	0.345	1
Perfluorooctanoic Acid (PFOA)	0.271	J	ng/l	1.83	0.216	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.83	0.286	1
Perfluorooctanesulfonic Acid (PFOS)	0.829	J	ng/l	1.83	0.462	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.83	0.279	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.83	1.03	1
Perfluoroundecanoic Acid (PFUnA)	0.458	J	ng/l	1.83	0.238	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.83	0.899	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.83	0.341	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.83	0.300	1

Project Name: FORMER GCC **Lab Number:** L2144760

Project Number: 102046.00 **Report Date:** 08/23/21

SAMPLE RESULTS

Lab ID: L2144760-01 Date Collected: 08/19/21 14:45

Client ID: EFF-0101 Date Received: 08/19/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	79		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	93		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	89		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	81		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	93		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	89		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	97		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	118		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	91		48-131

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

SAMPLE RESULTS

Lab ID: L2144760-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 08/19/21 14:45
Date Received: 08/19/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/20/21 20:55
Analyst: MP

Extraction Method: ALPHA 23528
Extraction Date: 08/20/21 03:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.89	0.385	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.89	0.374	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.89	0.225	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.89	0.310	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.89	0.232	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.89	0.213	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.89	0.355	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.89	0.223	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.89	0.295	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.89	0.476	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.89	0.287	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.89	1.06	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.89	0.246	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.89	0.925	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.89	0.351	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.89	0.309	1

Project Name: FORMER GCC **Lab Number:** L2144760

Project Number: 102046.00 **Report Date:** 08/23/21

SAMPLE RESULTS

Lab ID: L2144760-02 Date Collected: 08/19/21 14:45

Client ID: FIELD BLANK Date Received: 08/19/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	97		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	97		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	105		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	92		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	101		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	94		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	132		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	101		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	99		48-131

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2144760
Report Date: 08/23/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/20/21 17:36
Analyst: MP

Extraction Method: ALPHA 23528
Extraction Date: 08/20/21 03:58

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1537206-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2144760
Report Date: 08/23/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/20/21 17:36
Analyst: MP

Extraction Method: ALPHA 23528
Extraction Date: 08/20/21 03:58

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1537206-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	132		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	133		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	145		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	88		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	43		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	85		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	103		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		22-136

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2144760

Report Date: 08/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1537206-2								
Perfluorobutanoic Acid (PFBA)	100		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	103		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	97		-		65-157	-		30
Perfluorohexanoic Acid (PFHxA)	100		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	103		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	98		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	101		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	104		-		63-159	-		30
Perfluorononanoic Acid (PFNA)	99		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	108		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	104		-		63-171	-		30
Perfluorononanesulfonic Acid (PFNS)	104		-		48-150	-		30
Perfluoroundecanoic Acid (PFUnA)	102		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	104		-		38-156	-		30
Perfluorododecanoic Acid (PFDoA)	100		-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	127		-		48-158	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1537206-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	132				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	89				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	94				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	87				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	130				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	88				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	89				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	137				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	89				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	97				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	37				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	85				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	95				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	84				22-136

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2144760

Report Date: 08/23/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1537206-3 QC Sample: L2143529-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	301	36.3	346	124		-	-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	1120E	36.3	1200E	**220**	Q	-	-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	151	32.2	190	121		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	10.9	34	47.4	107		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	571	36.3	610	107		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	254	34.1	302	141		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	371	36.3	413	116		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	1870E	33.2	1950E	**241**	Q	-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	437	36.3	484	129		-	-		63-159	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	239	34.6	326	**252**	Q	-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	426	36.3	481	151		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	3910E	33.7	4090E	**534**	Q	-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	24.3	36.3	60.6	100		-	-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	15.3	34.8	56.5	118		-	-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	3.69	34.9	81.8	**224**	Q	-	-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	36.3	33.6	92		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	36.9	36.3	77.1	111		-	-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	35	80.0	**229**	Q	-	-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	0.613JF	36.3	34.3	93		-	-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	36.3	37.4	103		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	ND	36.3	34.2	94		-	-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	0.454J	36.3	42.1	115		-	-		48-158	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1537206-3 QC Sample: L2143529-01 Client ID: MS Sample												
Perfluorotetradecanoic Acid (PFTA)	ND	36.3	34.1	94		-	-		59-182	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**350**	Q			10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**434**	Q			12-142
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	74				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	73				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	88				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	77				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	**155**	Q			71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	93				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78				22-136
Perfluoro[13C4]Butanoic Acid (MPFBA)	94				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	65				62-163
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	31				10-112
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	69				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**200**	Q			70-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1537206-4 QC Sample: L2143529-02 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	6.52	6.43	ng/l	1		30
Perfluoropentanoic Acid (PFPeA)	10.9	10.9	ng/l	0		30
Perfluorobutanesulfonic Acid (PFBS)	4.03	4.08	ng/l	1		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	7.48	7.73	ng/l	3		30
Perfluoropentanesulfonic Acid (PFPeS)	1.73J	1.75J	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	4.51	4.43	ng/l	2		30
Perfluorohexanesulfonic Acid (PFHxS)	18.7	19.0	ng/l	2		30
Perfluorooctanoic Acid (PFOA)	8.47	8.26	ng/l	3		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/l	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	0.897J	0.891J	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	5.49	5.30	ng/l	4		30
Perfluorooctanesulfonic Acid (PFOS)	45.7	46.4	ng/l	2		30
Perfluorodecanoic Acid (PFDA)	0.406J	0.466J	ng/l	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/l	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1537206-4 QC Sample: L2143529-02 Client ID: DUP Sample						
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		93		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	73		74		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	85		88		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**170**	Q	**171**	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	72		72		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	87		87		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		105		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		85		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**155**	Q	**151**	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	80		80		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		91		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	83		80		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	139		138		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		62		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	83		82		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	23		22		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	60		62		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	81		81		48-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1537206-4 QC Sample: L2143529-02 Client ID: DUP Sample

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	66		66		22-136

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2144760
Report Date: 08/23/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	*Custody Seal*
A	Absent

Container Information

Container ID	*Container Type*	*Cooler*	*Initial pH*	*Final pH*	*Temp deg C*	*Pres*	*Seal*	*Frozen Date/Time*	*Analysis(*)*
L2144760-01A	Plastic 250ml unpreserved	A	NA		3.2	Y	Absent		A2-537-ISOTOPE(14)
L2144760-01B	Plastic 250ml unpreserved	A	NA		3.2	Y	Absent		A2-537-ISOTOPE(14)
L2144760-02A	Plastic 250ml unpreserved	A	NA		3.2	Y	Absent		A2-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2144760
Report Date: 08/23/21

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	FORMER GCC	**Lab Number:**	L2144760
Project Number:	102046.00	**Report Date:**	08/23/21

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2144760
Project Number:	102046.00	**Report Date:**	08/23/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2144760
Project Number:	102046.00	**Report Date:**	08/23/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2144760
Project Number:	102046.00	**Report Date:**	08/23/21

REFERENCES

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/19/21

ALPHA Job #: L2144760

ALPHA
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Mass DEP - NERO
Address: 205B LOWELL ST
WILMINGTON, MA
Phone: 978 694-3392
Email: ~~erikbjohnson~~
erik.johnson@mass.gov

Additional Project Information:
Please report MWRA PFAS Pollutant compounds, list emailed to Alycia Mogayzel on 8/19/21 @ 9:31 AM
Email w/ questions, thank you!

Project Information

Project Name: GCC - DEP
Project Location: FRAMINGHAM
Project #:
Project Manager: E. JOHNSON
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)
Date Due: 48 HR TAT

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: PFAS 537.1 ISOTOPE DILUTION	Sample Comments	TOTAL # BOTTLES
44760-01	EFF-0101	8/19/21	1445	W	EJ	X		2
-02	FIELD BLANK	8/19/21	1445	W	EJ	X		2

ANALYSIS: ☐ VOC: ☐ 8260 ☐ 624 ☐ 524.2 ☐ SVOC: ☐ ABN ☐ PAH ☐ METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15 ☐ RCRA5 ☐ RCRA8 ☐ PP13 ☐ EPH: ☐ Ranges & Targets ☐ Ranges Only ☐ VPH: ☐ Ranges & Targets ☐ Ranges Only ☐ PCB ☐ PEST ☐ TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Container Type		P
Preservative		A

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H= $Na_2S_2O_3$
I= Ascorbic Acid
J= NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Erik Johnson	8/19/21 1620	MACT-AAC	8/19/21 1620

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L2145450
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	FORMER GCC
Project Number:	102046.00
Report Date:	08/30/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2145450-01	LGAC-INF	WATER	FRAMINGHAM	08/24/21 12:25	08/24/21
L2145450-02	FIELD BLANK	WATER	FRAMINGHAM	08/24/21 12:25	08/24/21

Project Name:	FORMER GCC	**Lab Number:**	L2145450
Project Number:	102046.00	**Report Date:**	08/30/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	FORMER GCC	**Lab Number:**	L2145450
Project Number:	102046.00	**Report Date:**	08/30/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 08/30/21

ORGANICS

SEMIVOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2145450
Report Date: 08/30/21

SAMPLE RESULTS

Lab ID: L2145450-01
Client ID: LGAC-INF
Sample Location: FRAMINGHAM

Date Collected: 08/24/21 12:25
Date Received: 08/24/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/27/21 04:26
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 08/25/21 16:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	238		ng/l	2.14	0.437	1
Perfluoropentanoic Acid (PFPeA)	451		ng/l	2.14	0.424	1
Perfluorobutanesulfonic Acid (PFBS)	1.75	J	ng/l	2.14	0.255	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	0.900	JF	ng/l	2.14	0.484	1
Perfluorohexanoic Acid (PFHxA)	232		ng/l	2.14	0.351	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.14	0.263	1
Perfluoroheptanoic Acid (PFHpA)	363		ng/l	2.14	0.241	1
Perfluorohexanesulfonic Acid (PFHxS)	0.930	J	ng/l	2.14	0.403	1
Perfluorooctanoic Acid (PFOA)	156		ng/l	2.14	0.253	1
Perfluorononanoic Acid (PFNA)	120		ng/l	2.14	0.334	1
Perfluorooctanesulfonic Acid (PFOS)	27.1		ng/l	2.14	0.540	1
Perfluorodecanoic Acid (PFDA)	132		ng/l	2.14	0.326	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	479		ng/l	2.14	1.30	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.14	1.20	1
Perfluoroundecanoic Acid (PFUnA)	10.0		ng/l	2.14	0.278	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.14	1.05	1
Perfluorooctanesulfonamide (FOSA)	1.12	JF	ng/l	2.14	0.621	1
Perfluorododecanoic Acid (PFDoA)	4.89		ng/l	2.14	0.398	1
Perfluorotridecanoic Acid (PFTrDA)	2.73		ng/l	2.14	0.350	1

Project Name: FORMER GCC **Lab Number:** L2145450

Project Number: 102046.00 **Report Date:** 08/30/21

SAMPLE RESULTS

Lab ID: L2145450-01 Date Collected: 08/24/21 12:25

Client ID: LGAC-INF Date Received: 08/24/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	90		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	84		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	137		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	76		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	79		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	115		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	87		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	83		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	79		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	137		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	80		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	80		48-131

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

SAMPLE RESULTS

Lab ID: L2145450-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 08/24/21 12:25
Date Received: 08/24/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/27/21 04:42
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 08/25/21 16:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.83	0.374	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.83	0.363	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.83	0.218	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.83	0.414	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.83	0.300	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.83	0.225	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.83	0.206	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.83	0.344	1
Perfluorooctanoic Acid (PFOA)	0.216	J	ng/l	1.83	0.216	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.83	0.286	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.83	0.462	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.83	0.278	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.83	1.11	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.83	1.03	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.83	0.238	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.83	0.898	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.83	0.531	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.83	0.341	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.83	0.300	1

Project Name: FORMER GCC **Lab Number:** L2145450

Project Number: 102046.00 **Report Date:** 08/30/21

SAMPLE RESULTS

Lab ID: L2145450-02 Date Collected: 08/24/21 12:25

Client ID: FIELD BLANK Date Received: 08/24/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	114		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	64		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	112		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	99		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	99		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	102		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100		48-131

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2145450
Report Date: 08/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/26/21 22:38
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 08/25/21 16:50

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1539114-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	0.452
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2145450
Report Date: 08/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/26/21 22:38
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 08/25/21 16:50

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1539114-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	117		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	71		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	93		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	107		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	107		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	104		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	93		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	82		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	100		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	56		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	82		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87		22-136

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 08/27/21 15:56
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 08/25/21 16:50

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1539114-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	84		10-112

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1539114-2								
Perfluorobutanoic Acid (PFBA)	112		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	108		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	110		-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	125		-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	114		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	98		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	112		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	111		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	113		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	118		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	110		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	113		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	116		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	109		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	125		-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	110		-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	101		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	112		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	115		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	110		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	108		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	123		-		67-153	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2145450

Report Date: 08/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1539114-2								
Perfluorotridecanoic Acid (PFTrDA)	124		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	114		-		59-182	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	115				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	76				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	96				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	110				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	113				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	104				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	101				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	101				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	57				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	88				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	90				22-136

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2145450

Report Date: 08/30/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab	Associated sample(s): 01-02		Batch: WG1539114-2					
Perfluorooctanesulfonamide (FOSA)	115		-		46-170	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	104				10-112

