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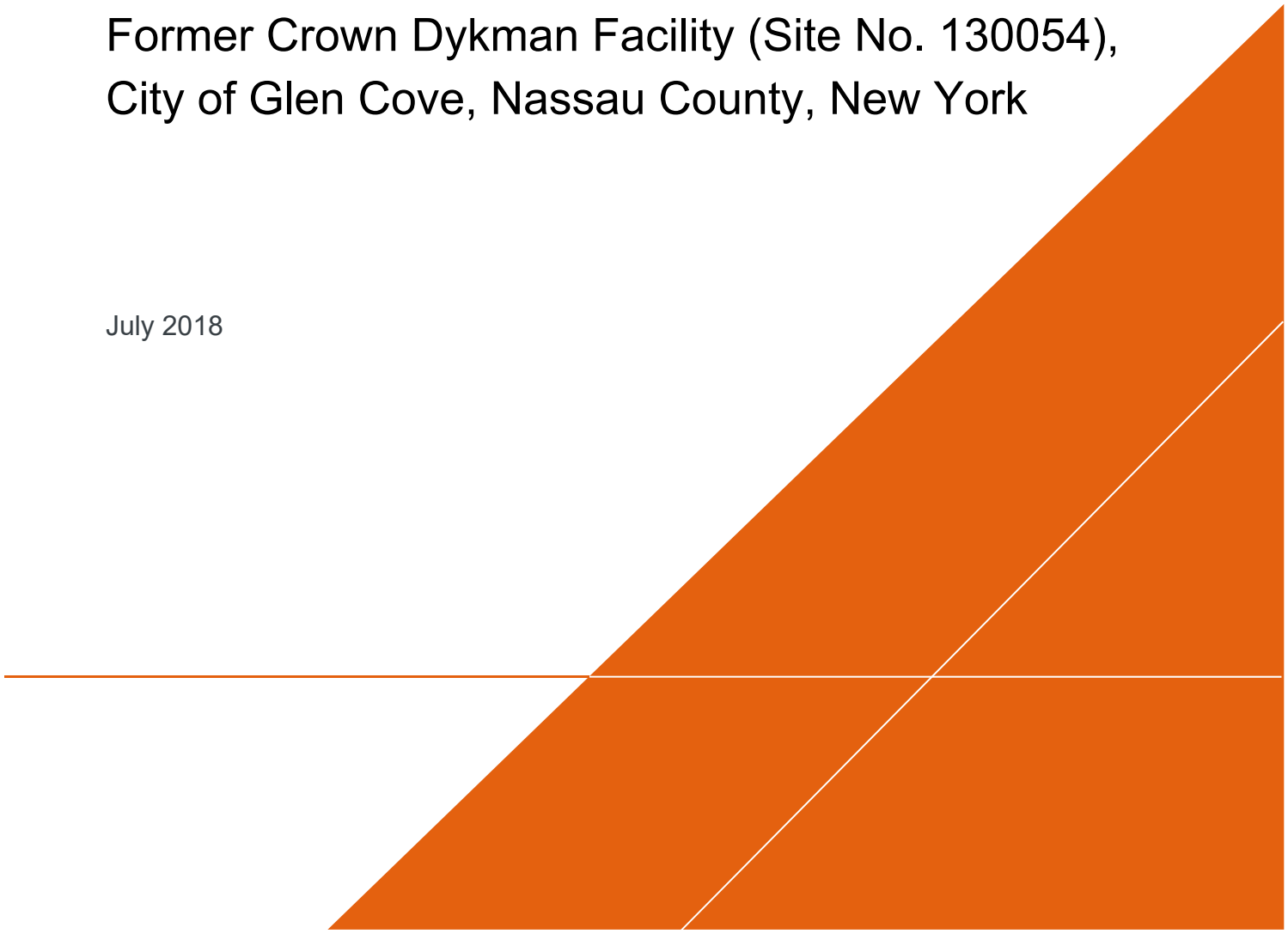
New York State Department of Environmental Conservation

SUPPLEMENTAL PRE-DESIGN SUMMARY REPORT

Former Crown Dykman Facility (Site No. 130054), City of Glen Cove, Nassau County, New York

July 2018



SUPPLEMENTAL PRE-DESIGN SUMMARY REPORT

Former Crown Dykman Facility (Site No. 130054), City of Glen Cove, Nassau County, New York

Prepared for:

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ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
COD	Chemical oxygen demand
cm/sec	Centimeters per second
DCE	Dichloroethylene
ft	Feet
ft/day	Feet per day
gpm	gallons per minute
in	inches
IRM	Interim remedial measure
ISCO	In-situ chemical oxidation
K	Hydraulic Conductivity
LNAPL	Light Non-Aqueous Phase Liquid
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
µg/L	Micrograms per Liter
ng/L	Nanograms per liter
NAPL	Non-Aqueous Phase Liquid
NORM	Naturally Occurring Radioactive Material
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ORP	Oxidation-reduction potential
PCE	Tetrachloroethylene
PFAS	Polyfluorinated alkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PID	Photoionization Detector
PPB	Part per Billion
PPM	Part per Million
PVC	Polyvinyl Chloride
RI/FS	Remedial Investigation (RI) and Feasibility Study (FS)
ROD	Record of Decision
SCO	Site Cleanup Objective

TCA	Trichloroethane
TCE	Trichloroethylene
TCL	Target Compound List
TOC	Total organic carbon
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VC	Vinyl Chloride
VOC	Volatile Organic Compound

1 INTRODUCTION

This Supplemental Pre-Design Summary Report (Report) has been developed to summarize the work completed to further evaluate remedial measure alternatives for the Crown Dykman Site (NYSDEC Site number 130054) located at 66 Herb Hill Road in the City of Glen Cove, Nassau County, New York ('Site', see Figures 1 and 2). The Report summarizes work completed at the Site between 2015 and 2017 in support of additional remedial design for the Site, including completion of a supplemental in-situ chemical oxidation (ISCO) pilot study and supplemental sampling and Site investigation activities, as discussed below.

1.1 Purpose and Objectives

The New York State Department of Environmental Conservation (NYSDEC) issued a Record of Decision (ROD) in March 2010 to address the remediation of residual concentrations of tetrachloroethylene (PCE) and other volatile organic compounds (VOCs) in groundwater, following a 2009 Interim Remedial Measure (IRM) in which the source area was believed to be excavated and removed. In addition to other administrative controls, the ROD identified ISCO injection as the preferred remedial alternative to treat the dissolved-phase chlorinated VOC plume at the Site, using sodium permanganate as the preferred oxidant. The ROD further specified implementation of an ISCO Pilot Program to support design of the final ISCO remedy for the Site. Between 2010 and 2014, additional data collected at the Site during various remedial design pilot programs, and the discovery of a remaining source of PCE beneath the building slab, suggested that the preferred ISCO approach may need to be expanded or modified. This Report summarizes activities undertaken to further investigate and evaluate potential modifications to the preferred ISCO remedial approach described in the ROD.

In addition, in the Autumn of 2017, additional groundwater sampling at the request of the NYSDEC suggested the presence of Poly-fluorinated Alkyl Substances (PFAS) in groundwater at levels exceeding the United States Environmental Protection Agency (USEPA) health advisory level of 70 nanograms per liter (ng/L). This Report provides data and conclusions on the presence and distribution of PFAS in groundwater at the Site.

1.2 Summary of Previous Investigations and Activities

During the period of 1987 to 2009, several investigations to determine the environmental conditions at the one-acre Class 2 Inactive Hazardous Waste Site were performed by the Nassau County Department of Health, the property owner, and the NYSDEC (EEA, 1991; 1996; 1997a; 1997b; Weston, 1997; EEA, 1999; 2000; Walden, 2006; Malcolm Pirnie, 2006; 2009a; 2009b). These investigations identified the presence of soil and groundwater contaminated with PCE and associated degradation products, 1,1,1-trichloroethane (TCA), toluene and xylene, associated with historic activities at the Site.

Underground storage tanks (USTs) formerly containing solvents and gasoline were removed from the Site in the early 1990s. In 2005 an IRM was undertaken to remove and dispose of approximately 2,200 tons of contaminated soil from beneath the southern portion of the main building's floor slab (Walden Associates, 2006). Post-removal soil samples taken from the southwestern corner of the excavation,

near the building's footing, indicated the presence of PCE at concentrations of 290 parts per million (ppm) (Walden Associates, 2006). A Post-IRM remedial investigation (RI) identified residual soil and groundwater contamination, including a plume that extended off Site to the south and southwest (Malcolm Pirnie, 2009a).

A soil vapor extraction (SVE) sub-slab system was installed under the main building during additional IRM work in 2005 (Walden Associates, 2006). Additional IRM work was completed in 2009, including the installation and operation of an SVE system at the Site, connected to the previous sub-slab SVE piping (Malcolm Pirnie, 2009a) to mitigate potential soil vapor intrusion issues associated with the remaining contamination.

Based on a Remedial Investigation/ Feasibility Study (RI/FS) completed for the Site in 2009 (Malcolm Pirnie, 2009a; 2009b), the NYSDEC issued a ROD in March 2010 to address the remediation of the remaining Site contamination. The ROD required ISCO of the groundwater plume area with the highest concentrations of chlorinated VOCs, which are present in the southwestern portion of the Site. To accomplish this objective, the ROD included a provision for "an in-situ chemical oxidation pilot test to determine the necessary injection parameters" to be included in the Site's remedial design. The ROD also included a provision for continued operation of the existing SVE system to mitigate the potential for soil vapor intrusion within the main building.

In November 2010, the NYSDEC retained Arcadis/Malcolm Pirnie, Inc. (Arcadis) to develop the design for ISCO to address contamination in the dissolved-phase plume area, as well as the other remedial elements identified in the ROD. Arcadis evaluated the existing data obtained from various historical Site investigations (EEA, 1991; 1996; 1997a; 1997b; Weston, 1997; EEA, 1999; 2000; Walden, 2006; Malcolm Pirnie, 2006; 2009a; 2009b) and developed and implemented an initial ISCO pilot test study in support of the final remedial design for the Site (Arcadis/Malcolm Pirnie, 2012a; 2012b).

The pilot program implemented in 2012 included injection of a 4-percent sodium permanganate into the subsurface at the Site using a proprietary injection technology developed by Badger Technologies, Inc. (Badger), which utilized an alternative slotted injection nozzle method (Arcadis/Malcolm Pirnie, 2012a; 2012b). As an alternate delivery technique, the ISCO pilot program also assessed application through injection into an existing monitoring well at the Site. The pilot program concluded that the stratigraphy and heterogeneity of subsurface materials limited the applicability of Badger injection technology at the Site for full-scale implementation. The alternate delivery methods evaluated during the pilot test (slotted tip injection and well injection) were generally unsuccessful at introducing permanganate to the subsurface. Therefore, evaluation of additional techniques for ISCO implementation, including injection through purpose-built injection wells, was recommended by the NYSDEC.

During the summer and fall of 2013, a second ISCO pilot program was completed using sodium permanganate injection techniques via injection wells. The second ISCO pilot study included injection of approximately 5,170 gallons of 4-percent sodium permanganate over a period of seven days into two purpose-built injection wells (shallow and deep). The work performed, and the results and conclusions are documented in the Crown Dykman Pre-Design Investigation Report (Arcadis, 2014). The results of the pilot study concluded that introduction of sodium permanganate to the subsurface via purpose-build injection wells would be an effective technology to implement the ISCO strategy presented in the ROD for the Site.

The results of the second ISCO pilot also suggested that a continuing groundwater source of chlorinated VOCs was present beneath the main building, within the footprint of the 2005 IRM excavation area (Walden Associates, 2006). Therefore, supplemental investigation work was performed during the summer of 2014, including additional soil and groundwater sampling to further assess the chlorinated VOC source area. Soil sampling results during the July 2014 supplemental investigation indicated that PCE concentrations indicative of non-aqueous phase liquid (NAPL) are present in the soil and groundwater below the southwestern portion of the building. In addition to chlorinated VOCs, petroleum compounds, including ethylbenzene and xylenes, were present in soil samples from all four boring locations within the building footprint. The study concluded that the low groundwater gradient beneath this portion of the building, and the continued presence of a potential source of PCE in the vicinity, is contributing to the continued presence of chlorinated VOCs in both soil and groundwater beneath the building and in downgradient areas. This area provides a continuing a source for the chlorinated VOC groundwater plume that must be addressed in the overall Site remedy.

The supplemental investigation further concluded that the presence of a continuing source area would undermine the effectiveness of a downgradient ISCO remedy for dissolved-phase constituents and would likely lengthen the remedial timeframe if not addressed (ARCADIS, 2014). A second ISCO pilot was completed to assess the efficacy of sodium permanganate injections directly within the presumed PCE source to effectively treat and reduce source area, as further summarized herein.

2 SITE DESCRIPTION AND PHYSICAL CHARACTERISTICS

2.1 Description of Site and Vicinity

The Site (Figure 2) is an approximately one-acre commercial property occupied by a former laundry and dry-cleaning facility, which is now used as an automotive repair shop and a commercial, water-based laundry. The main building consists of a single-story brick and block structure, which is constructed on a concrete slab, with no basement or crawl-space present beneath the building.

The Site is bordered on the south and west by Parcels A and B, respectively, of the former Li Tungsten industrial facility, which are now vacant properties under redevelopment. The Site is bordered to the north and east by a vacant lot that was occupied by the former Konica-Minolta industrial facility. An access road to the former Konica-Minolta facility, now owned by the City of Glen Cove, is present along the western boundary of the Site between the Site and the Former Li Tungsten Parcel B (Figure 2). The surrounding Garvies' Point area to the west and immediately south of the Site are former industrial/ commercial properties associated with Li Tungsten and other businesses. These properties are currently undergoing separate remedial actions and commercial/residential redevelopment programs.

2.2 Surface Topography and Surface Water Features

The ground surface of the undeveloped portions of the Site exhibit a gradual slope downward from north to south, with a retaining wall along the southern portion of the Site where the ground surface drops off approximately three to four feet near Herb Hill Road. The section of Herb Hill Road near the Site occupies a low-lying area that frequently floods after precipitation events.

A small wetland area is present at the southern end of the former Li Tungsten Parcel B, and a flooded drainage ditch is present along the northern side of Herb Hill Road at the southern edge of the Site. A small concrete structure is present at the eastern extent of the ditch, from which water flows throughout most of the year (Figure 2).

2.3 Regional and Site Geology

Surficial geology in the vicinity of the Site consist of deposits associated with the Harbor Hill ground moraine, which at the Site is represented by zones of fine to medium sand, medium to coarse sand, and silty sand with silt lenses (Figure 3). The Harbor Hill ground moraine is typically five to 10 feet thick, with some deposits up to 40 feet thick. Upper Pleistocene age deposits associated with the Ronkonkoma glaciation are deposited beneath the Harbor Hill ground moraine deposits. The Ronkonkoma layer consists of interlayered glacial till and outwash deposits, which are not observed at the Site. The glacial sediments associated with both layers range in thickness from less than 10 feet to over 200 feet in the northern part of Long Island (Kilburn and Krulikas, 1987).

At the Site, the saturated thickness of the moraine units generally decreases from north to south, with the upper sand and silty sand units generally extending to a depth of approximately 35 feet below ground surface (bgs) at the northern portion of the Site to approximately 15 feet bgs south of Herb Hill Road. However, in the vicinity of monitoring well cluster MW-1/1D (boring location SB-14), the saturated aquifer thickness increases where the moraine deposits extend to approximately 43 feet bgs (Figure 3) into an

apparent trough in the underlying clay unit. The moraine units at the Site are generally heterogeneous, with numerous fluvial channels (coarse gravel and sand) cutting through the medium to fine moraine sands. These gravel channels represent preferential groundwater flow paths where saturated. One such gravel layer is present along the western edge of the main building in the vicinity of MW-13, IW-1S, MW-26, MW-27, and MW-28 (Figure 3), generally between 18 and 20 feet bgs. The gravel channel present in this area consists of medium to coarse gravels in a coarse sand matrix, contrasting significantly with surrounding material that consists primarily of medium to fine sands and occasional silty sand zones.

Beneath the moraine deposits is an extensive confining unit (Port Washington clay) comprised of clay, silt, and a few layers of sand that correlates to the Pleistocene and Holocene epochs (Kilburn, 1972). Figure 4 depicts the elevation of the top of the Port Washington confining unit in the vicinity of the Site, based on Site boring data from the Pilot Study and past investigation data. As shown on Figure 4, boring data from wells intersecting the Port Washington clay unit indicates the presence of a northeast to southwest oriented depression (trough) in the clay underlying the southern portion of the Site (also, see cross-section, Figures 3a and 3b).

Underlying the moraine sediments and Port Washington clay in the vicinity of the Site are unconsolidated deposits associated with the Raritan Formation. The lower unit of the Raritan Formation is the Lloyd Sand Member, which is up to 125 feet thick in this portion of Long Island. The Lloyd Sand lies above the bedrock, which is encountered at depths of up to 400 to 500 feet below mean sea level (Smolensky et al., 1989).

2.4 Hydrogeology and Groundwater Flow

During 2008, slug tests were completed to evaluate the hydraulic conductivity (K) of the fine sand and silty sand water-bearing units in the vicinity of the Site. These tests utilized on-Site wells MW-1, MW-1D, MW-2, MW-3, MW-4, MW-7, MW-10S and MW-10D, and off-Site wells GM-9, MW-9 and MP-20 (Malcolm Pirnie, 2008). The slug tests included rising-head tests in wells screened across the water table, and both rising- and falling-head slug tests in wells screened below the water table. As shown in Table 1, hydraulic conductivity values resulting from slug test analysis ranged from an average of 82 ft/day (2.89 x 10-2 cm/sec) in GM-9, to 0.4 ft/day (1.46 x 10-4 cm/sec) in MW-9.

Groundwater levels at the Site range from approximately 5 to 7 feet below grade in the vicinity of the building. Groundwater levels become shallower along the southern Site boundary near Herb Hill Road, where the ground level drops abruptly to the south of a retaining wall. Water levels within this area are generally 2-3 feet below the ground surface, with occasional perched water just below the surface. Frequent seeps occur at the MW-1/1D/1DD well cluster, with well MW-1 occasionally full. The drainage swale along the north side of Herb Hill Road at the southern boundary of the Site is frequently wet, and phreatic vegetation has been observed there in the past. As shown by the potentiometric groundwater contours presented on Figure 5, groundwater generally flows southerly and southwesterly toward Glen Cove Creek, at the southern edge of the former Li Tungsten Parcel A. The groundwater gradient slightly decreases beneath the southwestern portion of the building and steepens slightly between the building and Herb Hill Road. Heads in the monitoring well clusters at the southern portion of the Site (MW-10S/D, MW-23S/D, MW-25S/D, and the MW-1/1D/1DD cluster) indicate a downward head gradient indicating downward groundwater flow into the clay trough.

Dewatering associated with on-going redevelopment of the former Li Tungsten Parcel B began during the latter half of 2017. This dewatering is anticipated to alter groundwater flow patterns by redirecting more flow off Site toward the southwest and west. Proposed road and utility reconstruction work on Herb Hill Road may require limited dewatering to re-locate underground utilities within the right-of-way. While the dewatering is anticipated to be transient, the effect on Site flow patterns and contaminant movement will likely be significant and has not yet been fully evaluated.

3 SOURCE AREA ISCO PILOT STUDY

Field work associated with the Source Area ISCO Pilot (Source Pilot) was completed between November 2015 and March 2016. The work completed for the Source Pilot included installation of two additional injection wells within the southwest corner of the main building, additional injection of sodium permanganate, and post-injection groundwater monitoring, as summarized below.

3.1 Summary of Completed Work

3.1.1 Injection Well Installation and Development

During October 2015, two injection wells (IW-02 and IW-03) were installed in the vicinity of MW-27 and MW-28, within the southwestern portion of the main building, as shown on Figure 3 and Figure 6. During drilling, soil samples were collected continuously from the surface to the total boring depth. The soil samples were screened using a photo-ionization detector (PID) from the surface to the total depth of the boring. Soil boring logs and well construction details are provided in Appendix A. Soil was sampled from each boring as a grab sample from the interval where the PID indicated the maximum presence of volatile constituents. The two soil samples were sent to TestAmerica Laboratory in Buffalo, New York, and analyzed for TCL VOCs by USEPA Method 8260B.

Both injection wells were constructed in similar fashion, as shown in the well construction details in Appendix A. The wells consisted of a 10-foot screened interval, constructed with 2-inch diameter stainless-steel screen (continuous wire-wound type, 0.010-inch slot size). A #00-morie sand filter was emplaced around the screen to approximately 2 feet above the well screen, with a 2-foot layer of fine (choker) sand installed in the annulus above the sand filter. A 2-inch diameter steel riser was installed above the screen to the surface and was grouted in place using a neat cement grout to the surface. Well IW-02 was screened approximately 10 to 20 feet bgs, and IW-03 was screened from approximately 9 to 19 feet bgs.

Both injection wells were developed to improve their hydraulic characteristics by using a surge block and check valve for simultaneous purging of washed fines. To assess the effectiveness of the development process, the wells were periodically pumped, and their hydraulic response evaluated. The well development logs are provided in Appendix A.

3.1.2 Baseline Groundwater Sampling

Baseline groundwater sampling was completed during November 2015, after completion of injection well installation and development. Baseline sampling included monitoring wells within the building in the vicinity of the presumed source area, and monitoring wells both upgradient and downgradient of the building source area, as shown on Figure 7.

The wells were sampled using the USEPA's low-flow methodology. Prior to collecting a sample, groundwater parameters, including turbidity, pH, ORP, temperature and conductivity were monitored using a multi-parameter water quality instrument, and recorded until parameters stabilized, or at least three well volumes were purged from the well. Groundwater samples from the monitoring wells were provided to TestAmerica in Buffalo, New York for analysis of Target Compound List (TCL) VOCs using

USEPA Method 8260C. The baseline sampling event included sampling a total of 33 wells on the Site and adjacent Parcels A and B. Well purge logs for the baseline sampling event are provided in Appendix B; laboratory analytical reports are provided in Appendix C.

As shown on Figure 7, and summarized in Table 2, the results of the 2015 baseline sampling indicate a similar distribution of chlorinated VOC contaminants to previous investigations, with high concentrations near the southwestern corner of the building, beneath the building floor slab.

3.1.3 Source Area Pilot Injections

The ISCO Source Area Pilot was completed during early December 2015. Injection data and Daily Field Reports are provided in Appendix D. The injection of the 4-percent sodium permanganate solution into the two injection locations (IW-02 and IW-03) was accomplished using a temporary injection skid consisting of a solution tank, mixing tank, injection diaphragm pump and compressor, injection manifold, and flow meters, as shown on Figure 8. Potable water was obtained from a hydrant present on the opposite side of Herb Hill Road from the Site, connected to a fire hose through a backflow preventer.

A total of 4,816 gallons of 4-percent solution were injected into well IW-02, with the remaining 4,525 gallons injected into well IW-03, resulting in a total of approximately 9,341 gallons injected between the two injection points in 22 total batch injections (see Table 3 and Appendix D). A maximum injection rate of up to approximately 1.5 to 1.6 gpm was achieved in wells IW-03 and IW-02, respectively. At the end of the injections, the sodium permanganate containers and injection equipment were rinsed, and the rinsate injected into well IW-01S, which is outside of the building and immediately downgradient of the source area.

As shown on Figures 9a and 9b, monitoring of water levels and visual assessment of well water using bailers in adjacent wells during the injection did not immediately indicate the presence or entrance of sodium permanganate into adjacent wells. Subsequent post-injection of downgradient monitoring locations indicated effective distribution of sodium permanganate in the subsurface (Figure 10).

3.1.4 Post-Injection Monitoring and Sampling

Two post-injection groundwater monitoring and sampling events were completed between January 2016 and March 2016, representing 1-month and 3-month post-injection sampling intervals, respectively. As shown on Figure 11, the sampling group for these post-injection sampling events consisted of those wells immediately donwgradient from the injection locations, and those within the building.

Prior to sampling, a water sample was removed from the well using a disposable bailer to assess if sodium permanganate was present within the well. Wells where the presence of sodium permanganate was observed were not sampled. The wells were sampled using the USEPA's low-flow methodology; prior to collecting a sample, groundwater parameters, including turbidity, pH, ORP, temperature and conductivity were monitored using a multi-parameter water quality instrument, and recorded until parameters stabilized, or at least three well volumes were purged from the well. Groundwater samples were sent to TestAmerica Laboratories in Buffalo, New York for analysis of VOCs using USEPA Method 8260C. Sixteen wells were sampled during the 1-month post-injection sampling event, and 18 wells were sampled during the 3-month post-injection sampling event. Well purge logs for the 1-month and 3-month sampling events are provided in Appendix B; laboratory analytical reports are provided in Appendix C.

As discussed below in Section 3.2, the planned 6-month and 9-month sampling rounds were not completed due to the initial post-injection monitoring results.

3.2 Pilot Study Results

A summary of analytical results for the post-injection sampling rounds is shown on Figure 11, along with wells showing a visual presence of permanganate (in purple). As shown in Figure 11, injection in wells IW-02 and IW-03 was generally effective in distributing sodium permanganate within and downgradient of the source area, with sodium permanganate observed as far as MW-24, approximately 60 feet downgradient, after just one month. However, permanganate was not observed in well MW-13, which is located less than 30 feet from the injection area. Concentrations of PCE at MW-13, which increased from the baseline to a maximum of 4,100 μg/L during the 1-month sampling event persisted through to the 3-month event at 3,500 μg/L (Figure 11). This is suggestive of heterogeneity in the subsurface geology resulting in preferential flow pathways that confound the even distribution of injectate in the subsurface. Such observations are consistent with previous injection pilot studies (Arcadis/Malcolm Pirnie, 2012b; Arcadis, 2014).

After analysis of the subsequent post-injection groundwater sampling events, reduction of chlorinated VOC mass was not evident in the groundwater analytical results from the source area and Site areas down-gradient of the injections. In wells where groundwater monitoring initially showed the presence of permanganate, or slight decreases in contaminant concentrations, later analytical data suggested rebound of contaminant concentrations to near baseline levels. These include IW-01S, which showed the presence of sodium permanganate during the 1-month sampling round (Figure 11) but yielded concentrations of PCE and related degradation compounds during the subsequent 3-month sampling event (Figure 11). Based on these data, subsequent post-injection sampling intervals originally planned for 6- and 9-month post injection periods were postponed pending additional remedial design evaluation.

However, as discussed in Section 4.2.2, virtually all of wells containing sodium permanganate during either the 1-month or 3-month post-injection monitoring events (January 2016 and March 2016, respectively) again had concentrations of PCE and related degradation products present at concentrations exceeding their respective New York State Class GA standards during the most recent synoptic sampling event in November 2017 (see Section 4.4.2, below). These data support the conclusion that ISCO injection within the source area merely temporarily suppressed the concentrations of dissolved-phase constituents but did not have sufficient volume, contact, or residence time to provide effective reduction of contaminant mass in soil or groundwater within the source area.

4 SUPPLEMENTAL SITE INVESTIGATIONS

At the request of the NYSDEC, Arcadis completed additional investigation of the source area to facilitate design the design of the remedy. The supplemental investigations included further assessment of underground drainage facilities at the Site, replacement well installations and groundwater sampling, and assessment of the presence and distribution PFAS in groundwater, including perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). In addition, due to the proximity of the Site to the former Li Tungsten processing facility, additional sub-surface radiological screening (gamma) was also performed in conjunction with replacement well installations and groundwater sampling activities.

4.1 Assessment of Underground Drainage Systems

During July 2017, and again in September 2017, Arcadis assessed the laundry facility process water impoundment and discharge system present at the Site. This included interviews with Site personnel, visual assessment of the system, limited geophysical evaluation using ground-penetrating radar (GPR), and limited analytical sampling of impounded water within the system and adjacent monitoring wells, as summarized below and in Section 4.2.4.

The Site drainage system features were visually assessed, and Site personnel were interviewed to ascertain the function and layout of the system components. According to Site personnel, laundry process water containing residual laundry detergent discharged from the laundry machines collected in concrete sump present within the building, then discharged through a trench in the main laundry area into a 6-inch diameter buried pipe (Figure 12). The water was then conveyed through the pipe to a concrete culvert at the front of the building. Visual inspection of the culvert at the front of the building suggested that the culvert drained toward both the south and west, beneath and along Herb Hill Road. Subsequent geophysical evaluation of the area during October 2017 using underground utility equipment, including ground penetrating radar (GPR) and electromagnetic (EM) techniques, identified the discharge line, along with other utilities present at the front of the Site, as shown on Figure 12.

The information obtained during the assessment was insufficient to draw any conclusions about the facility drainage system and potential connections to municipal systems, and further investigation would be necessary to fully evaluate the on-Site system.

4.2 Monitoring and Sampling

4.2.1 Monitoring Well Replacements

Based on the preliminary groundwater PFAS sampling, it was clear that the upgradient groundwater monitoring wells at the northern boundary of the Site (MW-3, MW-4, and MW-5) needed to be located, assessed, and replaced if necessary. Based on past Site monitoring events, MW-3 had not been located, and was presumed defunct, as was MW-5, which was apparently buried beneath a large rubble pile present along the Access Road. MW-4 appeared to be filled with sand washed into the damaged wellhead.

During October 2017, Arcadis replaced wells MW-4 and MW-5 (with wells MW-4R and MW-5R, respectively), and located well MW-3, which was deemed to be viable with some modifications and

repairs to the wellhead. The two replacement monitoring wells were constructed as the existing wells, with 10-foot, 0.010-inch machine-slotted polyvinyl chloride (PVC) well screens, and Schedule 40 PVC risers. Well MW-5R was completed with an approximately 2-foot above-ground protective casing. Well MW-4R was completed as a flush-mount wellhead, due to its location in the middle of a driveway accessing the rear of the building. However, the concrete pad was installed slightly above the pavement level in attempt to limit siltation of the curb box or well. Well construction logs for the replacement monitoring wells are provided in Appendix A. As the wells were replacement wells, the borings were not sampled or logged. The wells were developed using over-pumping methods to clear fine material from the well and rinse the filter mater emplaced around the well screen.

4.2.2 Synoptic Groundwater Sampling

A synoptic groundwater sampling round was completed at the Site during October 2017, after installation of replacement monitoring wells (MW-4R and MW-5R) at the northern end of the Site (Figure 13). The sampling scope included all viable Site wells, and those downgradient, off-Site monitoring wells included in previous sampling events (MW-9, MW-24, GM-9, GM-1, and MP-20), as shown on Figure 13. However, as shown on Figure 13, these off-Site wells could not be sampled. The wells on the former Li Tungsten parcels were reportedly abandoned in-place, and well MW-24 could not be found. Additionally, Site well MW-12 was missing, and presumed buried by dirt and debris in the area. Attempts to locate the well using a metal detector were not successful. Site wells MW-22S/D were also missing and presumed destroyed by vehicle traffic.

The wells were sampled using USEPA's low-flow methodology. Prior to taking a sample, groundwater parameters, including turbidity, pH, ORP, temperature and conductivity were monitored using a multi-parameter water quality instrument, and recorded until parameters stabilized, or at least three well volumes were purged from the well. Groundwater samples from the monitoring wells were provided to TestAmerica in Buffalo, New York for analysis of:

- TCL VOCs using USEPA Method 8260C; and,
- PFAS Using USEPA Method 537 (Modified).

The analytical results are summarized on Figure 13 (VOCs) and Figure 14 (PFAS), and in Tables 5 and 6 for VOCs and PFAS, respectively. Well purge logs for the synoptic sampling event are provided in Appendix B; laboratory analytical reports are provided in Appendix C.

The results of the 2017 synoptic groundwater sampling indicate a similar distribution of chlorinated VOC contaminants to previous investigations, with relatively high concentrations near the southwestern corner of the building, beneath the building floor slab. PCE and/or related degradation products were present in 31 of the 36 monitoring wells at concentrations exceeding their respective New York State Class GA standards or guidance values (Figure 13b). Elevated concentrations of chlorinated VOCs and other constituents were again present in wells where sodium permanganate was observed during the 1-month and 3-month post-injection monitoring events. These included both injection wells IW-02 and IW-03 (yielding concentrations of PCE at 3,800 μg/L and 1.9 μg/L, respectively, and cis-1,2-DCE at 14,000 μg/L and 1,400 μg/L, respectively), and monitoring wells MW-27 (including concentrations of PCE at 140,000 μg/L, and cis-1,2-DCE at 50,000 μg/L) and MW-28 (including concentrations of PCE at 1,500 μg/L, and cis-1,2-DCE at 28,000 μg/L) within the presumed source area (Figure 13b).

Petroleum-related compounds were also present in samples from 9 of the 36 monitoring wells at levels exceeding their respective New York State Class GA standards or guidance values (Figure 13 and Table 5). In addition, methylene chloride and isopropylbenzene were present in groundwater samples at concentrations exceeding their respective New York State Class GA standards (Figure 13). The greatest concentrations of petroleum-related compounds in groundwater were in wells MW-8 and MW-11, at the western side of the Site, and MW-14R within the main building (Figure 13a), with benzene at 21 μg/L (MW11, based on sample dilution), toluene at 120 μg/L (MW-14R, based on sample dilution), ethylbenzene at 120 μg/L (MW-8, based on sample dilution), and total xylenes at 1,100 μg/L (MW-8, based on sample dilution). These are consistent with past groundwater sampling results at the Site. During the October 2017 sampling round, a measurable thickness of Light NAPL of approximately 1 foot was measured in well MW-8.

PFAS were detected in all the Site wells sampled during the synoptic round. As shown and in Table 7, a range of PFAS were present in a majority of the wells sampled. Concentrations of PFOA and PFOS generally represent the greatest PFAS constituent concentrations, with the greatest concentrations in wells at the western portion of the Site (Figure 14). With the exception of wells MW-2 and MW-4R, all monitoring wells had at least one PFAS constituent concentration exceeding the USEPA Drinking Water Health Advisory level of 70 ng/L. PFOS concentrations were generally greater than those of other PFAS constituents, with concentrations ranging from 15 ng/L at well MW-2 to 1,800 ng/L (or, 1.8 μg/L) at well MW-11 (Figure 14a). Concentrations of PFOS and PFOA exceeding the USEPA Health Advisory level of 70 ng/L were present at upgradient Site boundary wells, with PFOA in MW-3 and MW-5R at 310 and 120 ng/L, respectively, suggesting the presence of an upgradient, off-site source for some PFAS (Figure 14a). PFAS concentrations in samples from MW-7 (PFOS at 150 ng/L) and MW-23S (PFOS at 94 ng/L) at the southern Site boundary were generally consistent with those from the July 2017 preliminary sampling in those wells (260 and 63 ng/L, respectively).

4.2.3 1,4-Dioxane screening

During April 2018, additional sampling was performed at the Site to screen for the presence of 1,4-Dioxane in groundwater. As shown on Figure 15, the screening included sampling groundwater from eight locations (MW-1D, MW-2, MW-3, MW-4, MW-7, MW-11, MW-14R and MW-18). To prevent possible interference from high concentrations of chlorinated VOCs in wells within the groundwater source area, wells outside of that area were selected for screening. The groundwater samples were analysed for low-level analysis of 1,4-Dioxane using USEPA Method 8270 SIM, which performs better in the presence of chlorinated VOCs. The samples were sent to TestAmerica in Buffalo, New York for analysis.

The analytical results are summarized on Figure 15. Well purge logs for the 1,4-Dioxane screening sampling event are provided in Appendix B; laboratory analytical reports are provided in Appendix E. The data for 1,4-Dioxane is preliminary, pending data validation by a third-party laboratory data validator. As shown on Figure 15, low-level detections of 1,4-Dioxane were present in samples from six of the eight wells, ranging from an estimated value of 0.13 μg/L in well MW-4R to 0.69 μg/L in well MW-1D.

4.2.4 Drainage System Sampling and Analysis

During the July 2017 Site visit to ass the on-Site drainage system (Section 4.1), two groundwater samples (Monitoring Wells MW-7 and MW-23S) and three drainage system effluent liquid samples were collected

for analysis of PFAS using USEPA Method 537 (Modified). The effluent samples were collected from the concrete sump, interior trench, and standing water in the concrete culvert near Herb Hill Road (Figure 12). The samples were sent to TestAmerica in Buffalo, New York for analysis. The analytical results are summarized on Table 4 and Figure 12. The laboratory analytical report for the drainage system sampling is provided in Appendix C.

The results of the sampling analysis for the on-Site drainage samples were generally inconclusive. As shown on Figure 12 and in Table 4, the results of the on-site drainage system indicated the presence of PFAS in all of the analytical samples, with only the groundwater samples from MW-7 yielding PFAS concentrations exceeding the USEPA 70 ng/L drinking water health advisory level (PFOA at 76 ng/L and PFOS at 260 ng/L). However, the presence of PFAS in a sampling equipment blank suggested that some PFAS results may be from potential cross-contamination of groundwater samples, despite rigorous decontamination procedures prior to, and between, each sample collection. In addition, the groundwater sampling results indicate that PFAS compounds are present in upgradient areas of the Site and at the property boundary, indicating an off-site source for the PFAS compounds. Therefore, no relationship between the Site drainage system and PFAS compounds in groundwater is discernible from the assessment; further investigation would be necessary to draw any conclusions.

4.3 Supplemental Radiological Assessment

As discussed in Section 2, the Site is adjacent to the former Li Tungsten Corporation facility, a Superfund Site which processed ore and scrap tungsten concentrates to produce metal tungsten. Historically, tailings from the Li Tungsten Corporation including ore residuals containing naturally occurring radioactive material (NORM) were deposited on the former Li Tungsten facility and on Captain's Cove- a local area on the Glen Cove Creek approximately 700 feet from Li Tungsten on Garvies' Point Road. Therefore, at the request of the NYSDEC, Arcadis preformed a subsurface gamma radiological screening at two temporary monitoring points (RAD-1 and RAD-2) located in the northern portion of the Site (Figure 2). The survey was completed in October 2017, in conjunction with on-going Site well installations and groundwater sampling activities as described in Section 4.2.

4.3.1 Methodology

Due to the small volume of soils generated during soil boring and sampling, it is likely that changes in gamma counts from background may not be detected by screening soil cuttings during monitoring well installations. Therefore, a down-hole gamma screening methodology was used to screen the subsurface, as summarized below. The down-hole method investigates a significantly larger volume of material than the screening of cuttings, by detecting gamma rays from a surrounding sphere of soil approximately 12 inches in diameter at each sample interval. Therefore, if there is a thin layer of NORM-contaminated soil, the count rate will increase as the probe "sphere" comes into proximity of the contaminated soils. The count rate increases to a maximum as the probe goes through the contaminated layer and slowly decreases as the detector moves deeper into the subsurface. This method provides greater confidence in the screening results.

The temporary monitoring points consisted of a one-inch diameter PVC tube installed in a direct-push soil boring to 20 feet bgs. Soil boring data from the Site indicate that material below this depth is consistent with naturally-emplaced sediments. The PVC extended from the surface to the bottom of the boring and

was capped on the bottom to prevent water intrusion. The borings were not logged when advanced; however, available data from adjacent soil borings and monitoring wells were reviewed to assist in the interpretation of the screening results.

At each monitoring point, a thin gamma scintillator probe (Ludlum model 44-62 gamma probe) coupled to a Ludlum model 2350 data logger, was lowered, and a 30 second count rate reading was recorded at six-inch intervals from surface to the total depth of 20 feet bgs. As a check, the probe was sometimes raised to a prior depth and a second log recorded. At the completion of the survey, the temporary PVC casing was pulled, and the borings were allowed to collapse. The field Gamma Logs are provided in Appendix F.

4.3.2 Gamma Screening Results

As shown in the data from monitoring point RAD-1 (Appendix F), the count rate varied between approximately 400 and 900 counts per 30 seconds. This reflects normal background variations and is due to natural variation in the sand, clay and soils layers of Long Island. Clay typically is slightly elevated in NORM compared to sand, and the soils at 8 to 10 feet bgs or 19 to 20 feet bgs likely contain more clay then other volumes.