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2145450
Report Date: 08/30/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-3 QC Sample: L2145122-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	0.932J	38.7	45.5	115		-	-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	0.788J	38.7	44.2	112		-	-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	0.254J	34.3	39.8	115		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	36.2	50.5	139		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	0.663J	38.7	46.1	117		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	36.4	40.2	111		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	0.709J	38.7	45.7	116		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	35.4	44.6	126		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	0.762J	38.7	47.4	121		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	36.8	47.5	129		-	-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	36.8	45.8	124		-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	ND	38.7	46.2	119		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	0.822J	35.9	43.3	118		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	ND	38.7	46.6	120		-	-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	37.1	48.8	131		-	-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	37.2	37.8	102		-	-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	38.7	46.2	119		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	38.7	43.6	113		-	-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	37.3	36.3	97		-	-		38-156	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	38.7	47.6	123		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	ND	38.7	46.9	121		-	-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	38.7	48.2	125		-	-		48-158	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2145450
Report Date: 08/30/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-3 QC Sample: L2145122-01 Client ID: MS Sample												
Perfluorotetradecanoic Acid (PFTA)	ND	38.7	46.3	120		-	-		59-182	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	377	568	151		-	-		57-162	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	36.5	43.5	119		-	-		69-143	-		30
Perfluorohexadecanoic Acid (PFHxDA)	ND	38.7	51.6	133		-	-		40-167	-		30
Perfluorooctadecanoic Acid (PFODA)	ND	38.7	17.8	46		-	-		10-119	-		30
Perfluorododecane Sulfonic Acid (PFDoDS)	ND	37.4	44.2	118		-	-		85-154	-		30
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND	37.3	48.8	131		-	-		81-188	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	36	32.4	90		-	-		55-158	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	36.5	30.6	84		-	-		52-156	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94				10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	101				12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	124				14-147
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	109				50-150
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	99				10-165
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	66				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	72				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	88				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91				62-124

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2145450

Report Date: 08/30/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-3 QC Sample: L2145122-01 Client ID: MS Sample												

Surrogate (Extracted Internal Standard)	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	92				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80				22-136
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	71				10-206
Perfluoro[13C4]Butanoic Acid (MPFBA)	93				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	101				62-163
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	109				70-131

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2145450

Report Date: 08/30/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-3 QC Sample: L2145122-01 Client ID: MS Sample												
Perfluorooctanesulfonamide (FOSA)	ND	38.7	46.1	119		-	-		46-170	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	193	199	103		-	-		10-185	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	193	219	113		-	-		10-202	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	96.7	123	127		-	-		10-209	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	96.7	116	120		-	-		66-176	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	116				10-187
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	99				10-189
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	73				10-160
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	79				10-161
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	96				10-112

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-4 QC Sample: L2145122-02 Client ID: DUP Sample						
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	80		91		10-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	66		74		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	61		68		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	85		95		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	99		111		10-187

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-4 QC Sample: L2145122-02 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	1.07J	0.972J	ng/l	NC		30
Perfluoropentanoic Acid (PFPeA)	1.03J	0.843J	ng/l	NC		30
Perfluorobutanesulfonic Acid (PFBS)	0.294J	0.233J	ng/l	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	0.616J	0.954J	ng/l	NC		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	0.674J	0.628J	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	0.885J	0.791J	ng/l	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/l	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	0.297J	0.292J	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	0.758J	0.735J	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/l	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-4 QC Sample: L2145122-02 Client ID: DUP Sample						
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	ND	ng/l	NC		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC		30
Perfluorohexadecanoic Acid (PFHxDA)	ND	ND	ng/l	NC		30
Perfluorooctadecanoic Acid (PFODA)	ND	ND	ng/l	NC		30
Perfluorododecane Sulfonic Acid (PFDoDS)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND	ND	ng/l	NC		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	ND	ng/l	NC		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		95		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	100		101		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		102		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	98		89		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91		92		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90		91		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	110		105		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		94		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	114		108		14-147

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2145450
Report Date: 08/30/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1539114-4 QC Sample: L2145122-02 Client ID: DUP Sample

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		93		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96		99		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	88		90		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85		79		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	72		66		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	84		87		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	63		64		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78		83		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	72		72		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	120		104		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	57		61		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	90		87		50-150

Project Name: FORMER GCC
Project Number: 102046.00

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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2145450-01A	Plastic 250ml unpreserved	A	NA		3.8	Y	Absent		A2-537-ISOTOPE(14)
L2145450-01B	Plastic 250ml unpreserved	A	NA		3.8	Y	Absent		A2-537-ISOTOPE(14)
L2145450-02A	Plastic 250ml unpreserved	A	NA		3.8	Y	Absent		A2-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: FORMER GCC
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PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2145450
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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

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Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name: FORMER GCC
Project Number: 102046.00
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REFERENCES

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 08/24/21

ALPHA Job #: L2145450

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: GCC - DEP

Project Location: FRAMINGHAM

Project #:

Project Manager: E. JOHNSON

ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: MASSDEP - NERO

Address: 205B LOWELL ST.
WILMINGTON, MA

Phone: 978-694-3392

Email: Erik.Johnson@mass.gov

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due:

Additional Project Information:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: PFAS 537.1 Isotope Dilution	SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
15450 - 01	LGAC - INF	8/24/21	1225	W	EJ	X			2
- 02	FIELD BLANK	8/24/21	1225	W	EJ	X			2

Container Type	P
Preservative	A

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	8/24/21 1445		8/24/21 1445
	8/24/21 1620		8/24/21 1620
	8/24/21 1725		8/24/21 1725

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L2147103
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	FORMER GCC
Project Number:	102046.00
Report Date:	09/16/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2147103-01	EFF-0101	WATER	FRAMINGHAM	09/01/21 12:20	09/01/21
L2147103-02	FIELD BLANK	WATER	FRAMINGHAM	09/01/21 12:20	09/01/21
L2147103-03	TRIP BLANK	WATER	FRAMINGHAM	09/01/21 00:00	09/01/21

Project Name:	FORMER GCC	**Lab Number:**	L2147103
Project Number:	102046.00	**Report Date:**	09/16/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	FORMER GCC	**Lab Number:**	L2147103
Project Number:	102046.00	**Report Date:**	09/16/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics by Method 624

The WG1542208-3 LCS recoveries, associated with L2147103-01 and -03, are above the acceptance criteria for carbon tetrachloride (145%), bromoform (190%); however, the associated samples are non-detect to the RL for these target analytes. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Sebastian Corbin

Title: Technical Director/Representative Date: 09/16/21

ORGANICS

VOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM
Date Collected: 09/01/21 12:20
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 09/02/21 01:06
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
Trichlorofluoromethane	ND		ug/l	5.0	0.28	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
1,3-Dichloropropene, Total	ND		ug/l	1.5	0.31	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM
Date Collected: 09/01/21 12:20
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17	1
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
p/m-Xylene	ND		ug/l	2.0	0.30	1
o-xylene	ND		ug/l	1.0	0.34	1
Xylenes, Total	ND		ug/l	1.0	0.30	1
Styrene	ND		ug/l	1.0	0.37	1
Acetone	ND		ug/l	10	2.4	1
Carbon disulfide	ND		ug/l	5.0	0.28	1
2-Butanone	ND		ug/l	10	1.0	1
Vinyl acetate	ND		ug/l	10	0.41	1
4-Methyl-2-pentanone	ND		ug/l	10	0.19	1
2-Hexanone	ND		ug/l	10	0.55	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1
Dibromomethane	ND		ug/l	1.0	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	89		60-140
Fluorobenzene	94		60-140
4-Bromofluorobenzene	100		60-140

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM
Date Collected: 09/01/21 00:00
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 09/02/21 01:42
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
Trichlorofluoromethane	ND		ug/l	5.0	0.28	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
1,3-Dichloropropene, Total	ND		ug/l	1.5	0.31	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	ND		ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM
Date Collected: 09/01/21 00:00
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17	1
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
p/m-Xylene	ND		ug/l	2.0	0.30	1
o-xylene	ND		ug/l	1.0	0.34	1
Xylenes, Total	ND		ug/l	1.0	0.30	1
Styrene	ND		ug/l	1.0	0.37	1
Acetone	ND		ug/l	10	2.4	1
Carbon disulfide	ND		ug/l	5.0	0.28	1
2-Butanone	ND		ug/l	10	1.0	1
Vinyl acetate	ND		ug/l	10	0.41	1
4-Methyl-2-pentanone	ND		ug/l	10	0.19	1
2-Hexanone	ND		ug/l	10	0.55	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1
Dibromomethane	ND		ug/l	1.0	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	89		60-140
Fluorobenzene	93		60-140
4-Bromofluorobenzene	99		60-140

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 09/01/21 19:38
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1542208-4					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
Trichlorofluoromethane	ND		ug/l	5.0	0.28
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
1,3-Dichloropropene, Total	ND		ug/l	1.5	0.31
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	ND		ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 09/01/21 19:38
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1542208-4					
Trichloroethene	ND		ug/l	1.0	0.33
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
p/m-Xylene	ND		ug/l	2.0	0.30
o-xylene	ND		ug/l	1.0	0.34
Xylenes, Total	ND		ug/l	1.0	0.30
Styrene	ND		ug/l	1.0	0.37
Acetone	ND		ug/l	10	2.4
Carbon disulfide	ND		ug/l	5.0	0.28
2-Butanone	ND		ug/l	10	1.0
Vinyl acetate	ND		ug/l	10	0.41
4-Methyl-2-pentanone	ND		ug/l	10	0.19
2-Hexanone	ND		ug/l	10	0.55
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33
Dibromomethane	ND		ug/l	1.0	0.23

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	92		60-140
Fluorobenzene	95		60-140
4-Bromofluorobenzene	96		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1542208-3								
Methylene chloride	115		-		60-140	-		28
1,1-Dichloroethane	90		-		50-150	-		49
Chloroform	95		-		70-135	-		54
Carbon tetrachloride	**145**	Q	-		70-130	-		41
1,2-Dichloropropane	95		-		35-165	-		55
Dibromochloromethane	125		-		70-135	-		50
1,1,2-Trichloroethane	85		-		70-130	-		45
2-Chloroethylvinyl ether	75		-		1-225	-		71
Tetrachloroethene	90		-		70-130	-		39
Chlorobenzene	95		-		65-135	-		53
Trichlorofluoromethane	125		-		50-150	-		84
1,2-Dichloroethane	90		-		70-130	-		49
1,1,1-Trichloroethane	110		-		70-130	-		36
Bromodichloromethane	100		-		65-135	-		56
trans-1,3-Dichloropropene	100		-		50-150	-		86
cis-1,3-Dichloropropene	90		-		25-175	-		58
Bromoform	**190**	Q	-		70-130	-		42
1,1,2,2-Tetrachloroethane	115		-		60-140	-		61
Benzene	100		-		65-135	-		61
Toluene	85		-		70-130	-		41
Ethylbenzene	100		-		60-140	-		63
Chloromethane	120		-		1-205	-		60
Bromomethane	105		-		15-185	-		61

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2147103

Report Date: 09/16/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1542208-3								
Vinyl chloride	130		-		5-195	-		66
Chloroethane	145		-		40-160	-		78
1,1-Dichloroethene	120		-		50-150	-		32
trans-1,2-Dichloroethene	120		-		70-130	-		45
cis-1,2-Dichloroethene	95		-		60-140	-		30
Trichloroethene	100		-		65-135	-		48
1,2-Dichlorobenzene	100		-		65-135	-		57
1,3-Dichlorobenzene	95		-		70-130	-		43
1,4-Dichlorobenzene	100		-		65-135	-		57
p/m-Xylene	100		-		60-140	-		30
o-xylene	95		-		60-140	-		30
Styrene	90		-		60-140	-		30
Acetone	120		-		40-160	-		30
Carbon disulfide	115		-		60-140	-		30
2-Butanone	86		-		60-140	-		30
Vinyl acetate	122		-		60-140	-		30
4-Methyl-2-pentanone	82		-		60-140	-		30
2-Hexanone	86		-		60-140	-		30
Acrolein	120		-		60-140	-		30
Acrylonitrile	125		-		60-140	-		60
Dibromomethane	85		-		70-130	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2147103

Report Date: 09/16/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1542208-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	94				60-140
Fluorobenzene	95				60-140
4-Bromofluorobenzene	95				60-140

SEMIVOLATILES

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM

Date Collected: 09/01/21 12:20
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/07/21 23:04
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/07/21 09:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.96	0.400	1
Perfluoropentanoic Acid (PFPeA)	0.671	J	ng/l	1.96	0.389	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.96	0.234	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.96	0.322	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.96	0.241	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.96	0.221	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.96	0.369	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.96	0.232	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.96	0.306	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.96	0.495	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.96	0.298	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.96	1.10	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.96	0.255	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.96	0.962	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.96	0.365	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.96	0.321	1

Project Name: FORMER GCC **Lab Number:** L2147103

Project Number: 102046.00 **Report Date:** 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-01 Date Collected: 09/01/21 12:20

Client ID: EFF-0101 Date Received: 09/01/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	84		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	105		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	112		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	66		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	87		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	115		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	87		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	109		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	89		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	59		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	85		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 09/01/21 12:20
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/07/21 23:20
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/07/21 09:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.84	0.375	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.84	0.364	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.84	0.219	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.84	0.302	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.84	0.226	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.84	0.207	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.84	0.346	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.84	0.217	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.84	0.287	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.84	0.464	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.84	0.280	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.84	1.03	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.84	0.239	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	0.901	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	0.342	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	0.301	1

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM
Date Collected: 09/01/21 12:20
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	106		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	127		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	60		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	106		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	102		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	102		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	110		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	105		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	63		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	103		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	98		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		22-136

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/07/21 16:42
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/07/21 09:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1543406-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/07/21 16:42
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/07/21 09:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1543406-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	109		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	115		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	117		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	115		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	119		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	110		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	118		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	104		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	101		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	111		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	120		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	109		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	101		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	85		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	108		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	60		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	88		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	98		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	95		22-136

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab	Associated sample(s): 01-02		Batch: WG1543406-2					
Perfluorobutanoic Acid (PFBA)	97		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	93		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	97		-		65-157	-		30
Perfluorohexanoic Acid (PFHxA)	98		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	102		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	97		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	97		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	98		-		63-159	-		30
Perfluorononanoic Acid (PFNA)	89		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	103		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	94		-		63-171	-		30
Perfluorononanesulfonic Acid (PFNS)	101		-		48-150	-		30
Perfluoroundecanoic Acid (PFUnA)	99		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	96		-		38-156	-		30
Perfluorododecanoic Acid (PFDoA)	99		-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	112		-		48-158	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2147103

Report Date: 09/16/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1543406-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	104				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	112				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	104				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	111				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	105				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	103				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	98				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	109				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	102				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	80				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	97				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	73				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	86				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77				22-136

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1543406-3 QC Sample: L2146439-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	ND	38.3	37.8	99		-	-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	0.395J	38.3	37.2	96		-	-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	0.326J	34	33.7	98		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	35.8	38.9	109		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	ND	38.3	38.3	100		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	36	39.0	108		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	38.3	37.4	98		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	35	35.2	101		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	ND	38.3	39.3	103		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	4.57	36.4	41.8	102		-	-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	36.4	39.6	109		-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	ND	38.3	36.3	95		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	ND	35.5	37.8	106		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	ND	38.3	38.4	100		-	-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	36.7	43.8	119		-	-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	36.8	35.5	96		-	-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	38.3	38.8	101		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	38.3	38.1	100		-	-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	36.9	37.3	101		-	-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	ND	38.3	36.9	96		-	-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	38.3	35.9	94		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	ND	38.3	37.2	97		-	-		67-153	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2147103

Report Date: 09/16/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1543406-3 QC Sample: L2146439-01 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTrDA)	ND	38.3	41.0	107		-	-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	38.3	40.6	106		-	-		59-182	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	57				10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	69				12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	61				14-147
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	62				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	65				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	88				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	101				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	107				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	62				22-136
Perfluoro[13C4]Butanoic Acid (MPFBA)	96				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	119				62-163
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	24				10-112
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	99				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	111				70-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1543406-4 QC Sample: L2146439-02 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	ND	ND	ng/l	NC		30
Perfluoropentanoic Acid (PFPeA)	0.513J	0.521J	ng/l	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/l	NC		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/l	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/l	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1543406-4 QC Sample: L2146439-02 Client ID: DUP Sample						
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		87		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	111		112		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		102		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	57		58		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		91		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88		88		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	96		97		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		88		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	50		51		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	88		86		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91		87		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		78		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	46		43		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		50		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	86		77		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	21		11		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	62		49		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	81		69		48-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1543406-4 QC Sample: L2146439-02 Client ID: DUP Sample

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		52		22-136

INORGANICS
&
MISCELLANEOUS

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

SAMPLE RESULTS

Lab ID: L2147103-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM

Date Collected: 09/01/21 12:20
Date Received: 09/01/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.5		SU	-	NA	1	-	09/01/21 21:17	121,4500H+-B	AS

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2147103

Report Date: 09/16/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1541953-1								
pH	101		-		99-101	-		5

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2147103

Report Date: 09/16/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1541953-2 QC Sample: L2146719-01 Client ID: DUP Sample						
pH	6.2	6.2	SU	0		5

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2147103
Report Date: 09/16/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2147103-01A	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-TTO(3)
L2147103-01B	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-TTO(3)
L2147103-01C	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-TTO(3)
L2147103-01D	Plastic 60ml unpreserved	A	7	7	4.3	Y	Absent		PH-4500(.01)
L2147103-01E	Plastic 250ml unpreserved	A	NA		4.3	Y	Absent		A2-537-ISOTOPE(14)
L2147103-01F	Plastic 250ml unpreserved	A	NA		4.3	Y	Absent		A2-537-ISOTOPE(14)
L2147103-02A	Plastic 250ml unpreserved	A	NA		4.3	Y	Absent		A2-537-ISOTOPE(14)
L2147103-03A	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-TTO(3)
L2147103-03B	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-TTO(3)

*Values in parentheses indicate holding time in days

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2147103
Report Date: 09/16/21

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	FORMER GCC	**Lab Number:**	L2147103
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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2147103
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Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2147103
Project Number:	102046.00	**Report Date:**	09/16/21

REFERENCES

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

2 of 2

L2147103

Permit No: 14409074

Sewer Use Discharge Permit

MWRA Industrial User Sampling Chain of Custody/Field Form
SAMPLE TYPE: GRAB

Industry Name: Commonwealth of MA_DEP Northeast Region
Facility Address: 133 -135 Leland Street, Framingham, MA 01702
Sample Location Number: 0101
Description: Waste water compliance sampling must be taken from the sampling spigots installed on the final discharge pipe of the waste water pretreatment system, prior to mixing with any other streams.

Briefly describe the process(es) discharging during sample time: ROUTINE PRETREATMENT

DISCHARGE TYPE: ( ) BATCH or (X) CONTINUOUS

FLOW on sampling day: 331 gpd **The FLOW was:** ( ) MEASURED (X) ESTIMATED

Method used to measure/estimate flow: 1986 gal / 6 days = 331 gpd (Totalizer Observations)

FIELD pH: ~ 7.25 s.u.(pH must be measured on-site)

FIELD TEMPERATURE: NM **FIELD COLOR:** CLEAR **FIELD ODOR:** NONE

GRAB SAMPLE Date (mm/dd/yy): 09/01/21 **SAMPLE Time (military, hh:mm):** 1220

PARAMETERS Sampled:	Type of Preservative Added	Preserved to What pH?	When Was Preservative Added? *	Comments: (Y=Yes, N=No)
(X) VOA	$Na_2S_2O_3$		P	Cl_2 Detected? N Amt $Na_2S_2O_3$ Added: 25 mg
( ) PHC (TPH)				
( ) Cr (VI)				
( ) FOG				
( ) CN (Total)				Sulfides or Oxidizers Detected?
( ) ABN (Semi-Volatiles)				Cl_2 Detected? Amt $Na_2S_2O_3$ Added:
( ) Metals**				
**List Metals:				
( ) Pest/PCB				
( ) TSS				
(X) Other: PFAS ISOTOPE DILUTION	—	—	—	
(X) Other: pH 400 H+B	—	—	—	

* Prepreserved=P Field Preserved=F Preserved When Sample Delivered to Lab=L

SAMPLED BY (print name):	ERIK JOHNSON		
(sign name):	Erik Johnson		
Sampling Company Name:	Mass DEP – NERO, BWSC		
RELINQUISHED BY:	Erik Johnson	COMPANY NAME:	MassDEP - NERO
DATE:	9/1/2021	TIME:	1430
RECEIVED BY:		COMPANY NAME:	AM
DATE:	9/1/21	TIME:	1430
RELINQUISHED BY:		COMPANY NAME:	
DATE:		TIME:	
RECEIVED BY:		COMPANY NAME:	
DATE:		TIME:	

Serial_No:09162116:40

CHAIN OF COUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 9/1/21

ALPHA Job #: L2147103

Client Information

Client: Mass DEP - NERO
Address: 205B LOWELL ST
WILMINGTON, MA
Phone: 978-694-3392
Email: Erik.Johnson@mass.gov

Project Information

Project Name: GCC - DEP
Project Location: FRAMINGHAM
Project #: 102046
Project Manager: E. JOHNSON
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods
☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ______ Criteria ______

Additional Project Information:

PLEASE REPORT MWRA PFAS POLLUTANT COMPOUNDS LIST EMAILED TO ALYCIA McGHYZEL 8/19/21 @ 9:31 AM. EMAIL W/ QUESTIONS, THANK YOU!

Analysis

VOC: ☐ 8260 ☒ 624 ☐ 524.2 TTO; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; PFAS 537.1 ISOTOPE DILUTION; pH 4500 H+B

SAMPLE INFO — Filtration: ☐ Field ☐ Lab to do; Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC	PFAS 537.1 Isotope Dilution	pH 4500 H+B	Sample Comments	Total # Bottles
47103-01	EFF-0101	9/1/21	1220	W	EJ	X	X	X		6
-02	FIELD BLANK	9/1/21	1220	W	EJ		X			2
-03	TRIP BLANK					X				2
Container Type						V	P	P		
Preservative						H	A	A		

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/1/21 / 1430	[signature] AAL	9/1/21 1430

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L2148416
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	FORMER GCC
Project Number:	102046.00
Report Date:	09/23/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2148416-01	EFF-0101	WATER	FRAMINGHAM	09/09/21 11:00	09/09/21
L2148416-02	FIELD BLANK	WATER	FRAMINGHAM	09/09/21 11:00	09/09/21
L2148416-03	TRIP BLANK	WATER	FRAMINGHAM	09/09/21 00:00	09/09/21

Project Name:	FORMER GCC	**Lab Number:**	L2148416
Project Number:	102046.00	**Report Date:**	09/23/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	FORMER GCC	**Lab Number:**	L2148416
Project Number:	102046.00	**Report Date:**	09/23/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics by Method 624

The WG1545327-3 LCS recovery, associated with L2148416-01D and -03, is above the acceptance criteria for methylene chloride (155%); however, the associated sample is non-detect to the RL for this target analyte. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Sebastian Corbin

Title: Technical Director/Representative Date: 09/23/21

ORGANICS

VOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-01 D
Client ID: EFF-0101
Sample Location: FRAMINGHAM
Date Collected: 09/09/21 11:00
Date Received: 09/09/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 09/10/21 16:11
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	5.6	10
1,1-Dichloroethane	ND		ug/l	15	4.0	10
Chloroform	ND		ug/l	10	3.8	10
Carbon tetrachloride	ND		ug/l	10	2.4	10
1,2-Dichloropropane	ND		ug/l	35	4.6	10
Dibromochloromethane	ND		ug/l	10	2.7	10
1,1,2-Trichloroethane	ND		ug/l	15	3.4	10
2-Chloroethylvinyl ether	ND		ug/l	100	3.5	10
Tetrachloroethene	ND		ug/l	10	2.6	10
Chlorobenzene	ND		ug/l	35	3.0	10
Trichlorofluoromethane	ND		ug/l	50	2.8	10
1,2-Dichloroethane	ND		ug/l	15	4.7	10
1,1,1-Trichloroethane	ND		ug/l	20	2.9	10
Bromodichloromethane	ND		ug/l	10	2.8	10
trans-1,3-Dichloropropene	ND		ug/l	15	3.1	10
cis-1,3-Dichloropropene	ND		ug/l	15	3.4	10
1,3-Dichloropropene, Total	ND		ug/l	15	3.1	10
Bromoform	ND		ug/l	10	2.2	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	2.0	10
Benzene	ND		ug/l	10	3.8	10
Toluene	ND		ug/l	10	3.1	10
Ethylbenzene	ND		ug/l	10	2.8	10
Chloromethane	ND		ug/l	50	10.	10
Bromomethane	13	J	ug/l	50	12.	10
Vinyl chloride	ND		ug/l	10	3.8	10
Chloroethane	ND		ug/l	20	3.7	10
1,1-Dichloroethene	ND		ug/l	10	3.1	10
trans-1,2-Dichloroethene	ND		ug/l	15	3.3	10

Project Name: FORMER GCC **Lab Number:** L2148416

Project Number: 102046.00 **Report Date:** 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-01 D Date Collected: 09/09/21 11:00

Client ID: EFF-0101 Date Received: 09/09/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
cis-1,2-Dichloroethene	ND		ug/l	10	1.7	10
Trichloroethene	ND		ug/l	10	3.3	10
1,2-Dichlorobenzene	ND		ug/l	50	2.8	10
1,3-Dichlorobenzene	ND		ug/l	50	2.7	10
1,4-Dichlorobenzene	ND		ug/l	50	2.9	10
p/m-Xylene	ND		ug/l	20	3.0	10
o-xylene	ND		ug/l	10	3.4	10
Xylenes, Total	ND		ug/l	10	3.0	10
Styrene	ND		ug/l	10	3.7	10
Acetone	ND		ug/l	100	24.	10
Carbon disulfide	ND		ug/l	50	2.8	10
2-Butanone	ND		ug/l	100	10.	10
Vinyl acetate	ND		ug/l	100	4.1	10
4-Methyl-2-pentanone	ND		ug/l	100	1.9	10
2-Hexanone	ND		ug/l	100	5.5	10
Acrolein	ND		ug/l	80	18.	10
Acrylonitrile	ND		ug/l	100	3.3	10
Dibromomethane	ND		ug/l	10	2.3	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	98		60-140
Fluorobenzene	101		60-140
4-Bromofluorobenzene	116		60-140

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM

Date Collected: 09/09/21 00:00
Date Received: 09/09/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 09/10/21 15:37
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	0.56	1
1,1-Dichloroethane	ND		ug/l	1.5	0.40	1
Chloroform	ND		ug/l	1.0	0.38	1
Carbon tetrachloride	ND		ug/l	1.0	0.24	1
1,2-Dichloropropane	ND		ug/l	3.5	0.46	1
Dibromochloromethane	ND		ug/l	1.0	0.27	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.35	1
Tetrachloroethene	ND		ug/l	1.0	0.26	1
Chlorobenzene	ND		ug/l	3.5	0.30	1
Trichlorofluoromethane	ND		ug/l	5.0	0.28	1
1,2-Dichloroethane	ND		ug/l	1.5	0.47	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29	1
Bromodichloromethane	ND		ug/l	1.0	0.28	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34	1
1,3-Dichloropropene, Total	ND		ug/l	1.5	0.31	1
Bromoform	ND		ug/l	1.0	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20	1
Benzene	ND		ug/l	1.0	0.38	1
Toluene	ND		ug/l	1.0	0.31	1
Ethylbenzene	ND		ug/l	1.0	0.28	1
Chloromethane	ND		ug/l	5.0	1.0	1
Bromomethane	1.4	J	ug/l	5.0	1.2	1
Vinyl chloride	ND		ug/l	1.0	0.38	1
Chloroethane	ND		ug/l	2.0	0.37	1
1,1-Dichloroethene	ND		ug/l	1.0	0.31	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33	1