Results for monitoring point RAD-2 (Appendix F) indicated a different condition. Results to a depth of 4 feet bgs are similar to the prior monitoring point. Then the count rate rapidly decreases to 7 feet and remains low to the bottom of the monitoring point at 20 feet bgs. Soil boring data indicates the presence of clayey silts and sands from a shallow depth (4-6 feet bgs) to approximately 30 feet bgs. In the vicinity of RAD-2, the subsurface deposits are more characteristically medium to coarse sands with some gravel and are more porous and saturated. The reduction in the count rate is likely due to saturated sandy soils, with fewer silts and clays present. The presence of a greater volume of water in the subsurface can also act as a shield, attenuating gamma rays from nearby volumes by a factor of three to four. During the investigation the probe, which was at approximately 10 feet bgs, was brought up to 3 feet bgs and a second survey point completed. The agreement of the readings with the first run indicated the probe was counting properly. Although the gamma counts per 30 seconds were low from approximately 7.5 to 20 feet bgs, there was little variation with the count rate between 150 and 230 counts per 30 seconds. This likely indicates no laminar volumes containing elevated NORM in the soil column below 7.5 feet bgs at RAD-2.

There were no records identified indicating that tailings were historically deposited on the Site by Li Tungsten, and previous Site radiological screening at the Site in 2007 (Malcolm Pirnie, 2009a) indicated that there was no elevated radiological activity in Site surface soils. While most soils contain NORM, due to the natural presence of radium-226, potassium-40 and other natural emitters, the tailings from the Li Tungsten were elevated in radium-226 and its gamma emitting daughter elements bismuth-214 and lead-214. Therefore, if Li Tungsten tailings were mixed with Site soil, the volume of soil containing the waste would have elevated gamma count rates in comparison to background.

The results of the subsurface radiological screening did not indicate the presence of elevated radioactivity in the areas of the Site property evaluated that might indicate the presence of NORM waste associated with Li Tungsten. These findings are consistent with the surficial radiological screening work performed in 2007 at the Site.

5 SITE CONCEPTUAL MODEL

5.1 Nature and Extent of Contamination

5.1.1 Distribution of Contaminants in Soil

Significant concentrations of PCE are present in the soil below the main building, within the area of the 2005 IRM excavation (Walden Associates, 2006). In addition to chlorinated VOCs, petroleum compounds, including ethylbenzene and xylenes, were present in soil samples from all four boring locations within the building. Soil samples from the well MW-27 boring, which was installed in the vicinity of the southwestern corner of the 2005 IRM excavation, yielded the greatest concentrations of PCE and TCE in soil at concentrations indicative of a separate phase PCE source within the soil in this area.

5.1.2 Distribution of Contaminants in Groundwater

Based on groundwater analytical data from the initial pre-design investigation at the Site (Arcadis, 2014), and subsequent groundwater monitoring in 2015 and 2017 as presented herein (Figures 7, 13, and 15), concentrations of PCE and its degradation products in groundwater at the Site are indicative of a NAPL PCE source within the southwestern footprint of the main building. As shown on Figures 13 and 15, concentrations of chlorinated VOCs continue to be greatest in wells within the building footprint at the southwestern corner of the building, with high concentrations of chlorinated VOCs persistent between 2014 and 2017 in wells just downgradient of this presumed source area.

In addition to chlorinated VOCs, petroleum compounds, including ethylbenzene and xylenes, were present in groundwater samples from wells within the source area (Figure 13). Concentrations of these petroleum-related compounds, and the presence of measurable LNAPL in MW-8 indicate a former petroleum release at the Site. The presence of petroleum in groundwater at the Site may be contributing to conditions favorable to the natural attenuation of chlorinated VOCs present in groundwater. Concentrations of PCE and TCE in groundwater have generally decreased over time, with Site conditions generally favoring cis-1,2-DCE, with some trans-1,2-DCE. However, degradation toward vinyl chloride appears to be limited.

The extent of chlorinated VOCs in groundwater has not been fully delineated to the south and west toward former Li Tungsten Parcels A and B, respectively. Groundwater analytical data from 2015 and 2016 in MP-20 on the former Li Tungsten Parcel A, GM-9 and MW-9 on the former Li Tungsten Parcel B (Figures 7 and 11), and anecdotal evidence from adjacent properties, suggest that PCE and related chlorinated VOCs in groundwater are moving to the west and southwest, across these parcels and toward Glen Cove Creek. Dewatering operations on the former Li Tungsten Parcel B during excavation and grading activities in 2006-2008 may have caused migration of groundwater contaminants from the southwestern area of the Site toward the former Li Tungsten Parcel B. Dewatering activities presently occurring on the Former Parcel B since 2017 are likely contributing to off-Site migration of a portion of the dissolved-phase plume toward the west.

Analytical data from the 2017 groundwater assessment indicated the presence of PFAS (primarily PFOS and PFOA) in groundwater at the Site. As discussed in Section 4.2, the greatest concentrations were

present in groundwater samples from wells along the western and southern portions of the Site (Figure 14). PFAS concentrations were also present in wells at the northernmost, upgradient monitoring well locations. Groundwater samples from all of the Site monitoring wells sampled in 2017, with the exception of MW-4R and MW-2 along the eastern portion of the Site, contained concentrations of PFAS concentrations at levels exceeding the 2016 USEPA Drinking Water Health Advisory level of 70 ng/L.

The distribution trend of groundwater data within Site monitoring wells and other sampling locations did not conclusively indicate the presence of a single point source for PFAS at the Site. The presence of significant PFAS concentrations in groundwater along the upgradient Site boundary, and in northern and western portions of the Site are indicative of an off-Site PFAS source.

In addition to PFAS, the screening results for 1,4-Dioxane (Figure 15) suggest that this compound is present in groundwater at the site at low concentrations. However, additional investigation beyond the screening level would be needed to further assess this contaminant.

5.1.3 LNAPL Distribution and Trends

LNAPL was historically present in monitoring wells in the southern portion of the main building (MW-6R, MW-8, MW-16R, and MW-17R) until circa July 2014, when there were no longer measurable thicknesses of LNAPL present in the monitoring wells. Previous LNAPL characterization of a sample from well MW-8 was consistent with gasoline (Malcolm Pirnie, 2009a). LNAPL was not detected in other monitoring wells sampled during the supplemental investigation.

5.2 Contaminant Fate and Transport

Data indicate that a dissolved-phase chlorinated VOC plume continues to emanate from a limited source area present beneath the southwestern corner of the main building. This area likely represents a limited, residual source area not fully excavated during the 2005 soil removal IRM (Walden Associates, 2006) in this portion of the main building. The dissolved-phase chlorinated VOC plume is co-mingled with petroleum-related constituents in areas where LNAPL was previously present, possibly resulting from past releases of fuel oil and/or gasoline at the Site. The presence of petroleum-related compounds in these areas has led to anaerobic conditions suited to degradation of PCE, while in other areas of the Site exhibiting more aerobic conditions, degradation is less advanced, with significant concentrations of PCE, TCE and cis-1,2-DCE persistent in groundwater.

The presence of a contaminant source area beneath the main building continues to provide contaminant mass to groundwater, making further dissolved-phase plume treatment less effective. Under present Site conditions, and in the absence of a remedial program, the natural groundwater gradient toward the south and southwest, coupled with construction dewatering on adjacent properties (especially on the adjacent Parcel B), result in continued dissolved-phase plume migration toward the south and west. Anticipated future construction planned for Herb Hill Road, or an increased dewatering rate on Parcel B, may further alter flow migration pathways and increase contaminant migration off-site.

6 CONCLUSIONS

Application of ISCO using sodium permanganate within the dissolved-phase plume during pilot studies implemented during 2012 through 2016 showed some temporary decreases in dissolved-phase concentrations in groundwater. However, the continued presence of a contaminant source area beneath the main building continues to provide contaminant mass to groundwater, making further use of ISCO alone to address the dissolved-phase plume ineffective, without additional source control and/or removal. The groundwater gradient toward the west and southwest, augmented by construction dewatering on adjacent properties (especially on the adjacent Parcel B), has resulted in continued dissolved-phase plume migration toward these properties. Anticipated future road and utility reconstruction planned for Herb Hill Road may further exacerbate off-Site contaminant migration, potentially resulting in additional human receptor exposure pathways during construction activities.

7 REFERENCES CITED

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TABLES

Table 1.
Site Hydraulic Parameters
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Well ID	Primary Unit	Falling Head Test		Rising Head Test		Average (Rising/Falling)	
		(ft/day)	(cm/sec)	(ft/day)	(cm/sec)	(ft/day)	(cm/sec)
MW-1S	med-coarse sand	28	1.00E-02	35	1.25E-02	32	1.12E-02
MW-1D	med-coarse sand	33	1.16E-02	20	7.12E-03	27	9.37E-03
MW-2	med-fine sand	7.5	2.63E-03	0.31	1.08E-04	3.9	1.37E-03
MW-3	med-fine sand	2.8	9.87E-04	1.7	6.17E-04	2.3	8.02E-04
MW-7	med-fine sand	3.0	1.05E-03	14	4.78E-03	8.3	2.91E-03
MW-9	fine silty sand	0.53	1.89E-04	0.29	1.04E-04	0.41	1.46E-04
GM-9	med-coarse sand	60	2.12E-02	104	3.67E-02	82	2.89E-02
MW-10S	med-coarse sand	19	6.80E-03	1.8	6.42E-04	11	3.72E-03
MW-10D	fine silty sand	0.34	1.20E-04	0.28	9.81E-05	0.31	1.09E-04
MP-20	fine silty sand	0.67	2.37E-04	1.2	4.16E-04	0.93	3.26E-04
Average K (med-coarse sand):		47	1.65E-02	54	1.90E-02	50	1.78E-02
Average K (med-fine sand):		4.4	1.56E-03	5.2	1.83E-03	4.8	1.69E-03
Average K (fine silty sand):		0.52	1.82E-04	0.58	2.06E-04	0.55	1.94E-04

NOTE: values based on Bouwer and Rice slug testing analysis in Site wells (Malcolm Pirnie, 2009a).

Table 2.
2015 Baseline Sampling Analytical Sampling Summary
Crown Dykman (Site #1-30-054)
Supplemental Pre-Design Summary Report

Sample ID Depth or Screen Interval (feet) Sampling Date Units	NYSDEC Class GA Standard or Guidance Value ug/L	GM-9 11/11/2015 ug/L	IW-01D 11/12/2015 ug/L	IW-02 11/10/2015 ug/L	IW-03 11/10/2015 ug/L	MP-20 11/11/2015 ug/L	MW-1 11/10/2015 ug/L	MW-1D 11/11/2015 ug/L	MW-1DD 11/10/2015 ug/L	MW-2 11/11/2015 ug/L	MW-3 11/11/2015 ug/L	MW-4 11/11/2015 ug/L	MW-6R 11/10/2015 ug/L	DUP-1_111015[a] 11/10/2015 ug/L	MW-7 11/11/2015 ug/L	MW-9 11/11/2015 ug/L	MW-10S 11/12/2015 ug/L	MW-10D 11/12/2015 ug/L	MW-13 11/12/2015 ug/L	MW-14R 11/11/2015 ug/L	MW-15R 11/11/2015 ug/L
VOCs																					
1,1,1-Trichloroethane	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	**1.0**	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	10 U	**0.22 J**	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,1,2-Trichloroethane	1	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,1-Dichloroethane	5	10 U	**1.2**	100 U	**0.48 J**	1.0 U	40 U	20 U	**0.67 J**	**0.57 J**	1.0 U	**0.58 J**	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,1-Dichloroethene	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,2,4-Trichlorobenzene	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,2-Dibromoethane	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,2-Dichlorobenzene	3	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,2-Dichloroethane	0.6	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,2-Dichloropropane	1	10 U	1.0 U	100 U	**1.4**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,3-Dichlorobenzene	3	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
1,4-Dichlorobenzene	3	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
2-Butanone	50	100 U	10 U	1000 U	10 U	10 U	400 U	200 U	10 U	10 U	10 U	10 U	50 U	50 U	100 U	100 U	1000 U	10000 U	5000 U	40 U	10 U
2-Hexanone	50*	50 U	5.0 U	500 U	5.0 U	5.0 U	200 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	50 U	50 U	500 U	5000 U	2500 U	20 U	5.0 U
4-Methyl-2-Pentanone		50 U	5.0 U	500 U	5.0 U	5.0 U	200 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	50 U	50 U	500 U	5000 U	2500 U	20 U	5.0 U
Acetone	50*	100 U	**8.9 J**	1000 U	10 U	10 U	400 U	200 U	10 U	10 U	10 U	10 U	50 U	50 U	100 U	100 U	1000 U	10000 U	5000 U	40 U	10 U
Benzene	1	10 U	1.0 U	100 U	**3.8**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Bromodichloromethane	50*	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Bromoform	50*	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Bromomethane	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Carbon Disulfide		10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Carbon Tetrachloride	5	10 U	**0.41 J**	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Chlorobenzene	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Chloroethane	5	10 U	1.0 U	100 U	**2.9**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	**1.8 J**	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Chloroform	7	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Chloromethane		10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
cis-1,2-Dichloroethene	5	**390**	**120 D**	**11000 D**	**130 D**	**3.0**	**1700**	**960**	**43**	**4.6**	1.0 U	1.0 U	**190 F1**	**210**	**310**	**700**	**3600**	1000 U	**28000**	**260**	**0.99 J**
cis-1,3-Dichloropropene	0.4**	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Cyclohexane		10 U	1.0 U	100 U	**1.1**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	**0.54 J**
Dibromochloromethane	50	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Dichlorodifluoromethane	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Ethyl Benzene	5	10 U	1.0 U	100 U	**25**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	**25**	**25**	10 U	10 U	100 U	1000 U	500 U	**34**	**13**
Isopropylbenzene	5	10 U	1.0 U	100 U	**30**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	**20**	**19**	10 U	10 U	100 U	1000 U	500 U	**17**	**15**
Methyl Acetate		25 U	2.5 U	250 U	2.5 U	2.5 U	100 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	13 U	13 U	25 U	25 U	250 U	2500 U	1300 U	10 U	2.5 U
Methyl tert-butyl Ether	10*	**1.9 J**	1.0 U	100 U	**75**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	**9.9 F1**	**12**	**5.3 J**	10 U	100 U	1000 U	500 U	**1.3 J**	1.0 U
Methylcyclohexane		10 U	1.0 U	100 U	**3.9**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.7 J**	**1.7 J**	10 U	10 U	100 U	1000 U	500 U	**1.2 J**	**3.2**
Methylene Chloride	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Styrene	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Tetrachloroethene	5	**440**	**2300 D**	**13000 D**	1.0 U	**0.69 J**	**260**	**1900**	**28**	**58**	1.0 U	1.0 U	5.0 U	5.0 U	**210**	10 U	**2500**	**28000**	**630**	4.0 U	**1.5**
Toluene	5	10 U	**0.84 J**	100 U	**9.2**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	**11**	1.0 U
trans-1,2-Dichloroethene	5	10 U	**1.1**	100 U	**2.3**	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Trichloroethene	5	**110**	**15**	**2600**	1.0 U	**0.91 J**	**170**	**530**	**11**	**14**	1.0 U	1.0 U	5.0 U	5.0 U	**90**	10 U	**860**	**2500**	**410 J**	4.0 U	1.0 U
Trichlorofluoromethane	5	10 U	1.0 U	100 U	1.0 U	1.0 U	40 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U	100 U	1000 U	500 U	4.0 U	1.0 U
Vinyl Chloride	2	**14**	**9.9**	**580**	**310 D**	1.0 U	40 U	**32**	**13**	1.0 U	1.0 U	1.0 U	**220**	**240**	10 U	**340**	**100**	1000 U	**730**	**480 D**	1.0 U
Xylene (Total)	5	20 U	**6.4**	200 U	**14**	2.0 U	80 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	**11**	**11**	20 U	20 U	200 U	1000 U	1000 U	**190**	2.0 U

Notes

- Exceeds NYSDEC Class GA Standard or Guidance Value

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

D - Result of diluted sample shown.

F1 - MS and/or MSD Recovery is outside acceptance limits.

J - Estimated concentration.

U - Compound not detected.

Mn^{-4} - Permanganate present in well

NA - Not analyzed.

NS - Not sampled.

[a] - Duplicate sample collected from MW-6R.

[b] - Duplicate sample collected from MW-13.

[c] - Duplicate sample collected from MW-23S.

Table 2.
2015 Baseline Sampling Analytical Sampling Summary
Crown Dykman (Site #1-30-054)
Supplemental Pre-Design Summary Report

Sample ID Depth or Screen Interval (feet) Sampling Date Units	NYSDEC Class GA Standard or Guidance Value ug/L	MW-16R 11/10/2015 ug/L	MW-17R 11/10/2015 ug/L	MW-18 11/11/2015 ug/L	MW-19 11/10/2015 ug/L	MW-22S 11/10/2015 ug/L	MW-22D 11/11/2015 ug/L	MW-22 (R) S 11/10/2015 ug/L	MW-22 (R) D 11/11/2015 ug/L	MW-23S 11/11/2015 ug/L	MW-23D 11/11/2015 ug/L	MW-24 11/18/2015 ug/L	MW-25S 11/12/2015 ug/L	MW-25D 11/12/2015 ug/L	MW-26 11/10/2015 ug/L	MW-27 11/10/2015 ug/L	MW-28 11/10/2015 ug/L	MW-29 11/10/2015 ug/L
VOCs																		
1,1,1-Trichloroethane	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	**3.8 J**
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,2-Dibromoethane	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,2-Dichloropropane	1	1.0 U	**1.7**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
2-Butanone	50	10 U	10 U	400 U	10 U	NS	50 U	NS	800 U	100 U	200 U	100 U	NS	100 U	5000 U	20000 U	20000 U	40 U
2-Hexanone	50*	5.0 U	5.0 U	200 U	5.0 U	NS	25 U	NS	400 U	50 U	100 U	50 U	NS	50 U	2500 U	10000 U	10000 U	20 U
4-Methyl-2-Pentanone		5.0 U	5.0 U	200 U	5.0 U	NS	25 U	NS	400 U	50 U	100 U	50 U	NS	50 U	2500 U	10000 U	10000 U	20 U
Acetone	50*	10 U	10 U	400 U	10 U	NS	50 U	NS	800 U	100 U	200 U	100 U	NS	100 U	5000 U	20000 U	20000 U	40 U
Benzene	1	**0.41 J**	**4.3**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	**1.8 J**
Bromodichloromethane	50*	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Bromoform	50*	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Bromomethane	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Carbon Disulfide		1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Carbon Tetrachloride	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Chlorobenzene	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Chloroethane	5	1.0 U	**4.5**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Chloroform	7	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Chloromethane		1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
cis-1,2-Dichloroethene	5	**16**	**55**	**3300 D**	1.0 U	NS	**380**	NS	**2400**	**750**	**1300 F1**	**620**	NS	**480**	**11000**	**140000**	**47000**	**1600 D**
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Cyclohexane		1.0 U	**0.50 J**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Dibromochloromethane	50	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Ethyl Benzene	5	**34**	**8.6**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	**14**
Isopropylbenzene	5	**15**	**26**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	**12**
Methyl Acetate		2.5 U	2.5 U	100 U	2.5 U	NS	13 U	NS	200 U	25 U	50 U	25 U	NS	25 U	1300 U	5000 U	5000 U	10 U
Methyl tert-butyl Ether	10*	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	**12 J**	10 U	NS	10 U	500 U	2000 U	2000 U	**0.90 J**
Methylcyclohexane		**0.96 J**	**14**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	**1.0 J**
Methylene Chloride	5	1.0 U	**1.7**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Styrene	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Tetrachloroethene	5	**18**	**0.74 J**	**4300 D**	**0.53 J**	NS	**180**	NS	**36 J**	**780**	**1300 F1**	**110**	NS	**26**	**670**	**140000**	**26000**	**6.7**
Toluene	5	1.0 U	**0.61 J**	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	**2.0 J**
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	**7.1**
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Trichloroethene	5	**3.2**	1.0 U	**1500**	1.0 U	NS	**130**	NS	80 U	**270**	**500 F1**	**72**	NS	**17**	**800**	**18000**	**15000**	**5.0**
Trichlorofluoromethane	5	1.0 U	1.0 U	40 U	1.0 U	NS	5.0 U	NS	80 U	10 U	20 U	10 U	NS	10 U	500 U	2000 U	2000 U	4.0 U
Vinyl Chloride	2	**1.0**	**62**	**350**	1.0 U	NS	**23**	NS	80 U	**11**	**140**	**21**	NS	**150**	**630**	**7700**	**1800 J**	**600 D**
Xylene (Total)	5	**5.7**	2.0 U	80 U	2.0 U	NS	10 U	NS	160 U	20 U	40 U	20 U	NS	20 U	1000 U	4000 U	4000 U	**42**

Notes

- Exceeds NYSDEC Class GA Standard or Guidance Value

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

D - Result of diluted sample shown.

F1 - MS and/or MSD Recovery is outside acceptance limits.

J - Estimated concentration.

U - Compound not detected.

Mn^{-4} - Permanganate present in well

NA - Not analyzed.

NS - Not sampled.

[a] - Duplicate sample collected from MW-6R.

[b] - Duplicate sample collected from MW-13.

[c] - Duplicate sample collected from MW-23S.

Table 3a.
Source Area Injection Pilot Summary of Injection Volume - Injection Well IW-02
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Date	Uptime (minutes)	Start Totalizer (gallons)	End Totalizer (gallons)	Volume (gallons)	Flow Rate (GPM)	Pressure (PSI)
12/3/2015	355	5,352.00	5,935.12	583.12	1.64	0.00
12/4/2015	525	5,935.12	6,726.60	791.48	1.51	0.00
12/7/2015	750	6,726.60	7,744.14	1,017.54	1.36	0.00
12/8/2015	780	7,744.14	8,761.89	1,017.75	1.30	0.00
12/9/2015	750	8,761.89	9,449.34	687.45	0.92	0.00
12/10/2015	750	9,449.34	10,167.14	717.80	0.96	0.00

Cumulative Total Injection Volume: 4,815.14 gallons

Table 3b.
Source Area Injection Pilot Summary of Injection Volume - Injection Well IW-03
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Date	Uptime (minutes)	Start Totalizer (gallons)	End Totalizer (gallons)	Volume (gallons)	Flow Rate (GPM)	Pressure (PSI)
12/3/2015	355	5,713.36	6,197.64	484.28	1.36	0.00
12/4/2015	525	6,197.64	6,866.85	669.21	1.27	0.00
12/7/2015	750	6,866.85	7,669.06	802.21	1.07	0.00
12/8/2015	780	7,669.06	8,561.34	892.28	so	0.00
12/9/2015	750	8,561.34	9,665.75	1,104.41	1.47	0.00
12/10/2015	750	9,665.75	10,237.71	571.96	0.76	0.00

Cumulative Total Injection Volume: 4,524.35 gallons

Table 4.
Summary of Laundry Water Impoundment System PFAS Results
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Sample ID Sampling Date Units	USEPA Health Advisory Level for Drinking Water --- ng/l	Concrete Structure 7/6/2017 ng/L	DUP-01[a] 7/6/2017 ng/L	EQUIPMENT BLANK 7/6/2017 ng/L	Sump 7/6/2017 ng/L	Trench 7/6/2017 ng/L	MW-7 7/6/2017 ng/L	MW-23S 7/6/2017 ng/L
Perfluorobutanoic acid (PFBA)	---	16	11.0	9.9	19.0	4.7	18.0	3.9
Perfluoropentanoic acid (PFPeA)	---	3	3.5	9.2	6.9	4.0	32.0	1.4 J
Perfluorohexanoic acid (PFHxA)	---	7	6.5	16	5.6	6.0	31.0	0.9 J
Perfluoroheptanoic acid (PFHpA)	---	4	4.5	15	2.2	2.9	24.0	2.9
Perfluorooctanoic acid (PFOA)	70	31	32.0	49	5.5	18.0	76.0	8.5
Perfluorononanoic acid (PFNA)	---	6	6.8	2.4	2.3	3.6	11.0	3.2
Perfluorodecanoic acid (PFDA)	---	9	9.6	1.9 U	1.9 J	5.7	11.0	1.5 J
Perfluoroundecanoic acid (PFUnA)	---	2 J	1.8 J	1.9 U	1.2 J	1.2 J	2.0 U	1.9 U
Perfluorododecanoic acid (PFDoA)	---	1 J	1.3 J	1.9 U	2.1	0.6 J	2.0 U	1.9 U
Perfluorotridecanoic Acid (PFTriA)	---	1 J	1.9 U	1.9 U	2.0 U	0.6 J	2.0 U	1.9 U
Perfluorotetradecanoic acid (PFTeA)	---	2 U	1.9 U	0.27 J B	0.6 J B	0.4 J B	2.0 U	1.9 U
Perfluorobutanesulfonic acid (PFBS)	---	2 J	1.8 J	4.7	1.4 J	1.6 J	47.0	2.9
Perfluorohexanesulfonic acid (PFHxS)	---	3	3.3	14	3.7	3.2	18.0	1.6 J
Perfluoroheptanesulfonic Acid (PFHpS)	---	2 U	1.9 U	1.4 J	2.0 U	1.9 U	4.7	1.9
Perfluorooctanesulfonic acid (PFOS)	70	4	3.3	18	5.0	2.8	260.0	63.0
Perfluorodecanesulfonic acid (PFDS)	---	1 J	1.3 J	1.9 U	2.0 U	1.9 U	2.0 U	1.9 U
Perfluorooctane Sulfonamide (FOSA)	---	40 U	38.0 U	38 U	41 U	38.0 U	1.2 J B	39.0 U

Notes

- Exceeds USEPA Health Advisory Level for Drinking Water

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Compound not detected.

B - Compound was found in the blank and sample

[a] - Duplicate sample collected from 'Concrete Structure'

Table 5.
Summary of Analytical Results - 2017 Synoptic Sampling
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Sample ID	NYSDEC Class GA Standard or	MW-1	MW-1D	MW-1DD	MW-2	MW-3	MW-4R	DUP-01[a]	MW-5R	MW-6R	MW-7	MW-8	MW-10S	MW-10D	MW-11	MW-13
Sampling Date	Guidance Value	11/2/2017	11/2/2017	11/2/2017	11/8/2017	11/7/2017	11/2/2017	11/2/2017	11/6/2017	11/7/2017	10/31/2017	11/6/2017	11/6/2017	11/6/2017	11/6/2017	11/7/2017
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1 U*	1 U*	1 U*	1 U	1 U	1 U*	1 U*	1 U*	1 U*	1 U	10 U*	5 U*	5 U*	5 U*	100 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,1-Dichloroethane	5	1 U	0.33 J	1 U	1 U	1 U	1 U	1 U	0.31 J	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,1-Dichloroethene	5	1 U	0.77 J	1 U	1 U	1 U	1 U	1 U	0.38 J	1.6	0.37 J	10 U	5 U	2.2 J	5 U	100 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,2-Dibromo-3-Chloropropane	0.04	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	50 U	50 U	50 U	1000 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.57 J	1 U	10 U	5 U	5 U	5 U	100 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.41 J	1 U	10 U	5 U	5 U	5 U	100 U
2-Butanone	50	50 U	50 U F1	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	500 U	250 U	250 U	250 U	5000 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	50 U	50 U	50 U	1000 U
4-Methyl-2-Pentanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	50 U	50 U	50 U	1000 U
Acetone	50*	25 U	25 U	25 U	25 U	6 J	25 U	25 U	25 U	25 U	25 U	250 U	130 U	130 U	130 U	2500 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.6	1 U	10 U	5 U	5 U	21	100 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Bromoform	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.3	1 U	10 U	5 U	5 U	5 U	100 U
Chloroform	7	1 U	0.27 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.54 J	10 U	5 U	5 U	5 U	100 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
cis-1,2-Dichloroethene	5	45	350	140	1.1	1 U	0.94 J	0.69 J	1.1	740	210	86	550	830	650	14000
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Cyclohexane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	25 U	25 U	25 U	500 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U*	1 U	1 U	1 U	1 U	1 U	1 U	10 U*	5 U	5 U	5 U	100 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	26	1 U	120	5 U	5 U	47	100 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	18	1 U	66	5 U	5 U	15	100 U
Methyl Acetate		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	50 U	50 U	50 U	1000 U
Methyl tert-butyl Ether	10*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	7.2	1 U	10 U	5 U	5 U	63	100 U
Methylcyclohexane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2.2 J	5 U	9.8 J	25 U	25 U	25 U	500 U
Methylene Chloride	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 J	25 U	25 U	25 U	160 J B
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Tetrachloroethene	5	11	40	65	17	1 U	1 U	1 U	1 U	2.9	260	10 U	560	400	3.2 J	430
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	58	5 U	5 U	36	100 U
trans-1,2-Dichloroethene	5	0.3 J	3.6	1.3	1 U	1 U	1 U	1 U	1 U	3.3	4.3	10 U	2.9 J	5.1	9.6	140
trans-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	5 U	5 U	5 U	100 U
Trichloroethene	5	11	65	38	3.5	1 U	1 U	1 U	0.26 J	9.7	130	10 U	210	420	5 U	480
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U*	5 U	5 U	5 U	100 U
Vinyl Chloride	2	3.1	4.8	4.1	1 U	1 U	1 U	1 U	1 U	270	1 U	13	33	4.3 J	370	660
Xylene (Total)	5	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	6.6	3 U	1100	15 U	15 U	210	300 U

Notes

- Exceeds NYSDEC Class GA Standard or Guidance Value

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

F1 - MS and/or MSD Recovery is outside acceptance limits.

* LCS or LCSD is outside acceptance limits.

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

B - Compound was found in the blank and sample

U - Compound not detected.

[a] - Duplicate collected at MW-4R

[b] - Duplicate collected at MW-27

CI - The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias

Table 5.
Summary of Analytical Results - 2017 Synoptic Sampling
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Sample ID	NYSDEC Class GA Standard or	MW-14R	MW-15R	MW-16R	MW-17R	MW-18	MW-19	MW-21S	MW-21D	MW-22(R)S	MW-22(R)D	MW-23S	MW-23D	MW-25S	MW-25D	MW-26
Sampling Date	Guidance Value	11/8/2017	11/8/2017	11/1/2017	11/1/2017	11/6/2017	11/1/2017	11/3/2017	11/7/2017	11/2/2017	11/3/2017	10/31/2017	10/31/2017	11/7/2017	11/7/2017	11/7/2017
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,1,2,2-Tetrachloroethane	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,1,2-Trichloro-1,2,2-trifluoroethane		5 U	1 U	1 U	1 U	5 U*	1 U	1 U	10 U	1 U*	20 U	10 U*	10 U	1 U*	1 U*	5 U*
1,1,2-Trichloroethane	1	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,1-Dichloroethane	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	0.36 J	20 U	1 U	10 U	1 U	0.97 J	5 U
1,1-Dichloroethene	5	1.5 J	1 U	1 U	1 U	5 U	1 U	1 U	2.7 J	0.32 J	20 U	0.79 J	10 U	1 U	0.46 J	5 U
1,2,4-Trichlorobenzene	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,2-Dibromo-3-Chloropropane	0.04	50 U	10 U	10 U	10 U	50 U	10 U	10 U	100 U	10 U	200 U	10 U	100 U	10 U	10 U	50 U
1,2-Dibromoethane	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,2-Dichlorobenzene	3	5 U	1 U	1 U	0.22 J	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,2-Dichloroethane	0.6	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	0.25 J	20 U	1 U	10 U	1 U	1.1	5 U
1,2-Dichloropropane	1	1.5 J	1 U	1 U	1.3	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,3-Dichlorobenzene	3	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
1,4-Dichlorobenzene	3	5 U	1 U	0.21 J	0.76 J	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
2-Butanone	50	250 U	50 U	50 U	50 U	250 U	50 U	50 U	500 U	50 U	1000 U	50 U	500 U	50 U	50 U	250 U
2-Hexanone	50*	50 U	10 U	10 U	10 U	50 U	10 U	10 U	100 U	10 U	200 U	10 U	100 U	10 U	10 U	50 U
4-Methyl-2-Pentanone		50 U	10 U	10 U	10 U	50 U	10 U	10 U	100 U	10 U	200 U	10 U	100 U	10 U	10 U	50 U
Acetone	50*	130 U	25 U	5.2 J	6.3 J	130 U	25 U	25 U	250 U	25 U	500 U	25 U	250 U	52	25 U	130 U
Benzene	1	5.1	1 U	1 U	3.8	5 U	1 U	1 U	10 U	0.47 J	20 U	1 U	10 U	1 U	0.98 J	1.3 J
Bromodichloromethane	50*	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Bromoform	50*	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1	1 U	5 U
Bromomethane	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Carbon Disulfide		5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Carbon Tetrachloride	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Chlorobenzene	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Chloroethane	5	5 U	1 U	1 U	14	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Chloroform	7	5 U	1 U	1 U	1 U	5 U	1 U	0.39 J	10 U	1 U	20 U	1 U	10 U	1.6	1 U	5 U
Chloromethane		5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
cis-1,2-Dichloroethene	5	1500	3.7	2.4	58	940	11	57	1800	260	2200	380	910	1 U	150	960
cis-1,3-Dichloropropene	0.4**	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Cyclohexane		0.83 J	0.66 J	0.2 J	0.71 J	25 U	5 U	5 U	50 U	5 U	4.7 J	5 U	50 U	5 U	5 U	25 U
Dibromochloromethane	50	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Dichlorodifluoromethane	5	5 U*	1 U*	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U*	1 U	10 U	1 U	1 U	5 U
Ethyl Benzene	5	65	4.6	11	3.6	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	85
Isopropylbenzene	5	34	12	12	27	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	43
Methyl Acetate		50 U	10 U	10 U	10 U	50 U	10 U	10 U	100 U	10 U	200 U	10 U	100 U	10 U	10 U	50 U
Methyl tert-butyl Ether	10*	1.4 J	1 U	1 U	12	5 U	1 U	1 U	10 U	1 U	20 U	1 U	3.3 J	1 U	1 U	5 U
Methylcyclohexane		2.7 J	4.4 J	0.59 J	2.4 J	25 U	5 U	5 U	50 U	0.29 J	100 U	5 U	50 U	5 U	1.4 J	4.4 J
Methylene Chloride	5	6.6 J B	5 U	5 U	5 U	25 U	5 U	5 U	50 U	5 U	33 J B	5 U	11 J B	5 U	5 U	25 U
Styrene	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Tetrachloroethene	5	5 U	0.38 J	1 U	1 U	78	1.2	58	10 U	17	20 U	320	480	1 U	3.2	2.1 J
Toluene	5	120	1 U	1 U	0.18 J	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	2.5 J
trans-1,2-Dichloroethene	5	43	0.34 J	0.6 J	1.8	5.6	0.53 J	0.32 J	28	5.5	33	2.5	5.1 J	1 U	2.3	8.7
trans-1,3-Dichloropropene	0.4**	5 U	1 U	1 U	1 U	5 U	1 U	1 U	10 U	1 U	20 U	1 U	10 U	1 U	1 U	5 U
Trichloroethene	5	5 U	0.2 J	0.43 J	1 U	520	0.94 J	22	10 U	23	20 U	140	230	1 U	3.8	17
Trichlorofluoromethane	5	5 U	1 U	1 U	1 U	5 U	1 U	1 U*	10 U*	2 U	20 U	1 U	10 U	1 U	1 U	5 U
Vinyl Chloride	2	700	5.3	0.47	73	40	0.39 J	8.3	50	61	66	3.6	11	1 U	330	88
Xylene (Total)	5	450	3 U	3 U	3 U	15 U	3 U	3 U	30 U	3 U	60 U	3 U	30 U	3 U	3 U	270

Notes

- Exceeds NYSDEC Class GA Standard or Guidance Value

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

F1 - MS and/or MSD Recovery is outside acceptance limits.

* LCS or LCSD is outside acceptance limits.

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

B - Compound was found in the blank and sample

U - Compound not detected.

[a] - Duplicate collected at MW-4R

[b] - Duplicate collected at MW-27

CI - The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias

Table 5.
Summary of Analytical Results - 2017 Synoptic Sampling
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Sample ID	NYSDEC Class GA Standard or	MW-27	DUP-02[b]	MW-28	MW-29	IW-01S	IW-01D	IW-02	IW-03
Sampling Date	Guidance Value	11/7/2017	11/7/2017	11/7/2017	11/8/2017	11/7/2017	11/6/2017	11/7/2017	11/8/2017
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,1,2,2-Tetrachloroethane	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1000 U*	1000 U*	200 U	10 U	1 U*	1 U	100 U*	10 U
1,1,2-Trichloroethane	1	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,1-Dichloroethane	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,1-Dichloroethene	5	1000 U	1000 U	200 U	2.7 J	1 U	1 U	100 U	2.6 J
1,2,4-Trichlorobenzene	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,2-Dibromo-3-Chloropropane	0.04	10000 U	10000 U	2000 U	100 U	10 U	10 U	1000 U	100 U
1,2-Dibromoethane	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,2-Dichlorobenzene	3	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,2-Dichloroethane	0.6	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,2-Dichloropropane	1	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,3-Dichlorobenzene	3	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
1,4-Dichlorobenzene	3	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
2-Butanone	50	50000 U	50000 U	10000 U	500 U	50 U	50 U	5000 U	500 U
2-Hexanone	50*	10000 U	10000 U	2000 U	100 U	10 U	10 U	1000 U	100 U
4-Methyl-2-Pentanone		10000 U	10000 U	2000 U	100 U	10 U	10 U	1000 U	100 U
Acetone	50*	25000 U	25000 U	5000 U	250 U	25 U	29	2500 U	250 U
Benzene	1	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	3.3 J
Bromodichloromethane	50*	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Bromoform	50*	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Bromomethane	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Carbon Disulfide		1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Carbon Tetrachloride	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Chlorobenzene	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Chloroethane	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	8.2 J
Chloroform	7	1000 U	1000 U	200 U	10 U	0.45 J	1	100 U	10 U
Chloromethane		1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
cis-1,2-Dichloroethene	5	50000	50000	28000	900	1.6	39	14000	1400
cis-1,3-Dichloropropene	0.4**	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Cyclohexane		5000 U	5000 U	1000 U	50 U	5 U	5 U	500 U	50 U
Dibromochloromethane	50	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Dichlorodifluoromethane	5	1000 U	1000 U	200 U	10 U*	1 U	1 U	100 U*	10 U*
Ethyl Benzene	5	1000 U	1000 U	200 U	10	1 U	1 U	100 U	10 U
Isopropylbenzene	5	1000 U	1000 U	200 U	8 J	1 U	1 U	100 U	7.9 J
Methyl Acetate		10000 U	10000 U	2000 U	100 U	10 U	10 U	1000 U	100 U
Methyl tert-butyl Ether	10*	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	9.7 J
Methylcyclohexane		5000 U	5000 U	1000 U	50 U	5 U	5 U	500 U	1.5 J
Methylene Chloride	5	1100 J	1300 J	1000 U	14 J B	5 U	5 U	120 J	14 J B
Styrene	5	1000 U	1000 U	200 U	1 U	1 U	1 U	100 U	10 U
Tetrachloroethene	5	140000	150000	1500	25	17	25	3800	1.9 J
Toluene	5	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
trans-1,2-Dichloroethene	5	1000 U	1000 U	95 J	18	1 U	1 U	50 J	19
trans-1,3-Dichloropropene	0.4**	1000 U	1000 U	200 U	10 U	1 U	1 U	100 U	10 U
Trichloroethene	5	17000	18000	4200	52	1 U	3.3	5600	6.3 J
Trichlorofluoromethane	5	1000 U*	1000 U*	200 U*	10 U	1 U	1 U*	100 U*	10 U
Vinyl Chloride	2	2500	2500	1100	190	1 U	1 U	710	640
Xylene (Total)	5	3000 U	3000 U	600 U	30 U	3 U	3 U	300 U	30 U

Notes

- Exceeds NYSDEC Class GA Standard or Guidance Value

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

F1 - MS and/or MSD Recovery is outside acceptance limits.

* LCS or LCSD is outside acceptance limits.

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

B - Compound was found in the blank and sample

U - Compound not detected.

[a] - Duplicate collected at MW-4R

[b] - Duplicate collected at MW-27

CI - The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias

Table 6.
Summary of PFAS Analytical Results - 2017 Synoptic Sampling
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Sample ID	NYSDEC Class GA Standard or Guidance Value	MW-1	MW-1D	MW-1DD	MW-2	MW-3	MW-4R	DUP-01[a]	MW-5R	MW-6R	MW-7	MW-8	MW-10S	MW-10D	MW-11	MW-13	MW-14R	MW-15R
Sampling Date		11/2/2017	11/2/2017	11/2/2017	11/8/2017	11/7/2017	11/2/2017	11/2/2017	11/6/2017	11/7/2017	10/31/2017	11/6/2017	11/6/2017	11/6/2017	11/6/2017	11/7/2017	11/8/2017	11/8/2017
Units	ug/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Perfluorobutanoic acid (PFBA)	---	17	15	8.4	2.5 CI	38	6.4	6.4	28	170 CI	14 B	190 CI	21	32 CI	450 CI	71 CI	410 CI	70 CI
Perfluoropentanoic acid (PFPeA)	---	35	25	10	2.5	42	5	6.2	30	62	25	2.1 U	14	5.6	2 U	57	7.2	28
Perfluorohexanoic acid (PFHxA)	---	36	24	12	2.2	43	6.3	5.9	41	61	23	13	15	11	18	61	25	29
Perfluoroheptanoic acid (PFHpA)	---	30	17	12	1.9 J	51	5.1	5.1	44	60	20	13	13	7.4	16	39	25	29
Perfluorooctanoic acid (PFOA)	70	86	52	65	6.8	310	25	25	120	150	60	93	38	31	120	96	130	100
Perfluorononanoic acid (PFNA)	---	14	7	2.7	1.1 J B	8.1	1.8 J	1.8 J	5.8	17 B	6.3	16	5	2.2	26	17	10 B	12 B
Perfluorodecanoic acid (PFDA)	---	13	4.7	1.5 J	2 U	1.1 J	0.73 J	0.69 J	0.55 J	15	6.5	6.7	9.5	1.2 J	6.9	28	3.5	26
Perfluoroundecanoic acid (PFUnA)	---	1.1 J	1.7 U	1.7 U	2 U	2 U	2 U	2 U	1.6 J	1.2 J	2 U	2.1	1.1 J	2 U	2 U	2.4	2 U	8
Perfluorododecanoic acid (PFDoA)	---	0.65 J	1.7 U	1.7 U	2 U	2 U	2 U	2 U	2.1 U	1.9 U	2 U	2.1 U	2.1 U	2 U	2 U	1.8 J	2 U	5.5
Perfluorotridecanoic Acid (PFTriA)	---	1.7 U	1.7 U	1.7 U	2 U	2 U	2 U	2 U	2.1 U	1.9 U	2 U	2.1 U	2.1 U	2 U	2 U	2 U	2 U	2 U
Perfluorotetradecanoic acid (PFTeA)	---	1.7 U	1.7 U	1.7 U	0.6 J	2 U	2 U	2 U	2.1 U	1.9 U	2 U	2.1 U	2.1 U	2 U	2 U	2 U	2 U	2 U
Perfluorobutanesulfonic acid (PFBS)	---	19	16	6.5	1.1 J	64	2.8	2.6	53	140	26	13	9.8	6.5	14	62	190	40
Perfluorohexanesulfonic acid (PFHxS)	---	11 B	7.7 B	7.3 B	1.4 J B	36 B	5.8 B	5.8 B	25 B	23 B	9.5 B	20 B	7.3 B	6.5 B	28 B	9.4 B	52 B	14 B
Perfluoroheptanesulfonic Acid (PFHpS)	---	3.7	1.4 J	1.6 J	2 U	11	0.95 J	0.86 J	2.1	6.9	2	13	1.2 J	0.92 J	13	2.3	15	4.6
Perfluorooctanesulfonic acid (PFOS)	70	230	100	94	15	310	56	53	52	510	150 B	1700	120	75	1800	230	1200	380
Perfluorodecanesulfonic acid (PFDS)	---	1.7 U	1.7 U	1.7 U	2 U	2 U	2 U	2 U	2.1 U	0.31 J	2 U	2.1 U	2.1 U	2 U	2 U	2 U	2 U	3.9
Perfluorooctane Sulfonamide (FOSA)	---	1.7	0.99 J	0.92 J	2 U	59 B	0.39 J	0.46 J	2.1 U	6.1	0.51 J B	3.9	1.1 J	0.66 J	1.2 J	3.3 B	0.89 J	12
Total PFAS		498.15	270.79	221.92	35.1	973.2	116.27	113.81	403.05	1222.51	342.81	2083.7	256	179.98	2493.1	680.2	2068.59	762

Notes

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U - Compound not detected.

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[b] - Duplicate collected at MW-27

CI - The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias

Table 6.
Summary of PFAS Analytical Results - 2017 Synoptic Sampling
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Sample ID	NYSDEC Class GA Standard or Guidance Value	MW-16R	MW-17R	MW-18	MW-19	MW-21S	MW-21D	MW-22(R)2	MW-22(R)D	MW-23S	MW-23D	MW-25S	MW-25D	MW-26	MW-27	DUP-02[b]	MW-28	MW-29
Sampling Date		11/1/2017	11/1/2017	11/6/2017	11/1/2017	11/3/2017	11/7/2017	11/2/2017	11/3/2017	10/31/2017	10/31/2017	11/7/2017	11/7/2017	11/7/2017	11/7/2017	11/7/2017	11/7/2017	11/8/2017
Units	ug/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Perfluorobutanoic acid (PFBA)	---	17	72	20	4.1	26	29	18	20	14	20 B	91 CI	33 CI	150 CI	410 CI	430 CI	96 CI	490 CI
Perfluoropentanoic acid (PFPeA)	---	130	61	24	4.5	74	17	16	17	26	20	31	11	7.7	14	15	16	41
Perfluorohexanoic acid (PFHxA)	---	110	61	23	3.5	66	24	14	10	24	19	38	15	9.7	17	18	24	57
Perfluoroheptanoic acid (PFHpA)	---	96	51	17	3	48	18	9.5	8.2	16	17	29	11	8.8	20	20	20	55
Perfluorooctanoic acid (PFOA)	70	190	150	49	7	110	59	36	42	51	65	140	34	33	86	84	77	180
Perfluorononanoic acid (PFNA)	---	22	19	7.5	0.77 J	29	4.9	5.6	3	5.5	8.8	14	3.4 B	3.8	3.6	3.7	5.4	16 B
Perfluorodecanoic acid (PFDA)	---	23	13	12	0.76 J	87	1.9 J	2.7	1.2 J	4.7	7.7	3.7 J	2.4	2.7	2.2	2.1	4.7	17
Perfluoroundecanoic acid (PFUnA)	---	1.8 J	1.8 U	1.3 J	1.8 U	7.6	2 U	1.9 U	1.9 U	1.1 J	1.9 U	8 U	2 U	2 U	2 U	2 U	2 U	1.9 U
Perfluorododecanoic acid (PFDoA)	---	1.9 U	1.8 U	2 U	1.8 U	2.4	2 U	1.9 U	1.9 U	2 U	1.9 U	8 U	2 U	2 U	2 U	2 U	2 U	1.9 U
Perfluorotridecanoic Acid (PFTriA)	---	1.9 U	1.8 U	2 U	1.8 U	2.2 U	2 U	1.9 U	1.9 U	1.6 J	1.9 U	8 U	2 U	2 U	2 U	2 U	2 U	1.9 U
Perfluorotetradecanoic acid (PFTeA)	---	1.9 U	1.8 U	2 U	1.8 U	2.2 U	2 U	1.9 U	1.9 U	2 U	1.9 U	8 U	2 U	2 U	2 U	2 U	2 U	1.9 U
Perfluorobutanesulfonic acid (PFBS)	---	220	91 CI	15	11	35	5.8	5.7	7.4	22	19	14	9.7	28 CI	27	31 CI	59 CI	96
Perfluorohexanesulfonic acid (PFHxS)	---	19 B	20 B	6.8 B	3.6 B	8.8 B	8 B	6.8 B	6.1 B	11 B	8.4 B	20 B	6.3 B	8.4 B	21 B	23 B	31 B	28 B
Perfluoroheptanesulfonic Acid (PFHpS)	---	6.7	7.1	1.3 J	0.52 J	3.7	1.6 J	1.9	1 J	1.6 J	2	4.5 J	1.1 J	4.7	7.8	6.9	9	7
Perfluorooctanesulfonic acid (PFOS)	70	320	450	150	17	480	110	140	86	94	130 B	350	100	380	450	450	600	590
Perfluorodecanesulfonic acid (PFDS)	---	1.9 U	1.8 U	2 U	1.8 U	2.2 U	2 U	1.9 U	1.9 U	2 U	1.9 U	8 U	2 U	2 U	2 U	2 U	2 U	1.9 U
Perfluorooctane Sulfonamide (FOSA)	---	3	6.3	0.81 J	1.8 U	4.5 B	1.8 J B	0.83 J	1.1 J B	1.1 J B	1.2 J B	3.5 J B	2 U	1.6 J B	0.52 J B	0.55 J B	0.54 J B	6.8
Total PFAS		1158.5	1001.4	327.71	55.75	982	281	257.03	203	273.6	318.1	738.7	226.9	638.4	1059.12	1084.25	942.64	1583.8

Notes

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CI - The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias

Table 6.
Summary of PFAS Analytical Results - 2017 Synoptic Sampling
Crown Dykman (Site #130054)
Supplemental Pre-Design Summary Report

Sample ID Sampling Date Units	NYSDEC Class GA Standard or Guidance Value ug/L	IW-01S 11/7/2017 ng/L	IW-01D 11/6/2017 ng/L	IW-02 11/7/2017 ng/L	IW-03 11/8/2017 ng/L	EB-01 Equipment Blank 10/31/2017 ng/L	EB-02 Equipment Blank 10/31/2017 ng/L	EB-03 Equipment Blank 10/31/2017 ng/L	EB-04 Equipment Blank 11/8/2017 ng/L
Perfluorobutanoic acid (PFBA)	---	29 CI	37	75 CI	120 CI	0.54 J B	0.38 J B	0.59 J B	2 U
Perfluoropentanoic acid (PFPeA)	---	8	18	25	23	1.9 U	1.9 U	1.9 U	2 U
Perfluorohexanoic acid (PFHxA)	---	9	21	24	29	1.9 U	1.9 U	1.9 U	2 U
Perfluoroheptanoic acid (PFHpA)	---	8.7	15	18	24	1.9 U	1.9 U	1.9 U	2 U
Perfluorooctanoic acid (PFOA)	70	43	47	56	100	1.9 U	1.9 U	1.9 U	2 U
Perfluorononanoic acid (PFNA)	---	3.7	6.2	8.5	11 B	1.9 U	1.9 U	1.9 U	2 U
Perfluorodecanoic acid (PFDA)	---	2.4	13	10	7.1	1.9 U	1.9 U	1.9 U	2 U
Perfluoroundecanoic acid (PFUnA)	---	2 U	1.2 J	2 U	1.9 U	1.9 U	1.9 U	1.9 U	2 U
Perfluorododecanoic acid (PFDoA)	---	2 U	0.67 J	2 U	1.9 U	1.9 U	1.9 U	1.9 U	2 U
Perfluorotridecanoic Acid (PFTriA)	---	2 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.9 U	2 U
Perfluorotetradecanoic acid (PFTeA)	---	2 U	2 U	2 U	0.57 J	1.9 U	1.9 U	0.56 J	2 U
Perfluorobutanesulfonic acid (PFBS)	---	7	13	28	67	1.9 U	1.9 U	1.9 U	2 U
Perfluorohexanesulfonic acid (PFHxS)	---	8.3 B	6.8 B	7.2 B	21 B	0.34 JB	0.28 JB	0.3 JB	0.24 JB
Perfluoroheptanesulfonic Acid (PFHpS)	---	1.4 J	1.3 J	2.1	7.4	1.9 U	1.9 U	1.9 U	2 U
Perfluorooctanesulfonic acid (PFOS)	70	110	130	190	550	1.9 U	1.9 U	1.9 U	2 U
Perfluorodecanesulfonic acid (PFDS)	---	2 U	2 U	2 U	1.9 U	1.9 U	1.9 U	1.9 U	2 U
Perfluorooctane Sulfonamide (FOSA)	---	1.4 J B	1.7 J B	1 J B	2.3	1.9 U	1.9 U	1.9 U	2 U
Total PFAS		231.9	311.87	444.8	962.37	0.88	0.66	1.45	0.24

Notes

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[b] - Duplicate collected at MW-27

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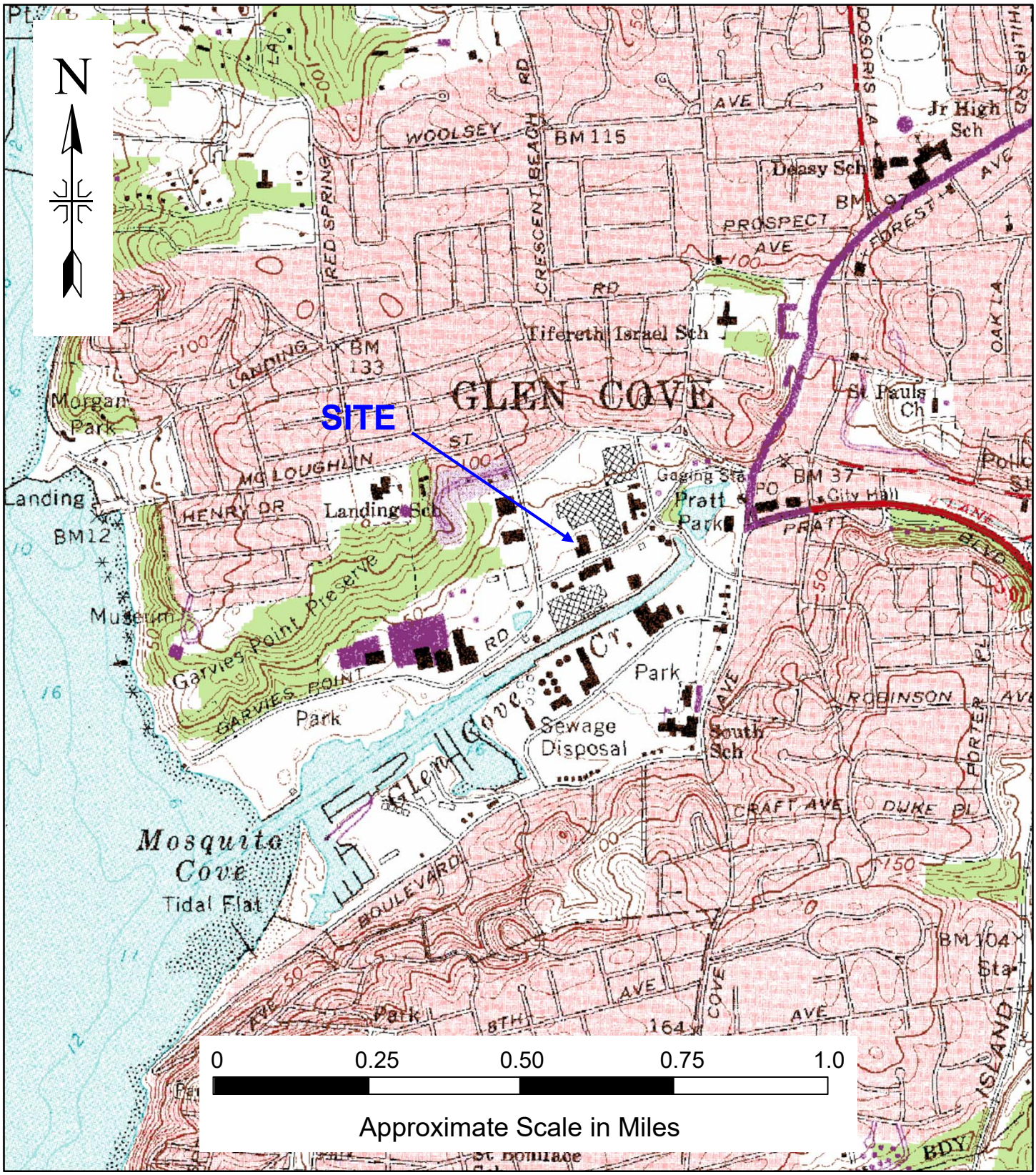
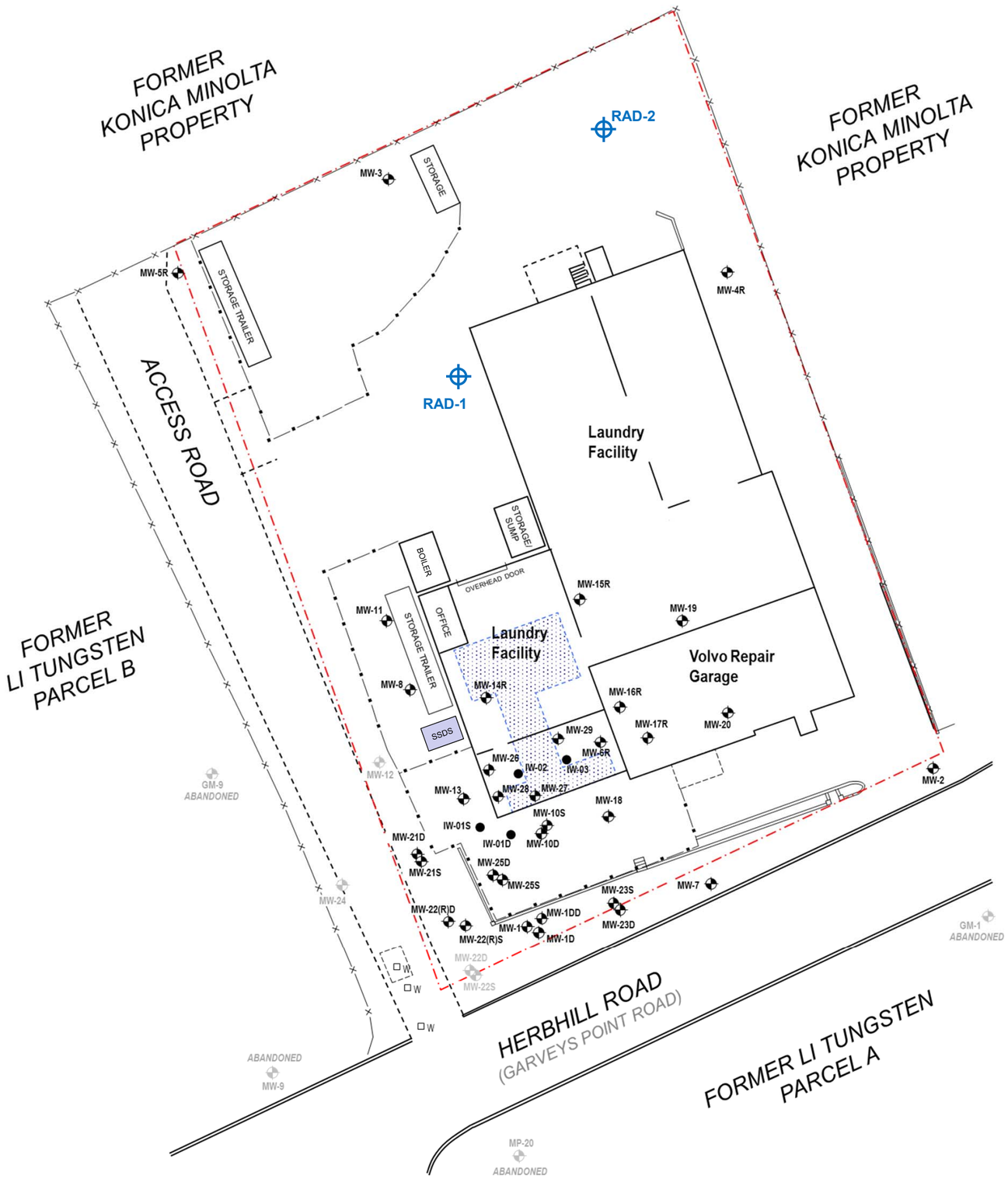
FIGURES

ARCADIS Design & Consultancy for natural and built assets

Figure 1
Site Location

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York





LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- RAD-2 TEMPORARY RADIOLOGICAL SCREENING POINT (Approximate)

N

0 21 52

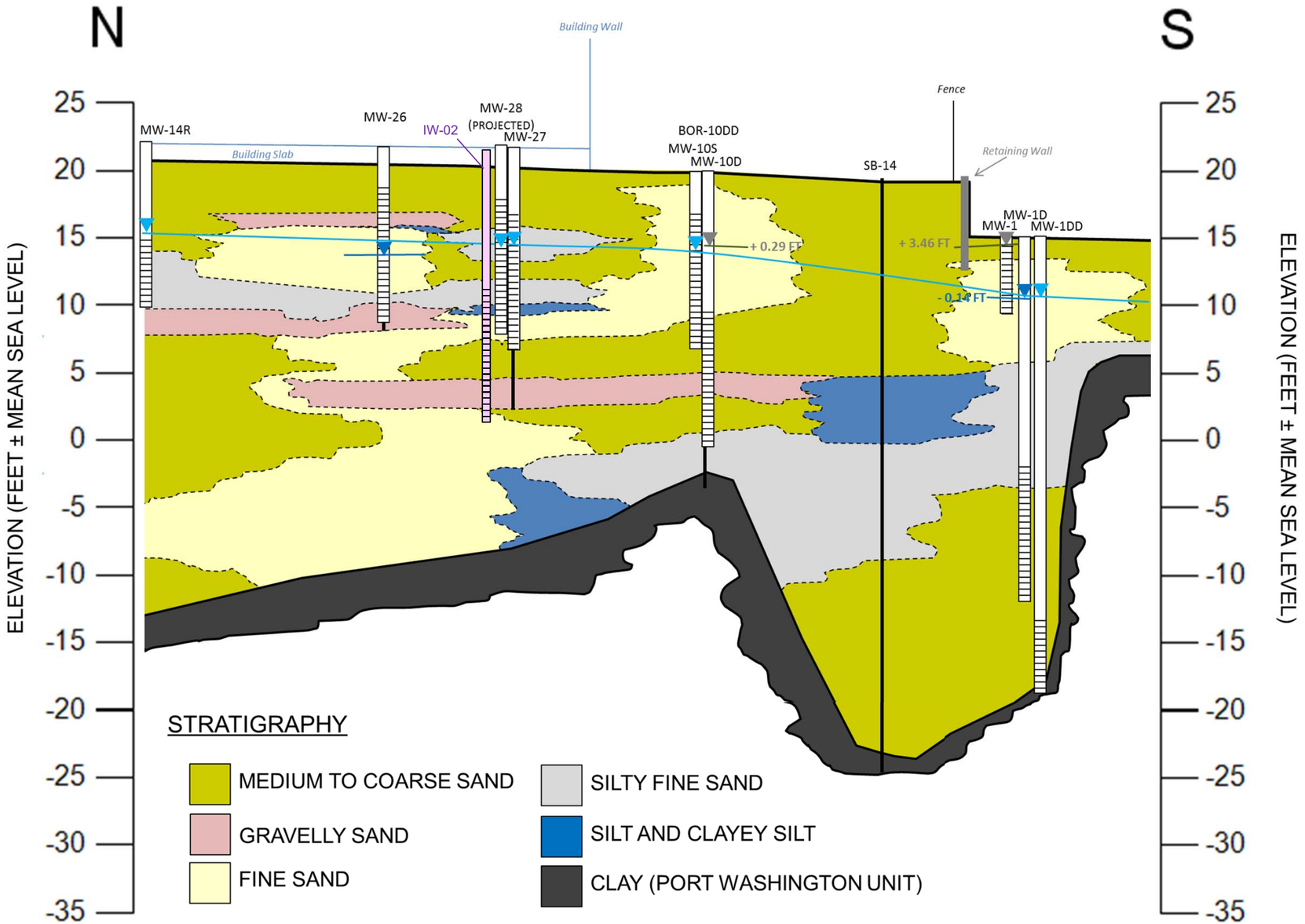
APPROXIMATE SCALE IN FEET

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Site Plan

ARCADIS Design & Consultancy for natural and built assets

2 FIGURE



LEGEND

GROUNDWATER TABLE (DASHED WHERE INFERRED)

WELL WATER LEVEL OBSERVATION

SOIL BORING

SB-14 IDENTIFIER

BORING

MONITORING WELL

MW-10D IDENTIFIER

RISER

SCREENED INTERVAL

0 6 12 18

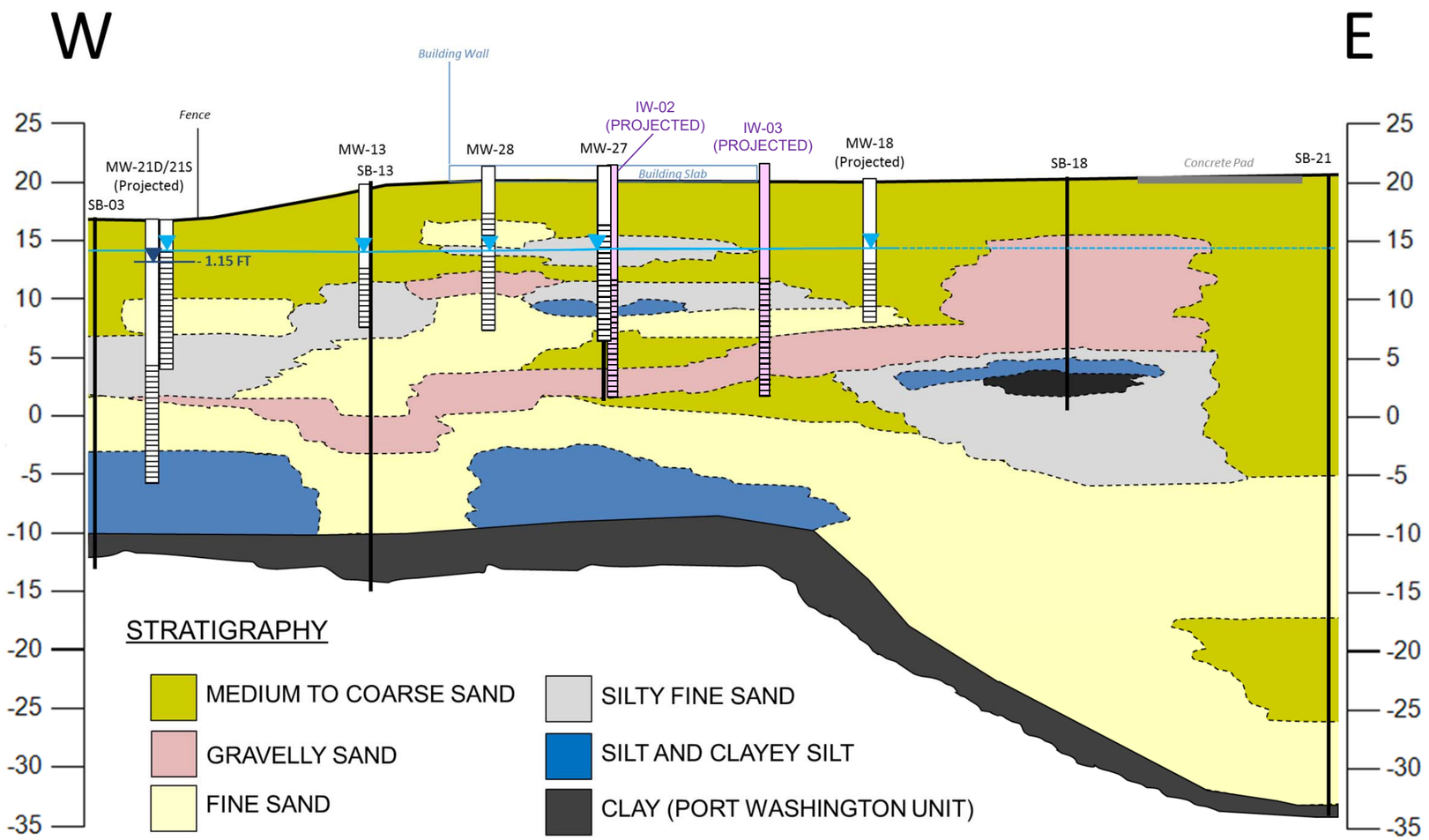
APPROXIMATE SCALE IN FEET
No Vertical Exaggeration

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

North-South Geologic Cross-Section

ARCADIS Design & Consultancy for natural and built assets

3a
FIGURE



LEGEND

GROUNDWATER TABLE (DASHED WHERE INFERRED)

WELL WATER LEVEL OBSERVATION

SOIL BORING	MONITORING WELL
SB-18 IDENTIFIER	MW-13 IDENTIFIER
BORING	RISER
	SCREENED INTERVAL

0 8 16 24

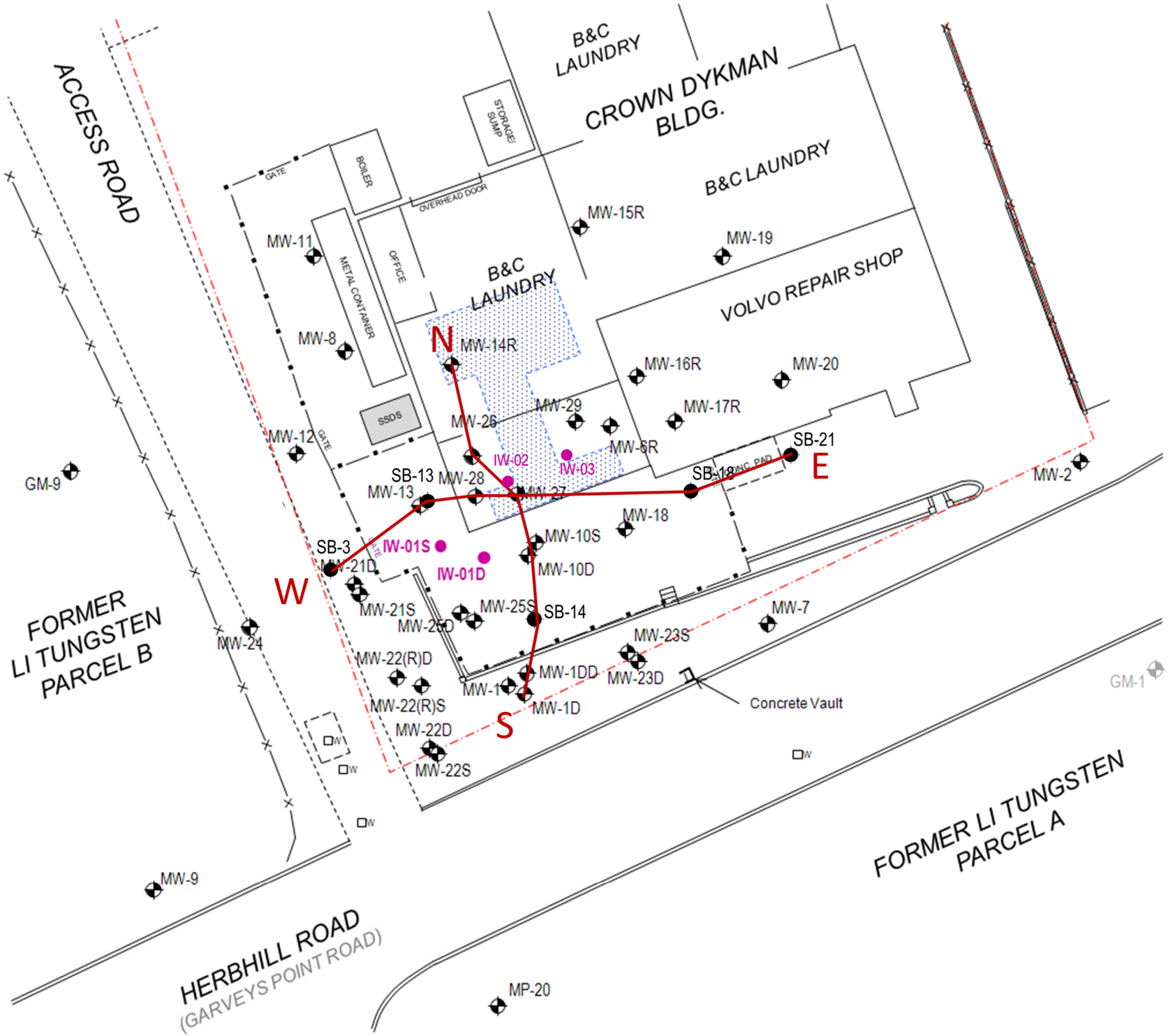
APPROXIMATE SCALE IN FEET
No Vertical Exaggeration

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

East-West Geologic Cross-Section

ARCADIS Design & Consultancy for natural and built assets

3b
FIGURE



LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 — GROUNDWATER MONITORING WELL
- GM-1 — DAMAGED/MISSING WELL LOCATION
- SB-3 — CROSS-SECTION SOIL BORING
- APPROXIMATE 2005 IRM EXCAVATION AREA/ SVE PIPING
- IW-01D — SODIUM PERMANGANATE INJECTION WELL

N

0 22 44

APPROXIMATE SCALE IN FEET

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Vertical Extent of Chlorinated VOCs in Soil and Groundwater (July 2014); Cross Section Locations

ARCADIS Design & Consultancy for natural and built assets

3c
FIGURE

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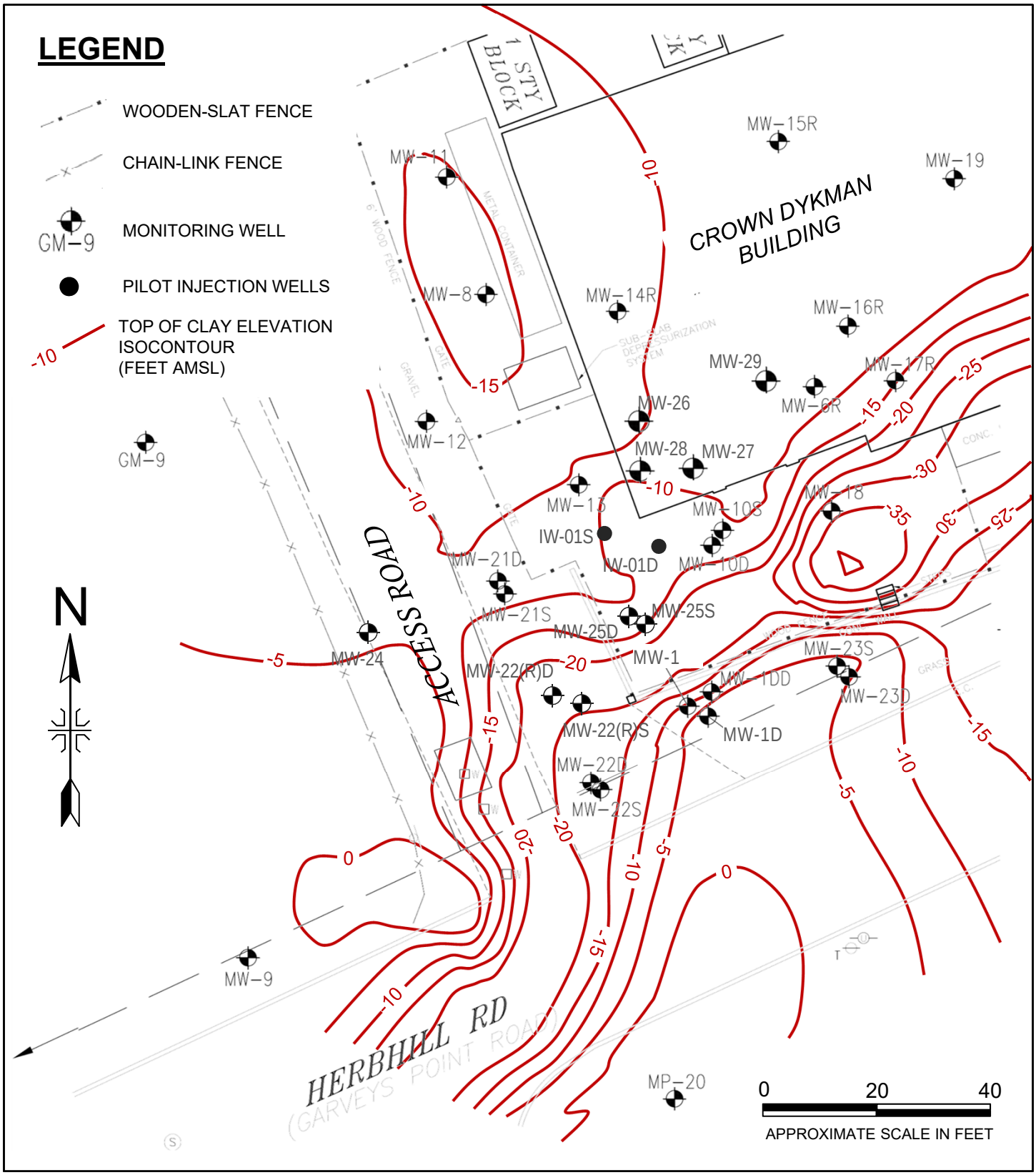
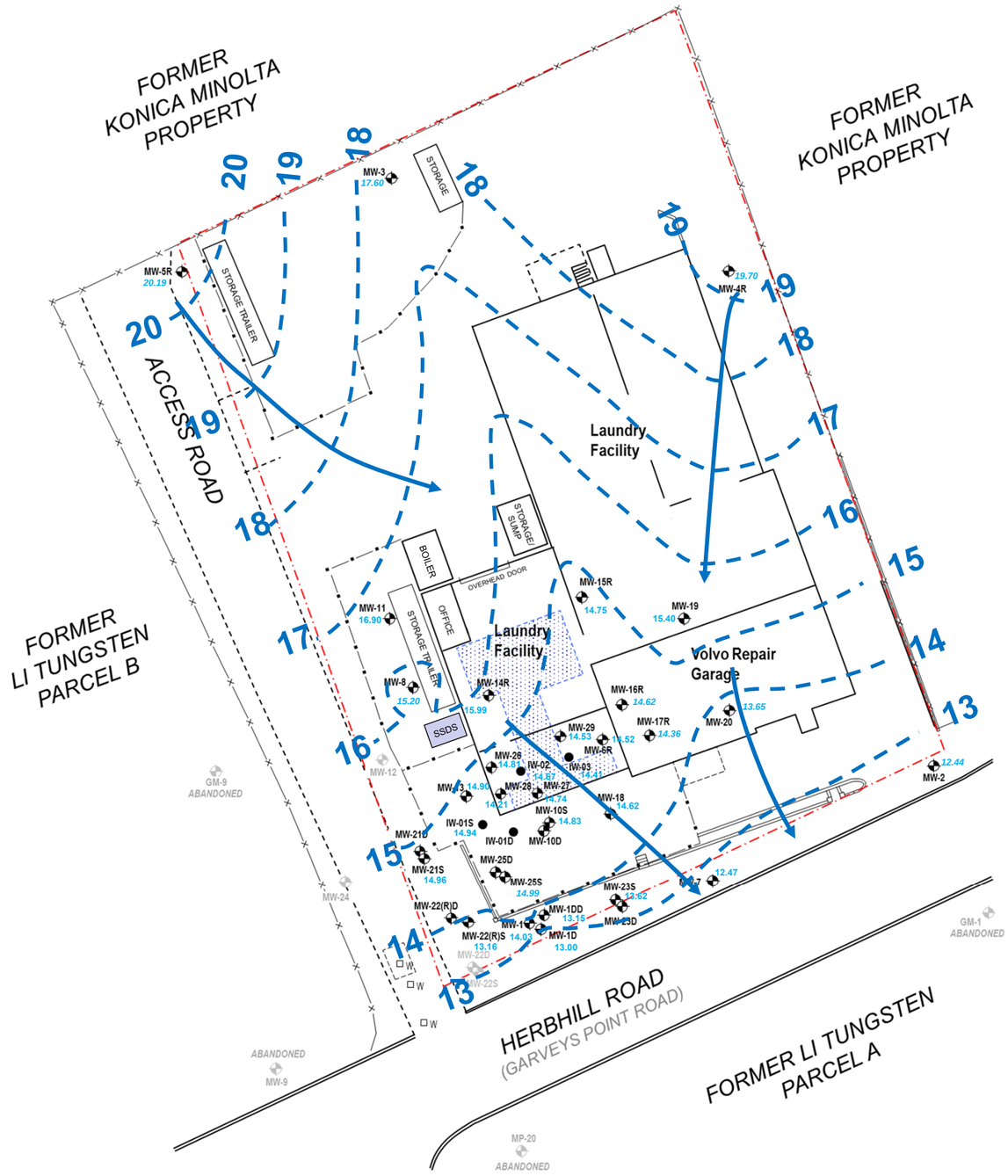
Figure 4
Elevation of Port Washington Clay Surface (Top of First Confining Unit)

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York





LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 — GROUNDWATER MONITORING WELL
- MW-8 — MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- 19 — APPROXIMATE GROUNDWATER ELEVATION ISOCONTOUR (FEET AMSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

Notes:

15.25 – Groundwater Elevation, in feet above mean sea level (MSL); NAVD 1988.