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-03
Client ID: TRIP BLANK
Sample Location: FRAMINGHAM
Date Collected: 09/09/21 00:00
Date Received: 09/09/21
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17	1
Trichloroethene	ND		ug/l	1.0	0.33	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28	1
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29	1
p/m-Xylene	ND		ug/l	2.0	0.30	1
o-xylene	ND		ug/l	1.0	0.34	1
Xylenes, Total	ND		ug/l	1.0	0.30	1
Styrene	ND		ug/l	1.0	0.37	1
Acetone	ND		ug/l	10	2.4	1
Carbon disulfide	ND		ug/l	5.0	0.28	1
2-Butanone	ND		ug/l	10	1.0	1
Vinyl acetate	ND		ug/l	10	0.41	1
4-Methyl-2-pentanone	ND		ug/l	10	0.19	1
2-Hexanone	ND		ug/l	10	0.55	1
Acrolein	ND		ug/l	8.0	1.8	1
Acrylonitrile	ND		ug/l	10	0.33	1
Dibromomethane	ND		ug/l	1.0	0.23	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	98		60-140
Fluorobenzene	101		60-140
4-Bromofluorobenzene	114		60-140

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 09/10/21 15:03
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1545327-4					
Methylene chloride	ND		ug/l	1.0	0.56
1,1-Dichloroethane	ND		ug/l	1.5	0.40
Chloroform	ND		ug/l	1.0	0.38
Carbon tetrachloride	ND		ug/l	1.0	0.24
1,2-Dichloropropane	ND		ug/l	3.5	0.46
Dibromochloromethane	ND		ug/l	1.0	0.27
1,1,2-Trichloroethane	ND		ug/l	1.5	0.34
2-Chloroethylvinyl ether	ND		ug/l	10	0.35
Tetrachloroethene	ND		ug/l	1.0	0.26
Chlorobenzene	ND		ug/l	3.5	0.30
Trichlorofluoromethane	ND		ug/l	5.0	0.28
1,2-Dichloroethane	ND		ug/l	1.5	0.47
1,1,1-Trichloroethane	ND		ug/l	2.0	0.29
Bromodichloromethane	ND		ug/l	1.0	0.28
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.31
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.34
1,3-Dichloropropene, Total	ND		ug/l	1.5	0.31
Bromoform	ND		ug/l	1.0	0.22
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.20
Benzene	ND		ug/l	1.0	0.38
Toluene	ND		ug/l	1.0	0.31
Ethylbenzene	ND		ug/l	1.0	0.28
Chloromethane	ND		ug/l	5.0	1.0
Bromomethane	1.6	J	ug/l	5.0	1.2
Vinyl chloride	ND		ug/l	1.0	0.38
Chloroethane	ND		ug/l	2.0	0.37
1,1-Dichloroethene	ND		ug/l	1.0	0.31
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.33
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.17

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 09/10/21 15:03
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1545327-4					
Trichloroethene	ND		ug/l	1.0	0.33
1,2-Dichlorobenzene	ND		ug/l	5.0	0.28
1,3-Dichlorobenzene	ND		ug/l	5.0	0.27
1,4-Dichlorobenzene	ND		ug/l	5.0	0.29
p/m-Xylene	ND		ug/l	2.0	0.30
o-xylene	ND		ug/l	1.0	0.34
Xylenes, Total	ND		ug/l	1.0	0.30
Styrene	ND		ug/l	1.0	0.37
Acetone	ND		ug/l	10	2.4
Carbon disulfide	ND		ug/l	5.0	0.28
2-Butanone	ND		ug/l	10	1.0
Vinyl acetate	ND		ug/l	10	0.41
4-Methyl-2-pentanone	ND		ug/l	10	0.19
2-Hexanone	ND		ug/l	10	0.55
Acrolein	ND		ug/l	8.0	1.8
Acrylonitrile	ND		ug/l	10	0.33
Dibromomethane	ND		ug/l	1.0	0.23

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	95		60-140
Fluorobenzene	96		60-140
4-Bromofluorobenzene	114		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1545327-3								
Methylene chloride	**155**	Q	-		60-140	-		28
1,1-Dichloroethane	90		-		50-150	-		49
Chloroform	95		-		70-135	-		54
Carbon tetrachloride	100		-		70-130	-		41
1,2-Dichloropropane	85		-		35-165	-		55
Dibromochloromethane	95		-		70-135	-		50
1,1,2-Trichloroethane	90		-		70-130	-		45
2-Chloroethylvinyl ether	70		-		1-225	-		71
Tetrachloroethene	100		-		70-130	-		39
Chlorobenzene	110		-		65-135	-		53
Trichlorofluoromethane	90		-		50-150	-		84
1,2-Dichloroethane	90		-		70-130	-		49
1,1,1-Trichloroethane	95		-		70-130	-		36
Bromodichloromethane	95		-		65-135	-		56
trans-1,3-Dichloropropene	95		-		50-150	-		86
cis-1,3-Dichloropropene	100		-		25-175	-		58
Bromoform	105		-		70-130	-		42
1,1,2,2-Tetrachloroethane	120		-		60-140	-		61
Benzene	105		-		65-135	-		61
Toluene	110		-		70-130	-		41
Ethylbenzene	120		-		60-140	-		63
Chloromethane	70		-		1-205	-		60
Bromomethane	110		-		15-185	-		61

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1545327-3								
Vinyl chloride	100		-		5-195	-		66
Chloroethane	85		-		40-160	-		78
1,1-Dichloroethene	105		-		50-150	-		32
trans-1,2-Dichloroethene	100		-		70-130	-		45
cis-1,2-Dichloroethene	95		-		60-140	-		30
Trichloroethene	95		-		65-135	-		48
1,2-Dichlorobenzene	120		-		65-135	-		57
1,3-Dichlorobenzene	110		-		70-130	-		43
1,4-Dichlorobenzene	115		-		65-135	-		57
p/m-Xylene	118		-		60-140	-		30
o-xylene	105		-		60-140	-		30
Styrene	110		-		60-140	-		30
Acetone	100		-		40-160	-		30
Carbon disulfide	100		-		60-140	-		30
2-Butanone	102		-		60-140	-		30
Vinyl acetate	125		-		60-140	-		30
4-Methyl-2-pentanone	86		-		60-140	-		30
2-Hexanone	90		-		60-140	-		30
Acrolein	110		-		60-140	-		30
Acrylonitrile	90		-		60-140	-		60
Dibromomethane	95		-		70-130	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2148416

Report Date: 09/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1545327-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	98				60-140
Fluorobenzene	104				60-140
4-Bromofluorobenzene	112				60-140

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2148416

Report Date: 09/23/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1545327-5 WG1545327-6 QC Sample: L2148416-01 Client ID: EFF-0101												
Methylene chloride	ND	200	190	95		200	100		1-221	5		28
1,1-Dichloroethane	ND	200	190	95		200	100		59-155	5		49
Chloroform	ND	200	200	100		200	100		51-138	0		54
Carbon tetrachloride	ND	200	200	100		190	95		70-140	5		41
1,2-Dichloropropane	ND	200	190	95		180	90		1-210	5		55
Dibromochloromethane	ND	200	210	105		210	105		53-149	0		50
1,1,2-Trichloroethane	ND	200	210	105		210	105		52-150	0		45
2-Chloroethylvinyl ether	ND	200	130	65		130	65		1-305	0		71
Tetrachloroethene	ND	200	200	100		200	100		64-148	0		39
Chlorobenzene	ND	200	240	120		250	125		37-160	4		53
Trichlorofluoromethane	ND	200	160	80		160	80		17-181	0		84
1,2-Dichloroethane	ND	200	190	95		190	95		49-155	0		49
1,1,1-Trichloroethane	ND	200	200	100		200	100		52-162	0		36
Bromodichloromethane	ND	200	210	105		220	110		35-155	5		56
trans-1,3-Dichloropropene	ND	200	200	100		210	105		17-183	5		86
cis-1,3-Dichloropropene	ND	200	210	105		220	110		1-227	5		58
Bromoform	ND	200	240	120		240	120		45-169	0		42
1,1,2,2-Tetrachloroethane	ND	200	280	140		270	135		45-157	4		61
Benzene	ND	200	220	110		220	110		37-151	0		61
Toluene	ND	200	230	115		240	120		47-150	4		41
Ethylbenzene	ND	200	270	135		280	140		37-162	4		63
Chloromethane	ND	200	140	70		140	70		1-273	0		60
Bromomethane	13J	200	220	110		220	110		1-242	0		61

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1545327-5 WG1545327-6 QC Sample: L2148416-01 Client ID: EFF-0101												
Vinyl chloride	ND	200	200	100		190	95		1-251	5		66
Chloroethane	ND	200	180	90		180	90		14-230	0		78
1,1-Dichloroethene	ND	200	200	100		200	100		1-234	0		32
trans-1,2-Dichloroethene	ND	200	210	105		210	105		54-156	0		45
cis-1,2-Dichloroethene	ND	200	200	100		200	100		60-140	0		30
Trichloroethene	ND	200	200	100		210	105		70-157	5		48
1,2-Dichlorobenzene	ND	200	260	130		260	130		18-190	0		57
1,3-Dichlorobenzene	ND	200	240	120		250	125		59-156	4		43
1,4-Dichlorobenzene	ND	200	260	130		260	130		18-190	0		57
p/m-Xylene	ND	400	530	133		540	135		60-140	2		30
o-xylene	ND	200	240	120		250	125		60-140	4		30
Styrene	ND	200	250	125		250	125		60-140	0		30
Acetone	ND	500	520	104		480	96		40-160	8		30
Carbon disulfide	ND	200	210	105		210	105		60-140	0		30
2-Butanone	ND	500	520	104		490	98		60-140	6		30
Vinyl acetate	ND	400	480	120		470	118		60-140	2		30
4-Methyl-2-pentanone	ND	500	450	90		430	86		60-140	5		30
2-Hexanone	ND	500	490	98		460	92		60-140	6		30
Acrolein	ND	400	470	118		460	115		40-160	2		30
Acrylonitrile	ND	400	380	95		360	90		40-160	5		60
Dibromomethane	ND	200	190	95		190	95		70-130	0		30

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2148416

Report Date: 09/23/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1545327-5 WG1545327-6 QC Sample: L2148416-01 Client ID: EFF-0101												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
4-Bromofluorobenzene	115		116		60-140
Fluorobenzene	102		101		60-140
Pentafluorobenzene	95		95		60-140

SEMIVOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM

Date Collected: 09/09/21 11:00
Date Received: 09/09/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/12/21 18:42
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/11/21 10:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.04	0.417	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.04	0.405	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.04	0.243	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.04	0.335	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.04	0.251	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.04	0.230	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.04	0.384	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.04	0.241	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.04	0.319	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.04	0.515	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.04	0.311	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.04	1.14	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.04	0.266	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.04	1.00	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.04	0.380	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.04	0.334	1

Project Name: FORMER GCC **Lab Number:** L2148416

Project Number: 102046.00 **Report Date:** 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-01 Date Collected: 09/09/21 11:00

Client ID: EFF-0101 Date Received: 09/09/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	119		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	112		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	43		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	90		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	113		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	89		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	81		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	47		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	85		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	94		48-131

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 09/09/21 11:00
Date Received: 09/09/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/12/21 18:59
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/11/21 10:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.79	0.364	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.79	0.354	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.79	0.212	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.79	0.293	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.79	0.219	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.79	0.201	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.79	0.336	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.79	0.211	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.79	0.279	1
Perfluorooctanesulfonic Acid (PFOS)	0.650	J	ng/l	1.79	0.450	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.79	0.271	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.79	1.00	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.79	0.232	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.79	0.875	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.79	0.332	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.79	0.292	1

Project Name: FORMER GCC **Lab Number:** L2148416

Project Number: 102046.00 **Report Date:** 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-02 Date Collected: 09/09/21 11:00

Client ID: FIELD BLANK Date Received: 09/09/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	106		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	127		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	119		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	45		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	124		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	105		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	105		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	110		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	101		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	65		10-162
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	113		55-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	115		48-131

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/12/21 12:58
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/11/21 10:26

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1545264-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 09/12/21 12:58
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 09/11/21 10:26

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1545264-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	106		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	121		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	118		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	54		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	103		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	115		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	106		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	75		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	102		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	111		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	105		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	66		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	81		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	106		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	90		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	84		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	112		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	104		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	134		10-165

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2148416

Report Date: 09/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1545264-2								
Perfluorobutanoic Acid (PFBA)	113		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	111		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	114		-		65-157	-		30
Perfluorohexanoic Acid (PFHxA)	118		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	98		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	112		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	112		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	116		-		63-159	-		30
Perfluorononanoic Acid (PFNA)	113		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	117		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	115		-		63-171	-		30
Perfluorononanesulfonic Acid (PFNS)	111		-		48-150	-		30
Perfluoroundecanoic Acid (PFUnA)	116		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	119		-		38-156	-		30
Perfluorododecanoic Acid (PFDoA)	117		-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	123		-		48-158	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1545264-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	105				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	121				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	116				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	57				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	101				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	119				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	106				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	103				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	110				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	105				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	63				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	90				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	105				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	94				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	90				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	114				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	108				22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	116				10-165