N

0 30 60

Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Shallow Groundwater Surface Contours (October-November 2017)

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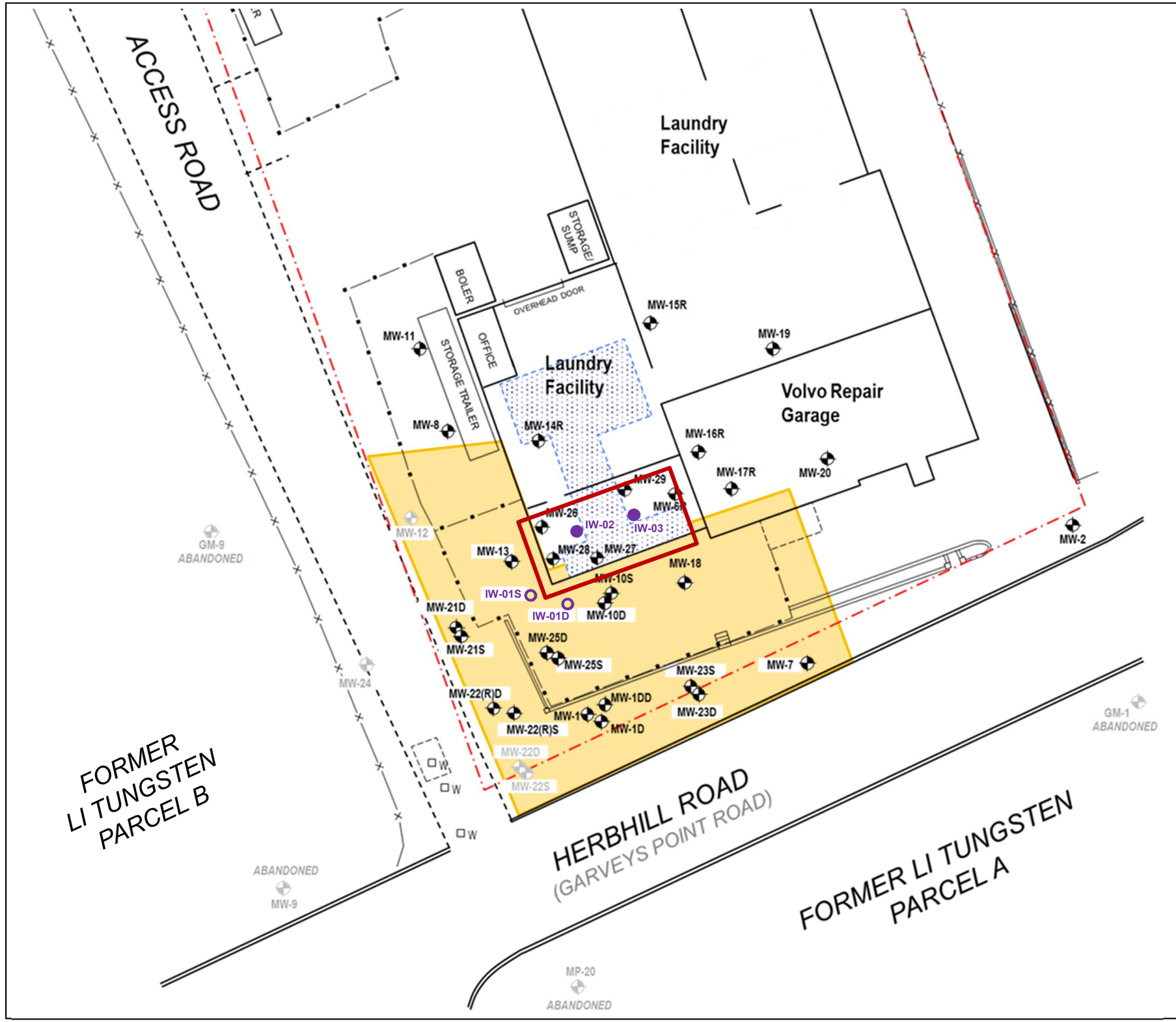
5 FIGURE



LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-10S — GROUNDWATER MONITORING WELL
- MW-12 — MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- APPROXIMATE EXTENT OF SOURCE AREA PILOT TREATMENT ZONE
- APPROXIMATE EXTENT OF DOWNGRADIENT ISCO TREATMENT AREA (MARCH 2010 RECORD OF DECISION)
- 2013 ISCO PILOT INJECTION WELL
- 2015 ISCO PILOT INJECTION WELL

N

0 25 50

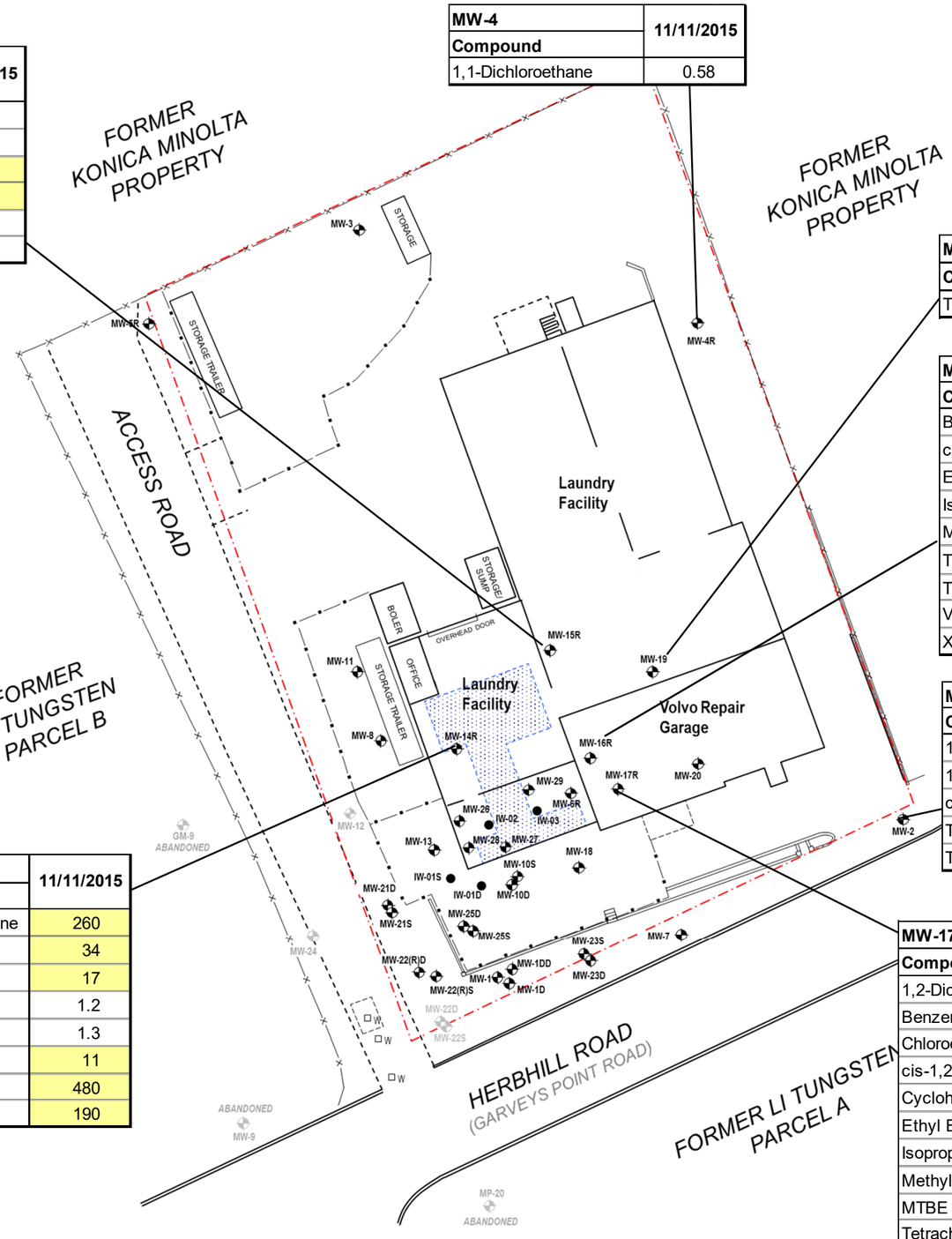
APPROXIMATE SCALE IN FEET

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Source Area Injection Pilot (December 2015)

ARCADIS Design & Consultancy for natural and built assets

6 FIGURE



MW-15R	11/11/2015
Compound	
cis-1,2-Dichloroethylene	0.99
Cyclohexane	0.54
Ethyl Benzene	13
Isopropylbenzene	15
Methyl Cyclohexane	3.2
Tetrachloroethylene	1.5

MW-4	11/11/2015
Compound	
1,1-Dichloroethane	0.58

MW-19	11/10/2015
Compound	
Tetrachloroethylene	0.53

MW-16R	11/10/2015
Compound	
Benzene	0.41
cis-1,2-Dichloroethylene	16
Ethyl Benzene	34
Isopropylbenzene	15
Methyl Cyclohexane	0.96
Tetrachloroethylene	18
Trichloroethylene	3.2
Vinyl Chloride	1.0
Xylenes, Total	5.7

MW-2	11/11/2015
Compound	
1,1,1-Trichloroethane	1.0
1,1-Dichloroethane	0.57
cis-1,2-Dichloroethylene	4.6
Tetrachloroethylene	58
Trichloroethylene	14

MW-14R	11/11/2015
Compound	
cis-1,2-Dichloroethylene	260
Ethyl Benzene	34
Isopropylbenzene	17
Methyl Cyclohexane	1.2
MTBE	1.3
Toluene	11
Vinyl Chloride	480
Xylenes, Total	190

MW-17R	11/10/2015
Compound	
1,2-Dichloropropane	1.7
Benzene	4.3
Chloroethane	4.5
cis-1,2-Dichloroethylene	55
Cyclohexane	0.50
Ethyl Benzene	8.6
Isopropylbenzene	26
Methyl Cyclohexane	1.7
MTBE	14
Tetrachloroethylene	0.74
Toluene	0.61
Vinyl Chloride	62

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

ug/L – Micrograms per liter.

Exceeds respective NYS Class GA Standard or Guidance Value

N

0 30 60

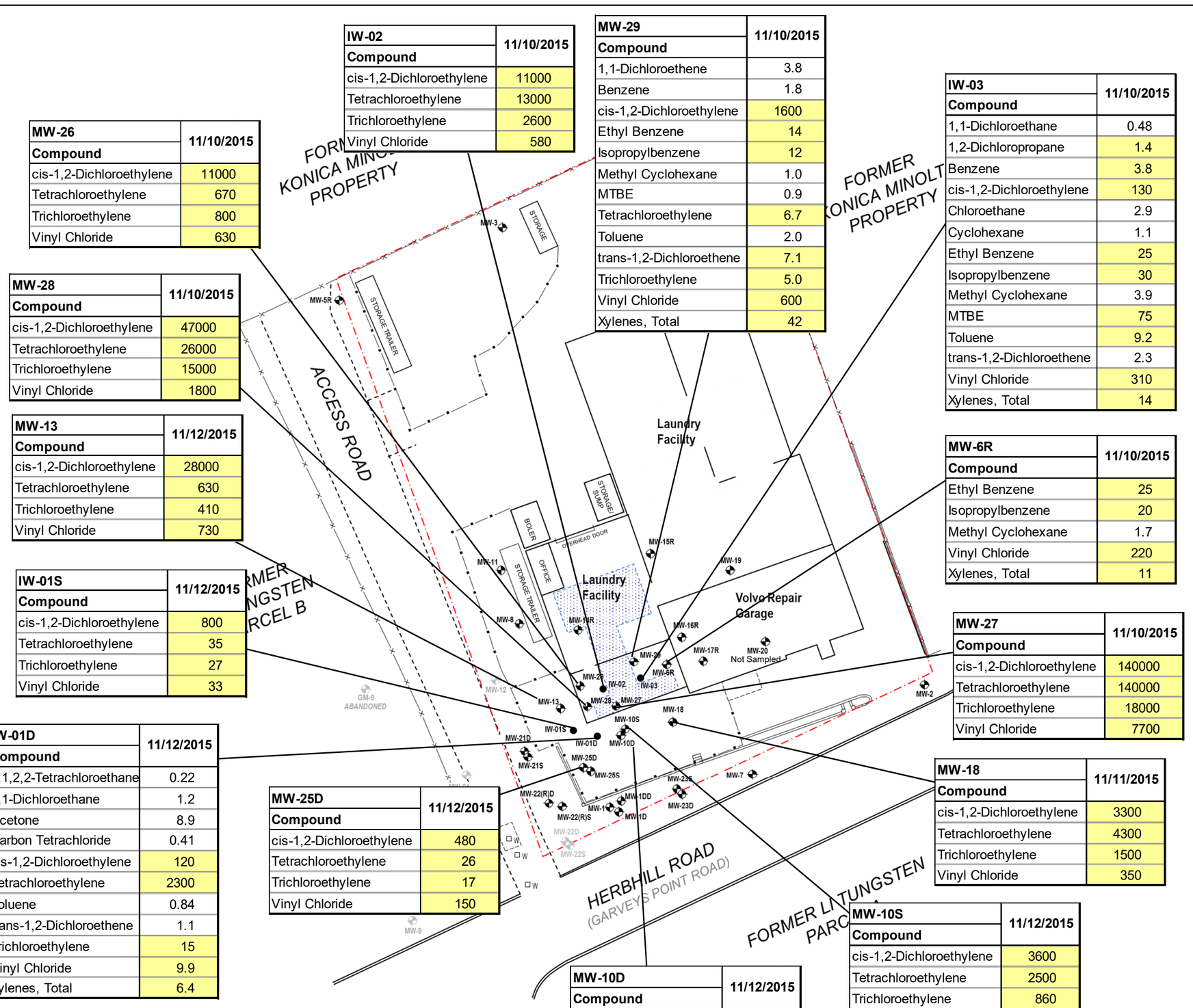
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of VOC Detections in Groundwater Samples – November 2015;
Upgradient Area Wells

ARCADIS Design & Consultancy for natural and built assets

7a
FIGURE



MW-26	11/10/2015
Compound	
cis-1,2-Dichloroethylene	11000
Tetrachloroethylene	670
Trichloroethylene	800
Vinyl Chloride	630

MW-28	11/10/2015
Compound	
cis-1,2-Dichloroethylene	47000
Tetrachloroethylene	26000
Trichloroethylene	15000
Vinyl Chloride	1800

MW-13	11/12/2015
Compound	
cis-1,2-Dichloroethylene	28000
Tetrachloroethylene	630
Trichloroethylene	410
Vinyl Chloride	730

IW-01S	11/12/2015
Compound	
cis-1,2-Dichloroethylene	800
Tetrachloroethylene	35
Trichloroethylene	27
Vinyl Chloride	33

IW-01D	11/12/2015
Compound	
1,1,2,2-Tetrachloroethane	0.22
1,1-Dichloroethane	1.2
Acetone	8.9
Carbon Tetrachloride	0.41
cis-1,2-Dichloroethylene	120
Tetrachloroethylene	2300
Toluene	0.84
trans-1,2-Dichloroethene	1.1
Trichloroethylene	15
Vinyl Chloride	9.9
Xylenes, Total	6.4

IW-02	11/10/2015
Compound	
cis-1,2-Dichloroethylene	11000
Tetrachloroethylene	13000
Trichloroethylene	2600
Vinyl Chloride	580

MW-29	11/10/2015
Compound	
1,1-Dichloroethene	3.8
Benzene	1.8
cis-1,2-Dichloroethylene	1600
Ethyl Benzene	14
Isopropylbenzene	12
Methyl Cyclohexane	1.0
MTBE	0.9
Tetrachloroethylene	6.7
Toluene	2.0
trans-1,2-Dichloroethene	7.1
Trichloroethylene	5.0
Vinyl Chloride	600
Xylenes, Total	42

MW-25D	11/12/2015
Compound	
cis-1,2-Dichloroethylene	480
Tetrachloroethylene	26
Trichloroethylene	17
Vinyl Chloride	150

MW-10D	11/12/2015
Compound	
Tetrachloroethylene	28000
Trichloroethylene	2500

IW-03	11/10/2015
Compound	
1,1-Dichloroethane	0.48
1,2-Dichloropropane	1.4
Benzene	3.8
cis-1,2-Dichloroethylene	130
Chloroethane	2.9
Cyclohexane	1.1
Ethyl Benzene	25
Isopropylbenzene	30
Methyl Cyclohexane	3.9
MTBE	75
Toluene	9.2
trans-1,2-Dichloroethene	2.3
Vinyl Chloride	310
Xylenes, Total	14

MW-6R	11/10/2015
Compound	
Ethyl Benzene	25
Isopropylbenzene	20
Methyl Cyclohexane	1.7
Vinyl Chloride	220
Xylenes, Total	11

MW-27	11/10/2015
Compound	
cis-1,2-Dichloroethylene	140000
Tetrachloroethylene	140000
Trichloroethylene	18000
Vinyl Chloride	7700

MW-18	11/11/2015
Compound	
cis-1,2-Dichloroethylene	3300
Tetrachloroethylene	4300
Trichloroethylene	1500
Vinyl Chloride	350

MW-10S	11/12/2015
Compound	
cis-1,2-Dichloroethylene	3600
Tetrachloroethylene	2500
Trichloroethylene	860
Vinyl Chloride	100

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 — GROUNDWATER MONITORING WELL
- MW-8 — MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

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0 30 60

Approximate Scale in Feet

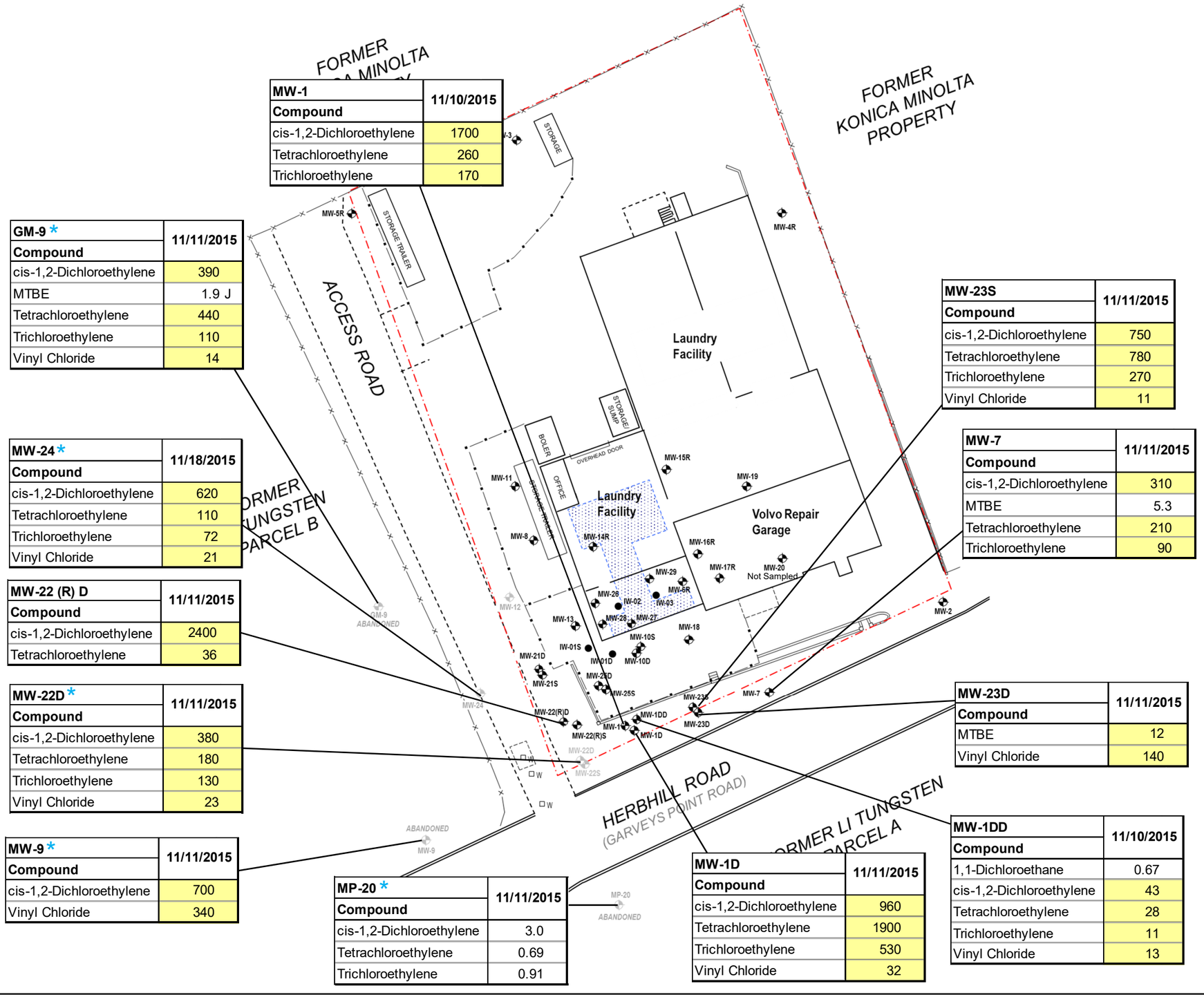
Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of VOC Detections in Groundwater Samples – November 2015;
Source Area Wells

ARCADIS Design & Consultancy for natural and built assets

7b
FIGURE

*Off-site Wells MW-9, GM-9, and MP-20, and on-Site well MW-22D were present during the November 2015 sampling event.



GM-9 * Compound	11/11/2015
cis-1,2-Dichloroethylene	390
MTBE	1.9 J
Tetrachloroethylene	440
Trichloroethylene	110
Vinyl Chloride	14

MW-1 Compound	11/10/2015
cis-1,2-Dichloroethylene	1700
Tetrachloroethylene	260
Trichloroethylene	170

MW-23S Compound	11/11/2015
cis-1,2-Dichloroethylene	750
Tetrachloroethylene	780
Trichloroethylene	270
Vinyl Chloride	11

MW-7 Compound	11/11/2015
cis-1,2-Dichloroethylene	310
MTBE	5.3
Tetrachloroethylene	210
Trichloroethylene	90

MW-24 * Compound	11/18/2015
cis-1,2-Dichloroethylene	620
Tetrachloroethylene	110
Trichloroethylene	72
Vinyl Chloride	21

MW-22 (R) D Compound	11/11/2015
cis-1,2-Dichloroethylene	2400
Tetrachloroethylene	36

MW-22D * Compound	11/11/2015
cis-1,2-Dichloroethylene	380
Tetrachloroethylene	180
Trichloroethylene	130
Vinyl Chloride	23

MW-23D Compound	11/11/2015
MTBE	12
Vinyl Chloride	140

MW-9 * Compound	11/11/2015
cis-1,2-Dichloroethylene	700
Vinyl Chloride	340

MP-20 * Compound	11/11/2015
cis-1,2-Dichloroethylene	3.0
Tetrachloroethylene	0.69
Trichloroethylene	0.91

MW-1D Compound	11/11/2015
cis-1,2-Dichloroethylene	960
Tetrachloroethylene	1900
Trichloroethylene	530
Vinyl Chloride	32

MW-1DD Compound	11/10/2015
1,1-Dichloroethane	0.67
cis-1,2-Dichloroethylene	43
Tetrachloroethylene	28
Trichloroethylene	11
Vinyl Chloride	13

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
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Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of VOC Detections in Groundwater Samples – November 2015;
Down-Gradient Area Wells

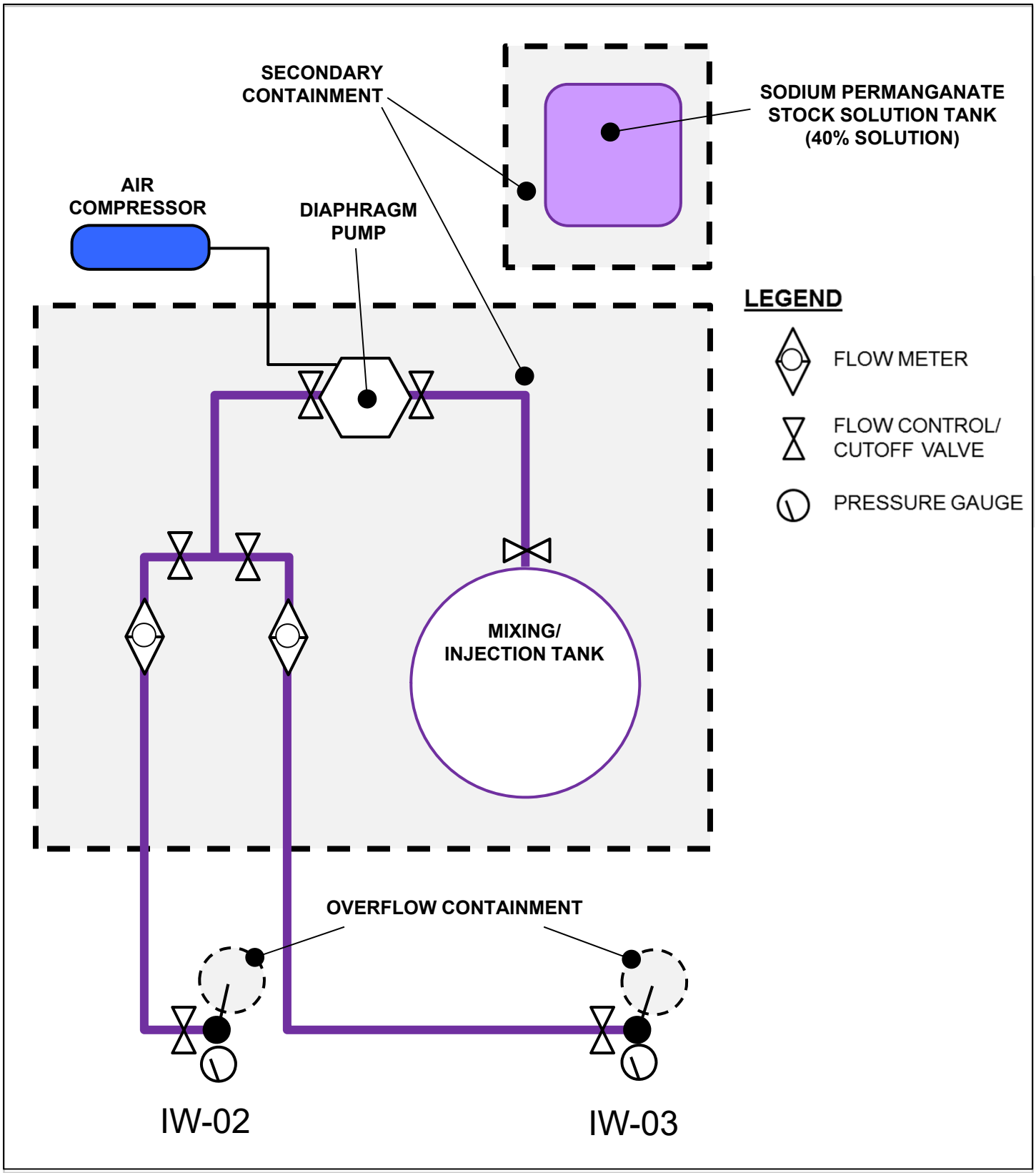
ARCADIS Design & Consultancy for natural and built assets

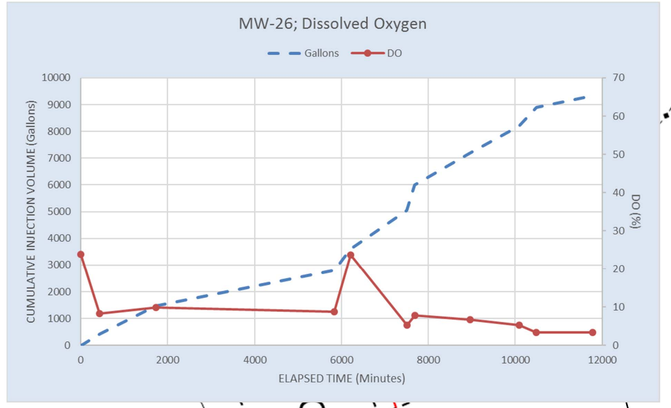
7c
FIGURE

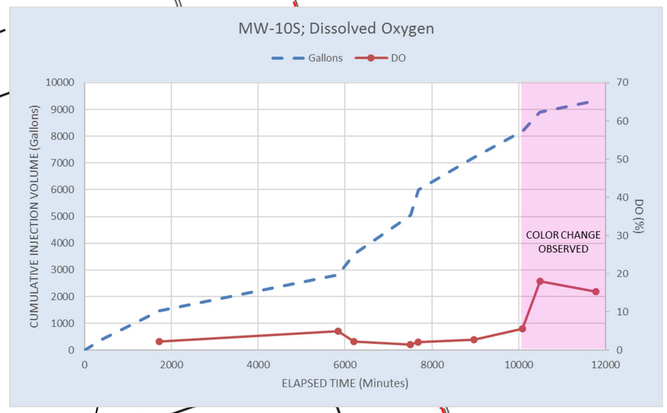
ARCADIS Design & Consultancy for natural and built assets

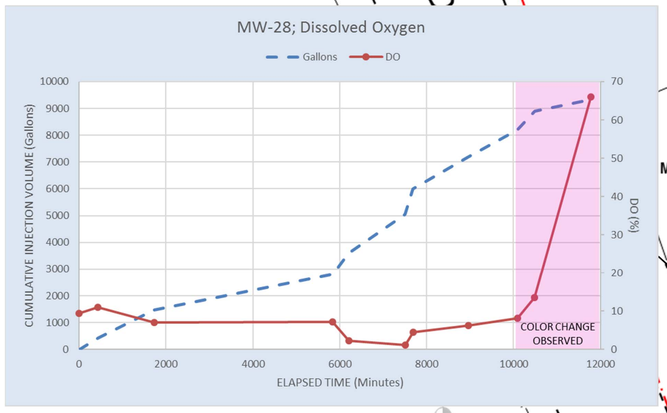
Figure 8
Injection System Schematic

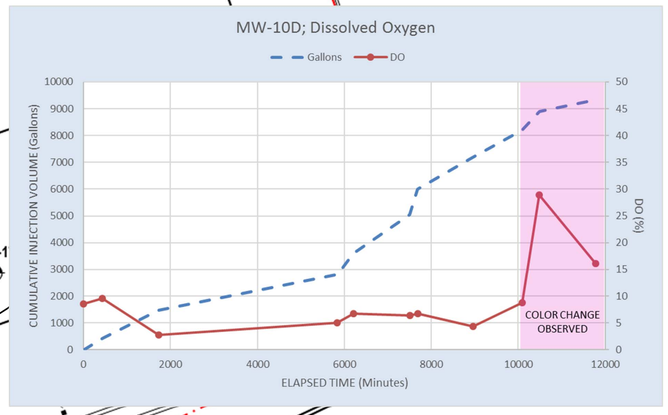
Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

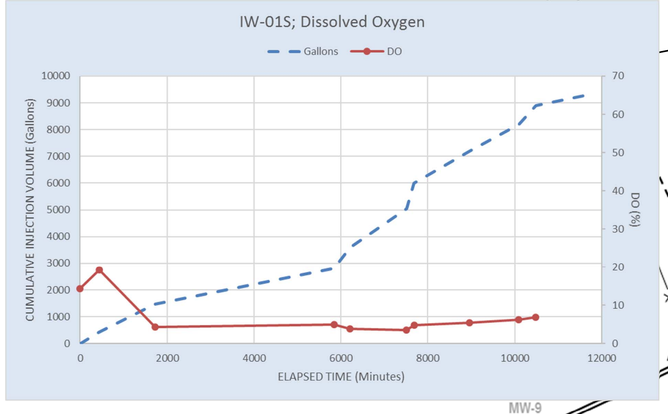


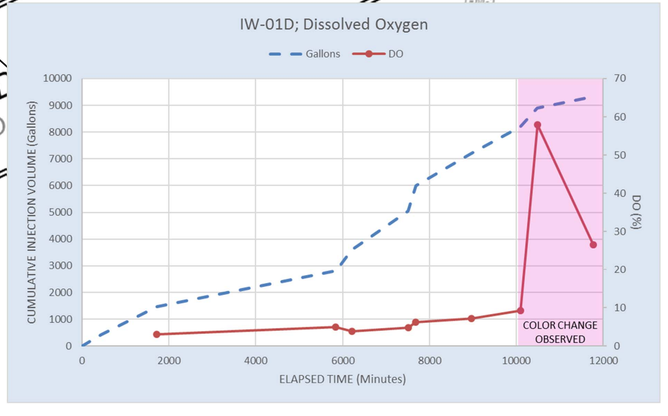


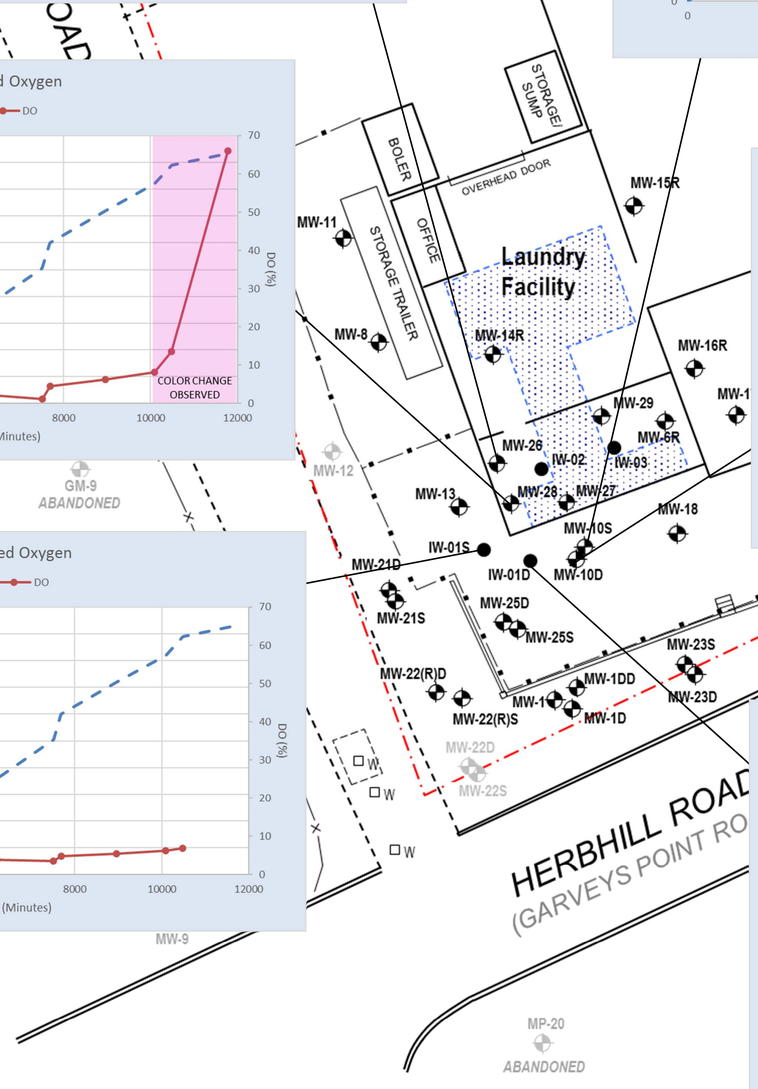












LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 — GROUNDWATER MONITORING WELL
- MW-12 — MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

Notes:

Water quality versus cumulative sodium permanganate injection volume.

Total injected volume of approximately 9,341 gallons of 4% sodium permanganate solution injected between two injection wells - IW-02 (4,816 gallons) and IW-03 (4,525 gallons).

Zone highlighted in purple on charts indicates an observed color change in the well water (to purple, reddish, or brownish tint) when sampled with a disposable bailer or when pumped with peristaltic pump. Change in water color was not noted in wells without highlighted zone.

N

0 30 60

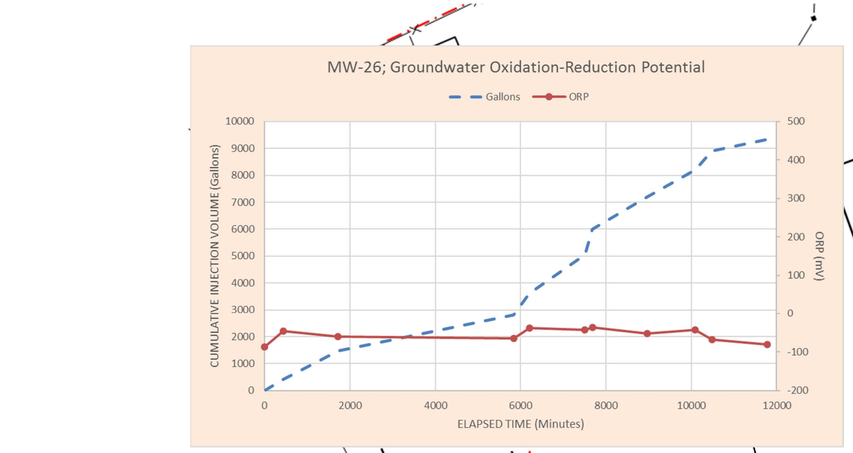
Approximate Scale in Feet

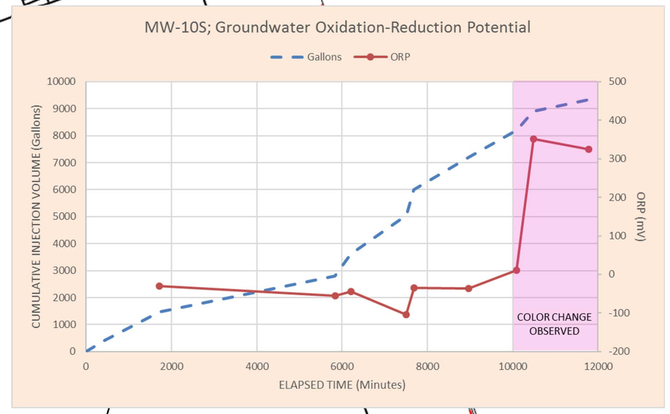
Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

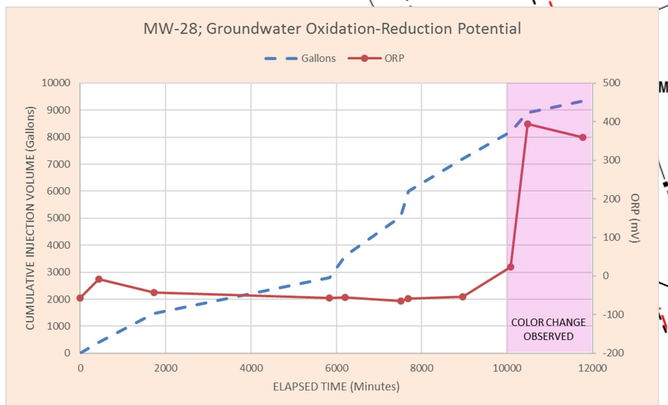
Injections Monitoring Data Summary – Dissolved Oxygen in Groundwater; December 2015

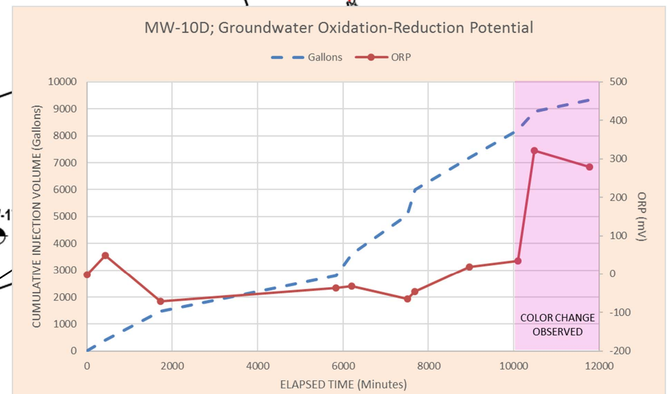
ARCADIS Design & Consultancy for natural and built assets

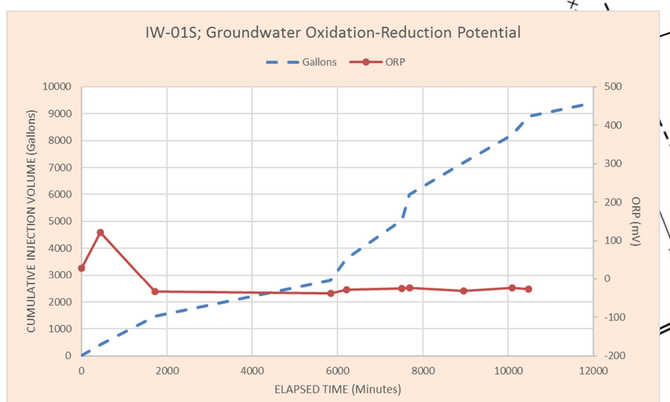
9a
FIGURE

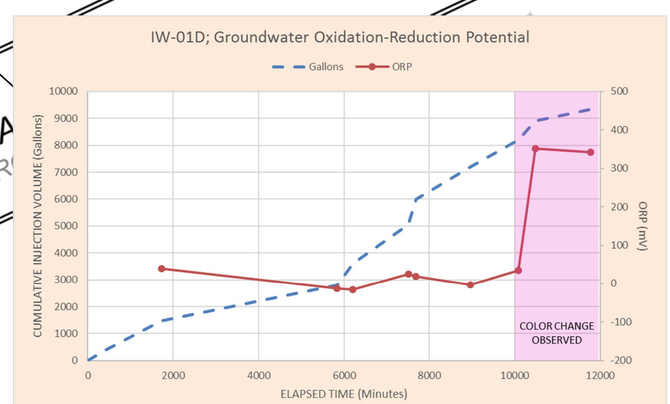


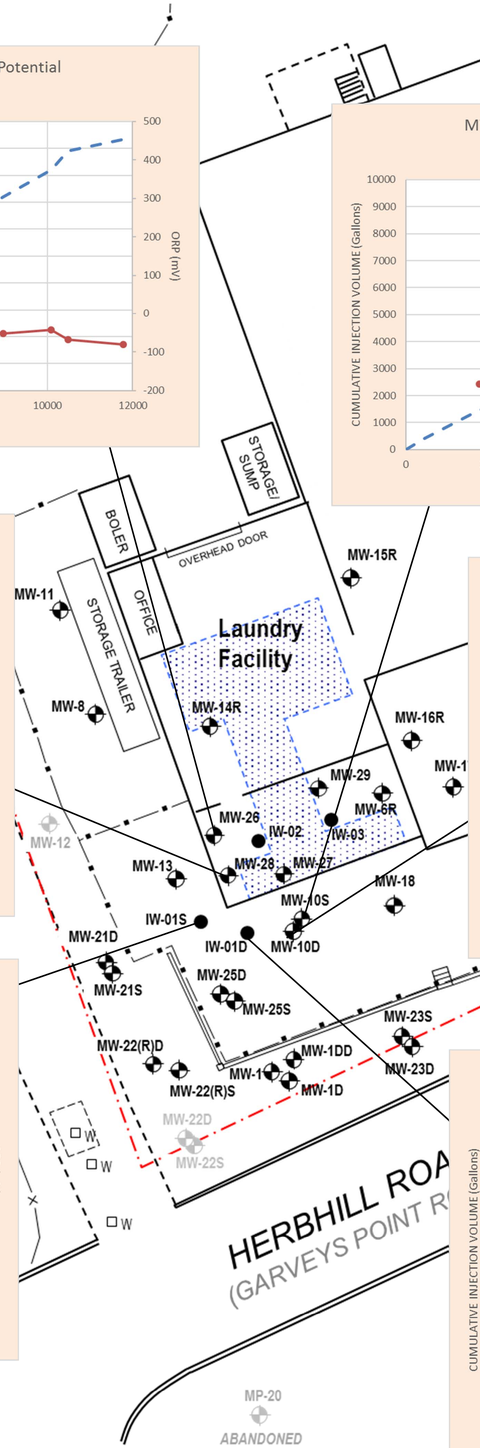












LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-12 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

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Water quality versus cumulative sodium permanganate injection volume.

Total injected volume of approximately 9,341 gallons of 4% sodium permanganate solution injected between two injection wells - IW-02 (4,816 gallons) and IW-03 (4,525 gallons).

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N

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Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Injections Monitoring Data Summary – Dissolved Oxygen in Groundwater; December 2015

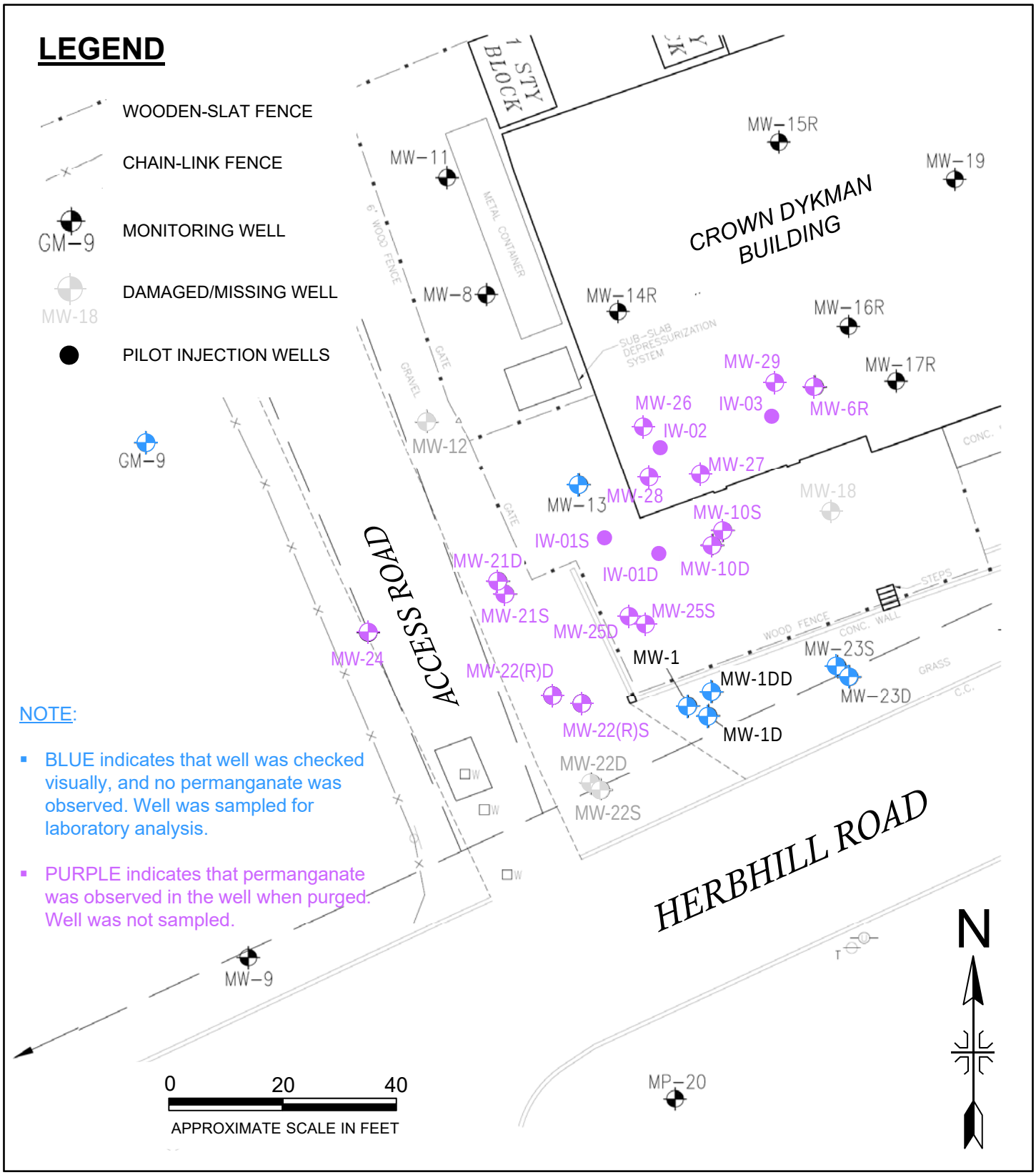
ARCADIS Design & Consultancy for natural and built assets

9b
FIGURE

ARCADIS Design & Consultancy for natural and built assets

Figure 10a
First Post-Injection Sodium Permanganate Distribution – January 2016

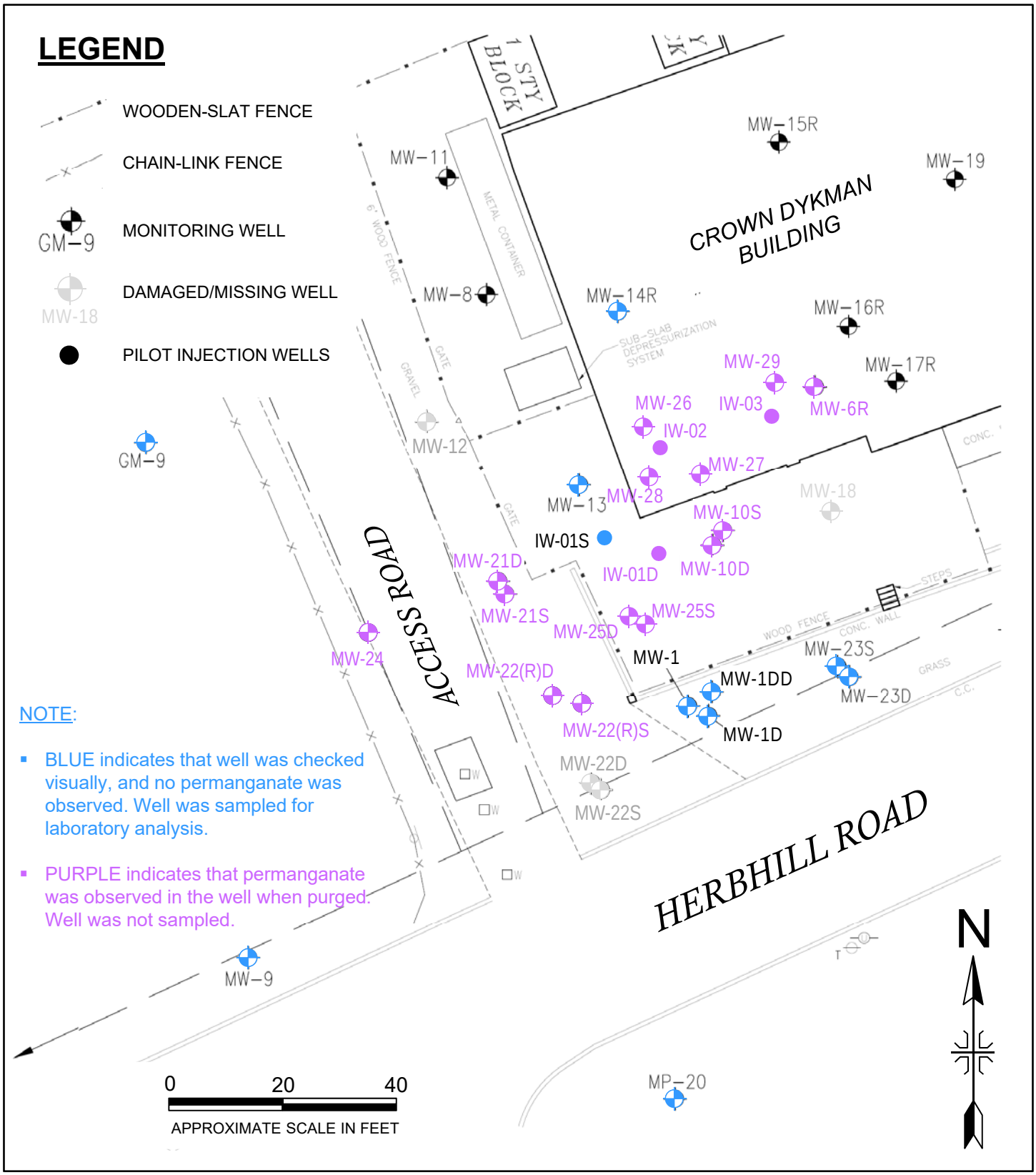
Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York



ARCADIS Design & Consultancy for natural and built assets

Figure 10b
Second Post-Injection Sodium Permanganate Distribution – March 2016

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York



IW-01S	11/12/2015	1/28/2016	3/22/2016
Compound			
cis-1,2-Dichloroethylene	800	Mn^{-4}	500
Tetrachloroethylene	35	Mn^{-4}	4,400 D
Trichloroethylene	27	Mn^{-4}	240
Vinyl Chloride	33	Mn^{-4}	NS

GM-9	11/11/2015	1/28/2016	3/22/2016
Compound			
cis-1,2-Dichloroethene	390	89	91
Tetrachloroethene	440	120	120
Trichloroethene	110	26	24
Vinyl Chloride	14	2.4	ND
1,2-Dichloroethane	ND	0.42 J	ND
MTBE	1.9 J	1.6 J	1.5 J

MW-9	11/11/2015	1/28/2016	3/23/2016
Compound			
cis-1,2-Dichloroethylene	700	NS	1,800 D
Vinyl Chloride	340	NS	170

MW-13	11/12/2015	1/28/2016	3/22/2016
Compound			
cis-1,2-Dichloroethene	28,000	44,000	15,000
Tetrachloroethene	630	4,100	3,500
Trichloroethene	410	2,800	1,800
Vinyl Chloride	730	1,200	ND

MW-14R	11/11/2015	1/28/2016	3/23/2016
Compound			
1,2-Dibromo-3-Chloropropane	ND	NS	2.3
Acetone	ND	NS	6.7 J
Benzene	ND	NS	1.8 J
cis-1,2-Dichloroethylene	260	NS	1,500 D
Ethyl Benzene	34	NS	29
Isopropylbenzene	17	NS	14
Methyl Cyclohexane	1.2	NS	1.4 J
MTBE	1.3	NS	1.7 J
Toluene	11	NS	25
trans-1,2-Dichloroethene	ND	NS	8.3
Vinyl Chloride	480	NS	1,100 D
Xylenes, Total	190	NS	200

MW-23S	11/11/2015	1/27/2016	3/22/2016
Compound			
cis-1,2-Dichloroethene	750	270	3,000 D F1
Tetrachloroethene	780	210	2,000 D F1
Trichloroethene	270	88	680
trans-1,2-Dichloroethene	ND	ND	15
Vinyl Chloride	11	ND	ND

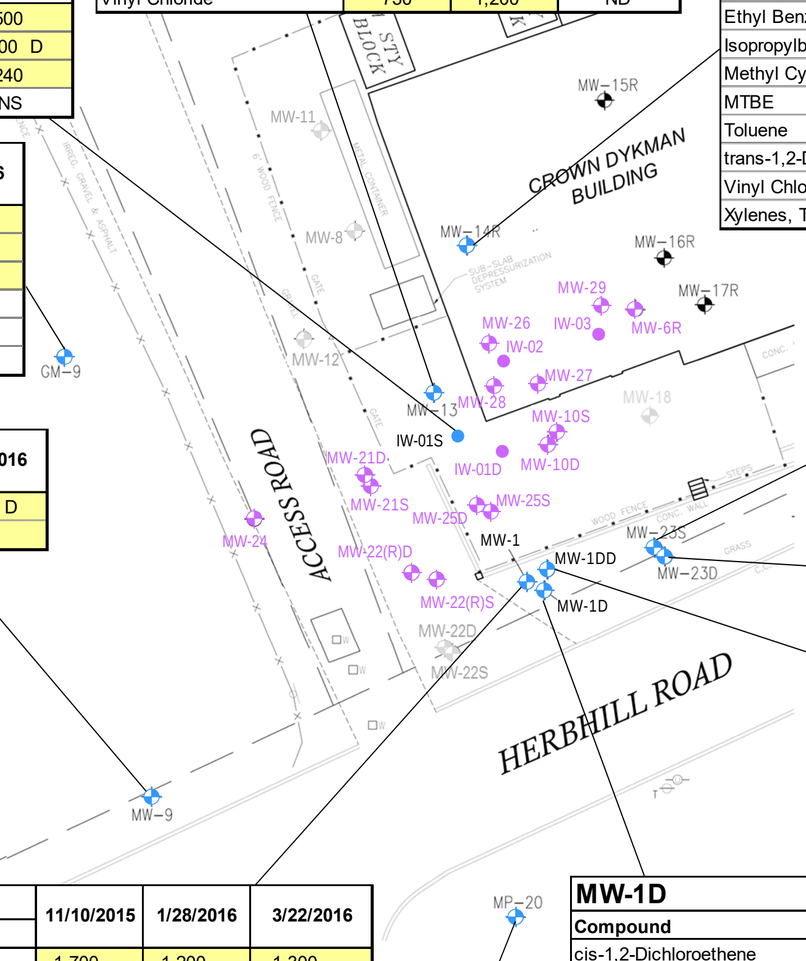
MW-23D	11/11/2015	1/27/2016	3/22/2016
Compound			
cis-1,2-Dichloroethene	ND	500	1,200 D F1
Tetrachloroethene	ND	560	820 D F1
Trichloroethene	ND	220	300 F1
Vinyl Chloride	140	ND	ND
MTBE	12	ND	ND

MW-1DD	11/10/2015	1/28/2016	3/22/2016
Compound			
1,1-Dichloroethane	0.67	ND	ND
1,1-Dichloroethene	ND	ND	1.4
Benzene	ND	ND	0.49 J
cis-1,2-Dichloroethene	43	65	560 D
Tetrachloroethene	28	46	290 D
Trichloroethene	11	18	150 D
trans-1,2-Dichloroethene	ND	ND	2.6
Vinyl Chloride	13	ND	31
MTBE	ND	0.39 J	9.9

MW-1	11/10/2015	1/28/2016	3/22/2016
Compound			
cis-1,2-Dichloroethene	1,700	1,200	1,300
Tetrachloroethene	260	330	350
Trichloroethene	170	180	130

MW-1D	11/11/2015	1/28/2016	3/22/2016
Compound			
cis-1,2-Dichloroethene	960	1,900	1,900
Tetrachloroethene	1,900	1,700	3,500 D
Trichloroethene	530	810	1,000
Vinyl Chloride	32	46	31

MP-20	11/11/2015	1/28/2016	3/23/2016
Compound			
cis-1,2-Dichloroethylene	3.0	NS	4.1
Tetrachloroethylene	0.69	NS	0.51 J
Trichloroethylene	0.91	NS	0.98 J
Vinyl Chloride	ND	NS	1.9



LEGEND

- WOODEN-SLAT FENCE
- CHAIN-LINK FENCE
- GM-9 MONITORING WELL
- MW-18 DAMAGED/MISSING WELL
- PILOT INJECTION WELLS

NOTE:

- BLUE indicates that well was checked visually, and no permanganate was observed. Well was sampled for laboratory analysis.
- PURPLE indicates that permanganate was observed in the well when purged. Well was not sampled.
- Sodium Permanganate injected in wells IW-02 and IW-03 in building.

Data Qualifiers:

a) D – Based on dilution of original sample.
b) J – Result is estimated value, as result is below reporting limit for respective compound.
c) F1 – MS and/or MSD Recovery is outside acceptance limits.
d) Mn-4 - Permanganate present in well.
e) ND – Not Detected
f) NS – Not sampled
g) Indicates that compound exceeds the respective NYSDEC Class GA standard or guidance value.

N

0 20 40
APPROXIMATE SCALE IN FEET

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Source Area ISCO Pilot Injection Baseline and Post-Injection Analytical Sampling Summary; November 2015 (Baseline) - March 2016

ARCADIS Design & Consultancy for natural and built assets

11
FIGURE

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-10S — GROUNDWATER MONITORING WELL
- MW-12 — MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- APPROXIMATE LOCATION OF SUMP/ TRENCH (ARROW INDICATES APPARENT DRAINAGE DIRECTION)

Underground Utility Survey Data
(November 2017 – Approximate Locations)

- SANITARY (Inferred)
- WATER
- NATURAL GAS
- STORM SEWER

N

0 25 50

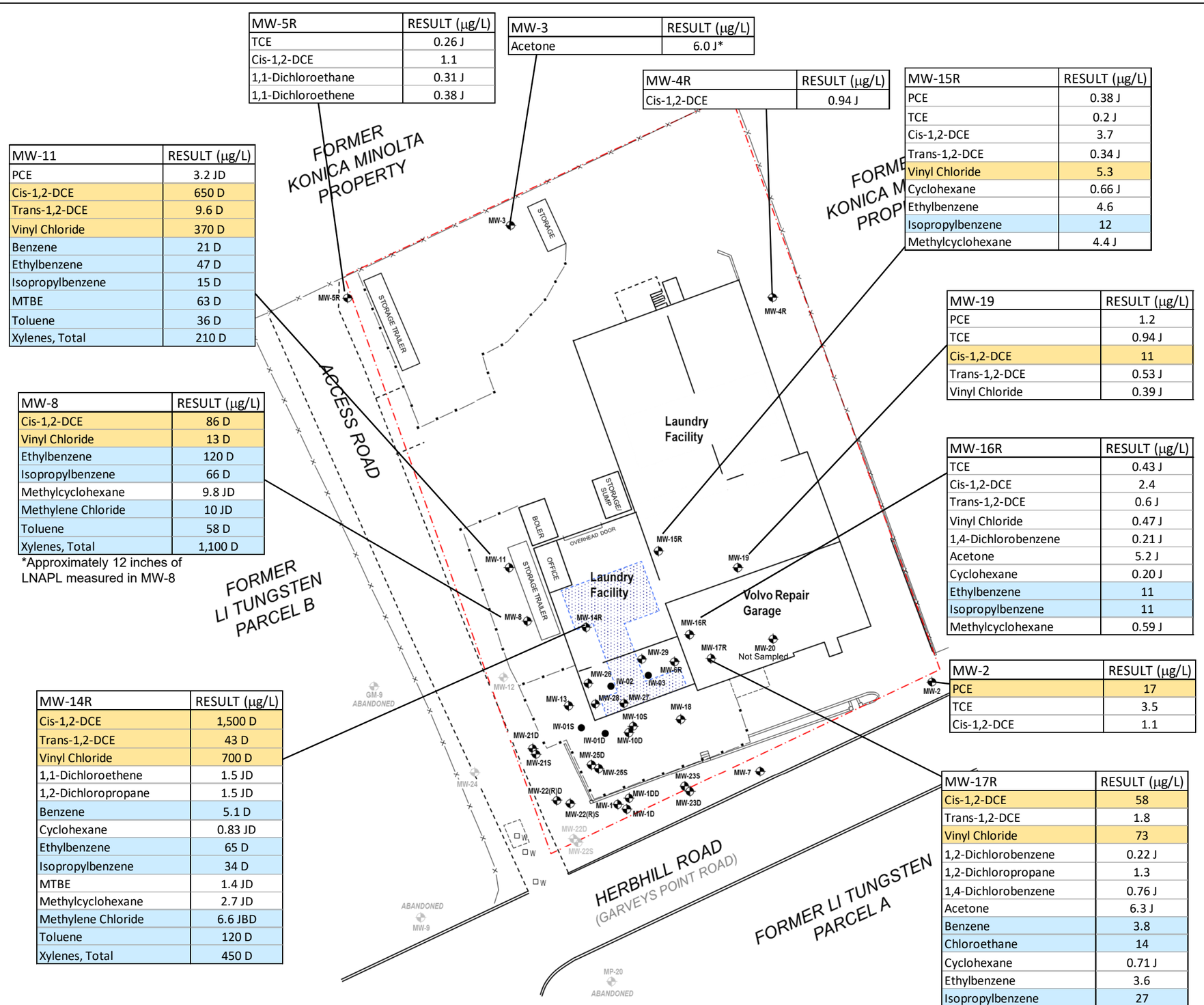
APPROXIMATE SCALE IN FEET

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Site Process Water Impoundment Structures and Utility Survey Summary

ARCADIS Design & Consultancy for natural and built assets

12
FIGURE



MW-5R	RESULT (µg/L)
TCE	0.26 J
Cis-1,2-DCE	1.1
1,1-Dichloroethane	0.31 J
1,1-Dichloroethene	0.38 J

MW-3	RESULT (µg/L)
Acetone	6.0 J*

MW-4R	RESULT (µg/L)
Cis-1,2-DCE	0.94 J

MW-15R	RESULT (µg/L)
PCE	0.38 J
TCE	0.2 J
Cis-1,2-DCE	3.7
Trans-1,2-DCE	0.34 J
Vinyl Chloride	5.3
Cyclohexane	0.66 J
Ethylbenzene	4.6
Isopropylbenzene	12
Methylcyclohexane	4.4 J

MW-11	RESULT (µg/L)
PCE	3.2 JD
Cis-1,2-DCE	650 D
Trans-1,2-DCE	9.6 D
Vinyl Chloride	370 D
Benzene	21 D
Ethylbenzene	47 D
Isopropylbenzene	15 D
MTBE	63 D
Toluene	36 D
Xylenes, Total	210 D

MW-19	RESULT (µg/L)
PCE	1.2
TCE	0.94 J
Cis-1,2-DCE	11
Trans-1,2-DCE	0.53 J
Vinyl Chloride	0.39 J

MW-8	RESULT (µg/L)
Cis-1,2-DCE	86 D
Vinyl Chloride	13 D
Ethylbenzene	120 D
Isopropylbenzene	66 D
Methylcyclohexane	9.8 JD
Methylene Chloride	10 JD
Toluene	58 D
Xylenes, Total	1,100 D

*Approximately 12 inches of LNAPL measured in MW-8

MW-16R	RESULT (µg/L)
TCE	0.43 J
Cis-1,2-DCE	2.4
Trans-1,2-DCE	0.6 J
Vinyl Chloride	0.47 J
1,4-Dichlorobenzene	0.21 J
Acetone	5.2 J
Cyclohexane	0.20 J
Ethylbenzene	11
Isopropylbenzene	11
Methylcyclohexane	0.59 J

MW-14R	RESULT (µg/L)
Cis-1,2-DCE	1,500 D
Trans-1,2-DCE	43 D
Vinyl Chloride	700 D
1,1-Dichloroethene	1.5 JD
1,2-Dichloropropane	1.5 JD
Benzene	5.1 D
Cyclohexane	0.83 JD
Ethylbenzene	65 D
Isopropylbenzene	34 D
MTBE	1.4 JD
Methylcyclohexane	2.7 JD
Methylene Chloride	6.6 JBD
Toluene	120 D
Xylenes, Total	450 D

MW-2	RESULT (µg/L)
PCE	17
TCE	3.5
Cis-1,2-DCE	1.1

MW-17R	RESULT (µg/L)
Cis-1,2-DCE	58
Trans-1,2-DCE	1.8
Vinyl Chloride	73
1,2-Dichlorobenzene	0.22 J
1,2-Dichloropropane	1.3
1,4-Dichlorobenzene	0.76 J
Acetone	6.3 J
Benzene	3.8
Chloroethane	14
Cyclohexane	0.71 J
Ethylbenzene	3.6
Isopropylbenzene	27
MTBE	12
Methylcyclohexane	2.4 J
Toluene	0.18 J

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

ug/L – Micrograms per liter.

Primary Contaminant/CVOC exceeding respective NYS Class GA Standard or Guidance Value

Other detected VOC exceeding respective NYS Class GA Standard or Guidance Value

N

0 30 60

Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of VOC Detections in Groundwater Samples – October-November 2017; Upgradient Area Wells

ARCADIS Design & Consultancy for natural and built assets

13a
FIGURE

MW-26	RESULT (µg/L)
PCE	2.1 JD
TCE	17
Cis-1,2-DCE	960 D
Trans-1,2-DCE	8.7 D
Vinyl Chloride	88 D
Benzene	1.3 JD
Ethylbenzene	85 D
Isopropylbenzene	43 D
Methylcyclohexane	4.4 JD
Toluene	2.5 JD
Xylenes, Total	270 D

IW-02	RESULT (µg/L)
PCE	3,800 D
TCE	5,600 D
Cis-1,2-DCE	14,000 D
Trans-1,2-DCE	50 JD
Vinyl Chloride	710 D
Methylene Chloride	120 JD

MW-29	RESULT (µg/L)
PCE	25 D
TCE	52 D
Cis-1,2-DCE	900 D
Trans-1,2-DCE	18 D
Vinyl Chloride	190 D
1,1-Dichloroethene	2.7 JD
Ethylbenzene	10 D
Isopropylbenzene	8.0 JD
Methylene Chloride	14 JBD

IW-03	RESULT (µg/L)
PCE	1.9 JD
TCE	6.3 JD
Cis-1,2-DCE	1,400 D
Trans-1,2-DCE	19 D
Vinyl Chloride	640 D
1,1-Dichloroethene	2.6 JD
Benzene	3.3 JD
Chloroethane	8.2 JD
Isopropylbenzene	7.9 JD
MTBE	9.7 JD
Methylcyclohexane	1.5 JD
Methylene Chloride	14 JBD

MW-28	RESULT (µg/L)
PCE	1,500 D
TCE	4,200 D
Cis-1,2-DCE	28,000 D
Trans-1,2-DCE	95 JD
Vinyl Chloride	1,100 D

MW-6R	RESULT (µg/L)
PCE	2.9
TCE	9.7
Cis-1,2-DCE	740 D
Trans-1,2-DCE	3.3
Vinyl Chloride	270
1,1-Dichloroethene	1.6
1,2-Dichloropropane	0.57 J
1,4-Dichlorobenzene	0.41 J
Benzene	1.6
Chloroethane	1.3
Ethylbenzene	26
Isopropylbenzene	18
MTBE	7.2
Methylcyclohexane	2.2 J
Xylenes, Total	6.6

MW-13	RESULT (µg/L)
PCE	430 D
TCE	480 D
Cis-1,2-DCE	14,000 D
Trans-1,2-DCE	140 D
Vinyl Chloride	660 D
Methylene Chloride	160 JBD

MW-27	RESULT (µg/L)
PCE	140,000 D
TCE	17,000 D
Cis-1,2-DCE	50,000 D
Vinyl Chloride	2,500 D
Methylene Chloride	1,100 JD

IW-01S	RESULT (µg/L)
PCE	17
Cis-1,2-DCE	1.6
Chloroform	0.45 J

MW-18	RESULT (µg/L)
PCE	78 D
TCE	520 D
Cis-1,2-DCE	940 D
Trans-1,2-DCE	5.6 D
Vinyl Chloride	40 D

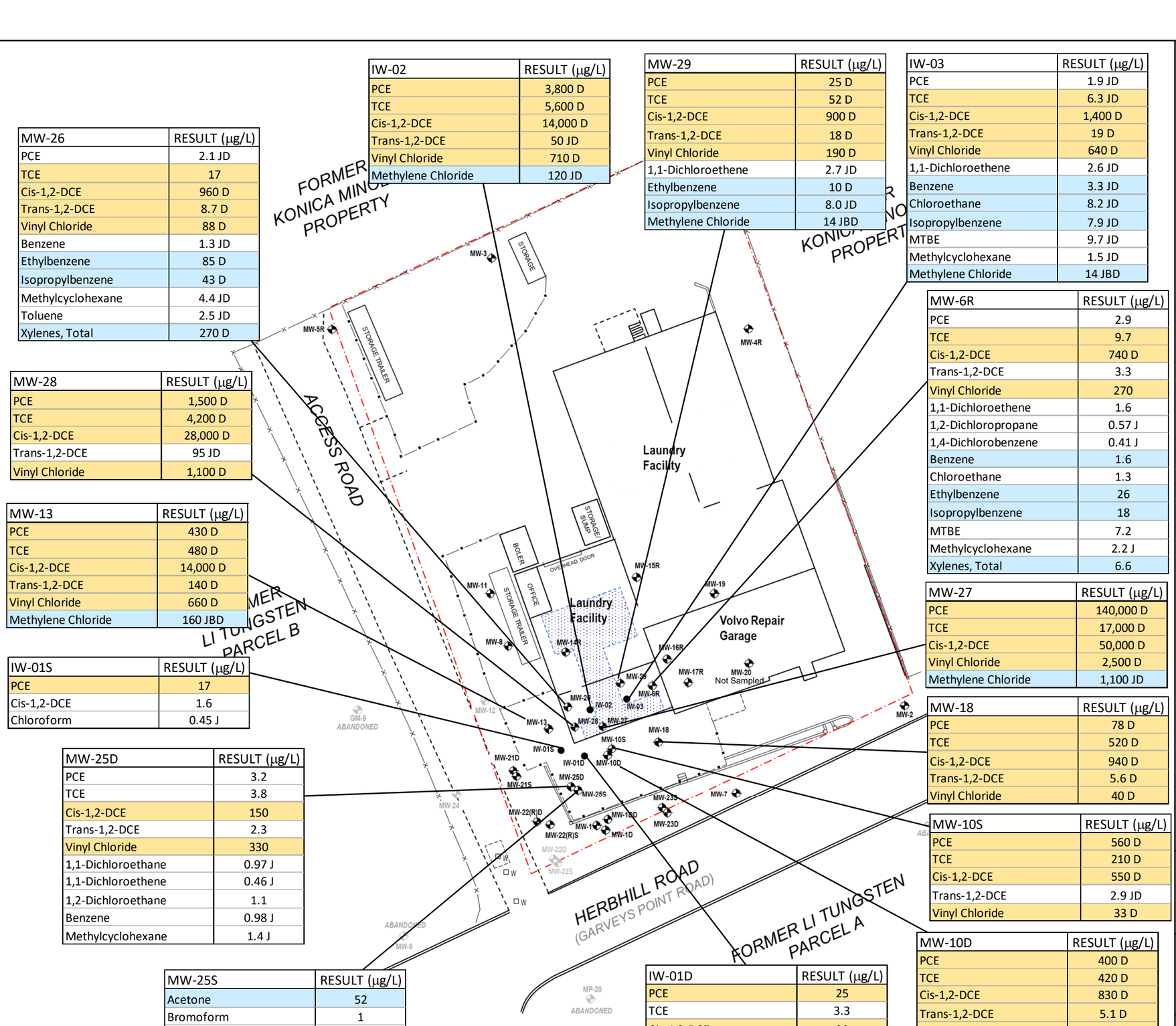
MW-25D	RESULT (µg/L)
PCE	3.2
TCE	3.8
Cis-1,2-DCE	150
Trans-1,2-DCE	2.3
Vinyl Chloride	330
1,1-Dichloroethane	0.97 J
1,1-Dichloroethene	0.46 J
1,2-Dichloroethane	1.1
Benzene	0.98 J
Methylcyclohexane	1.4 J

MW-10S	RESULT (µg/L)
PCE	560 D
TCE	210 D
Cis-1,2-DCE	550 D
Trans-1,2-DCE	2.9 JD
Vinyl Chloride	33 D

MW-25S	RESULT (µg/L)
Acetone	52
Bromoform	1
Chloroform	1.6

IW-01D	RESULT (µg/L)
PCE	25
TCE	3.3
Cis-1,2-DCE	39
Acetone	29
Chloroform	1

MW-10D	RESULT (µg/L)
PCE	400 D
TCE	420 D
Cis-1,2-DCE	830 D
Trans-1,2-DCE	5.1 D
Vinyl Chloride	4.3 JD
1,1-Dichloroethene	2.2 JD



LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

ug/L – Micrograms per liter.

- Primary Contaminant/CVOC exceeding respective NYS Class GA Standard or Guidance Value
- Other detected VOC exceeding respective NYS Class GA Standard or Guidance Value

N

0 30 60

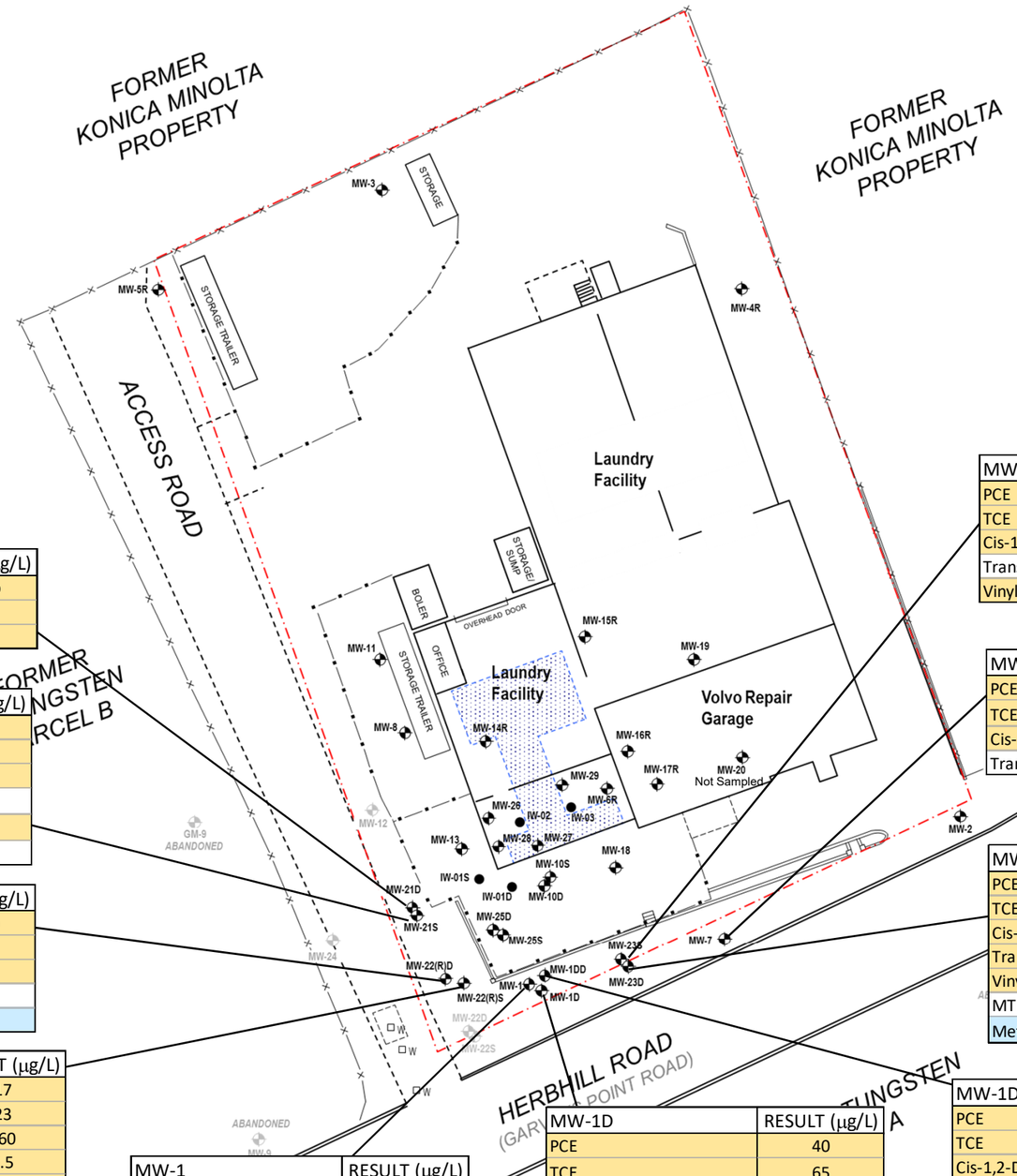
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of VOC Detections in Groundwater Samples – October-November 2017; Source Area Wells

ARCADIS Design & Consultancy for natural and built assets

13b
FIGURE



MW-21D	RESULT (µg/L)
Cis-1,2-DCE	1,800 D
Trans-1,2-DCE	28 D
Vinyl Chloride	50 D

MW-21S	RESULT (µg/L)
PCE	58
TCE	22
Cis-1,2-DCE	57
Trans-1,2-DCE	0.32 J
Vinyl Chloride	8.3
Chloroform	0.39 J

MW-22(R)D	RESULT (µg/L)
Cis-1,2-DCE	2,200 D
Trans-1,2-DCE	33 D
Vinyl Chloride	66 D
Cyclohexane	4.7 JD
Methylene Chloride	33 JBD

MW-22(R)S	RESULT (µg/L)
PCE	17
TCE	23
Cis-1,2-DCE	260
Trans-1,2-DCE	5.5
Vinyl Chloride	61
1,1-Dichloroethane	0.36 J
1,1-Dichloroethene	0.32 J
1,2-Dichloroethane	0.25 J
Benzene	0.47 J
Methylcyclohexane	0.29 J

MW-1	RESULT (µg/L)
PCE	11
TCE	11
Cis-1,2-DCE	45
Trans-1,2-DCE	0.3 J
Vinyl Chloride	3.1

MW-1D	RESULT (µg/L)
PCE	40
TCE	65
Cis-1,2-DCE	350
Trans-1,2-DCE	3.6
Vinyl Chloride	4.8
1,1-Dichloroethane	0.33 J
1,1-Dichloroethene	0.77 J
Chloroform	0.27 J

MW-1DD	RESULT (µg/L)
PCE	65
TCE	38
Cis-1,2-DCE	140
Trans-1,2-DCE	1.3
Vinyl Chloride	4.1

MW-23D	RESULT (µg/L)
PCE	480 D
TCE	230 D
Cis-1,2-DCE	910 D
Trans-1,2-DCE	5.1 JD
Vinyl Chloride	11 D
MTBE	3.3 JD
Methylene Chloride	11 JBD

MW-7	RESULT (µg/L)
PCE	260
TCE	130
Cis-1,2-DCE	210
Trans-1,2-DCE	4.3

MW-23S	RESULT (µg/L)
PCE	320
TCE	140
Cis-1,2-DCE	380
Trans-1,2-DCE	2.5
Vinyl Chloride	3.6

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

ug/L – Micrograms per liter.