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1545264-3 QC Sample: L2148679-01 Client ID: MS Sample												
Perfluorobutanesulfonic Acid (PFBS)	1.33J	33.7	40.1	115		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	35.5	47.3	133		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	33.0	38	78.4	120		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	35.7	36.4	102		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	45.8	38	88.6	113		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	0.443J	34.7	40.8	116		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	46.5	38	89.6	113		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	12.1	36.2	54.7	118		-	-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	36.2	46.3	128		-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	796	38	854	153		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	7.64	35.2	47.5	113		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	23.7	38	68.4	118		-	-		63-171	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	38	44.2	116		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	883	38	978E	**250**	Q	-	-		60-153	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	38	39.8	105		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	21.1	38	68.9	126		-	-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	124	38	175	134		-	-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	38	46.1	121		-	-		59-182	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	370	563	152		-	-		57-162	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	35.8	41.0	114		-	-		69-143	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	35.4	33.6	95		-	-		55-158	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1545264-3 QC Sample: L2148679-01 Client ID: MS Sample												
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	35.8	34.5	96		-	-		52-156	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	109				12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	118				14-147
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	102				10-165
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	80				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	68				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	74				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	87				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	112				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	94				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	89				22-136
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	106				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	75				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	110				70-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1545264-4 QC Sample: L2148679-02 Client ID: DUP Sample						
Perfluorobutanesulfonic Acid (PFBS)	2.28	2.35	ng/l	3		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	7.87	8.46	ng/l	7		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	8.06	8.16	ng/l	1		30
Perfluorohexanesulfonic Acid (PFHxS)	1.73J	1.80J	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	23.2	24.2	ng/l	4		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	9.73	9.97	ng/l	2		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	76.2	79.5	ng/l	4		30
Perfluorooctanesulfonic Acid (PFOS)	24.2	25.3	ng/l	4		30
Perfluorodecanoic Acid (PFDA)	6.99	5.90	ng/l	17		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	68.0	70.5	ng/l	4		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	1.18J	1.18J	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	0.834J	0.749J	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	ND	ng/l	NC		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1545264-4 QC Sample: L2148679-02 Client ID: DUP Sample						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	ND	ng/l	NC		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		104		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**152**	Q	**144**	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	72		72		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	82		82		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	111		109		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		95		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**223**	Q	**212**	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		88		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	97		96		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	86		85		62-124
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	73		85		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	87		83		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	84		79		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89		79		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80		80		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	122		123		10-165

INORGANICS
&
MISCELLANEOUS

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

SAMPLE RESULTS

Lab ID: L2148416-01
Client ID: EFF-0101
Sample Location: FRAMINGHAM

Date Collected: 09/09/21 11:00
Date Received: 09/09/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.4		SU	-	NA	1	-	09/13/21 21:20	121,4500H+-B	RM

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2148416

Report Date: 09/23/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1545865-1								
pH	100		-		99-101	-		5

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1545865-2 QC Sample: L2148416-01 Client ID: EFF-0101						
pH (H)	7.4	7.4	SU	0		5

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2148416
Report Date: 09/23/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2148416-01A	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1-MWRA(3)
L2148416-01B	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1-MWRA(3)
L2148416-01C	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1-MWRA(3)
L2148416-01D	Plastic 60ml unpreserved	A	7	7	5.6	Y	Absent		PH-4500(.01)
L2148416-01E	Plastic 250ml unpreserved	A	NA		5.6	Y	Absent		A2-537-ISOTOPE(14)
L2148416-01F	Plastic 250ml unpreserved	A	NA		5.6	Y	Absent		A2-537-ISOTOPE(14)
L2148416-02A	Plastic 250ml unpreserved	A	NA		5.6	Y	Absent		A2-537-ISOTOPE(14)
L2148416-03A	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1-MWRA(3)
L2148416-03B	Vial Na2S2O3 preserved	A	NA		5.6	Y	Absent		624.1-MWRA(3)

*Values in parentheses indicate holding time in days

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2148416
Report Date: 09/23/21

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	FORMER GCC	**Lab Number:**	L2148416
Project Number:	102046.00	**Report Date:**	09/23/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2148416
Project Number:	102046.00	**Report Date:**	09/23/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2148416
Project Number:	102046.00	**Report Date:**	09/23/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2148416
Project Number:	102046.00	**Report Date:**	09/23/21

REFERENCES

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

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Permit No: 14409074

Sewer Use Discharge Permit

L2148416-01

MWRA Industrial User Sampling Chain of Custody/Field Form
SAMPLE TYPE: GRAB

Industry Name: Commonwealth of MA_DEP Northeast Region
Facility Address: 133 -135 Leland Street, Framingham, MA 01702
Sample Location Number: 0101
Description: Waste water compliance sampling must be taken from the sampling spigots installed on the final discharge pipe of the waste water pretreatment system, prior to mixing with any other streams.

Briefly describe the process(es) discharging during sample time: ROUTINE PRETREATMENT

DISCHARGE TYPE: ( ) BATCH or (X) CONTINUOUS

FLOW on sampling day: 438 gpd **The FLOW was:** ( ) MEASURED (X) ESTIMATED

Method used to measure/estimate flow: 858 gal / 47 HR PERIOD = 18.26 gph ~ 438.1 gpd

FIELD pH: 7.5 s.u.(pH must be measured on-site)

FIELD TEMPERATURE: NM **FIELD COLOR:** CLEAR **FIELD ODOR:** NONE

GRAB SAMPLE Date (mm/dd/yy): 090921 **SAMPLE Time (military, hh:mm):** 1100

PARAMETERS Sampled:	Type of Preservative Added	Preserved to What pH?	When Was Preservative Added? *	Comments: (Y=Yes, N=No)
(X) VOA 624.1 TTO	$Na_2S_2O_3$	—	P	Cl_2 Detected? N Amt $Na_2S_2O_3$ Added:
( ) PHC (TPH)				
( ) Cr (VI)				
( ) FOG				
( ) CN (Total)				Sulfides or Oxidizers Detected?
( ) ABN (Semi-Volatiles)				Cl_2 Detected? Amt $Na_2S_2O_3$ Added:
( ) Metals**				
**List Metals:				
( ) Pest/PCB				
( ) TSS				
(X) Other: PFAS 537.1 ISOTOPE DILUTION	—	—	—	
(X) Other: pH 4500 H+B	—	—	—	

* Prepreserved=P Field Preserved=F Preserved When Sample Delivered to Lab=L

SAMPLED BY (print name):	ERIK JOHNSON
(sign name):	Erik Johnson
Sampling Company Name:	MassDEP - NERO

RELINQUISHED BY: Erik Johnson	**COMPANY NAME:** MassDEP
DATE: 9/9/21	**TIME:** 1355
RECEIVED BY: C Sidran	**COMPANY NAME:** AAL
DATE: 9/9/21	**TIME:** 1355
RELINQUISHED BY:	**COMPANY NAME:**
DATE:	**TIME:**
RECEIVED BY:	**COMPANY NAME:**
DATE:	**TIME:**

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 09/09/21

ALPHA Job #: L2148416

Client Information

Client: MASS - DEP NERO
Address: 205B LOWELL ST
WILMINGTON, MA
Phone: 978-694-3392
Email: Erik.Johnson@mass.gov

Project Information

Project Name: GCC - DEP
Project Location: FRAMINGHAM
Project #: 102046
Project Manager: E. JOHNSON
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:
PLEASE REPORT MWRA PFAS POLLUTANT COMPOUNDS LIST EMAILED TO ALYCIA MOGAYZEL 8/19/21 @ 9:31 AM. EMAIL W/ QUESTIONS, THANK YOU!

ANALYSIS: VOC: ☐ 8260 ☒ 624 ☐ 524.2 TTO; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; PFAS 537.1 Isotope Dilution; pH 4500 H+B

SAMPLE INFO
Filtration ☐ Field ☐ Lab to do
Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC	PFAS	pH	Sample Comments	TOTAL # BOTTLES
41416-01	EFF-0101	9/9/21	1100	W	EJ	X	X	X		6
-02	FIELD BLANK	9/9/21	1100	W	EJ		X			2
-03	TRIP BLANK			W		X				2
Container Type						V	P	P		
Preservative						H	A	A		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Erik Johnson	9/9/21 1355	[illegible]	9/9/21 1355

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L2153195
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	FORMER GCC
Project Number:	102046.00
Report Date:	10/13/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2153195
Report Date: 10/13/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2153195-01	LGAC-INF	WATER	FRAMINGHAM	09/30/21 12:40	09/30/21
L2153195-02	FIELD BLANK	WATER	FRAMINGHAM	09/30/21 12:40	09/30/21
L2153195-03	SW-10	WATER	FRAMINGHAM	09/30/21 14:00	09/30/21
L2153195-04	FIELD BLANK	WATER	FRAMINGHAM	09/30/21 14:00	09/30/21

Project Name:	FORMER GCC	**Lab Number:**	L2153195
Project Number:	102046.00	**Report Date:**	10/13/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	FORMER GCC	**Lab Number:**	L2153195
Project Number:	102046.00	**Report Date:**	10/13/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by Isotope Dilution

L2153195-01 and -03: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 10/13/21

ORGANICS

SEMIVOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2153195
Report Date: 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-01
Client ID: LGAC-INF
Sample Location: FRAMINGHAM

Date Collected: 09/30/21 12:40
Date Received: 09/30/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 10/11/21 21:12
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 10/08/21 16:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	76.4		ng/l	1.85	0.377	1
Perfluoropentanoic Acid (PFPeA)	233		ng/l	1.85	0.366	1
Perfluorobutanesulfonic Acid (PFBS)	3.47	F	ng/l	1.85	0.220	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.85	0.417	1
Perfluorohexanoic Acid (PFHxA)	121		ng/l	1.85	0.303	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.85	0.226	1
Perfluoroheptanoic Acid (PFHpA)	177		ng/l	1.85	0.208	1
Perfluorohexanesulfonic Acid (PFHxS)	0.923	J	ng/l	1.85	0.347	1
Perfluorooctanoic Acid (PFOA)	89.6		ng/l	1.85	0.218	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	240		ng/l	1.85	1.23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.85	0.635	1
Perfluorononanoic Acid (PFNA)	45.6		ng/l	1.85	0.288	1
Perfluorooctanesulfonic Acid (PFOS)	13.0		ng/l	1.85	0.465	1
Perfluorodecanoic Acid (PFDA)	50.0		ng/l	1.85	0.281	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	171		ng/l	1.85	1.12	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.85	1.03	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	0.598	1
Perfluoroundecanoic Acid (PFUnA)	7.86		ng/l	1.85	0.240	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.85	0.905	1
Perfluorooctanesulfonamide (FOSA)	6.44	F	ng/l	1.85	0.536	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	0.742	1
Perfluorododecanoic Acid (PFDoA)	3.01		ng/l	1.85	0.343	1
Perfluorotridecanoic Acid (PFTrDA)	0.436	J	ng/l	1.85	0.302	1
Perfluorotetradecanoic Acid (PFTA)	0.306	J	ng/l	1.85	0.229	1

Project Name: FORMER GCC **Lab Number:** L2153195

Project Number: 102046.00 **Report Date:** 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-01 Date Collected: 09/30/21 12:40

Client ID: LGAC-INF Date Received: 09/30/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	87		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	86		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**259**	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	71		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	78		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	90		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**411**	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**304**	Q	10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	112		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	86		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	35		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	122		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	84		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	88		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2153195
Report Date: 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 09/30/21 12:40
Date Received: 09/30/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 10/11/21 21:29
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 10/08/21 16:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.85	0.377	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.85	0.366	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.85	0.220	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.85	0.418	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.85	0.303	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.85	0.226	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.85	0.208	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.85	0.347	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.85	0.218	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.85	1.23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.85	0.636	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.85	0.288	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.85	0.466	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.85	0.281	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.85	1.12	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.85	1.03	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	0.598	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.85	0.240	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.85	0.905	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.85	0.536	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	0.743	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.85	0.344	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.85	0.302	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.85	0.229	1

Project Name: FORMER GCC **Lab Number:** L2153195

Project Number: 102046.00 **Report Date:** 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-02 Date Collected: 09/30/21 12:40

Client ID: FIELD BLANK Date Received: 09/30/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	115		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	77		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	92		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	94		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	100		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	75		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	103		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	49		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	70		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	95		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2153195
Report Date: 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-03
Client ID: SW-10
Sample Location: FRAMINGHAM

Date Collected: 09/30/21 14:00
Date Received: 09/30/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 10/11/21 21:45
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 10/08/21 16:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	30.8		ng/l	1.88	0.384	1
Perfluoropentanoic Acid (PFPeA)	127		ng/l	1.88	0.373	1
Perfluorobutanesulfonic Acid (PFBS)	1.60	J	ng/l	1.88	0.224	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.88	0.426	1
Perfluorohexanoic Acid (PFHxA)	59.2		ng/l	1.88	0.309	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.88	0.231	1
Perfluoroheptanoic Acid (PFHpA)	48.9		ng/l	1.88	0.212	1
Perfluorohexanesulfonic Acid (PFHxS)	1.77	J	ng/l	1.88	0.354	1
Perfluorooctanoic Acid (PFOA)	57.8		ng/l	1.88	0.222	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	7.38		ng/l	1.88	1.25	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.88	0.648	1
Perfluorononanoic Acid (PFNA)	8.51		ng/l	1.88	0.294	1
Perfluorooctanesulfonic Acid (PFOS)	8.32		ng/l	1.88	0.474	1
Perfluorodecanoic Acid (PFDA)	1.02	J	ng/l	1.88	0.286	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.88	1.14	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.88	1.05	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.88	0.610	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.88	0.245	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.88	0.923	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.88	0.546	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.88	0.757	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.88	0.350	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.88	0.308	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.88	0.233	1