- Primary Contaminant/CVOC exceeding respective NYS Class GA Standard or Guidance Value
- Other detected VOC exceeding respective NYS Class GA Standard or Guidance Value

N

0 30 60

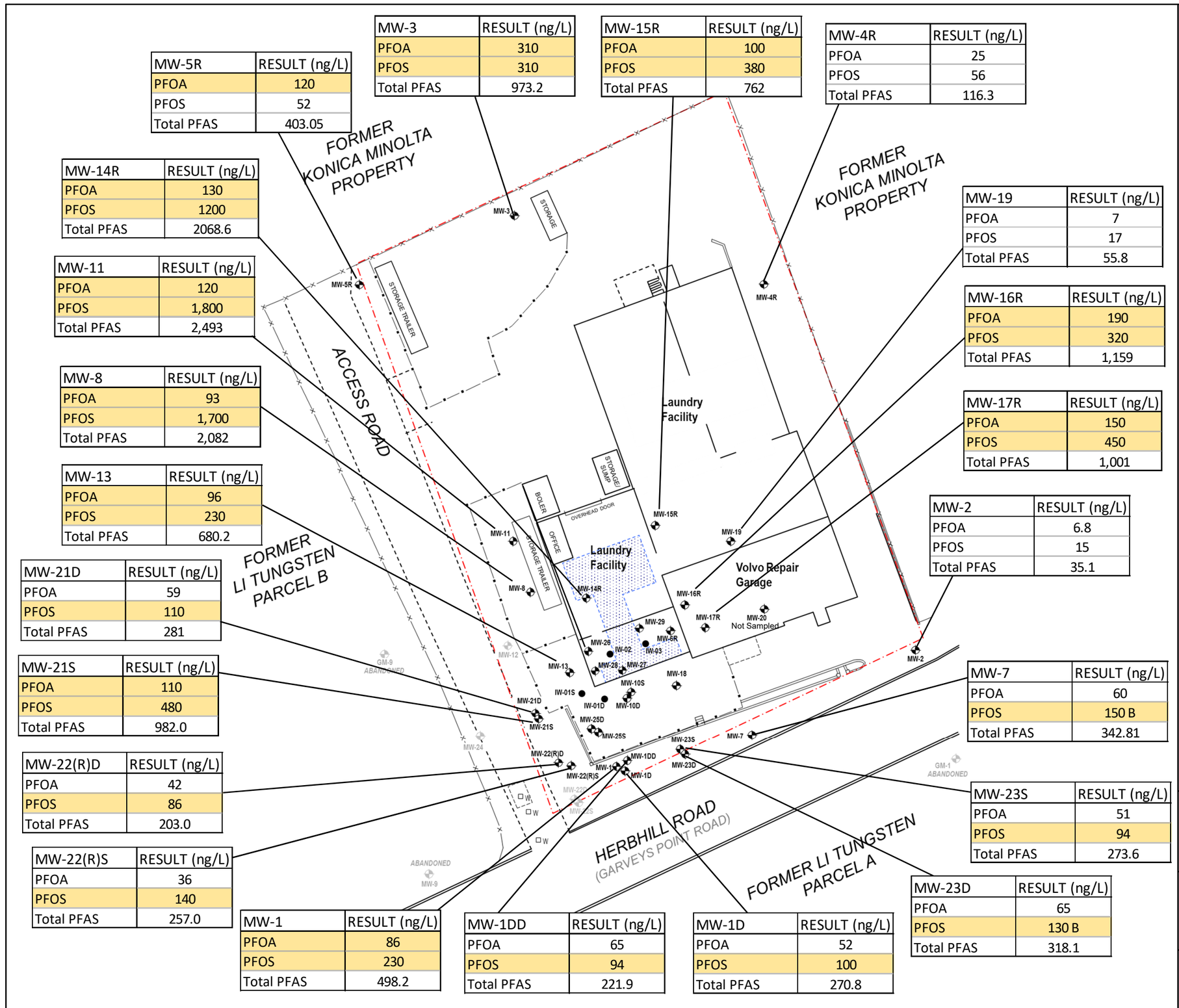
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of VOC Detections in Groundwater Samples – October-November 2017; Down-Gradient Area Wells

ARCADIS Design & Consultancy for natural and built assets

13c
FIGURE



MW-5R	RESULT (ng/L)
PFOA	120
PFOS	52
Total PFAS	403.05

MW-3	RESULT (ng/L)
PFOA	310
PFOS	310
Total PFAS	973.2

MW-15R	RESULT (ng/L)
PFOA	100
PFOS	380
Total PFAS	762

MW-4R	RESULT (ng/L)
PFOA	25
PFOS	56
Total PFAS	116.3

MW-14R	RESULT (ng/L)
PFOA	130
PFOS	1200
Total PFAS	2068.6

MW-19	RESULT (ng/L)
PFOA	7
PFOS	17
Total PFAS	55.8

MW-11	RESULT (ng/L)
PFOA	120
PFOS	1,800
Total PFAS	2,493

MW-16R	RESULT (ng/L)
PFOA	190
PFOS	320
Total PFAS	1,159

MW-8	RESULT (ng/L)
PFOA	93
PFOS	1,700
Total PFAS	2,082

MW-17R	RESULT (ng/L)
PFOA	150
PFOS	450
Total PFAS	1,001

MW-13	RESULT (ng/L)
PFOA	96
PFOS	230
Total PFAS	680.2

MW-2	RESULT (ng/L)
PFOA	6.8
PFOS	15
Total PFAS	35.1

MW-21D	RESULT (ng/L)
PFOA	59
PFOS	110
Total PFAS	281

MW-21S	RESULT (ng/L)
PFOA	110
PFOS	480
Total PFAS	982.0

MW-7	RESULT (ng/L)
PFOA	60
PFOS	150 B
Total PFAS	342.81

MW-22(R)D	RESULT (ng/L)
PFOA	42
PFOS	86
Total PFAS	203.0

MW-23S	RESULT (ng/L)
PFOA	51
PFOS	94
Total PFAS	273.6

MW-22(R)S	RESULT (ng/L)
PFOA	36
PFOS	140
Total PFAS	257.0

MW-1	RESULT (ng/L)
PFOA	86
PFOS	230
Total PFAS	498.2

MW-1DD	RESULT (ng/L)
PFOA	65
PFOS	94
Total PFAS	221.9

MW-1D	RESULT (ng/L)
PFOA	52
PFOS	100
Total PFAS	270.8

MW-23D	RESULT (ng/L)
PFOA	65
PFOS	130 B
Total PFAS	318.1

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- EXCEEDS USEPA HEALTH ADVISORY LEVEL FOR DRINKING WATER OF 70 ng/L FOR PFOA/PFOS

Notes:

IW-03 reported as DW-03 within analytical reports
ng/l – nanograms per liter

N

0 30 60

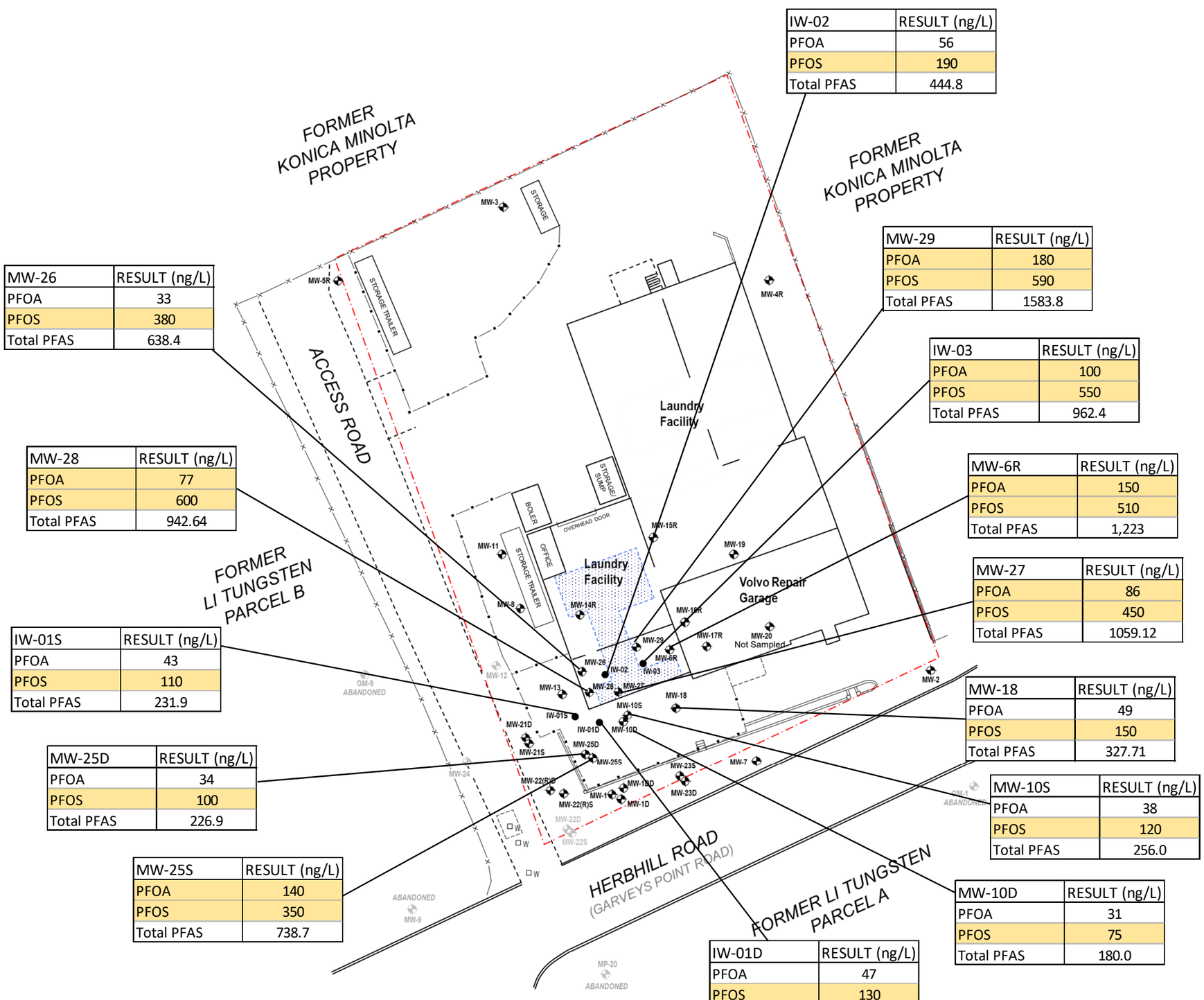
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of PFOA, PFOS and total Perfluoroalkyl Substances (PFAS) in Groundwater Samples – November 2017

ARCADIS Design & Consultancy for natural and built assets

14a
FIGURE



IW-02	RESULT (ng/L)
PFOA	56
PFOS	190
Total PFAS	444.8

MW-26	RESULT (ng/L)
PFOA	33
PFOS	380
Total PFAS	638.4

MW-29	RESULT (ng/L)
PFOA	180
PFOS	590
Total PFAS	1583.8

IW-03	RESULT (ng/L)
PFOA	100
PFOS	550
Total PFAS	962.4

MW-28	RESULT (ng/L)
PFOA	77
PFOS	600
Total PFAS	942.64

MW-6R	RESULT (ng/L)
PFOA	150
PFOS	510
Total PFAS	1,223

MW-27	RESULT (ng/L)
PFOA	86
PFOS	450
Total PFAS	1059.12

IW-01S	RESULT (ng/L)
PFOA	43
PFOS	110
Total PFAS	231.9

MW-18	RESULT (ng/L)
PFOA	49
PFOS	150
Total PFAS	327.71

MW-25D	RESULT (ng/L)
PFOA	34
PFOS	100
Total PFAS	226.9

MW-10S	RESULT (ng/L)
PFOA	38
PFOS	120
Total PFAS	256.0

MW-25S	RESULT (ng/L)
PFOA	140
PFOS	350
Total PFAS	738.7

MW-10D	RESULT (ng/L)
PFOA	31
PFOS	75
Total PFAS	180.0

IW-01D	RESULT (ng/L)
PFOA	47
PFOS	130
Total PFAS	311.87

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 — GROUNDWATER MONITORING WELL
- MW-8 — MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- EXCEEDS USEPA HEALTH ADVISORY LEVEL FOR DRINKING WATER OF 70 ng/L FOR PFOA/PFOS

Notes:

IW-03 reported as DW-03 within analytical reports
ng/l – nanograms per liter

N

0 30 60

Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Summary of PFOA, PFOS and total Perfluoroalkyl Substances (PFAS) in Groundwater Samples – November 2017

ARCADIS Design & Consultancy for natural and built assets

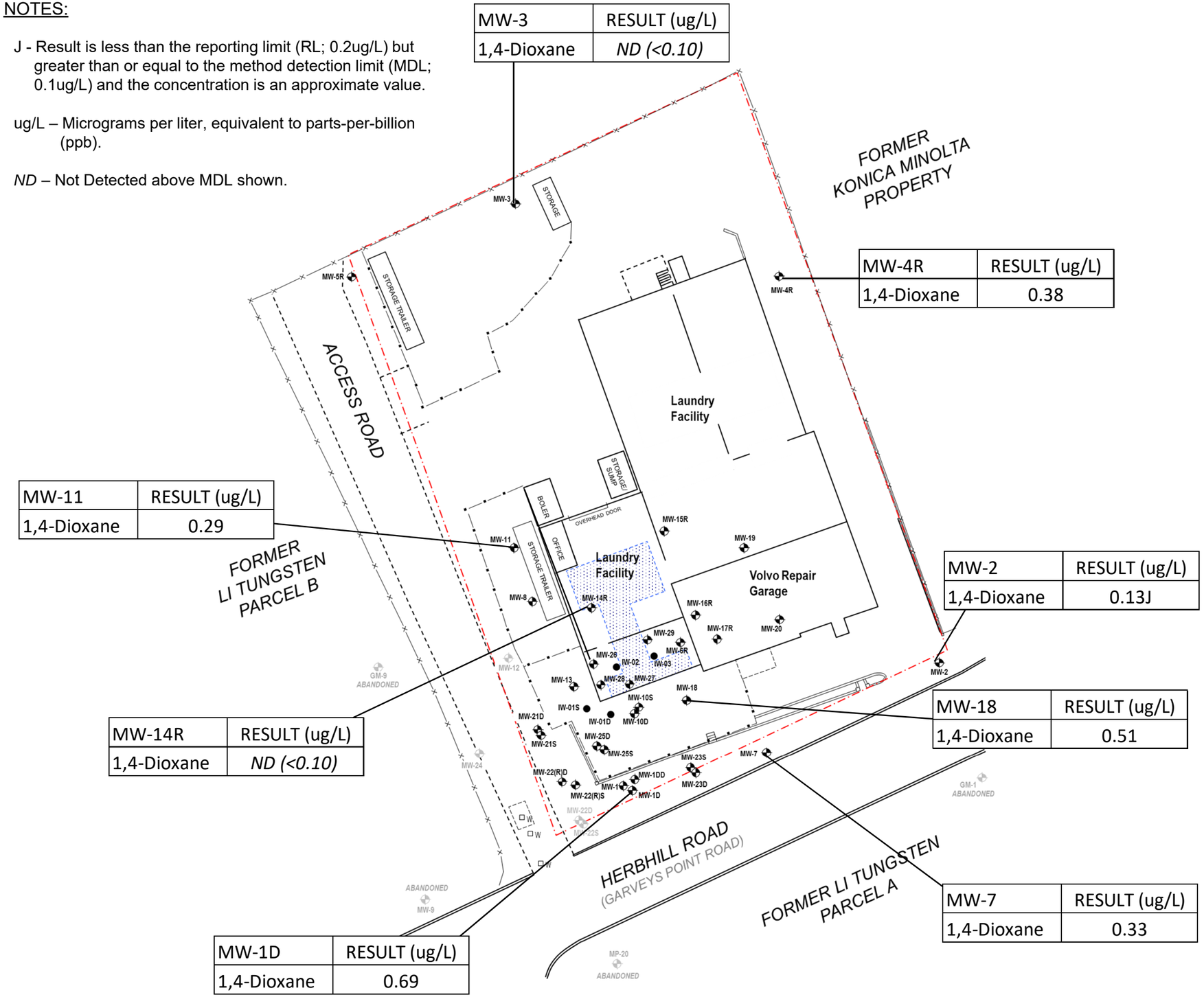
14b
FIGURE

NOTES:

J - Result is less than the reporting limit (RL; 0.2ug/L) but greater than or equal to the method detection limit (MDL; 0.1ug/L) and the concentration is an approximate value.

ug/L – Micrograms per liter, equivalent to parts-per-billion (ppb).

ND – Not Detected above MDL shown.



MW-3	RESULT (ug/L)
1,4-Dioxane	*ND (<0.10)*

MW-4R	RESULT (ug/L)
1,4-Dioxane	0.38

MW-11	RESULT (ug/L)
1,4-Dioxane	0.29

MW-14R	RESULT (ug/L)
1,4-Dioxane	*ND (<0.10)*

MW-1D	RESULT (ug/L)
1,4-Dioxane	0.69

MW-2	RESULT (ug/L)
1,4-Dioxane	0.13J

MW-18	RESULT (ug/L)
1,4-Dioxane	0.51

MW-7	RESULT (ug/L)
1,4-Dioxane	0.33

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING

N

0 30 60

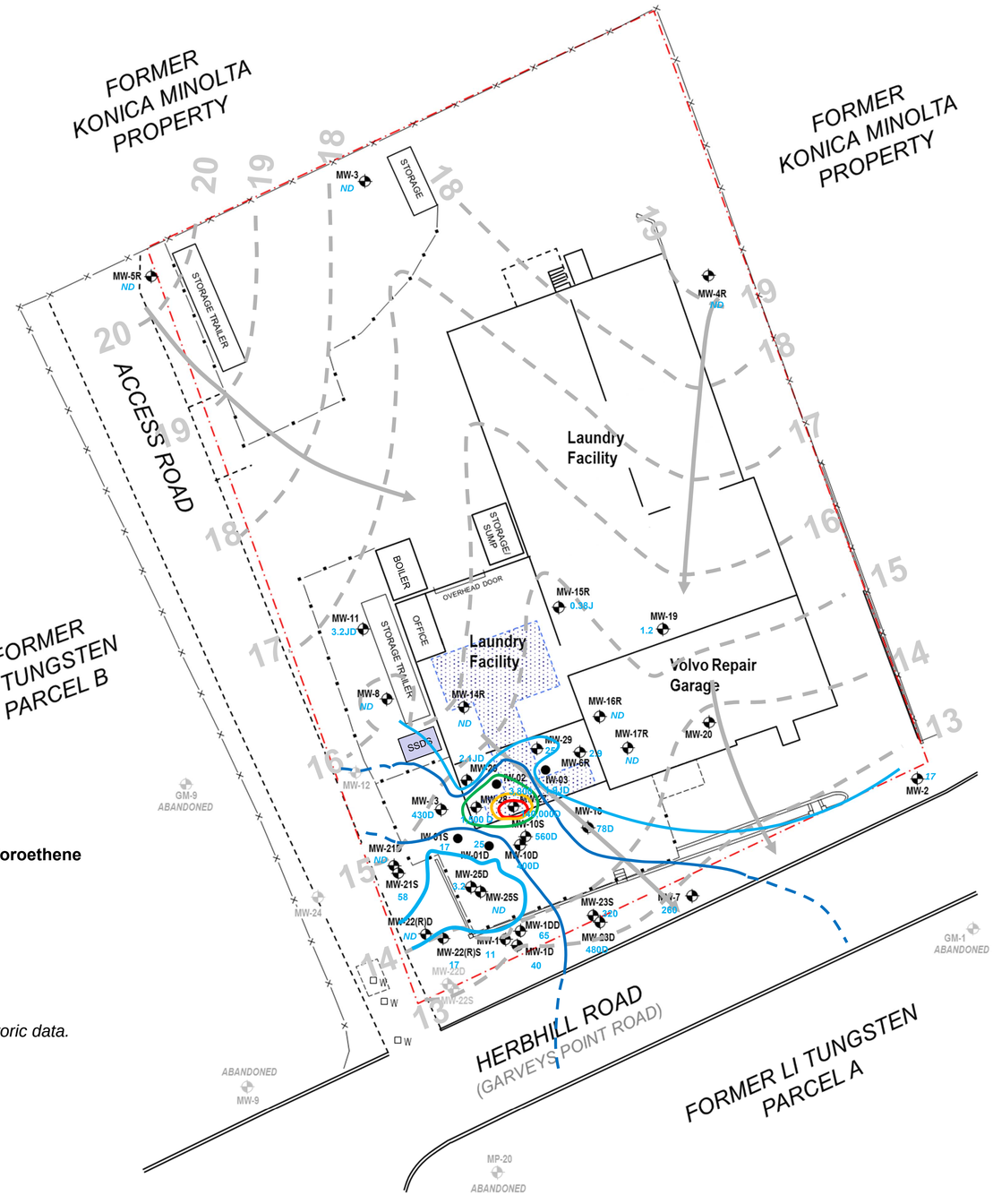
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

1,4-Dioxane Analytical Summary (USEPA Method 8270D SIM Low-Level Analysis); March 2018
Preliminary Data – Pending Validation

ARCADIS Design & Consultancy for natural and built assets

15
FIGURE



Concentration Isocontour of Tetrachloroethene (PCE) in Groundwater – µg/L

- 100,000
- 10,000
- 1,000
- 100
- 10

Dashed where inferred – based on historic data. Contours non-depth-dependent.

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- 19 APPROXIMATE GROUNDWATER ELEVATION ISOCONTOUR (FEET AMSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

N

0 30 60

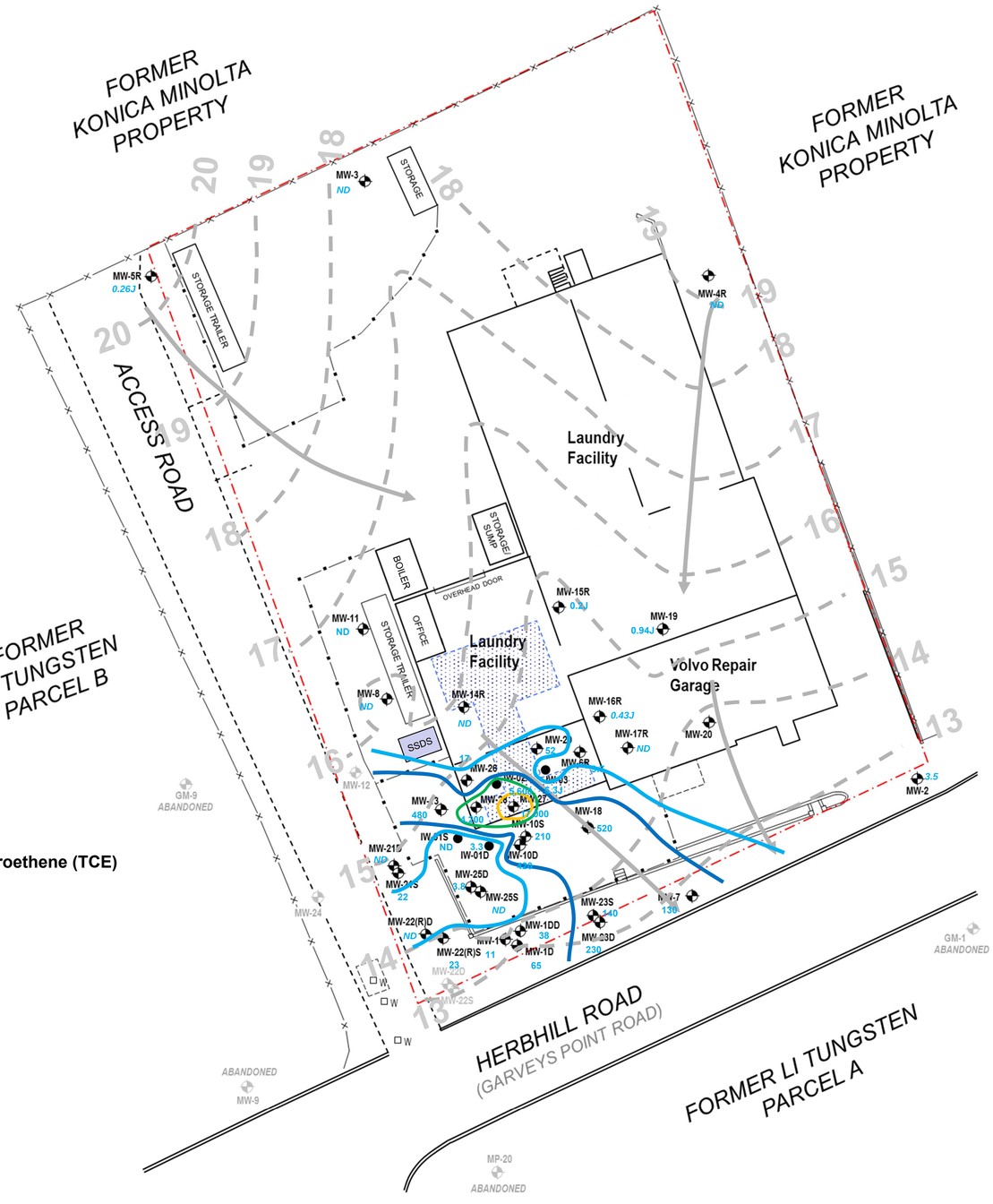
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Site Distribution of Groundwater Chlorinated VOCs (October-November 2017); PCE

ARCADIS Design & Consultancy for natural and built assets

16a
FIGURE



Concentration Isocontour of Trichloroethene (TCE) in Groundwater – µg/L

- 10,000
- 1,000
- 100
- 10

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- 19 APPROXIMATE GROUNDWATER ELEVATION ISOCONTOUR (FEET AMSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

N

0 30 60

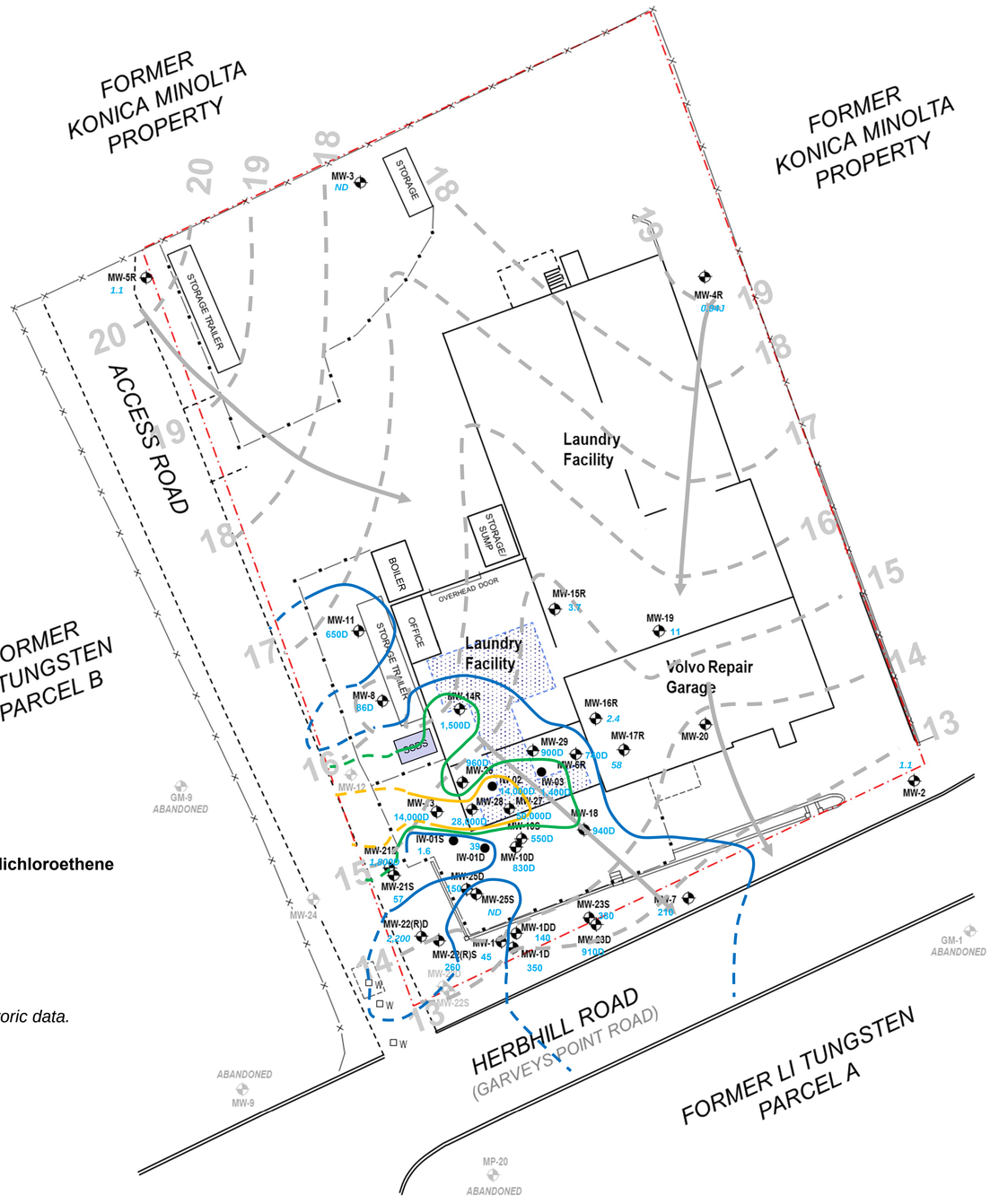
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Site Distribution of Groundwater Chlorinated VOCs (October-November 2017); TCE

ARCADIS Design & Consultancy for natural and built assets

16b FIGURE



Concentration Isocontour of cis-1,2-dichloroethene (DCE) in Groundwater – µg/L

- 10,000
- 1,000
- 100
- 10

Dashed where inferred – based on historic data.
Contours non-depth-dependent.

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- 19 APPROXIMATE GROUNDWATER ELEVATION ISOCONTOUR (FEET AMSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

N

0 30 60

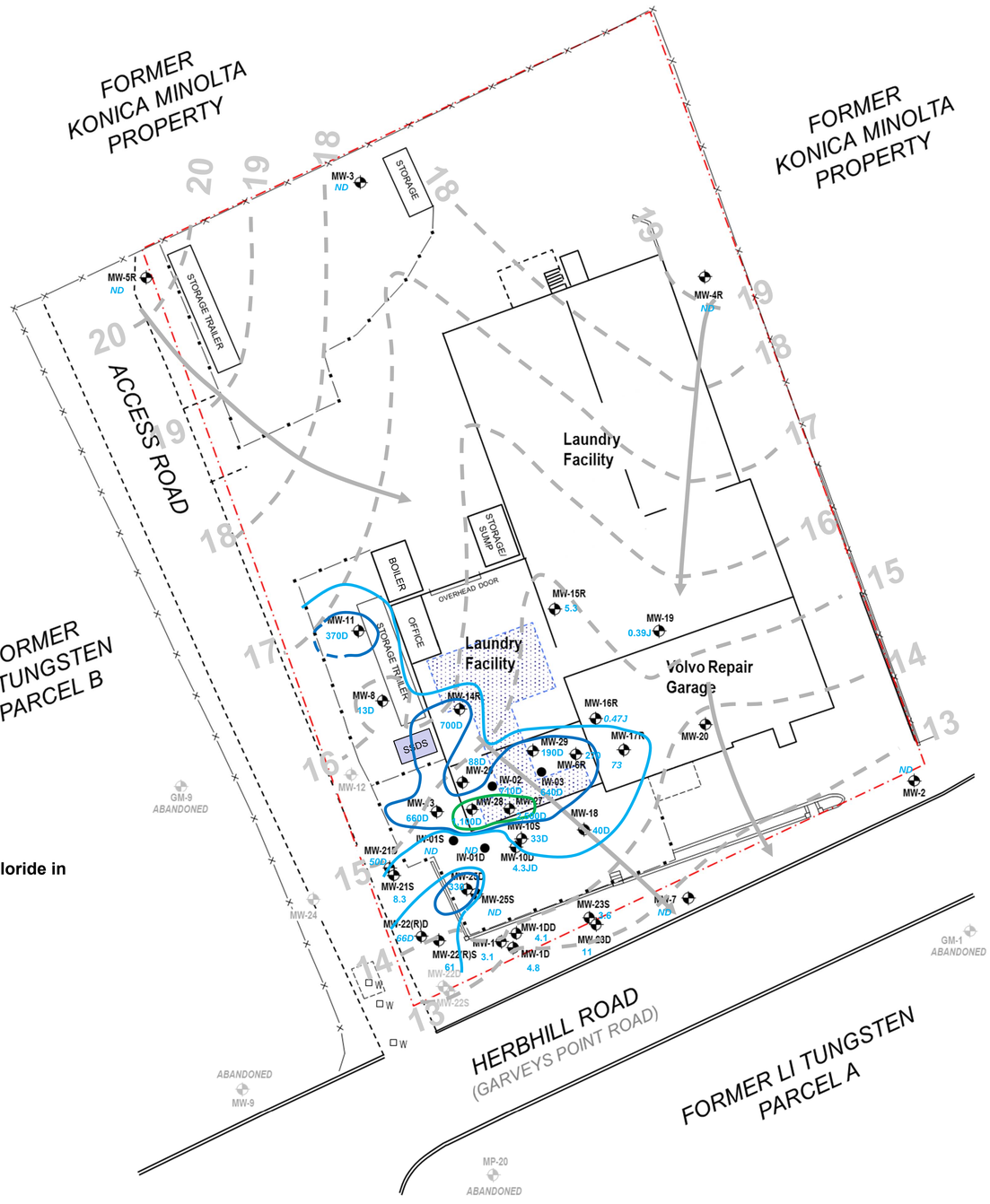
Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Site Distribution of Groundwater Chlorinated VOCs (October-November 2017); Cis-1,2-DCE

ARCADIS Design & Consultancy for natural and built assets

16c
FIGURE



Concentration Isocontour of Vinyl Chloride in Groundwater – µg/L

- 1,000
- 100
- 10

LEGEND

- CHAIN-LINK FENCE
- WOOD-PICKET FENCE
- PROPERTY BOUNDARY (SURVEY)
- MW-9 GROUNDWATER MONITORING WELL
- MW-8 MISSING/ DAMAGED GROUNDWATER MONITORING WELL
- 2005 IRM EXCAVATION AREA/ SVE SYSTEM SUB-SLAB PIPING
- 19 APPROXIMATE GROUNDWATER ELEVATION ISOCONTOUR (FEET AMSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

Notes:

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B – Compound was found in laboratory blank and sample (indicates potential laboratory contaminant)

D – Result is based on dilution of the sample.

N

0 30 60

Approximate Scale in Feet

Supplemental Pre-Design Summary Report
Crown Dykman (NYSDEC Site No.130054)
Glen Cove, New York

Site Distribution of Groundwater Chlorinated VOCs (October-November 2017); Vinyl Chloride

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16d
FIGURE

APPENDIX A

Boring, Well Construction, and Well Development Logs

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TEST BORING LOG

BORING No.IW-02

PROJECT **Crown Dykman**	LOCATION **Glen Cove, NY**	SHEET **1** OF **1**	
CLIENT **NYSDEC**		PROJECT No. **00266417.0000**	
DRILLING CONTRACTOR **LAWES**		MEAS. PT. ELEV.	
PURPOSE **Injection Wells**		GROUND ELEV.	
WELL MATERIAL **Stainless steel**		DATUM	
DRILLING METHOD(S) **Direct push**	SAMPLE / CORE / CASING	DATE STARTED **10/19/15**	
DRILL RIG TYPE	TYPE	DATE FINISHED **10/19/15**	
GROUND WATER DEPTH **8.0'**	DIA. **"**	DRILLER **Kevin**	
MEASURING POINT	WEIGHT **#**	PIRNIE STAFF **B. Quaglieri**	
DATE OF MEASUREMENT	FALL **"**		

DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. DEPTH	WELL Constr.	REMARKS
2	5		0		Concrete, coring device was used.	0.3		
4					Brown, Medium-fine grained SAND with trace pieces of brick, and trace sub-rounded, high sphericity gravel. Dry.			Neat cement 0-6'
6					Light Brown, Fine grained SAND. Moist. Odor present.	5.0		6.0
8	3.2		493.2		White, Sub-rounded, High sphericity GRAVEL, with trace brown, medium grained sand. Moist.	7.0		Choke sand 6-8'
10					Brown Medium grained SAND. Wet. Odor present.	7.2		8.0
12	3.5		4427		Brown Medium grained SAND. Very wet. Odor present.	10.0		
14					Gray Fine grained SAND. Wet. Odor present.	12.6		Filter pack sand 8-20'
16					Gray Medium-fine grained SAND. Wet. Odor present.	13.1		
18	3.2		42.5		Gray, Medium-fine grained SAND, with some iron precipitation. Wet. Odor present.	14.5		
20					White, Sub-rounded, High sphericity GRAVEL, with trace gray medium grained sand. Wet.	15.0		
					White and Light brown, Sub-rounded, High sphericity GRAVEL. Wet.	15.8		
					White, Sub-rounded, High sphericity GRAVEL. Wet.	16.1		
					White and Light brown, Sub-rounded, High sphericity GRAVEL, with trace gray medium grained sand. Wet.	18.9		20.0
						20.0		

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TEST BORING LOG

BORING No.IW-03

PROJECT **Crown Dykman**	LOCATION **Glen Cove, NY**	SHEET **1** OF **1**	
CLIENT **NYSDEC**		PROJECT No. **00266417.0000**	
DRILLING CONTRACTOR **LAWES**		MEAS. PT. ELEV.	
PURPOSE **Injection Wells**		GROUND ELEV.	
WELL MATERIAL **Stainless steel**		DATUM	
DRILLING METHOD(S) **Direct push**	SAMPLE / CORE / CASING	DATE STARTED **10/19/15**	
DRILL RIG TYPE	TYPE	DATE FINISHED **10/19/15**	
GROUND WATER DEPTH **8.0'**	DIA. **"**	DRILLER **Kevin**	
MEASURING POINT	WEIGHT **#**	PIRNIE STAFF **B. Quaglieri**	
DATE OF MEASUREMENT	FALL **"**		

DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION (KEY - Color, Major, Minor Moisture, Etc.)	ELEV. DEPTH	WELL Constr.	REMARKS
2	5		0		Concrete, coring device was used.	0.3		
4					Brown, Medium-fine grained SAND with trace pieces of brick, and trace sub-rounded, high sphericity gravel. Dry.			Neat cement 0-5'
6	3.8		366.8		Brown, Medium-fine grained SAND. Moist. Odor present.	5.0		
8					Gray, Medium-fine grained SAND. Moist. Odor present.	6.1		Choke sand 5-7'
10					White and brown, Sub-rounded, High sphericity GRAVEL with some gray medium grained sand. Moist. Odor present.	6.9 7.4		
12	2.5		183.3		Gray, medium-fine grained SAND. Moist. Odor present.	10.0		
14					Gray, medium-fine grained SAND. Wet. Odor present.			
16	3.7		4.3		White and brown, Sub-rounded, High sphericity GRAVEL with Some Gray Medium grained Sand. Wet. Odor present.	14.3 15.0		Filter pack sand 7-19'
18					Red-brown Medium grained SAND with some iron precipitation. Very wet. Odor present.	16.3 17.3		
					Red-brown Medium-fine grained SAND with some iron precipitation. Wet. Odor present.	19.1		
					Red-brown Medium-fine grained SAND with some iron precipitation. Very wet. Odor present.	19.3 20.0		
					White, Sub-rounded, High sphericity GRAVEL with some iron precipitation. Wet. Odor present.			
					Red-brown, Medium grained SAND with some iron precipitation. Very wet. Odor present.			