Project Name: FORMER GCC **Lab Number:** L2153195

Project Number: 102046.00 **Report Date:** 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-03 Date Collected: 09/30/21 14:00

Client ID: SW-10 Date Received: 09/30/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	88		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**176**	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	70		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	78		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	94		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**191**	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	88		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	84		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	80		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	125		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	59		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	83		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	26		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	69		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	71		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	67		22-136

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2153195
Report Date: 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-04
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 09/30/21 14:00
Date Received: 09/30/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 10/11/21 22:02
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 10/08/21 16:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.83	0.373	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.83	0.362	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.83	0.218	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.83	0.413	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.83	0.300	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.83	0.224	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.83	0.206	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.83	0.344	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.83	0.216	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.83	1.22	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.83	0.629	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.83	0.285	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.83	0.461	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.83	0.278	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.83	1.11	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.83	1.02	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.83	0.592	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.83	0.238	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.83	0.896	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.83	0.530	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.83	0.735	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.83	0.340	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.83	0.299	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.83	0.227	1

Project Name: FORMER GCC **Lab Number:** L2153195

Project Number: 102046.00 **Report Date:** 10/13/21

SAMPLE RESULTS

Lab ID: L2153195-04 Date Collected: 09/30/21 14:00

Client ID: FIELD BLANK Date Received: 09/30/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	116		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	78		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	90		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	88		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	101		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	101		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	79		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	108		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	48		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	77		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	98		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2153195
Report Date: 10/13/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 10/09/21 22:02
Analyst: MP

Extraction Method: ALPHA 23528
Extraction Date: 10/08/21 16:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04 Batch: WG1556281-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	0.452
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2153195
Report Date: 10/13/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 10/09/21 22:02
Analyst: MP

Extraction Method: ALPHA 23528
Extraction Date: 10/08/21 16:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04 Batch: WG1556281-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	91		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	78		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	86		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	98		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	87		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	98		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	100		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	68		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	97		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	44		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	68		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	90		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87		22-136

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2153195
Report Date: 10/13/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 Batch: WG1556281-2								
Perfluorobutanoic Acid (PFBA)	108		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	109		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	109		-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	113		-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	106		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	109		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	106		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	103		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	106		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	111		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	108		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	111		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	107		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	105		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	103		-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	110		-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	110		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	105		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	115		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	103		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	106		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	108		-		67-153	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2153195

Report Date: 10/13/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 Batch: WG1556281-2								
Perfluorotridecanoic Acid (PFTrDA)	108		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	103		-		59-182	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	116				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	95				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	98				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	108				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	102				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	109				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	106				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	101				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	124				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	76				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	106				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	50				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	85				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	103				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	99				22-136

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2153195
Report Date: 10/13/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1556281-3 QC Sample: L2153439-40 Client ID: MS Sample												
Perfluorobutanesulfonic Acid (PFBS)	1.61J	34.1	40.0	112		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	36	41.6	116		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	2.77	38.4	44.9	110		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	36.1	39.4	109		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	1.34J	38.4	44.4	112		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	0.898J	35.1	39.3	109		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	2.41	38.4	45.6	112		-	-		63-159	-		30
Perfluorononanoic Acid (PFNA)	0.736J	38.4	45.6	117		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	2.77	35.7	48.6	128		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	0.278J	38.4	42.9	111		-	-		63-171	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	38.4	40.0	104		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	38.4	43.0	112		-	-		60-153	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	38.4	45.9	119		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	ND	38.4	43.7	114		-	-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	38.4	44.7	116		-	-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	38.4	43.6	113		-	-		59-182	-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**162**	Q			12-142
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	67				24-116

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2153195

Report Date: 10/13/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1556281-3 QC Sample: L2153439-40 Client ID: MS Sample												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	85				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	77				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	83				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	80				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77				22-136
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	89				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	85				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94				70-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2153195
Report Date: 10/13/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1556281-4 QC Sample: L2153439-65 Client ID: DUP Sample						
Perfluorobutanesulfonic Acid (PFBS)	1.48J	1.42J	ng/l	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	2.39	2.37	ng/l	1		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	1.24J	1.18J	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	0.899J	0.946J	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	2.12	2.15	ng/l	1		30
Perfluorononanoic Acid (PFNA)	0.678J	0.659J	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	2.40	2.68	ng/l	11		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		96		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**172**	Q	**152**	Q	12-142

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2153195
Report Date: 10/13/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1556281-4 QC Sample: L2153439-65 Client ID: DUP Sample

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	81		76		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89		85		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100		99		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		91		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94		89		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	98		93		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90		90		62-124
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		67		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	92		94		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65		63		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	86		88		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		86		22-136

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2153195
Report Date: 10/13/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2153195-01A	Plastic 250ml unpreserved	A	NA		5.9	Y	Absent		A2-537-ISOTOPE(14)
L2153195-01B	Plastic 250ml unpreserved	A	NA		5.9	Y	Absent		A2-537-ISOTOPE(14)
L2153195-02A	Plastic 250ml unpreserved	A	NA		5.9	Y	Absent		A2-537-ISOTOPE(14)
L2153195-03A	Plastic 250ml unpreserved	A	NA		5.9	Y	Absent		A2-537-ISOTOPE(14)
L2153195-03B	Plastic 250ml unpreserved	A	NA		5.9	Y	Absent		A2-537-ISOTOPE(14)
L2153195-04A	Plastic 250ml unpreserved	A	NA		5.9	Y	Absent		A2-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: FORMER GCC
Project Number: 102046.00
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PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2153195
Project Number:	102046.00	**Report Date:**	10/13/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2153195
Project Number:	102046.00	**Report Date:**	10/13/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2153195
Project Number:	102046.00	**Report Date:**	10/13/21

REFERENCES

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/30/21

ALPHA Job #: L2153195

Client Information

Client: MassDEP- NERO
Address: 205B LOWELL ST WILMINGTON MA
Phone: 978-694-3392
Fax: —
Email: Erik.Johnson@mass.gov
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: GCC-DEP
Project Location: FRAMINGHAM
Project #: 102046
Project Manager: E. JOHNSON
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: PFAS 537.1 (ISOTOPE DILUTION)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS 537.1 (ISOTOPE DILUTION)	Sample Specific Comments	TOTAL # BOTTLES
53195-01	LGAC-INF	9/30/21	1240	W	EJ	X		2
-02	FIELD BLANK	9/30/21	1240	W	EJ	X		2
-03	SW-10	9/30/21	1400	SW	EJ	X		2
-04	FIELD BLANK	9/30/21	1400	W	EJ	X		2

Container Type: P
Preservative: A

Relinquished By:	Date/Time	Received By:	Date/Time
Erik Johnson	9/30/21/1510	[signature]	9/30/21 1510

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

ANALYTICAL REPORT

Lab Number:	L2159107
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	FORMER GCC
Project Number:	102046.00
Report Date:	11/14/21

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2159107
Report Date: 11/14/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2159107-01	LGAC-INF	DW	FRAMINGHAM	10/28/21 11:50	10/28/21
L2159107-02	FIELD BLANK	DW	FRAMINGHAM	10/28/21 11:50	10/28/21
L2159107-03	SW-10	DW	FRAMINGHAM	10/28/21 12:45	10/28/21
L2159107-04	FIELD BLANK	DW	FRAMINGHAM	10/28/21 12:45	10/28/21

Project Name:	FORMER GCC	**Lab Number:**	L2159107
Project Number:	102046.00	**Report Date:**	11/14/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	FORMER GCC	**Lab Number:**	L2159107
Project Number:	102046.00	**Report Date:**	11/14/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by Isotope Dilution

L2159107-01 and -03: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The WG1569381-3 MS recovery, performed on L2159107-01, is outside the acceptance criteria for 1h,1h,2h,2h-perfluorooctanesulfonic acid (6:2fts) (31%).

WG1569381-3: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 11/14/21

ORGANICS

SEMIVOLATILES

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2159107
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-01
Client ID: LGAC-INF
Sample Location: FRAMINGHAM

Date Collected: 10/28/21 11:50
Date Received: 10/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/11/21 03:54
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 11/10/21 07:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	196		ng/l	1.94	0.395	1
Perfluoropentanoic Acid (PFPeA)	192		ng/l	1.94	0.384	1
Perfluorobutanesulfonic Acid (PFBS)	1.33	J	ng/l	1.94	0.230	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.94	0.438	1
Perfluorohexanoic Acid (PFHxA)	108		ng/l	1.94	0.318	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.94	0.238	1
Perfluoroheptanoic Acid (PFHpA)	174		ng/l	1.94	0.218	1
Perfluorohexanesulfonic Acid (PFHxS)	1.21	J	ng/l	1.94	0.364	1
Perfluorooctanoic Acid (PFOA)	125		ng/l	1.94	0.229	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	281		ng/l	1.94	1.29	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.94	0.666	1
Perfluorononanoic Acid (PFNA)	57.0		ng/l	1.94	0.302	1
Perfluorooctanesulfonic Acid (PFOS)	13.2		ng/l	1.94	0.488	1
Perfluorodecanoic Acid (PFDA)	54.7		ng/l	1.94	0.294	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	188		ng/l	1.94	1.17	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.94	1.08	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.94	0.628	1
Perfluoroundecanoic Acid (PFUnA)	4.14		ng/l	1.94	0.252	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.94	0.949	1
Perfluorooctanesulfonamide (FOSA)	2.83	F	ng/l	1.94	0.562	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.94	0.779	1
Perfluorododecanoic Acid (PFDoA)	1.04	J	ng/l	1.94	0.360	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.94	0.317	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.94	0.240	1

Project Name: FORMER GCC **Lab Number:** L2159107

Project Number: 102046.00 **Report Date:** 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-01 Date Collected: 10/28/21 11:50

Client ID: LGAC-INF Date Received: 10/28/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	104		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**247**	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	81		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**306**	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	145		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	77		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	81		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	35		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	76		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	76		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	76		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2159107
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 10/28/21 11:50
Date Received: 10/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/11/21 04:28
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 11/10/21 07:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.92	0.391	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.92	0.380	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.92	0.228	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.92	0.433	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.92	0.314	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.92	0.235	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.92	0.216	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.92	0.360	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.92	0.226	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.92	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.92	0.660	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.92	0.299	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.92	0.483	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.92	0.291	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	1.16	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.92	1.07	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.621	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.249	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.92	0.939	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.556	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.771	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.357	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.314	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.238	1

Project Name: FORMER GCC **Lab Number:** L2159107

Project Number: 102046.00 **Report Date:** 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-02 Date Collected: 10/28/21 11:50

Client ID: FIELD BLANK Date Received: 10/28/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	122		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	98		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	90		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	93		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	97		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	86		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	88		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	76		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	51		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	69		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	79		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2159107
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-03
Client ID: SW-10
Sample Location: FRAMINGHAM

Date Collected: 10/28/21 12:45
Date Received: 10/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/11/21 04:44
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 11/10/21 07:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	46.6		ng/l	2.49	0.508	1
Perfluoropentanoic Acid (PFPeA)	125		ng/l	2.49	0.493	1
Perfluorobutanesulfonic Acid (PFBS)	2.38	J	ng/l	2.49	0.296	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.49	0.563	1
Perfluorohexanoic Acid (PFHxA)	54.1		ng/l	2.49	0.408	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.49	0.305	1
Perfluoroheptanoic Acid (PFHpA)	44.2		ng/l	2.49	0.280	1
Perfluorohexanesulfonic Acid (PFHxS)	1.41	JF	ng/l	2.49	0.468	1
Perfluorooctanoic Acid (PFOA)	54.6		ng/l	2.49	0.294	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	2.55		ng/l	2.49	1.66	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.49	0.856	1
Perfluorononanoic Acid (PFNA)	7.61		ng/l	2.49	0.388	1
Perfluorooctanesulfonic Acid (PFOS)	6.87		ng/l	2.49	0.627	1
Perfluorodecanoic Acid (PFDA)	1.24	JF	ng/l	2.49	0.378	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.49	1.51	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.49	1.39	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.49	0.806	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.49	0.324	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.49	1.22	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.49	0.722	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.49	1.00	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.49	0.463	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.49	0.407	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.49	0.309	1

Project Name: FORMER GCC **Lab Number:** L2159107

Project Number: 102046.00 **Report Date:** 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-03 Date Collected: 10/28/21 12:45

Client ID: SW-10 Date Received: 10/28/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	109		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	115		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**208**	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	82		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	105		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**201**	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	108		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	51		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	82		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	25		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	51		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	69		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	71		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2159107
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-04
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 10/28/21 12:45
Date Received: 10/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/11/21 05:01
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 11/10/21 07:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.92	0.391	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.92	0.380	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.92	0.228	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.92	0.434	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.92	0.315	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.92	0.235	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.92	0.216	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.92	0.361	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.92	0.226	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.92	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.92	0.660	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.92	0.299	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.92	0.484	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.92	0.292	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	1.16	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.92	1.07	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.622	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.249	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.92	0.940	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.556	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.771	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.357	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.314	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.238	1

Project Name: FORMER GCC **Lab Number:** L2159107

Project Number: 102046.00 **Report Date:** 11/14/21

SAMPLE RESULTS

Lab ID: L2159107-04 Date Collected: 10/28/21 12:45

Client ID: FIELD BLANK Date Received: 10/28/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	123		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	88		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	94		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	83		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	96		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	57		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	64		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80		22-136

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2159107
Report Date: 11/14/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/11/21 03:21
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 11/10/21 07:24

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04 Batch: WG1569381-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	0.452
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248

Project Name: FORMER GCC
Project Number: 102046.00
Lab Number: L2159107
Report Date: 11/14/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/11/21 03:21
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 11/10/21 07:24