5.0
7.0
19.0

ARCADIS

Monitoring Well Development Log

Project/No. 00266417.0000 Well IW-02 Date 10/20/15

	Before	After		
Total Depth (Soft bottom)	20.40		Casing Diameter (inches)	2
Water Level	8.11		Well Volume (gal)	1.97
Water Column	12.29		Total Volume Purged	~90
Pump On	1245		Pump Off	1417

Purge Method: Centrifugal ____ Submersible ____ Other Monsoon

Developed By LAWES

Well Casing Volumes

gallon/foot: 1-¼" = 0.06; 1-½" = 0.09; 2" = 0.16; 2-½" = 0.26; 3" = 0.37; 3-½" = 0.50; 4" = 0.65; 6" = 1.47

Time	Minutes Elapsed	Rate (gpm) (mL/min)	DTW (ft)	Gallons Purged	pH	Specific Conductance (mS/cm)	Temp. (C) (F)	Turbidity (NTU)	REMARKS (PID readings, color, odor, etc.)
1246	1	1.0	8.18	–	6.74	0.713	20.99	over	odor, sheen
1256	10	1.0	8.17	10	6.65	0.626	20.57	over	
1306	10	1.0	8.19	10	6.37	0.614	20.27	over	
1316	10	1.0	8.18	10	6.59	0.595	20.10	803	
1326	10	1.0	8.17	10	6.14	0.601	19.86	over	
1336	10	1.0	8.18	10	5.84	0.597	19.71	460	
1346	10	1.0	8.17	10	6.28	0.594	19.65	210	
1356	10	1.0	8.16	10	6.33	0.594	19.47	120	
1406	10	1.0	8.17	10	6.29	0.592	19.40	62.9	
1416	10	1.0	8.17	10	6.30	0.592	19.41	38.6	

ARCADIS

Monitoring Well Development Log

Project/No. 00266417.0000 Well IW-03 Date 10/20/15

soft bottom ← Before | After Casing → firm bottom

Total Depth 19.39 | 19.44 Diameter (inches) 2

Water Level 8.95 | 8.95 Well Volume (gal) ~~55~~ 1.68

Water Column 10.49 Total Volume Purged ~55

Pump On 1030 Pump Off 1135

Purge Method
Centrifugal ____
Submersible ____
Other Monsoon
Developed By LAWES

Well Casing Volumes

gallon/foot

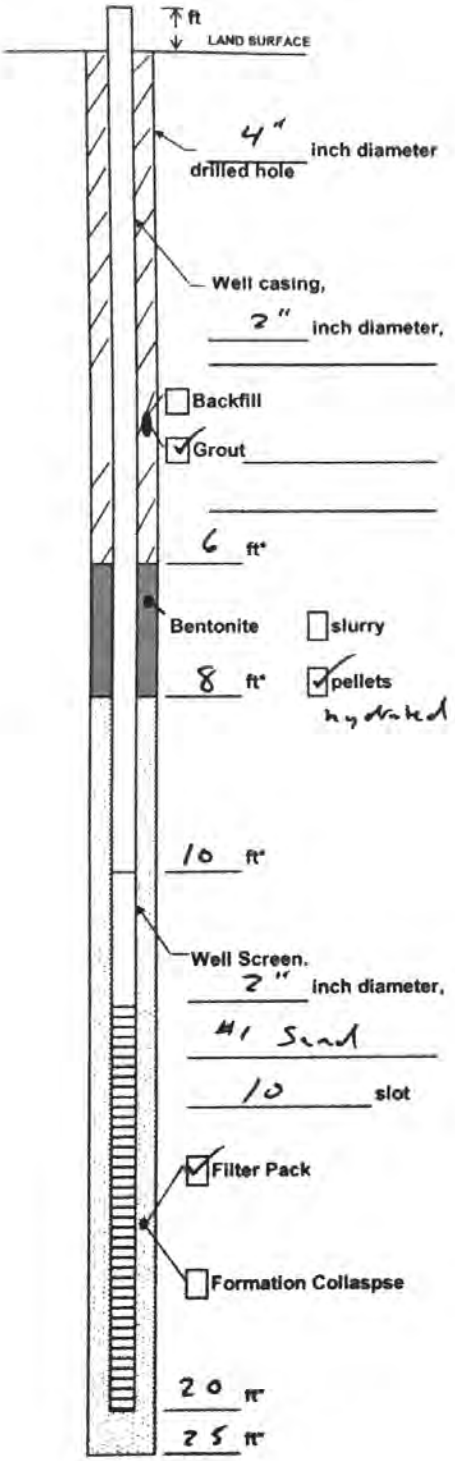
1-¼" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65
1-½" = 0.09 2-½" = 0.26 3-½" = 0.50 6" = 1.47

Time	Minutes Elapsed	Rate (gpm) ~~(mL/min)~~	DTW (ft)	Gallons Purged	pH	Specific Conductance (mS/cm)	Temp. (C) (F)	Turbidity (NTU)	REMARKS (PID readings, color, odor, etc.)
1117	47	1.0 ~~1,000~~	9.16	30	5.73	0.935	22.23	410	odor present
1121	4	1.0 ~~1,000~~	9.16	10	6.71	0.899	22.07	74.4	↓
1128	7	1.0 ~~1,000~~	9.17	10	6.40	0.881	22.12	26.4	↓
1131	3	1.0 ~~1,000~~	9.16	5	6.34	0.881	22.18	23.1	↓

ARCADIS

Well Construction Log

(Unconsolidated)



Project Name and No. Crown Dykman 0026647.0000

Well MW-4R Town/City Glen Cove

County _____ State NY

Permit No. _____

Land-Surface Elevation and Datum:

_____ feet ☐ Surveyed ☐ Estimated

Installation Date(s) 11/1/17

Drilling Method Direct Push

Drilling Contractor LAWES

Drilling Fluid N/A

Development Technique(s) and Date(s)

Fluid Loss During Drilling _____ gallons

Water Removed During Development ~55 gallons

Static Depth to Water _____ feet below M.P.**

Pumping Depth to Water _____ feet below M.P.**

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose Monitoring Well

Remarks

* Depth Below Land Surface

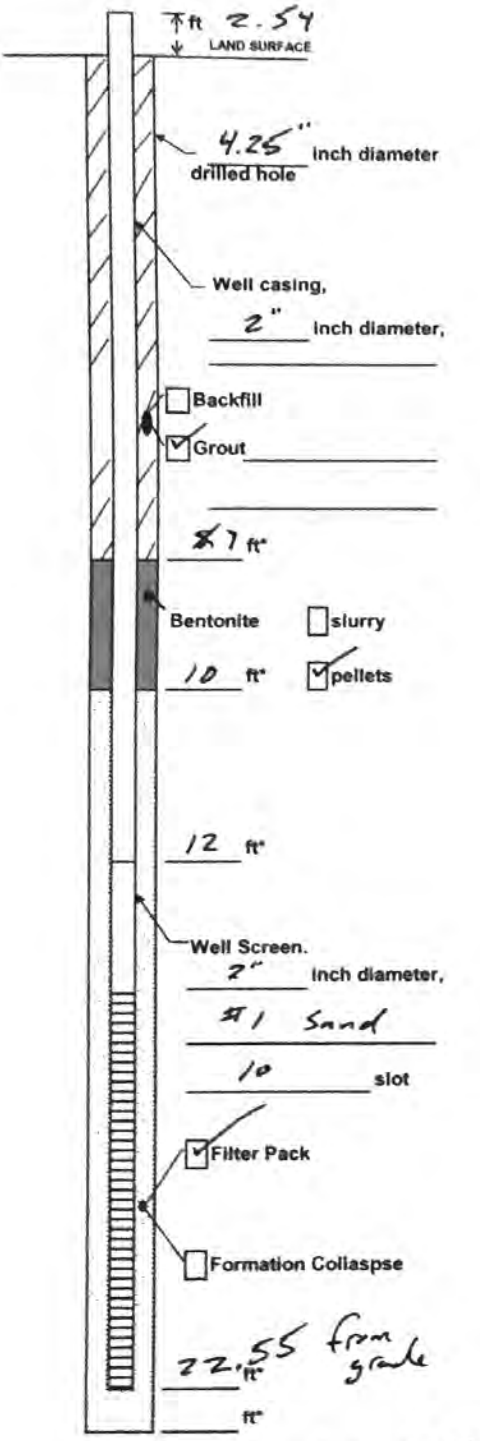
**Measuring Point is Top of Well Casing Unless Otherwise Noted.

Prepared by ES

ARCADIS

Well Construction Log

(Unconsolidated)



* Depth Below Land Surface

Project Name and No. Crown Dykman 00266412.0000

Well MW-5R Town/City Glen Cove

County _____ State NY

Permit No. _____

Land-Surface Elevation and Datum:

_____ feet ☐ Surveyed ☐ Estimated

Installation Date(s) 11/3/17

Drilling Method 4.25" HSA

Drilling Contractor LAWES

Drilling Fluid _____

Development Technique(s) and Date(s)

Surge and Purge 11/3/17

Fluid Loss During Drilling _____ gallons

Water Removed During Development ~30 gallons

Static Depth to Water _____ feet below M.P.**

Pumping Depth to Water _____ feet below M.P.**

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose Monitoring Well

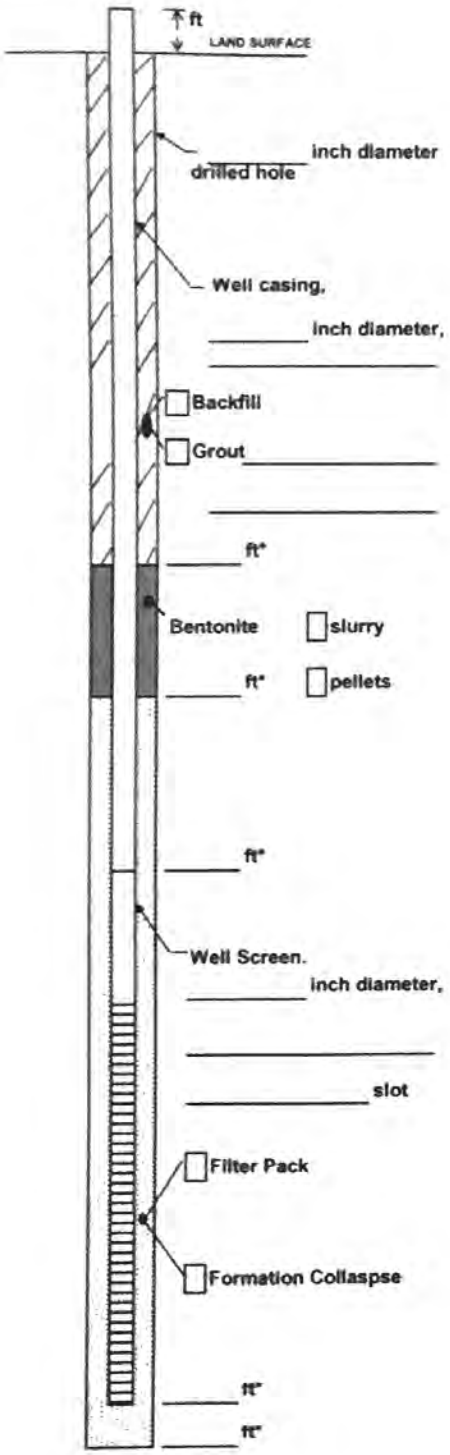
Remarks _____

**Measuring Point is Top of Well Casing Unless Otherwise Noted.

Prepared by ES

ARCADIS

Well Construction Log
(Unconsolidated)



* Depth Below Land Surface

Project Name and No. 00266417.0000

Well RAD-1 Town/City Glen Cove

County _____ State NY

Permit No. _____

Land-Surface Elevation and Datum:

_____ feet ☐ Surveyed ☐ Estimated

Installation Date(s) 10/31/17 10/10

Drilling Method Direct Push

Drilling Contractor LAW env.

Drilling Fluid _____

Development Technique(s) and Date(s)

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.**

Pumping Depth to Water _____ feet below M.P.**

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose RAD survey

Remarks TOC DTB: 23.46
TOC DTW: 23.95
from grade DTB: 20.39
1" riser to bottom w/ end cap

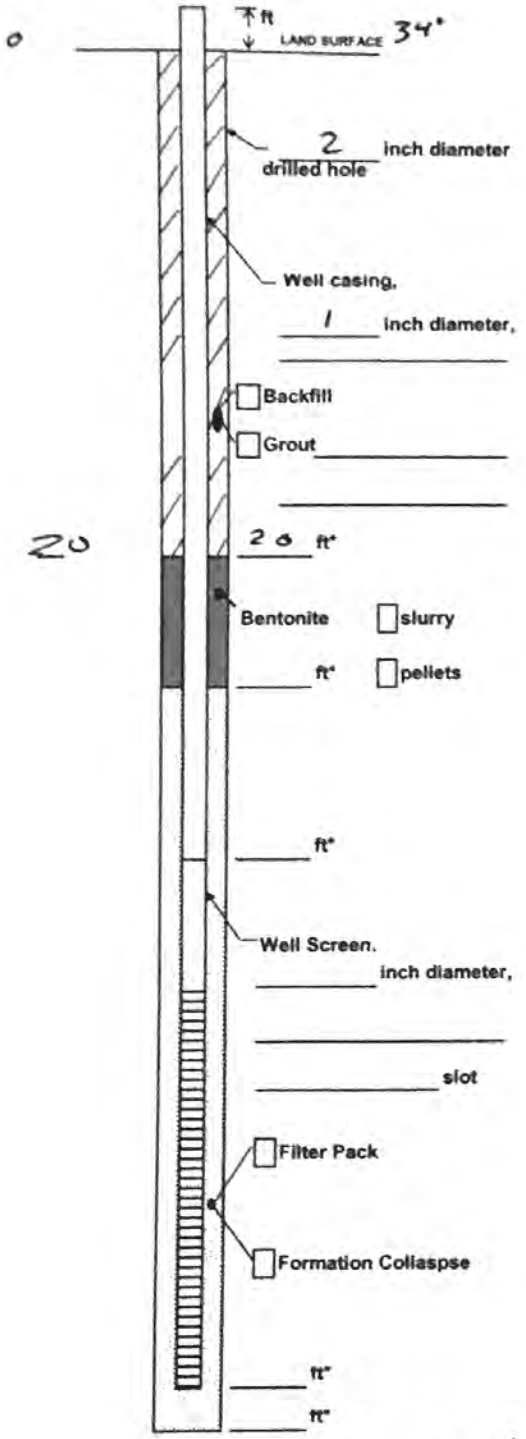
**Measuring Point is Top of Well Casing Unless Otherwise Noted.

Prepared by ES

ARCADIS

Well Construction Log

(Unconsolidated)



20.20 grade to bottom

Project Name and No. 0326413.0000

Well RAD-2 Town/City Glen Cove

County _____ State NY

Permit No. _____

Land-Surface Elevation and Datum:

_____ feet ☐ Surveyed ☐ Estimated

Installation Date(s) 10/31/17 0915

Drilling Method Direct Push

Drilling Contractor Land Air Water

Drilling Fluid N/A

Development Technique(s) and Date(s)

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.**

Pumping Depth to Water _____ feet below M.P.**

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose RAD Survey

Remarks Solid riser 0-20', 1" PVC

DTW ~~23.32~~ 22.32 TOC

DTB 23.09 TOC

~1"

* Depth Below Land Surface

**Measuring Point is Top of Well Casing Unless Otherwise Noted.

Prepared by ES

ARCADIS

Sample Log (Cont.d)

Well/Boring MW-412 Project Name and No. Crown Dykman 00266417.0000

Prepared By ES 11/1/17 1305 7822DT 5' macro direct push

Sample Depth (feet below land surface) From	To	Sample Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample Description	PID (ppm)	
0'	1'			Asphault ~ 7" / Concrete ~10"	0	
1'	5'			Tan Coarse sand w/ small pebbles	0	water @ ~3 ft.
5'	10'	2'		Tan Coarse Sand w/ small pebbles	0	
10'	15'	3'		light Tan Pale Coarse Sand w/ small pebbles	0	
		↓		and some med pebbles	↓	
15'	20'	4.5'		Same as Above	0	
20'	23'	4'		Same as Above	0	
23'	25'	↓		Grey fine Sand w/ little silt	0	

ARCADIS Page 1 of ____

Sample Log (Cont.d)

Well/Boring MW-5R Project Name and No. Crown Dykman 00266417.0000

Prepared By ED 11/1/17 0855 LAWES - 7822DT

5' Macro core

Sample Depth (feet below land surface) From	To	Sample Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample Description	PID (ppm)
0	3'	3		Dark brown silty sand w/ some med gravel and small pebbles	0
3'	5'	2		Grey Silty ~~Clay~~ Sand w/ small gravel	
5'	7~~8~~'	4.5		Grey Silty Sand w/ small gravel and Pebbles	0
~~7~~	~~8~~			Water ~~table~~ @ ~6' (~~perched~~ perched on dense silt)	
~~7~~ 7'	8'			Grey Silt w/ mottling	0
8'	10'			Dense Brown Silt w/ some small gravel, mottling observed	0
10'	11'	4.5		Dense Brown Silt transitioning to Med Brown Silty Sand	0
~~11~~					0
11'	13'			Dense Grey Silt w/ some small pebbles	
13'	14'			Coarse Grey Sand w/ med gravel	
				Water Table @ ~13'	
14'	15'			Off White/Tan fine silty Sand w/ some small pebbles and	
15	18'	3.5		Same as above	0
18'	20'			Brown fine Sand w/ silt some small gravel and pebbles	

Precleared w/ hand tools

11/1/17 0855

10/31/17

G:\ADMIN\FORMS\2006 Field Forms\Sample Core Log - Sheet1

Sample Log (Cont.d)

Well/Boring MW-5R Project Name and No. _____

Prepared By ES

Sample Depth (feet below land surface) From	To	Sample Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample Description	PID (ppm)
20'	25'	4.5		Med Sand w/ small pebbles	0
		↓		and gravel throughout, Tan in color	↓
		↓		very saturated	↓
25'	26'	2'		Tan fine sand w/ small gravel	0
26'	30'	↓		Grey Silty Clay, Dense	↓

APPENDIX B

Analytical Sampling Well Purge Logs

Baseline Analytical Sampling; November 2015

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Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-28 Date 11-10-15

Project Name/Location Crown Dykman P.I.L program Weather 60 Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 4'-14' Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 7.25 Total Depth (ft-bmp) 14.07 Water Column/ Gallons in Well ___

MP Elevation NA Pump Intake (ft-bmp) 13' Purge Method: Low-flow Sample Method Low-flow

Pump On/Off 1655/1737 Volumes Purged 2.0 gal Centrifugal ✓ Submersible ___ Other ___

Sample Time: Label 1735 Start 1735 End 1737 Replicate/ Code No. none Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1655	0	—	8.09	—	—	—	—	—	—	—	cloudy	—
1700	5	200	8.28	—	6.03	0.764	31.8	2.25	18.76	11.1	clear	—
1705	10	—	8.31	—	6.01	0.721	53.7	1.26	18.76	-0.8	clear	* —
1710	15	—	8.40	—	6.02	0.717	14.1	0.89	18.70	-4.2	clear	—
1715	20	200	8.41	—	6.02	0.717	6.00	0.97	18.70	-4.4	clear	—
1720	25	—	8.31 **	—	6.03	0.716	5.54	0.79	18.71	-6.4	clear	—
1725	30	—	8.33	—	6.03	0.718	3.28	0.76	18.71	-5.7	clear	—
1730	35	—	8.33	2.0	6.02	0.721	3.38	0.68	18.68	-6.1	clear	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40 mL VOA	3	HCl
Sample ID = MW-28(111015)			

* Brown suspended particulate - otherwise clear

** Andy stopped purging nearby well

Brown floc/cake settled out in bottom of flow cell during purging

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: SW corner of back laundry room → in front of door

Condition of Well: Good

Well Completion: Flush mount

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

8 9

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-26 Date 11-10-15

Project Name/Location Crown Dykhorn Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 3.00-13.00 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 6.95 Total Depth (ft-bmp) 13.08 Water Column/ Gallons in Well

MP Elevation NA Pump Intake (ft-bmp) 11 Purge Method: Low Flow Sample Method Low Flow

Pump On/Off 1620/1719 Volumes Purged ~~2 gal~~ AL ~1.2gal Centrifugal ___ Submersible ___ Other ___

Sample Time: Label 1715 Start 1715 End 1719 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1625	0	200	8.59		6.50	0.653	18.20	0.73	19.24	-83.6	slightly yellow	petroleum like
1630	5	"	9.83		6.50	0.681	15.00	0.60	19.26	-86.6	"	"
1635	10	100	10.13		6.51	0.684	17.30	0.53	19.22	-98.3	"	"
1640	15	100	10.63		6.51	0.684	15.00	0.83	19.20	-97.7	"	"
1645	20	100	10.94		6.51	0.687	14.30	0.73	19.23	-94.2	"	"
1650	25	100	10.98		6.51	0.689	11.90	1.28	19.21	-91.2	"	"
1655	30	60	10.18		6.51	0.691	10.70	1.36	19.13	-87.1	"	"
1700	35	60	10.28		6.51	0.694	11.30	1.14	19.17	-86.3	"	"
1705	40	60	10.08	AL	6.51	0.697	11.88	1.09	19.12	-84.1	"	"
1710	45	60	10.29	~2 ~1.2gal	6.51	0.696	11.70	1.19	19.14	-77.8	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40mL VOA	3	HCl
Sample ID: MW-26(111015)			
* Trouble w/ slow recharge			
Ran Pump Intermittently			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Front of Laundromat Well Locked at Arrival: No

Condition of Well: Good Well Locked at Departure: No

Well Completion: Flush Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-17R Date 11-10-15

Project Name/Location Crown Dykman Pilot Program Weather 60 Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 5.27-10.27 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 7.40 Total Depth (ft-bmp) 9.90 Water Column/ Gallons in Well 2.5' / 0.4 gal

MP Elevation 21.60 Pump Intake (ft-bmp) ~9 Purge Method: Low-flow Sample Method Low flow

Pump On/Off 1545 / 1620 Volumes Purged ~1 gal Centrifugal ✓ Submersible ___ Other ___

Sample Time: Label 1617 Start 1617 End 1620 Replicate/ Code No. None Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1545	0	—	7.38	—	—	—	—	—	—	—	clear	
1550	5	150	8.17	—	6.49	1.241	5.14	0.92	21.00	-83.3	clear	
1555	10	—	8.42	—	6.52	1.242	3.78	0.77	21.01	-77.7	clear	
1600	15	—	8.83	—	6.54	1.246	4.55	0.66	21.04	-76.7	clear	
1605	20	120	9.11	—	6.55	1.248	4.86	0.59	21.02	-72.9	clear	
1610	25	—	9.23	—	6.59	1.252	4.54	0.60	21.04	~~73.6~~	clear	
1615	30	—	9.37	—	6.59	1.260	4.47	0.56	21.03	-78.2	clear	

DH → -73.6

Constituents Sampled	Container	Number	Preservative
TCL-VOCs	40mL VOA	3	HCl
Sample ID = MW-17R(111015)			
Sheen on purge H_2O			
Slight petroleum like odor			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: SW corner of Volvo Shop

Condition of Well: Good

Well Completion: flush

Well Locked at Arrival: Yes

Well Locked at Departure: Yes

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-16R Date 11.10.15

Project Name/Location Crown Dykman Pilot Program Weather 60 Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 5.18-10.18 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 7.28 Total Depth (ft-bmp) 10.17 Water Column/ Gallons in Well 2.89' / 0.46 gal

MP Elevation 21.74 Pump Intake (ft-bmp) ~9.5 Purge Method: Low-flow Sample Method Low-flow

Pump On/Off 1350 / 1525 Volumes Purged 1 gal Centrifugal ___ Submersible ✓ Other ___

Sample Time: Label 1520 Start 1520 End 1525 Replicate/ Code No. None Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1350	0	—	7.24	—	—	—	—	—	—	—	clear	—
1355	5	150	8.78	—	6.38	0.942	—	2.44	21.16	-93.8	clear	—
1400	10	—	9.48	—	6.37	0.944	10.26	1.84	21.21	-92.4	clear	—
1405	15	—	9.81	—	6.36	0.938	6.23	1.66	21.22	-91.0	clear	—
1410	20	—	10.01	—	6.31	0.869	—	1.82	—	—		
PUMP OFF → well going dry												
1420	30	—	9.80									
1425	35	NP	9.41									
1430	40	NP	9.34									
1440	50	NP	9.16		NO PURGE - RECHARGE							
1505	75	NP	8.73									
PUMP ON → 1510	80	NP	8.64									
1515	85	140	9.00	—	6.32	0.867	11.23	2.27	20.74	-61.1	clear	—
1520	90	—	9.57	—	6.36	0.897	10.20	1.05	21.15	-63.3	clear	—

Constituents Sampled | **Container** | **Number** | **Preservative**

TCL ~~VOA~~ VOCs — 40 mL VOA — 3 — HCl

Sample ID = MW-16R (111015)

*Black floating debris/sediment in sample ; GW

- Unable to continue purge @ lowest rate (~150 mL/min)
- Will allow well to recharge - then flush line ; sample
- Shoot on purge H_2O

NP- no purge

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; ~~1.5" = 0.09~~; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: West wall of volvo shop

Condition of Well: Good

Well Completion: Flush mount

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

GW Samp Form 4/8/2015

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Groundwater Sampling Form

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Project No. 00266417.0000 Well ID (AL) ~~AA~~ IW-02 Date 11-10-15

Project Name/Location Crown Dykman Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) NA Casing Diameter (in.) 2 Well Material ✓PVC ___SS

Static Water Level (ft-bmp) 7.14 Total Depth (ft-bmp) 20.49 Water Column/ Gallons in Well

MP Elevation NA Pump Intake (ft-bmp) 19' Purge Method: Low flow Sample Method Low Flow

Pump On/Off 1510 / 1558 Volumes Purged ~3.0 Gal Centrifugal ✓ Submersible ___ Other ___

Sample Time: Label 1555 Start 1555 End 1558 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1515	0	200	7.16		6.53	0.650	3.77	1.84	19.12	-39.6	colorless	Petroleum like
1520	5	"	7.16		6.50	0.664	2.24	0.81	19.09	-47.1	"	"
1525	10	"	7.18		6.51	0.662	2.34	0.86	19.05	-47.6	"	"
1530	15	"	7.19		6.51	0.652	3.86	0.78	19.00	-45.7	"	"
1535	20	"	7.18		6.52	0.636	7.77	0.71	19.01	-44.8	slightly yellow	"
1540	25	"	7.18		6.53	0.630	6.70	0.63	18.97	-39.3	"	"
1545	30	"	7.18		6.54	0.613	6.40	0.60	18.95	-38.1	slightly yellow	"
1550	35	"	7.18		6.54	0.611	6.18	0.59	18.93	-37.0	"	"
1555	40	"	7.18	~3.0	6.55	0.609	6.08	0.58	18.92	-37.6	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: IW-02(111015)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Front of Laundramat

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: ~~No~~ Yes

Well Locked at Departure: ~~No~~ Yes

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Project No. 00266417.0000 Well ID MW-19 Date 11-10-15

Project Name/Location Lower Dykeman Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 7.23-12.23 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 5.46 Total Depth (ft-bmp) 12.17 Water Column/ Gallons in Well

MP Elevation 26.61 Pump Intake (ft-bmp) 11 Purge Method: Low Flow ✓ Centrifugal ___ Submersible ___ Other ___ Sample Method Low Flow

Pump On/Off 1350/1428 Volumes Purged ~2.5 Gal

Sample Time: Label 1425 Start 1425 End 1428 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1355	0	200	5.52		6.96	0.376	3.26	3.70	21.37	32.3	colorless	none
1400	5	"	5.56		6.90	0.375	2.29	2.57	21.70	36.6	"	"
1405	10	"	5.62		6.88	0.378	1.85	2.25	21.78	38.6	"	"
1410	15	180	5.66		6.86	0.380	1.35	2.05	21.82	40.9	"	"
1415	20	"	5.68		6.84	0.382	1.40	2.01	21.87	43.8	"	"
1420	25	"	5.70		6.83	0.383	1.33	2.01	21.91	46.2	"	"
1425	30	"	5.72	~2.5	6.82	0.383	1.38	1.89	21.96	48.7	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: MW-19(111015)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Volvo Shop (Rear) Well Locked at Arrival: Y

Condition of Well: Good Well Locked at Departure: Y

Well Completion: Flush Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Project No. 00266417.0000 Well ID MW-29 Date 11-10-15

Project Name/Location Crown Dykeman Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 4.00'-14.00' Casing Diameter (in.) 2" Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 7.37 Total Depth (ft-bmp) 14.18 Water Column/ Gallons in Well

MP Elevation NA Pump Intake (ft-bmp) 13' Purge Method: Low flow Sample Method Low-flow

Pump On/Off 1140/1228 Volumes Purged ~3.0 Gal Centrifugal ✓ Submersible Other

Sample Time: Label 1225 Start 1225 End ~~1230~~ Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1145	0	~~200~~	8.26		6.75	1.186	10.41	1.12	20.71	-98.0	grey/cloudy	petroleum like
1150	5	"	8.20		6.75	1.069	9.46	0.82	20.67	-105.1	"	"
1155	10	"	8.32		6.76	1.005	9.06	0.60	20.70	-108.4	"	"
1200	15	"	8.35		6.75	0.861	6.15	0.38	20.70	-100.8	"	"
1205	20	"	8.29		6.75	0.829	5.88	0.39	20.69	-102.2	colorless	"
1210	25	"	8.27		6.75	0.808	5.05	0.34	20.68	-102.9	"	"
1215	30	"	8.19		6.75	0.778	4.34	0.34	20.66	-101.8	"	"
1220	35	"	8.16		6.75	0.766	4.29	0.31	20.65	-104.0	"	"
1225	40	"	8.14	~~3.0~~	6.75	0.764	4.38	0.32	20.67	-101.4	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: MW-29(111015)			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: Front of Laundromat Well Locked at Arrival: NO

Condition of Well: Good Well Locked at Departure: NO

Well Completion: Flush Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 00266417.0000 | Well ID MW-27 | Date 11-10-15

Project Name/Location Crown Dykman Pilot Program | Weather 60 Rain

Measuring Pt. Description TOC | Screen Setting (ft-bmp) 3'-15.00' | Casing Diameter (in.) 2 | Well Material X PVC ___ SS

Static Water Level (ft-bmp) 7.13 | Total Depth (ft-bmp) 15.33 | Water Column/ Gallons in Well

MP Elevation NA | Pump Intake (ft-bmp) ~12' | Purge Method: Low-flow | Sample Method Low-flow

Pump On/Off 1130/1220 | Volumes Purged 2.5 gal | Centrifugal ✓ | Submersible | Other

Sample Time: Label 1217 | Start 1217 | End 1220 | Replicate/ Code No. NONE

Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1130	0	—	7.15	—	—	—	—	—	—	—	clear	—
1135	5	300	8.41	—	6.11	1.328	4.56	1.47	19.26	-51.3	clear	—
1140	10	200	9.42	0.5	6.16	1.329	19.9	1.32	19.20	-52.8	clear	—
1145	15	—	10.35	—	6.11	1.320	17.3	1.16	19.23	-46.4	clear	—
1150 (DK)	20	200	10.84	—	6.05	1.338	19.6	1.14	19.14	-40.7	clear	—
~~1200~~ 1155	25	—	11.15	1.5	6.03	1.334	15.1	1.15	19.11	-38.5	clear	—
~~1205~~ 1200	30	—	11.17	—	6.04	1.321	19.0	1.05	19.09	-38.3	clear	—
~~1210~~ 1205	35	—	11.24	2.0	6.01	1.303	9.37	1.14	19.09	-39.4	clear	—
1210	40	—	11.32	—	5.97	1.300	8.89	1.08	19.09	-30.1	clear	—
1215	45	200	11.43	—	5.97	1.289	8.42	1.07	19.08	-31.8	clear	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40mL VOA	3	HCl
Sample ID = MW-27(111015)			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: SW corner of back laundry room - along wall

Condition of Well: Good

Well Completion: Flush Mount

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 60266417.0000 Well ID IW-03 Date 11-10-15

Project Name/Location Conoco Dykman Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) (AL) ~~7.40~~ NA Casing Diameter (in.) 2 Well Material ___PVC ___SS

Static Water Level (ft-bmp) 7.40 Total Depth (ft-bmp) 19.44 Water Column/ Gallons in Well

MP Elevation NA Pump Intake (ft-bmp) 18' Purge Method: Low flow Centrifugal ___ Submersible ___ Other ___ Sample Method Low flow

Pump On/Off 1010/1059 Volumes Purged ~4 gal

Sample Time: Label 1050 Start 1050 End 1058 Replicate/ Code No. MS-01(111015) MSD-01(111015) Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1015	0	200	7.54		6.85	0.883	17.6	0.57	20.68	-95.8	grey, cloudy	like petroleum
1020	5	"	7.55		6.84	0.890	11.2	0.43	20.81	-100.2	"	"
1025	10	"	7.55		6.83	0.891	9.34	0.47	20.79	-103.3	"	"
1030	15	"	7.55		6.83	0.890	7.58	0.38	20.84	-102.4	"	"
1035	20	"	7.55		6.82	0.890	4.13	0.35	20.79	-101.6	colorless	"
1040	25	"	7.55		6.81	0.891	3.64	0.34	20.80	-102.9	"	"
1045	30	"	7.55		6.81	0.891	3.88	0.36	20.84	-101.2	"	"
1050	35	"	7.56	WL	6.81	0.889	3.62	0.33	20.87	-107.3	"	"

Constituents Sampled	Container		Number	Preservative
VOCs	40 mL Voa	AL	3 9	HCl
(AL) ~~Sample ID: IW-03(MS)~~				
Sample ID: IW-03(111015)				

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: Front of Laundromat

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: NO

Well Locked at Departure: No

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-6R Date 11-10-15

Project Name/Location Crown Dynamen Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 4.25-14.25 Casing Diameter (in.) 1 Well Material ___PVC ___SS

Static Water Level (ft-bmp) 7.03 Total Depth (ft-bmp) 14.17 Water Column/ Gallons in Well

MP Elevation 21.47 Pump Intake (ft-bmp) ~12' Purge Method: Low flow Centrifugal ___ Submersible ___ Other ___ Sample Method Low flow

Pump On/Off 1007 / Volumes Purged 3.5 gal

Sample Time: Label 1052 Start 1052 End 1060 Replicate/ Code No. DUP-01 (111015) Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1007	0	—	7.07	—	—	—	—	—	—	—	black	—
1010	3	250	NA	—	6.49	1.047	13.0	0.56	21.12	-90.6	cloudy	—
1015	8	—	NA	—	6.45	1.011	5.77	0.45	21.66	-48.8	clear	—
1020	13	250	NA	—	6.45	1.004	3.11	0.46	21.77	-75.7	clear	—
1025	18	—	NA	1.25	6.46	0.998	3.22	0.49	21.77	-77.4	clear	—
1030	23	—	NA	—	6.47	0.994	2.92	0.50	21.82	-94.2	clear	—
1035	28	—	NA	2	6.48	0.988	3.46	0.48	21.80	-94.1	clear	—
1040	33	250	NA	—	6.47	0.987	2.75	0.48	21.79	-89.9	clear	—
1045	38	—	NA	3	6.49	0.986	2.57	0.47	21.78	-89.8	clear	—
1050	43	—	NA	—	6.48	0.986	2.51	0.50	21.79	-89.5	clear	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40mL VOA	3	HCl
Sample ID = MW-6R (111015)			
= DUP-01 (111015)			
Slight sheen on purge H2O - petro-like smell, minor			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: East end of laundry back room

Condition of Well: Good

Well Completion: Flush Mount

Well Locked at Arrival: NO

Well Locked at Departure: NO

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Project No. 00266417.0000 Well ID MW-1DD Date 11-10-15

Project Name/Location Crown Dykmans Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 27.88-32.88 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 4.92 Total Depth (ft-bmp) 32.60 Water Column/ Gallons in Well ___

MP Elevation 15.26 Pump Intake (ft-bmp) 30' Purge Method: Low flow Sample Method Low flow

Pump On/Off 820/913 Volumes Purged ~5 Gal Centrifugal ✓ Submersible ___ Other ___

Sample Time: Label 910 Start 910 End 915 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
825	0	200	5.03		6.32	0.591	2.73	6.92	16.65	120.4	Colorless	none
830	5	"	5.02		6.32	0.588	1.92	6.68	16.66	122.6	"	"
835	10	"	5.02		6.33	0.588	1.64	6.46	16.63	123.2	"	"
840	15	"	5.02		6.31	0.588	1.53	3.51	16.58	124.4	"	"
845	20	"	5.02		6.31	0.587	1.38	5.19	16.58	124.3	"	"
850	25	"	5.01		6.30	0.586	1.22	2.01	16.58	123.3	"	"
855	30	"	5.01		6.30	0.585	1.19	1.87	16.59	122.5	"	"
900	35	"	5.01		6.30	0.585	1.15	1.82	16.57	122.2	"	"
905	40	"	5.01	5	6.31	0.583	1.11	1.77	16.56	122.3	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40mL Voa	3	HCl
Sample ID: MW-1DD (11015)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Front of Volvo Repair shop (SW corner)

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-1 Date 11-10-15

Project Name/Location Lower Dykman Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 1.15'-5.78' Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) <0.5' Total Depth (ft-bmp) 5.85 Water Column/ Gallons in Well

MP Elevation 14.19' Pump Intake (ft-bmp) ~4' Purge Method: Low-flow Sample Method Low-flow

Pump On/Off 0811 / 0913 Volumes Purged ~5.1 gal Centrifugal Peri Submersible Other

Sample Time: Label 0910 Start 0910 End 0913 Replicate/ Code No. None Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
0815	4	400	<0.5		6.14	0.740	92.6	1.94	16.66	226.0	brown	—
0820	9	300	<0.5		6.47	0.734	57.3	0.62	16.68	-17.1	cloudy	—
0825	14	300	<0.5		6.50	0.732	51.5	0.65	16.65	-29.1	cloudy	—
0830	19	—	<0.5		6.48	0.726	43.9	0.60	16.70	-30.2	cloudy	—
0835	24	—	<0.5		6.46	0.729	27.1	0.51	16.69	-36.7	cloudy	—
0840	29	300	<0.5		6.47	0.731	28.5	0.33	16.63	-38.1	cloudy	—
0845	34	300	<0.5		6.46	0.733	26.9	0.34	16.64	-44.5	hazy	—
0850	39	—	<0.5		6.45	0.732	16.2	0.33	16.67	-45.9	hazy	—
0855	44	—	<0.5		6.40	0.729	11.0	0.35	16.66	-42.8	hazy	—
0900	49	—	<0.5		6.43	0.727	13.9	0.34	16.63	-47.6	hazy	—
0905	54	—	<0.5		6.44	0.727	12.8	0.32	16.66	-49.3	hazy	—

Constituents Sampled	Container	Number	Preservative
VOCs, TCL	40 mL VOA	3	HCl
Sample ID = MW-1(111015)			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: SW corner of property

Condition of Well: OK

Well Completion: Flush mount

Well Locked at Arrival: Yes

Well Locked at Departure: Yes

Key Number To Well: N/A

ARCADIS

Groundwater Sampling Form

Project No. 00266417.0000 Well ID MP-20 Date 11.11.15

Project Name/Location Crown Dykman R.I.-I Program Weather 60 Cloudy

Measuring Pt. Description TOC Screen Setting (ft-bmp) 4-14 Casing Diameter (in.) 4 Well Material X PVC ___ SS

Static Water Level (ft-bmp) 4.70 Total Depth (ft-bmp) 14.11 Water Column/ Gallons in Well

MP Elevation 14.76 Pump Intake (ft-bmp) ~12' Purge Method: Low-flow Sample Method Low-flow

Pump On/Off 1430 / 1515 Volumes Purged 3 gal Centrifugal ✓ Submersible Other

Sample Time: Label 1512 Replicate/ Code No. None

Start 1512 Sampled by DK

End 1515

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1430	0	—	4.53	—	—	—	—	—	—	—	brown	—
1435	5	300	4.66	—	7.02	0.380	701	1.94	16.71	43.3	cloudy	brown
1440	10	250	4.68	—	6.97	0.377	46.0	1.72	16.70	24.7	cloudy	—
1445	15	—	4.68	—	6.94	0.375	11.89	1.39	16.69	28.1	clear	—
1450	20	—	4.68	1.25	6.94	0.375	10.55	1.31	16.70	32.0	clear	—
1455	25	—	4.69	—	6.93	0.374	9.53	1.21	16.68	40.2	clear	—
1500	30	250	4.69	—	6.93	0.373	9.83	1.11	16.67	43.9	clear	—
1505	35	—	4.69	2.0	6.93	0.371	10.74	1.08	16.63	51.8	clear	—
1510	40	—	4.69	—	6.93	0.370	10.13	1.03	16.63	54.0	clear	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40 mL VOA	3	HCl
Sample ID = MP-20 (111115)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Former L. Tungsten Parcel A

Condition of Well: OK

Well Completion: Stickup

Well Locked at Arrival: N

Well Locked at Departure: N

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-24 Date 11-11-15

Project Name/Location Crown Dykeman Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 3.40-13.40 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 2.30 Total Depth (ft-bmp) 13.41 Water Column/ Gallons in Well

MP Elevation NA Pump Intake (ft-bmp) 12 Purge Method: Lowflow Centrifugal ___ Submersible ___ Other ___ Sample Method Lowflow

Pump On/Off 1648/1652 Volumes Purged ___

Sample Time: Label 1650 Replicate/ Code No. NA Sampled by AL
Start 1650
End 1652

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
SAMPLED FOR ID PURPOSES ONLY @ 1650												

Constituents Sampled | **Container** | **Number** | **Preservative**

VOCs | 40mL VOA | 3 | HCl

Sample ID: MW-24(111115)

Product throughout the entire water column.