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04 Batch: WG1569381-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	114		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	107		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	101		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	92		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	101		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	88		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	74		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	98		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	55		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	70		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	87		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	99		22-136

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2159107
Report Date: 11/14/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 Batch: WG1569381-2								
Perfluorobutanoic Acid (PFBA)	101		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	98		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	100		-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	111		-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	99		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	98		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	103		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	96		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	102		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	118		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	104		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	99		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	96		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	106		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	108		-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	101		-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	92		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	105		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	110		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	95		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	94		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	100		-		67-153	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2159107

Report Date: 11/14/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 Batch: WG1569381-2								
Perfluorotridecanoic Acid (PFTrDA)	119		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	103		-		59-182	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	109				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	104				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	90				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	95				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	92				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	86				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	70				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	91				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	51				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	72				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82				22-136

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2159107

Report Date: 11/14/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1569381-3 QC Sample: L2159107-01 Client ID: LGAC-INF												
Perfluorobutanoic Acid (PFBA)	196	37	227	84		-	-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	192	37	222	81		-	-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	1.33J	32.8	34.0	99		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	34.6	40.4	117		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	108	37	145	100		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	34.8	33.1	95		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	174	37	214	108		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	1.21J	33.8	34.2	98		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	125	37	166	111		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	281	35.2	292	**31**	Q	-	-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	35.2	39.1	111		-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	57.0	37	90.6	91		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	13.2	34.3	47.3	99		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	54.7	37	94.5	108		-	-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	188	35.5	212	68		-	-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	35.6	33.0	93		-	-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	37	36.4	98		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	4.14	37	41.4	101		-	-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	35.7	32.6	91		-	-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	2.83F	37	38.5	96		-	-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	37	36.9	100		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	1.04J	37	38.0	100		-	-		67-153	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER GCC

Project Number: 102046.00

Lab Number: L2159107

Report Date: 11/14/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1569381-3 QC Sample: L2159107-01 Client ID: LGAC-INF												
Perfluorotridecanoic Acid (PFTrDA)	ND	37	47.1	127		-	-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	37	40.6	110		-	-		59-182	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**169**	Q			10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**260**	Q			12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**346**	Q			14-147
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	78				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	69				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	82				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	80				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	73				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	76				22-136
Perfluoro[13C4]Butanoic Acid (MPFBA)	96				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107				62-163
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	36				10-112
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104				70-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2159107
Report Date: 11/14/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1569381-4 QC Sample: L2161095-01 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	ND	ND	ng/l	NC		30
Perfluoropentanoic Acid (PFPeA)	ND	ND	ng/l	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/l	NC		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/l	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	2.78	2.70	ng/l	3		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/l	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2159107
Report Date: 11/14/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1569381-4 QC Sample: L2161095-01 Client ID: DUP Sample						
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	ND	ng/l	NC		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC		30
Perfluorohexadecanoic Acid (PFHxDA)	ND	ND	ng/l	NC		30
Perfluorooctadecanoic Acid (PFODA)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		99		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	138		144		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105		109		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	90		92		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95		98		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99		102		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		112		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98		100		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		87		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96		97		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94		99		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	94		94		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	80		81		10-162

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2159107
Report Date: 11/14/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1569381-4 QC Sample: L2161095-01 Client ID: DUP Sample

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		62		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	99		103		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	27		31		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	61		60		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89		89		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	81		88		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	99		101		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	95		102		10-206

Project Name: FORMER GCC
Project Number: 102046.00

Lab Number: L2159107
Report Date: 11/14/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2159107-01A	Plastic 250ml unpreserved	A	NA		7.2	Y	Absent		A2-537-ISOTOPE(14)
L2159107-01B	Plastic 250ml unpreserved	A	NA		7.2	Y	Absent		A2-537-ISOTOPE(14)
L2159107-02A	Plastic 250ml unpreserved	A	NA		7.2	Y	Absent		A2-537-ISOTOPE(14)
L2159107-03A	Plastic 250ml unpreserved	A	NA		7.2	Y	Absent		A2-537-ISOTOPE(14)
L2159107-03B	Plastic 250ml unpreserved	A	NA		7.2	Y	Absent		A2-537-ISOTOPE(14)
L2159107-04A	Plastic 250ml unpreserved	A	NA		7.2	Y	Absent		A2-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: FORMER GCC
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PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: FORMER GCC **Lab Number:** L2159107

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GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2159107
Project Number:	102046.00	**Report Date:**	11/14/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2159107
Project Number:	102046.00	**Report Date:**	11/14/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER GCC	**Lab Number:**	L2159107
Project Number:	102046.00	**Report Date:**	11/14/21

REFERENCES

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2159107

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 10/28/21

ALPHA Job #: ~~L2159017~~ L2159107

Client Information

Client: Mass DEP - NERO
Address: 205B LOWELL ST. WILMINGTON, MA
Phone: 978-694-3392
Email: Erik.Johnson@mass.gov

Project Information

Project Name: GCC - DEP
Project Location: FRAMINGHAM
Project #: 102046
Project Manager: E. JOHNSON
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ____ Criteria ____

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; PFAS 537.1 [illegible] DILUTION

SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	PFAS 537.1	Sample Comments	TOTAL # BOTTLES
~~59017~~ 59107-01	LGAC-INF	10/28/21	1150	W	EJ	X		2
-02	FIELD BLANK	10/28/21	1150	W	EJ	X		2
-03	SW-10	↓	1245	W	EJ	X		2
-04	FIELD BLANK	↓	1245	W	EJ	X		2

	PFAS 537.1
Container Type	P
Preservative	A

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Erik Johnson	10/28/21 1340	[signature] AAL	10/28/21 1340
[signature] AAL	10-28-21 15:00	Joseph C. [signature]	10/28/21 1500
Joseph C. [signature]	10/28/21 1554	[signature] AAL	10/28/21 1554

ANALYTICAL REPORT

Lab Number:	L2162053
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	DEP - HARMONY GROVE
Project Number:	102063
Report Date:	11/22/21

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: DEP - HARMONY GROVE
Project Number: 102063

Lab Number: L2162053
Report Date: 11/22/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2162053-01	AA-03	AIR	FRAMINGHAM	11/10/21 13:12	11/10/21
L2162053-02	IA-01	AIR	FRAMINGHAM	11/10/21 15:41	11/10/21
L2162053-03	IA-02	AIR	FRAMINGHAM	11/10/21 15:42	11/10/21
L2162053-04	IA-03	AIR	FRAMINGHAM	11/10/21 15:40	11/10/21

Project Name: DEP - HARMONY GROVE **Lab Number:** L2162053

Project Number: 102063 **Report Date:** 11/22/21

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name:	DEP - HARMONY GROVE	**Lab Number:**	L2162053
Project Number:	102063	**Report Date:**	11/22/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	DEP - HARMONY GROVE	**Lab Number:**	L2162053
Project Number:	102063	**Report Date:**	11/22/21

Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on November 5, 2021. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 11/22/21

QC OUTLIER SUMMARY REPORT

Project Name: DEP - HARMONY GROVE
Project Number: 102063

Lab Number: L2162053
Report Date: 11/22/21

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment

There are no QC Outliers associated with this report.

AIR

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-01
Client ID: AA-03
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 13:12
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 11/20/21 20:22
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	1.86	1.00	--	4.42	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.116	0.100	--	0.371	0.319	--		1
Carbon tetrachloride	0.069	0.020	--	0.434	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-01
Client ID: AA-03
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 13:12
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Xylenes, Total	0.145	0.020	--	0.630	0.087	--		1
Toluene	0.227	0.100	--	0.855	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.023	0.020	--	0.156	0.136	--		1
1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.035	0.020	--	0.152	0.087	--		1
p/m-Xylene	0.102	0.040	--	0.443	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.043	0.020	--	0.187	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	97		60-140

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-02
Client ID: IA-01
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 15:41
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 11/21/21 01:14
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	4.07	1.00	--	9.67	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	0.087	0.020	--	0.345	0.079	--		1
Chloroform	0.028	0.020	--	0.137	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.180	0.100	--	0.575	0.319	--		1
Carbon tetrachloride	0.067	0.020	--	0.421	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-02
Client ID: IA-01
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 15:41
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Xylenes, Total	0.298	0.020	--	1.29	0.087	--		1
Toluene	0.442	0.100	--	1.67	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.036	0.020	--	0.244	0.136	--		1
1,2-Dichloroethene (total)	0.087	0.020	--	0.345	0.079	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.073	0.020	--	0.317	0.087	--		1
p/m-Xylene	0.213	0.040	--	0.925	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.020	0.020	--	0.085	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.085	0.020	--	0.369	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	89		60-140

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-03
Client ID: IA-02
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 15:42
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 11/21/21 01:54
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	4.18	1.00	--	9.93	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	0.074	0.020	--	0.293	0.079	--		1
Chloroform	0.029	0.020	--	0.142	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.171	0.100	--	0.546	0.319	--		1
Carbon tetrachloride	0.068	0.020	--	0.428	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-03
Client ID: IA-02
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 15:42
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Xylenes, Total	0.279	0.020	--	1.21	0.087	--		1
Toluene	0.520	0.100	--	1.96	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.034	0.020	--	0.231	0.136	--		1
1,2-Dichloroethene (total)	0.074	0.020	--	0.293	0.079	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.073	0.020	--	0.317	0.087	--		1
p/m-Xylene	0.198	0.040	--	0.860	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.022	0.020	--	0.094	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.081	0.020	--	0.352	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	91		60-140

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-04
Client ID: IA-03
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 15:40
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 11/21/21 02:36
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	3.70	1.00	--	8.79	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	0.074	0.020	--	0.293	0.079	--		1
Chloroform	0.027	0.020	--	0.132	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.020	0.020	--	0.109	0.109	--		1
Benzene	0.172	0.100	--	0.549	0.319	--		1
Carbon tetrachloride	0.070	0.020	--	0.440	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

SAMPLE RESULTS

Lab ID: L2162053-04
Client ID: IA-03
Sample Location: FRAMINGHAM

Date Collected: 11/10/21 15:40
Date Received: 11/10/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Xylenes, Total	0.280	0.020	--	1.22	0.087	--		1
Toluene	0.522	0.100	--	1.97	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.037	0.020	--	0.251	0.136	--		1
1,2-Dichloroethene (total)	0.074	0.020	--	0.293	0.079	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.073	0.020	--	0.317	0.087	--		1
p/m-Xylene	0.201	0.040	--	0.873	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.024	0.020	--	0.102	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.079	0.020	--	0.343	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15-SIM
Analytical Date: 11/20/21 19:43

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04 Batch: WG1574041-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Xylenes, Total	ND	0.020	--	ND	0.087	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15-SIM
Analytical Date: 11/20/21 19:43

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04 Batch: WG1574041-4								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15-SIM
Analytical Date: 11/20/21 19:43

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04 Batch: WG1574041-4								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEP - HARMONY GROVE
Project Number: 102063

Lab Number: L2162053
Report Date: 11/22/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG1574041-3								
Dichlorodifluoromethane	86		-		70-130	-		
Chloromethane	94		-		70-130	-		
Freon-114	92		-		70-130	-		
Vinyl chloride	84		-		70-130	-		
1,3-Butadiene	98		-		70-130	-		
Bromomethane	85		-		70-130	-		
Chloroethane	83		-		70-130	-		
Acetone	77		-		50-150	-		
Trichlorofluoromethane	87		-		70-130	-		
Acrylonitrile	83		-		70-130	-		
1,1-Dichloroethene	86		-		70-130	-		
Methylene chloride	92		-		70-130	-		
Freon-113	86		-		70-130	-		
trans-1,2-Dichloroethene	84		-		70-130	-		
1,1-Dichloroethane	85		-		70-130	-		
Methyl tert butyl ether	83		-		70-130	-		
2-Butanone	86		-		70-130	-		
cis-1,2-Dichloroethene	88		-		70-130	-		
Chloroform	85		-		70-130	-		
1,2-Dichloroethane	82		-		70-130	-		
1,1,1-Trichloroethane	95		-		70-130	-		
Benzene	80		-		70-130	-		
Carbon tetrachloride	90		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEP - HARMONY GROVE
Project Number: 102063

Lab Number: L2162053
Report Date: 11/22/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG1574041-3								
1,2-Dichloropropane	88		-		70-130	-		
Bromodichloromethane	89		-		70-130	-		
1,4-Dioxane	92		-		50-150	-		
Trichloroethene	88		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	100		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	99		-		70-130	-		
Toluene	80		-		70-130	-		
Dibromochloromethane	89		-		70-130	-		
1,2-Dibromoethane	93		-		70-130	-		
Tetrachloroethene	81		-		70-130	-		
1,1,1,2-Tetrachloroethane	83		-		70-130	-		
Chlorobenzene	89		-		70-130	-		
Ethylbenzene	92		-		70-130	-		
p/m-Xylene	92		-		70-130	-		
Bromoform	88		-		70-130	-		
Styrene	92		-		70-130	-		
1,1,2,2-Tetrachloroethane	90		-		70-130	-		
o-Xylene	92		-		70-130	-		
Isopropylbenzene	87		-		70-130	-		
1,3,5-Trimethylbenzene	94		-		70-130	-		
1,2,4-Trimethylbenzene	94		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: DEP - HARMONY GROVE
Project Number: 102063

Lab Number: L2162053
Report Date: 11/22/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG1574041-3								
1,3-Dichlorobenzene	95		-		70-130	-		
1,4-Dichlorobenzene	95		-		70-130	-		
sec-Butylbenzene	86		-		70-130	-		
p-Isopropyltoluene	79		-		70-130	-		
1,2-Dichlorobenzene	95		-		70-130	-		
n-Butylbenzene	92		-		70-130	-		
1,2,4-Trichlorobenzene	102		-		50-150	-		
Naphthalene	89		-		50-150	-		
1,2,3-Trichlorobenzene	88		-		70-130	-		
Hexachlorobutadiene	94		-		50-150	-		

Project Name: DEP - HARMONY GROVE

Lab Number: L2162053

Project Number: 102063

Report Date: 11/22/21

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2162053-01	AA-03	0814	Flow 5	11/05/21	369376		-	-	-	Pass	4.5	3.8	17
L2162053-01	AA-03	2023	2.7L Can	11/05/21	369376	L2159370-07	Pass	-29.8	2.0	-	-	-	-
L2162053-02	IA-01	01889	Flow 5	11/05/21	369376		-	-	-	Pass	4.5	3.9	14
L2162053-02	IA-01	3198	2.7L Can	11/05/21	369376	L2159370-07	Pass	-29.7	-8.6	-	-	-	-
L2162053-03	IA-02	0021	Flow 5	11/05/21	369376		-	-	-	Pass	4.5	4.3	5
L2162053-03	IA-02	3181	2.7L Can	11/05/21	369376	L2159370-07	Pass	-29.6	-8.3	-	-	-	-
L2162053-04	IA-03	01200	Flow 5	11/05/21	369376		-	-	-	Pass	4.5	4.1	9
L2162053-04	IA-03	2207	2.7L Can	11/05/21	369376	L2159370-07	Pass	-29.9	-9.3	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2159370

Project Number: CANISTER QC BAT **Report Date:** 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/02/21 05:26
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2159370

Project Number: CANISTER QC BAT **Report Date:** 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2159370

Project Number: CANISTER QC BAT **Report Date:** 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159370
Report Date: 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159370
Report Date: 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	75		60-140
Bromochloromethane	75		60-140
chlorobenzene-d5	77		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2159370

Project Number: CANISTER QC BAT **Report Date:** 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/02/21 05:26
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2159370

Project Number: CANISTER QC BAT **Report Date:** 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2159370
Report Date: 11/22/21

Air Canister Certification Results

Lab ID: L2159370-07
Client ID: CAN 2185 SHELF 18
Sample Location:

Date Collected: 10/29/21 10:00
Date Received: 10/29/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	75		60-140
bromochloromethane	75		60-140
chlorobenzene-d5	78		60-140

Project Name: DEP - HARMONY GROVE
Project Number: 102063

Lab Number: L2162053
Report Date: 11/22/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2162053-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2162053-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2162053-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2162053-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	DEP - HARMONY GROVE	**Lab Number:**	L2162053
Project Number:	102063	**Report Date:**	11/22/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	DEP - HARMONY GROVE	**Lab Number:**	L2162053
Project Number:	102063	**Report Date:**	11/22/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report

Project Name:	DEP - HARMONY GROVE	**Lab Number:**	L2162053
Project Number:	102063	**Report Date:**	11/22/21

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name: DEP - HARMONY GROVE
Project Number: 102063
Lab Number: L2162053
Report Date: 11/22/21

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/10/21

ALPHA Job #: L2162053

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Mass DEP

Address: 205B Lowell St. Wilmington, MA

Phone: 781-400-4378

Fax:

Email: Erik.Johnson@mass.gov

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: DEP-Harmony Grove

Project Location: Framingham

Project #: 102063

Project Manager: E. Johnson

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX

☒ ADEx

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

☒ EMAIL (standard pdf report)

☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments;

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15		Sample Comments (i.e. PID)
62053-01	AA-03	11/10/21	0825	1312	-29.88	-2.26	AA	EJ	2.7L	2023	0814	X						
-02	IA-01	11/10/21	0745	1541	-29.88	-8.45	AA	EJ	2.7L	3198	1889	X						
-03	IA-02	11/10/21	0750	1542	-29.88	-8.00	AA	EJ	2.7L	3181	0021	X						
	IA-03	11/10/21	0755	1540	-29.58	-9.73	AA	EJ	2.7L	2207	1200	X						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
Erik Johnson	11/10/21 1625	[signature]	11/10/21 1625
[signature]	11/10 2000	Joseph C. [signature]	11/10/21 2000
Joseph C. [signature]	11/10/21 2123	Kim L. Bailey	11/10/21 21:23

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 Rev: (25-Sep-15)

ANALYTICAL REPORT

Lab Number:	L2168616
Client:	Massachusetts DEP 205B Lowell Street Wilmington, MA 01887
ATTN:	Erik Johnson
Phone:	(978) 694-3392
Project Name:	GCC-DEP
Project Number:	102046
Report Date:	01/06/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2168616-01	SW-10	WATER	FRAMINGHAM	12/14/21 12:50	12/14/21
L2168616-02	FIELD BLANK	WATER	FRAMINGHAM	12/14/21 12:50	12/14/21

Project Name:	GCC-DEP	**Lab Number:**	L2168616
Project Number:	102046	**Report Date:**	01/06/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCC-DEP	**Lab Number:**	L2168616
Project Number:	102046	**Report Date:**	01/06/22

Case Narrative (continued)

Report Submission

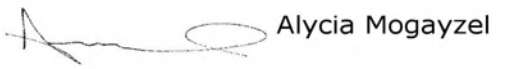
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by Isotope Dilution

L2168616-01, WG1588247-2 and WG1588247-3: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

L2168616-02: The Field Blank has a result for 6:2FTS present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over. There is no remaining volume for re-extraction confirmation.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Alycia Mogayzel

Title: Technical Director/Representative Date: 01/06/22

ORGANICS

SEMIVOLATILES

Project Name: GCC-DEP
Project Number: 102046
Lab Number: L2168616
Report Date: 01/06/22

SAMPLE RESULTS

Lab ID: L2168616-01
Client ID: SW-10
Sample Location: FRAMINGHAM

Date Collected: 12/14/21 12:50
Date Received: 12/14/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 12/30/21 12:54
Analyst:

Extraction Method: ALPHA 23528
Extraction Date: 12/28/21 13:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	38.9		ng/l	1.98	0.404	1
Perfluoropentanoic Acid (PFPeA)	148		ng/l	1.98	0.392	1
Perfluorobutanesulfonic Acid (PFBS)	1.28	J	ng/l	1.98	0.236	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.98	0.447	1
Perfluorohexanoic Acid (PFHxA)	67.4		ng/l	1.98	0.325	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.98	0.243	1
Perfluoroheptanoic Acid (PFHpA)	53.7		ng/l	1.98	0.223	1
Perfluorohexanesulfonic Acid (PFHxS)	1.31	J	ng/l	1.98	0.372	1
Perfluorooctanoic Acid (PFOA)	56.2		ng/l	1.98	0.234	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	10.3		ng/l	1.98	1.32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.98	0.681	1
Perfluorononanoic Acid (PFNA)	10.6		ng/l	1.98	0.309	1
Perfluorooctanesulfonic Acid (PFOS)	11.4		ng/l	1.98	0.499	1
Perfluorodecanoic Acid (PFDA)	1.42	J	ng/l	1.98	0.301	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.98	1.20	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.98	1.11	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.98	0.641	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.98	0.257	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.98	0.970	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.98	0.574	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.98	0.796	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.98	0.368	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.98	0.324	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.98	0.245	1

Project Name: GCC-DEP **Lab Number:** L2168616

Project Number: 102046 **Report Date:** 01/06/22

SAMPLE RESULTS

Lab ID: L2168616-01 Date Collected: 12/14/21 12:50

Client ID: SW-10 Date Received: 12/14/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	97		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	90		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**209**	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	81		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**223**	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	105		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	102		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	144		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	97		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	106		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	39		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	82		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	92		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	90		22-136

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

SAMPLE RESULTS

Lab ID: L2168616-02
Client ID: FIELD BLANK
Sample Location: FRAMINGHAM

Date Collected: 12/14/21 12:50
Date Received: 12/14/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 12/30/21 13:27
Analyst:

Extraction Method: ALPHA 23528
Extraction Date: 12/28/21 13:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.98	0.405	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.98	0.393	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.98	0.236	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.98	0.448	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.98	0.325	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.98	0.243	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.98	0.223	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.98	0.373	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.98	0.234	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	2.63		ng/l	1.98	1.32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.98	0.682	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.98	0.309	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.98	0.500	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.98	0.302	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.98	1.20	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.98	1.11	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.98	0.643	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.98	0.258	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.98	0.972	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.98	0.575	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.98	0.797	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.98	0.369	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.98	0.324	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.98	0.246	1

Project Name: GCC-DEP **Lab Number:** L2168616

Project Number: 102046 **Report Date:** 01/06/22

SAMPLE RESULTS

Lab ID: L2168616-02 Date Collected: 12/14/21 12:50

Client ID: FIELD BLANK Date Received: 12/14/21

Sample Location: FRAMINGHAM Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	114		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	74		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	103		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	81		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	108		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	86		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	96		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	50		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	104		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	105		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	86		22-136

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 12/30/21 12:21
Analyst:

Extraction Method: ALPHA 23528
Extraction Date: 12/28/21 13:55

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1588247-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	0.452
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.33	J	ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 12/30/21 12:21
Analyst:

Extraction Method: ALPHA 23528
Extraction Date: 12/28/21 13:55

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1588247-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	112		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	97		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	101		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	105		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	110		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	111		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	86		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	110		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	61		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	94		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	104		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	99		22-136

Lab Control Sample Analysis
Batch Quality Control

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1588247-2								
Perfluorobutanoic Acid (PFBA)	100		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	98		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	97		-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	107		-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	98		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	90		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	100		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	105		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	96		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	114		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	96		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	96		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	112		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	91		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	101		-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	100		-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	104		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	103		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	103		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	99		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	92		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	102		-		67-153	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCC-DEP

Project Number: 102046

Lab Number: L2168616

Report Date: 01/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1588247-2								
Perfluorotridecanoic Acid (PFTrDA)	112		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	94		-		59-182	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	95				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	104				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	102				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	104				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	94				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	112				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	107				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	95				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	89				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	103				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	59				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**127**	Q			27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	97				22-136

Matrix Spike Analysis

Batch Quality Control

Project Name: GCC-DEP

Project Number: 102046

Lab Number: L2168616

Report Date: 01/06/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1588247-3 QC Sample: L2168616-01 Client ID: SW-10												
Perfluorobutanoic Acid (PFBA)	38.9	36.1	71.8	91		-	-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	148	36.1	187	108		-	-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	1.28J	32	33.4	100		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	33.8	34.1	101		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	67.4	36.1	104	101		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	33.9	29.2	86		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	53.7	36.1	91.1	104		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	1.31J	33	35.6	104		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	56.2	36.1	97.6	115		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	10.3	34.3	45.4	102		-	-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	34.3	35.0	102		-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	10.6	36.1	47.0	101		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	11.4	33.5	47.2	107		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	1.42J	36.1	32.8	87		-	-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	34.6	36.2	105		-	-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	34.7	31.4	90		-	-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	36.1	35.8	99		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	36.1	32.6	90		-	-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	34.8	32.4	93		-	-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	ND	36.1	33.5	93		-	-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	36.1	33.0	92		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	ND	36.1	36.4	101		-	-		67-153	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1588247-3 QC Sample: L2168616-01 Client ID: SW-10												
Perfluorotridecanoic Acid (PFTrDA)	ND	36.1	36.3	101		-	-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	36.1	33.5	93		-	-		59-182	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	124				10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	**217**	Q			12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**219**	Q			14-147
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	102				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	93				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	100				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	78				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	87				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	90				22-136
Perfluoro[13C4]Butanoic Acid (MPFBA)	97				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	91				62-163
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	41				10-112
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	98				70-131

Lab Duplicate Analysis
Batch Quality Control

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1588247-4 QC Sample: L2169650-01 Client ID: DUP Sample						
Perfluorooctanoic Acid (PFOA)	17.7	16.4	ng/l	8		30
Perfluorononanoic Acid (PFNA)	1.86F	1.68J	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	3.60	3.45	ng/l	4		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanoic Acid (M8PFOA)	64		69		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	68		71		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	99		103		69-131

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2168616-01A	Plastic 250ml unpreserved	A	NA		5.5	Y	Absent		A2-537-ISOTOPE(14)
L2168616-01B	Plastic 250ml unpreserved	A	NA		5.5	Y	Absent		A2-537-ISOTOPE(14)
L2168616-02A	Plastic 250ml unpreserved	A	NA		5.5	Y	Absent		A2-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: GCC-DEP
Project Number: 102046

Lab Number: L2168616
Report Date: 01/06/22

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	GCC-DEP	**Lab Number:**	L2168616
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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCC-DEP	**Lab Number:**	L2168616
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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

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Project Number:	102046	**Report Date:**	01/06/22

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCC-DEP	**Lab Number:**	L2168616
Project Number:	102046	**Report Date:**	01/06/22

REFERENCES

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/14/21

ALPHA Job #: L2168616

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: MassDEP
Address: 205B Lowell St. Wilmington, MA
Phone: 781-400-4378
Fax: —
Email: Erik.Johnson@mass.gov
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: GCC-DEP
Project Location: Framingham
Project #: 102046
Project Manager: E. Johnson
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: PFAS 537.1 (50 TO 75 DILUTION)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS 537.1	Sample Specific Comments	TOTAL # BOTTLES
68616-01	SW-10	12/14/21	1250	SW	EJ	X		
-02	FIELD BLANK	12/14/21	1250	FB	EJ	X		

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
Erik Johnson	12/14/21 1345	[signature] AAL	12/14/21 1345
[signature]	12/14/21 15:15	[signature]	12/14/21 1515
[signature]	12/14/21 1620	[signature] AAL	12/14/21 1620

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)