Headspace PID=6.4ppm

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: West side of Bldg.

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID GM-9 Date 11-11-15

Project Name/Location Crown DyKman Pilot Program Weather 50's Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 4.45-14.45 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 4.96 Total Depth (ft-bmp) 14.43 Water Column/ Gallons in Well

MP Elevation 19.12 Pump Intake (ft-bmp) 17 Purge Method: Low flow Sample Method Low flow

Pump On/Off 1430/1538 Volumes Purged Centrifugal ✓ Submersible Other

Sample Time: Label 1535 Start 1535 End 1538 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1435	0	200	4.96		6.13	0.581	3.41	1.49	17.27	12.7	colorless	none
1440	5	"	4.96		6.13	0.581	2.84	1.32	17.27	9.4	"	"
1445	10	"	4.96		6.12	0.580	2.43	1.18	17.27	5.2	"	"
1450	15	"	4.96		6.11	0.580	2.15	0.98	17.28	1.1	"	"
1455	20	"	4.96		6.07	0.578	2.13	0.77	17.22	-4.4	"	"
1500	25	"	4.96		6.07	0.577	1.46	0.73	17.23	-5.8	"	"
1505	30	"	4.96		6.01	0.576	1.50	0.78	17.22	-11.0	"	"
1510	35	"	4.96		6.07	0.576	0.75	0.62	17.21	-17.7	"	"
1515	40	"	4.96		6.08	0.575	0.79	0.47	17.24	-23.5	"	"
1520	45	"	4.96		6.10	0.576	0.73	0.45	17.21	-29.3	"	"
1525	50	"	4.96		6.10	0.576	0.88	0.38	17.21	-32.1	"	"
1530	55	"	4.96		6.09	0.575	0.84	0.37	17.22	-33.6	"	"
1535	60	"	4.96		6.09	0.575	0.82	0.35	17.22	-32.6	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40mL VOA	3	HCl
Sample ID: GM-9(111115)			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: Former Li Tungsten Parcel B

Condition of Well: Good

Well Completion: stick - up

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Project No. 00266417.0000 Well ID MW-22D Date 11-11-15

Project Name/Location Crown Dykman Pilot Program Weather 60 Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 14.75'-24.75' Casing Diameter (in.) 2 Well Material X PVC ___ SS

Static Water Level (ft-bmp) 3.52 Total Depth (ft-bmp) 24.41 Water Column/ Gallons in Well

MP Elevation 13.66 Pump Intake (ft-bmp) ~22' Purge Method: Low-flow Sample Method Low-flow

Pump On/Off 1040/1305 Volumes Purged 8 gal Centrifugal ✓ Submersible Other

Sample Time: Label 1302 Start 1302 End 1305 Replicate/ Code No. None Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1040	—	—	3.81	—	—	—	—	—	—	—	Brown cloudy	—
1045	5	250	3.70	—	—	—	—	8.81	15.99	—	cloudy	—
1050	10	—	3.76	—	8.15	0.358	35.6	8.41	16.13	156.5	cloudy	—
1055	15	—	3.77	—	8.15	0.362	32.4	7.83	16.12	157.1	cloudy	—
1100	20	—	3.77	—	7.87	0.371	32.1	6.50	16.21	146.5	cloudy	—
1105	25	—	3.79	2.0	7.44	0.403	47.1	5.29	16.26	-29.5	cloudy	—
1110	30	—	3.79	—	6.98	0.492	75/*	2.62	16.22	-22.0	Turbid	—
1115	35	250	3.78	—	6.67	0.569	*	1.35	16.16	2.3	Turbid	—
1120	40	200	3.70	—	6.56	0.588	*	0.97	16.15	6.0	Turbid	—
1130	50	—	3.69	—	6.53	0.590	*	1.39	16.06	12.2	Turbid	—
1135	55	—	3.69	—	6.50	0.600	68.4	1.03	16.02	13.4	Turbid	—
1140	60	—	3.69	4.0	6.46	0.616	65.4	0.61	16.07	13.2	Turbid	—
1150	70	—	3.68	—	6.45	0.627	56.5	0.41	16.05	12.3	Turbid	—
1200	80	—	3.69	—	6.43	0.632	65.1	0.39	16.08	11.3	Turbid	—
1210	90	—	3.66	—	6.40	0.633	37.9	0.38	16.03	11.9	Turbid	—
1220	100	—	3.67	6.0	6.40	0.635	29.2	0.35	15.98	11.9	Turbid	—
1230	110	200	3.67	—	6.39	0.637	23.1	0.36	16.03	13.2	Turbid	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40 mL VOA	3	HCl
Sample ID = MW-22D (111115)			
Vault flooded - below grade			
→ recent rain drainage continues to fill vault during purging			
1050 - vault baled to eliminate filling of well			
*H_2O became very turbid/black w/ sediment			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Bottom of access Road	Well Locked at Arrival:	NC
Condition of Well:	OK	Well Locked at Departure:	NO
Well Completion:	flush - below current grade	Key Number To Well:	NA

ARCADIS

Groundwater Sampling Form

Project No. 00266417.0000 | Well ID MW-22D | Date 11.11.15

Project Name/Location Crown Dyknea Pilot Program | Weather 60 Rain

Measuring Pt. Description: TOC | Screen Setting (ft-bmp): 14.75 - 24.75 | Casing Diameter (in.): 2 | Well Material: X PVC ___ SS

Static Water Level (ft-bmp): 3.52 | Total Depth (ft-bmp): 24.71 | Water Column/ Gallons in Well: ___

MP Elevation: 13.66 | Pump Intake (ft-bmp): ~~DW~~ ~22' | Purge Method: Low-flow | Sample Method: Low-flow

Pump On/Off: 1040/1305 | Volumes Purged: 8 gal | Centrifugal ___ Submersible ___ Other ___

Sample Time: Label 1302 | Start 1302 | End 1305 | Replicate/ Code No.: None | Sampled by: DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1240	120	200	3.67	—	6.38	0.637	28.3	0.37	16.10	14.7	clear	—
1245	125	—	3.68	—	6.38	0.639	27.8	0.35	16.12	14.8	clear	—
1250	130	—	3.68	—	6.37	0.640	18.9	0.29	16.16	15.4	clear	—
1255	135	—	3.68	7.5	6.37	0.641	23.7	0.30	16.15	15.1	clear	—
1300	140	—	3.68	—	6.37	0.642	24.7	0.27	16.16	14.8	clear	—
							*					

Constituents Sampled	Container	Number	Preservative

* Well heavily influenced by surface H2O runoff from parking lot

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: Bottom of access road

Condition of Well: OK

Well Completion: flush - below current grade

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-22(R)D Date 11-11-15

Project Name/Location Crown Pykman Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 19.95-29.95 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 4.68 Total Depth (ft-bmp) 29.96 Water Column/ Gallons in Well

MP Elevation 15.02 Pump Intake (ft-bmp) 26 Purge Method: Low flow Centrifugal ___ Submersible ___ Other ___ Sample Method Low flow

Pump On/Off 1035/1124 Volumes Purged ~2.5 gal

Sample Time: Label 1120 Start 1120 End 1123 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1040	0	200	4.71		6.36	0.481	20.2	1.06	16.27	-50.1	cloudy	slight
1045	5	"	4.72		6.39	0.537	4.22	0.45	16.34	-57.3	clear	slight
1050	10	"	4.73		6.38	0.553	3.52	0.31	16.35	-53.5	"	"
1055	15	"	4.73		6.36	0.559	4.18	0.26	16.37	-47.4	"	"
1100	20	"	4.73		6.35	0.567	3.41	0.23	16.42	-44.8	"	"
1105	25	"	4.73		6.35	0.571	3.36	0.21	16.46	-43.9	"	"
1110	30	"	4.73		6.33	0.579	2.06	0.22	16.43	-41.9	"	"
1115	35	"	4.73		6.33	0.580	2.18	0.20	16.39	-43.0	"	"
1120	40	"	4.73	~2.5	6.34	0.582	2.22	0.20	16.41	-43.7	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40mL VOA	3	HCl
Sample ID: MW-22(R)D(111115)			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: SW side of Bldg.

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: ___

Well Locked at Departure: ___

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-1D Date 11-11-15

Project Name/Location Crown Dy/Kraton Pilot Program Weather SUS, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 17-27 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 3.74 Total Depth (ft-bmp) 26.00 Water Column/ Gallons in Well

MP Elevation 14.03 Pump Intake (ft-bmp) 24 Purge Method: Low flow Sample Method Low flow

Pump On/Off 915/955 Volumes Purged ~2 gallons Centrifugal ___ Submersible ___ Other ___

Sample Time: Label 950 Start 950 End 954 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
920	0	200	3.79		6.58	0.560	13.4	0.79	16.42	-13.2	yellow	
925	5	"	3.77		6.53	0.560	7.75	0.47	16.64	-15.8	cloudy	none
930	10	"	3.77		6.50	0.560	7.13	0.34	16.70	-16.7	"	"
935	15	"	3.77		6.50	0.560	5.73	0.31	16.56	-18.5	slightly yellow	"
940	20	"	3.77		6.50	0.560	6.56	0.29	16.54	-18.9	"	"
945	25	"	3.77		6.49	0.559	6.74	0.28	16.53	-18.5	"	"
950	30	"	3.77	~2	6.49	0.558	6.71	0.27	16.59	-19.2	"	"
~~955~~	~~35~~											

Constituents Sampled

VOCs

Sample ID: MW-1D(111115)

Container	Number	Preservative
40 mL VOA	3	HCl

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Front of Volvo shop (SW corner)

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

GW Samp Form 4/6/2015

ARCADIS

Groundwater Sampling Form

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Project No. 30266417.0000 Well ID MW-7 Date 11-11-15

Project Name/Location Crown Dylstream Pilot Program Weather 30s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 2.40-12.40 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 4.99 Total Depth (ft-bmp) 11.37 Water Column/ Gallons in Well

MP Elevation 15.22 Pump Intake (ft-bmp) 9 Purge Method: Low flow Centrifugal ___ Submersible ___ Other ___ Sample Method Low flow

Pump On/Off 805/854 Volumes Purged ~2.5gal

Sample Time: Label 850 Start 850 End 853 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
810	0	200	5.00		6.42	0.495	4.28	2.70	16.17	27.1	colorless	none
815	5	"	5.01		6.52	0.495	2.30	2.00	16.48	3.2	"	"
820	10	"	5.01		6.54	0.498	1.65	1.69	16.50	-3.8	"	"
825	15	"	5.00		6.53	0.498	1.42	1.61	16.53	-5.2	"	"
830	20	"	5.00		6.56	0.500	1.22	1.45	16.59	-6.6	"	"
835	25	"	5.00		6.54	0.501	1.04	1.48	16.64	-7.4	"	"
840	30	"	5.00		6.54	0.501	1.10	1.33	16.62	-7.5	"	"
845	35	"	5.00		6.53	0.502	1.08	1.25	16.65	-7.9	"	"
850	40	"	5.00	~2.5	6.52	0.502	1.04	1.26	16.67	-9.6	"	"

Constituents Sampled	Container	Number	Preservative
VOCs			
Sample ID: MW-7(111115)	40 mL VOA	3	HCl

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Front of Volvo Shop

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: Yes

Well Locked at Departure: Yes

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 00266417.0000 | Well ID MW-23S | Date 11.11.15

Project Name/Location Crown Dykman Pilot Program | Weather 50 Rain

Measuring Pt. Description TOC | Screen Setting (ft-bmp) 2'-12' | Casing Diameter (in.) 2 | Well Material X PVC ___ SS

Static Water Level (ft-bmp) 3.06 | Total Depth (ft-bmp) 11.84 | Water Column/ Gallons in Well

MP Elevation 15.10 | Pump Intake (ft-bmp) 11' | Purge Method: Low-flow | Sample Method low-flow

Pump On/Off 0805/0905 | Volumes Purged 3.25 gal | Centrifugal ✓ | Submersible | Other

Sample Time: Label 0902 | Start 0902 | End 0905 | Replicate/ Code No. None | Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
0805	0	—	2.88	—	—	—	—	—	—	—	brown cloudy	—
0810	5	200	3.03	—	6.50	0.631	14.2	5.88	15.81	220.7	cloudy	—
0815	10	—	4.48*	—	6.49	0.632	9.41	5.69	15.77	228.5	particulate	—
0820	15	150	4.92	—	6.49	0.630	9.05	5.53	15.66	234.6	"	
0825	20	—	4.86	—	6.50	0.628	—	5.31	15.68	236.9	"	
0830	25	—	4.93	1.5	6.49	0.627	6.94	4.70	15.85	243.9	clear	
0835	30	—	4.96	—	6.49	0.629	6.26	4.41	15.92	245.5	clear	
0840	35	—	5.02	—	6.49	0.631	6.73	4.07	16.03	243.7	clear	
0845	40	—	5.02	—	6.50	0.636	3.39	3.57	16.11	247.3	clear	
0855	50	—	5.03	—	6.51	0.640	3.15	3.19	16.20	251.0	clear	
0900	55	—	5.05	—	6.50	0.642	3.17	3.17	16.27	242.4	clear	

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40mL VOA	3	HCl
Sample ID = MW-23S(111115)			

* slow flow rate

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: Path in front of valve shop

Condition of Well: OK

Well Completion: Flush mount

Well Locked at Arrival: N

Well Locked at Departure: N

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 00266417.0000 Well ID MW-23D Date 11-11-15

Project Name/Location Crown Dykman Pilot Program Weather 50 Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 9.38'-19.38' Casing Diameter (in.) 2 Well Material X PVC ___ SS

Static Water Level (ft-bmp) 4.62 Total Depth (ft-bmp) 19.20 Water Column/ Gallons in Well

MP Elevation 15.01 Pump Intake (ft-bmp) 18' Purge Method: low-flow Sample Method Low-flow

Pump On/Off 0920 | 1000 Volumes Purged 2.25 gal Centrifugal ✓ Submersible Other

Sample Time: Label 0950 Start 0958 End 1000 Replicate/ Code No. None Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
0920	0	—	4.49	—	—	—	—	—	—	—	hazey	
0925	5	250	4.52	—	6.56	0.437	11.8	3.40	16.38	220.4	clear	
0930	10	—	4.52	—	6.50	0.500	6.60	1.07	16.90	218.7	clear	
0935	15	—	4.52	—	6.45	0.519	4.71	0.87	17.04	217.2	clear	
0940	20	—	4.52	—	6.43	0.531	1.66	0.73	17.10	214.4	clear	
0945	25	250	4.53	1.5	6.42	0.539	0.74	0.56	17.15	211.7	clear	
0950	30	—	4.53	—	6.42	0.543	0.82	0.53	17.17	210.1	clear	
0955	35	—	4.53	2.0	6.42	0.546	0.89	0.48	17.23	206.3	clear	

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40 mL VOA	3	HCl
Sample ID = MW-23D (11/11/15)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Cluster in front of Volvo shop

Condition of Well: ok

Well Completion: flush mount

Well Locked at Arrival: N

Well Locked at Departure: N

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 00266417.0000 Well ID MW-9

Date 11-11-15

Project Name/Location Crown DyKmun Pilot Program

Weather 50s, Rain

Measuring Pt. Description TOC

Screen Setting (ft-bmp) 5.60-15.60

Casing Diameter (in.) 2

Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 3.98

Total Depth (ft-bmp) 15.69

Water Column/ Gallons in Well

MP Elevation 15.55

Pump Intake (ft-bmp) 12

Purge Method: Low flow

Sample Method Low flow

Pump On/Off 1535/1620

Volumes Purged 2.5 gal

Centrifugal ✓

Submersible

Other

Sample Time: Label 1617

Start 1617

End 1620

Replicate/ Code No. NA

Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
(DW)	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1535 3.98	0	—	3.98	—	—	—	—	—	—	—	brown	—
1540	5	250	5.12	—	6.75	0.747	38.0	4.07	15.27	-37.5	cloudy	—
1545	10	—	6.06	—	6.70	0.759	31.4	0.86	15.22	-42.1	clear*	—
1550	15	200	6.25	—	6.70	0.759	28.7	0.72	15.22	-43.0	clear	—
1555	20	—	6.41	—	—	—	—	—	—	—	—	—
1600	25	—	6.45	1.25	6.70	0.760	18.9	0.47	15.13	-47.4	clear	—
1605	30	200	6.53	—	6.70	0.761	15.8	0.42	15.14	-49.1	clear	—
1610	35	—	6.58	2.0	6.70	0.762	16.6	0.39	15.15	-51.1	clear	—
1615	40	—	6.62	—	6.70	0.763	15.7	0.36	15.17	-53.4	clear	

Constituents Sampled	Container	Number	Preservative
VOCs	40mL VOA	3	HCl
Sample ID: MW-9 (111115)			

* Red floc in groundwater

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: Former Li Tungsten Parcel B

Condition of Well: Good

Well Completion: Stick-up

Well Locked at Arrival: ___

Well Locked at Departure: ___

Key Number To Well: NA

GW Samp Form 4/6/2015

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Groundwater Sampling Form

Project No. 60266417.0000 Well ID MW-15R Date 11-11-15

Project Name/Location C. Dykman Pilot Program Weather 60 overcast

Measuring Pt. Description TOC Screen Setting (ft-bmp) 7-22'-12.22' Casing Diameter (in.) 2 Well Material X PVC ___ SS

Static Water Level (ft-bmp) 7.03 Total Depth (ft-bmp) 12.15 Water Column/ Gallons in Well /0.8 gal

MP Elevation 21.72 Pump Intake (ft-bmp) ~11' Purge Method: Low-flow Sample Method Low-flow

Pump On/Off 2100 / 2250 Volumes Purged 2.75 gal Centrifugal ✓ Submersible ___ Other ___

Sample Time: Label 2248 Start 2248 End 2250 Replicate/ Code No. None Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
2100	0	—	6.90	—	—	—	—	—	—	—	clear*	—
2105	5	200	7.93	—	6.43	0.543	—	0.67	22.34	-50.1	clear	—
2110	10	—	8.52	—	6.44	0.537	5.90	0.62	22.55	-58.8	clear	—
2115	15	150	8.71	—	6.44	0.534	5.14	0.43	22.81	-59.0	clear	—
** 2125	25	75	9.00	—	6.43	0.541	4.14	0.60	22.76	-62.0	clear	—
2135	35	—	9.89	—	6.46	0.575	4.05	0.65	22.98	-71.7	clear	—
2145	45	—	9.79	1.25	6.46	0.584	3.66	0.69	22.58	-70.2	clear	—
2155	55	75	9.68	—	6.47	0.589	4.54	1.21	22.49	-67.9	clear	—
2205	65	—	9.69	—	6.47	0.594	5.50	1.35	22.53	-65.4	clear	—
2215	75	—	9.71	—	6.47	0.599	5.59	1.23	22.60	-64.3	clear	—
2225	85	—	9.75	2.0	6.46	0.601	4.34	1.21	22.46	-63.4	clear	—
2235	95	—	9.76	—	6.44	0.598	4.60	1.29	22.36	-63.9	clear	—
2245	105	—	9.79	—	6.45	0.603	4.38	1.38	22.40	-63.8	clear	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40 mL VOA	3	HCl
Sample ID = MW-15R (111115)			
* Black floc/sediment			
** Poor recharge - had to cycle pump on/off			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: ___ Well Locked at Arrival: ___

Condition of Well: ___ Well Locked at Departure: ___

Well Completion: ___ Key Number To Well: ___

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Groundwater Sampling Form

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Project No. 00266417.0000 Well ID MW-18 Date 11-11-15

Project Name/Location Crown Dykman Pilot Program Weather 52 overcast

Measuring Pt. Description TOC Screen Setting (ft-bmp) 7.18 - 12.18 Casing Diameter (in.) 1 Well Material X PVC ___ SS

Static Water Level (ft-bmp) 5.00 Total Depth (ft-bmp) 11.64 Water Column/ Gallons in Well

MP Elevation 19.95 Pump Intake (ft-bmp) ~10 Purge Method: Low-flow ✓ Centrifugal ___ Submersible ___ Other ___ Sample Method Low-flow

Pump On/Off 1850 / 2000 Volumes Purged 4.5 gal

Sample Time: Label 1957 Start 1957 End 2000 Replicate/ Code No. none Sampled by DIC

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1850	0	—	5.85	—	—	—	—	—	—	—	cloudy	—
1855	5	200	NA	—	6.41	0.607	11.6	1.19	18.51	70.6	clear	—
1900	10	—	NA	—	6.43	0.585	11.2	1.04	18.60	55.6	clear	—
1905	15	—	NA	1.0	6.44	0.579	11.8	0.82	18.65	46.2	clear	—
1910	20	—	NA	—	6.43	0.576	8.27	0.62	18.65	41.2	clear	—
1915	25	200	NA	—	6.43	0.575	4.48	0.55	18.69	40.6	clear	—
1920	30	—	NA	2.0	6.42	0.575	2.21	0.42	18.71	37.9	clear	—
1925	35	—	NA	—	6.42	0.574	1.61	0.41	18.75	36.6	clear	—
1930	40	—	NA	—	6.42	0.573	1.16	0.37	18.77	34.4	clear	—
1935	45	—	NA	—	6.42	0.573	0.85	0.34	18.74	33.6	clear	—
1940	50	200	NA	—	6.42	0.573	0.72	0.31	18.74	32.5	clear	—
1945	55	—	NA	4 (DW)	6.42	0.573	0.31	0.29	18.67	32.2	clear	—
1950	60	—	NA	4.0	6.42	0.573	0.26	0.26	18.60	33.6	clear	—
1955	65	—	NA	—	6.42	0.573	0.27	0.28	18.59	33.6	clear	

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40 mL VOA	3	HCl
Sample ID = MW-18(111115)			
NA - Not Applicable - 1" well unable to measure w/ tubing			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Front of valve shop - inside fence

Condition of Well: ok

Well Completion: flush mount

Well Locked at Arrival: Y

Well Locked at Departure: Y

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 00266417.0000 Well ID MW-14R Date 11-11-15

Project Name/Location Crown Dykman pilot Program Weather 50's, Cloudy

Measuring Pt. Description TOC Screen Setting (ft-bmp) 7.26-12.26 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) (AL) 6.72 Total Depth (ft-bmp) 12.21 Water Column/ Gallons in Well

MP Elevation 21.66 Pump Intake (ft-bmp) 10 Purge Method: Low flow Sample Method Low flo

Pump On/Off 2100/2214 Volumes Purged Centrifugal ✓ Submersible Other

Sample Time: Label 2210 Start 2210 End 2213 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
2105	0	200	7.35		6.57	0.307	3.08	0.97	19.08	-86.3	colorless	Yes
2110	5	160	7.98		6.49	0.310	3.44	0.92	19.10	-83.7	"	"
2115	10	"	7.87		6.44	0.327	3.75	0.87	19.14	-74.2	"	"
2120	15	"	7.87		6.42	0.393	3.39	0.77	19.17	-70.0	"	"
2125	20	"	7.79		6.41	0.422	3.23	0.65	19.16	-73.8	"	"
2130	25	"	7.86		6.41	0.430	3.02	0.58	19.18	-63.7	"	"
2135	30	"	7.88		6.37	0.458	3.55	0.57	19.18	-67.0	"	"
2140	35	"	7.95		6.37	0.467	1.86	0.43	19.21	-56.7	"	"
2145	40	"	7.97		6.40	0.494	2.01	0.39	19.22	-63.0	"	"
2150	45	"	7.95		6.40	0.504	2.58	0.30	19.20	-58.6	"	"
2155	50	"	7.99		6.41	0.538	1.24	0.32	19.27	-62.3	"	"
2200	55	"	8.03		6.42	0.540	1.32	0.25	19.27	-56.6	"	"
2205	60	"	8.05		6.42	0.542	1.31	0.26	19.26	-54.8	"	"
2210	65	"	8.06		6.42	0.544	1.42	0.24	19.25	-54.7	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: MW-14R(111115)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location:	Laundromat Interior	Well Locked at Arrival:	Yes
Condition of Well:	Good	Well Locked at Departure:	Yes
Well Completion:	flush	Key Number To Well:	NA

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Groundwater Sampling Form

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Project No. 00266417.0000 Well ID MW-4 Date 11-11-15

Project Name/Location Crown Dy/Kwan Pilot Program Weather 50s, cloudy

Measuring Pt. Description TOC Screen Setting (ft-bmp) 8.76-18.76 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) <0.5 Total Depth (ft-bmp) 18.86 Water Column/ Gallons in Well

MP Elevation 20.70 Pump Intake (ft-bmp) 13 Purge Method: Low flow Sample Method Low flow

Pump On/Off (AL) ~~1725~~ / 1920 2014 Volumes Purged ~3 gal Centrifugal ✓ Submersible Other

Sample Time: Label 2010 Start 2010 End 2013 Replicate/ Code No. NA Sampled by (AL) ~~AL~~

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1925	0	200	<0.5		6.78	0.306	25.9	0.72	17.74	-111.1	slight	slight sulfur odor
1930	5	"	<0.5		6.71	0.363	7.02	0.17	17.86	-101.7	yellow	
1935	10	"	<0.5		6.68	0.396	7.19	0.40	17.95	-101.5	"	"
1940	15	"	<0.5		6.68	0.412	5.31	0.37	17.94	-99.4	"	"
1945	20	"	<0.5		6.67	0.423	5.24	0.28	17.96	-95.6	"	"
1950	25	"	<0.5		6.63	0.427	5.19	0.28	17.97	-94.5	"	"
1955	30	"	<0.5		6.63	0.429	5.31	0.24	17.98	-93.6	"	"
2000	35	"	<0.5		6.64	0.435	2.74	0.20	19.00	-86.5	colorless	"
~~2005~~	40	"	<0.5		6.63	0.436	2.63	0.19	18.02	-84.2	"	"
2010	45	"	<0.5 x3		6.63	0.436	2.81	0.18	17.99	-81.5	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40mL VOA	3	HCl
Sample ID: MW-4(111115)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: NE corner of Bldg.

Condition of Well: Good; Vault filled w/ sediment

Well Completion: Flush

Well Locked at Arrival: NO

Well Locked at Departure: NO

Key Number To Well: NA

GW Samp Form 4/6/2015

ARCADIS

Groundwater Sampling Form

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Project No. 00266417.0060 Well ID MW-2 Date 11-11-15

Project Name/Location Crown Dykman Pilot Program Weather 50s, Cloudy

Measuring Pt. Description TOC Screen Setting (ft-bmp) 13.69-23.69 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 6.05 Total Depth (ft-bmp) ~~19~~ 13.29 Water Column/ Gallons in Well

MP Elevation 16.65 Pump Intake (ft-bmp) 11 Purge Method: Low flow Sample Method Low Flow

Pump On/Off (AL) ~~1735~~ 1735 / 1854 Volumes Purged ~4 gal Centrifugal / Submersible / Other

Sample Time: Label 1850 Start 1850 End 1853 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
(AL)	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1740 ~~1735~~	0	200	6.60		6.60	0.321	24.7	4.10	18.86	-30.4	cloudy	None
1745 ~~1735~~	5	"	6.83		6.50	0.339	20.1	3.24	19.02	-31.3	"	"
1750 1750	10	"	7.18		6.51	0.341	19.1	2.69	19.11	-31.9	"	"
1755	15	"	7.39		6.50	0.343	17.6	2.44	19.22	-31.2	"	"
1800	20	"	7.62		6.49	0.345	16.0	2.25	19.30	-30.5	"	"
1805	25	160	7.85		6.48	0.344	14.4	2.03	19.28	-33.0	"	"
1810	30	"	7.74		6.47	0.346	13.9	1.65	19.13	-33.4	"	"
1815	35	"	7.75		6.43	0.346	12.22	1.31	19.19	-34.8	"	"
1820	40	"	7.72		6.41	0.346	8.01	1.10	19.19	-35.7	"	"
1825	45	"	7.72		6.39	0.347	6.94	0.90	19.21	-34.1	"	"
1830	50	"	7.73		6.34	0.347	5.13	0.85	19.18	-31.7	colorless	"
1835	55	"	7.73		6.35	0.348	4.29	0.74	19.23	-34.0	"	"
1840	60	"	7.74		6.34	0.348	3.54	0.63	19.27	-34.8	"	"
1845	65	"	7.76		6.34	0.348	3.51	0.62	19.26	-35.6	"	"
1850	70	"	7.77	~4	6.34	0.348	3.38	0.57	19.31	-37.8	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: MW-2(111115)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: SE corner of property

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: Yes

Well Locked at Departure: Yes

Key Number To Well: NA

GW Samp Form 4/6/2015

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Groundwater Sampling Form

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Project No. 00266417.0000 Well ID MW-3 Date 11-11-15

Project Name/Location Crown DyKman Pilot Program Weather 50 overcast

Measuring Pt. Description TOC Screen Setting (ft-bmp) 9.90-19.90 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 8.87 Total Depth (ft-bmp) 19.90 Water Column/ Gallons in Well

MP Elevation 27.39 Pump Intake (ft-bmp) ~17' Purge Method: Low flow Centrifugal ✓ Submersible Other Sample Method Low flow

Pump On/Off 1710 / 1815 Volumes Purged 3 gal

Sample Time: Label 1812 Start 1812 End 1815 Replicate/ Code No. NA Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1710	—	—	8.87	—	—	—	—	—	—	—	clear	
1715	—	200	8.92	—	6.43	0.802	12.2	3.80	15.44	78.1	clear	
1720	10	—	8.90	—	6.41	0.808	8.30	3.87	15.53	81.2	clear	
1725	15	—	8.91	—	6.37	0.793	6.93	3.49	15.74	91.3	clear	
1730	20	200	8.91	—	6.30	0.738	6.70	2.15	15.89	100.1	clear	
1735	25	—	8.91	—	6.21	0.700	6.67	1.55	15.98	106.9	clear	
1740	30	—	8.91	1.5	6.15	0.681	4.36	1.20	16.05	113.3	clear	
1745	35	—	8.91	—	6.13	0.674	3.25	1.00	16.08	116.7	clear	
1750	40	—	8.92	2.0	6.12	0.671	1.22	0.88	16.07	119.1	clear	
1755	45	—	8.92	—	6.12	0.668	0.87	0.72	16.10	122.1	clear	
1800	50	—	8.92	—	6.11	0.665	0.63	0.57	16.12	124.5	clear	
1805	55	—	8.93	—	6.11	0.663	0.61	0.60	16.12	125.3	clear	
1810	60	—	8.93	—	6.11	0.662	0.69	0.59	16.12	126.1	clear	

Constituents Sampled	Container	Number	Preservative
VOCs	40mL VOA	3	HCl
Sample ID: MW-3 (111115)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Northern edge of property (in fence)

Condition of Well: Good, well gets buried w/ sand

Well Completion: Flush

Well Locked at Arrival: ___

Well Locked at Departure: ___

Key Number To Well: NA

GW Samp Form 4/8/2015

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Groundwater Sampling Form

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Project No. 00266417.0000 | Well ID IW-01D | Date 11.12.15

Project Name/Location Crown Dykman D-L-L Program | Weather 50 Rain

Measuring Pt. Description TOC | Screen Setting (ft-bmp) 14-24' | Casing Diameter (in.) 2 | Well Material X PVC ___ SS

Static Water Level (ft-bmp) 5.21 | Total Depth (ft-bmp) 23.04 | Water Column/ Gallons in Well ___

MP Elevation 19.37 | Pump Intake (ft-bmp) ~20' | Purge Method: Low-flow | Sample Method Low-flow

Pump On/Off 1155 / 1315 | Volumes Purged 4.0 gal | Centrifugal ✓ | Submersible ___ | Other ___

Sample Time: Label ~~DK 1312~~ 1315 | Start ~~DK 1312~~ 1155 | End 1315 | Replicate/ Code No. None | Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1155	—	—	5.04	—	—	—	—	—	—	—	black	turbid
1200	5	200	5.64	—	6.65	0.662	over	1.13	16.54	-44.5	black	turbid
1205	10	—	5.60	—	6.63	0.662	21.7	0.95	16.54	-43.7	turbid	—
1210	15	—	5.55	—	6.60	0.676	16.1	0.79	16.41	-45.2	brown/red	—
1215	20	—	5.51	—	6.58	0.683	11.8	0.76	16.42	-47.3	brown	—
1220	25	—	5.57	—	6.58	0.704	14.3	0.69	16.48	-46.9	cloudy	slightly turbid
1225	30	—	5.55	—	6.68	0.740	13.4	0.53	16.57	~~46.80~~	clear	—
1230	35	—	5.57	2.0	6.57	0.736	13.8	0.63	16.62	-49.9	clear	—
1235	40	200	5.69	—	6.57	0.749	17.4	0.59	16.72	-49.7	clear	—
1240	45	—	5.70	—	6.57	0.756	16.7	0.56	16.76	-49.9	clear	—
1245	50	—	5.71	—	6.57	0.762	16.5	0.54	16.86	-51.6	clear	—
1250	55	—	5.60	—	6.57	0.767	16.3	0.54	16.82	-52.1	clear	—
1255	60	—	5.52	—	6.55	0.782	14.7	0.68	16.76	-51.1	clear	—
1300	65	—	5.57	—	6.56	0.797	17.8	0.68	16.85	-53.3	clear	—
1305	70	—	5.55	—	6.56	0.801	18.1	0.64	16.88	-52.8	clear	—
1310	75	—	5.57	—	6.56	0.810	18.5	0.65	16.86	-52.4	clear	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40mL VOA	3	HCl
Sample ID = IW-01D (111215)			

Over = over range

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: SW corner of bldg - in valve yard | Well Locked at Arrival: N

Condition of Well: OK | Well Locked at Departure: N

Well Completion: flush mount | Key Number To Well: NA

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Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID IW-01S Date 11-12-15

Project Name/Location Crown Dy Kinam Pilot Program Weather 50s, Rain

Measuring Pt. Description TOC Screen Setting (ft-bmp) 8-18 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 5.00 Total Depth (ft-bmp) 17.46 Water Column/ Gallons in Well

MP Elevation 19.37 Pump Intake (ft-bmp) 14 Purge Method: Low flow Sample Method Low flow

Pump On/Off 1210 / 1314 Volumes Purged Centrifugal ✓ Submersible Other

Sample Time: Label 1310 Start 1310 End 1313 Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV	clear	
1215	0	200	5.20		6.70	0.701	3.74	1.18	16.50	3.3	colorless	None
1220	5	"	5.20		6.69	0.728	8.51	0.87	16.47	8.8	"	"
1225	10	"	5.20		6.68	0.729	6.72	0.59	16.57	13.8	"	"
1230	15	"	5.20		6.68	0.738	5.08	0.54	16.59	19.0	"	"
1235	20	"	5.20		6.67	0.735	3.85	0.47	16.63	21.6	"	"
1240	25	"	5.20		6.65	0.728	3.10	0.42	16.68	25.6	"	"
1245	30	"	5.20		6.64	0.723	2.99	0.37	16.79	29.7	"	"
1250	35	"	5.20		6.62	0.720	3.17	0.38	16.83	32.6	"	"
1255	40	"	5.20		6.62	0.719	3.36	0.33	16.86	34.2	"	"
1300	45	"	5.20		6.62	0.718	3.05	0.29	16.84	36.9	"	"
1305	50	"	5.20		6.61	0.717	3.30	0.31	16.84	38.0	"	"
1310	55	"	5.20		6.61	0.716	3.32	0.31	16.89	39.7	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: IW-01S(111215)			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: SW corner of Bldg. Well Locked at Arrival: No

Condition of Well: Good Well Locked at Departure: No

Well Completion: Flush Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Page 1 of 1

Project No. 00266417.0000 Well ID MW-13 Date 11-12-15

Project Name/Location Crown Dykman Pilot Program Weather 50s, cloudy

Measuring Pt. Description TOC Screen Setting (ft-bmp) 7.22-12.22 Casing Diameter (in.) 1 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 5.42 Total Depth (ft-bmp) 11.90 Water Column/ Gallons in Well

MP Elevation AL 19.85 Pump Intake (ft-bmp) 10 Purge Method: Low flow Sample Method Low flow

Pump On/Off 1050 / 1144 Volumes Purged Centrifugal ✓ Submersible Other

Sample Time: Label 1140 Start 1140 End 1143 Replicate/ Code No. N/A Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV	clear	
1055	0	200	NA		6.36	0.571	24.5	5.84	16.63	-7.0	colorless	none
1100	5	"			6.35	0.593	16.7	5.91	16.74	-17.2	"	"
1105	10	"			6.36	0.613	5.23	5.38	16.84	-23.3	"	"
1110	15	"			6.38	0.621	3.82	4.89	16.76	-28.7	"	"
1115	20	"			6.39	0.624	3.55	4.38	16.77	-30.6	"	"
1120	25	"			6.39	0.625	2.14	3.77	16.69	-33.7	"	"
1125	30	"			6.40	0.628	2.32	3.40	16.72	-35.8	"	"
1130	35	"			6.40	0.629	2.29	3.23	16.81	-37.2	"	"
1135	40	"			6.40	0.629	2.31	3.10	16.79	-37.9	"	"
1140	45	"	✓		6.40	0.630	2.36	2.97	16.81	-39.0	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: MW-13(111215)			

1" well - could not collect periodic DTW measurements while pumping.

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: SW corner of Bldg.

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 00266417.0000 | Well ID MW-10D | Date 11.12.15

Project Name/Location Crown Dykman Pilot Program | Weather 50 Rain

Measuring Pt. Description TOC | Screen Setting (ft-bmp) 10.45'-20.45' | Casing Diameter (in.) 2 | Well Material X PVC ___ SS

Static Water Level (ft-bmp) 5.23 | Total Depth (ft-bmp) 20.48 | Water Column/ Gallons in Well

MP Elevation 19.34 | Pump Intake (ft-bmp) ~18' | Purge Method: low-flow ✓ Centrifugal ___ Submersible ___ Other ___ | Sample Method Low-flow

Pump On/Off 1010 / 1125 | Volumes Purged 1.75 gal

Sample Time: Label 1122 | Start 1122 | End 1125 | Replicate/ Code No. None | Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
1010	0	—	5.06	—	—	—	—	—	—	—	Hazy brown	—
1015	5	150	6.21 *	—	6.45	0.868	—	1.95	17.36	-34.7	clear	—
1020	10	—	6.65	—	6.44	0.879	20.3	0.80	17.34	-36.6	clear	—
1025	15	—	6.81	—	6.45	0.879	14.6	0.75	17.36	-37.5	clear	—
1030	20	—	6.84	—	6.45	0.879	14.1	0.79	17.35	-37.7	clear	—
1035	25	150	6.97	1.0	6.48	0.873	11.4	1.27	17.42	-39.6	clear	—
1040	30	—	6.90	—	6.49	0.869	11.7	1.27	17.32	-40.7	clear	—
1045	35	—	6.85	—	6.43	0.867	9.41	1.28	17.31	-38.0	clear	—
1050	40	—	6.83	—	6.49	0.859	7.48	1.23	17.34	-42.8	clear	—
1055	45	—	6.84	—	6.49	0.852	6.30	1.22	17.42	-43.1	clear	—
1100	50	—	6.99	2.0	6.49	0.845	6.26	1.10	17.41	-43.9	clear	—
1105	55	—	6.95	—	6.49	0.843	6.78	0.95	17.40	-44.6	clear	—
1110	60	—	6.94	—	6.49	0.840	5.72	0.90	17.39	-44.5	clear	—
1115	65	—	6.94	—	6.50	0.837	6.24	0.97	17.40	-45.1	clear	—
1120	70	—	6.89	—	6.50	0.836	5.69	1.00	17.42	-44.2	clear	—
~~1125~~ (DK)	~~75~~	—	—	—	—	—	—	—	—	—	clear	—

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40ml VOA	3	HCl
Sample ID = MW-10D(111215)			
* Slow flow rate			

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: SW corner of bldg - involve yard | Well Locked at Arrival: Y

Condition of Well: OK | Well Locked at Departure: Y

Well Completion: flush mount | Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Project No. 00266417.0000 | Well ID MW-10S | Date 11-12-15

Project Name/Location Crown Dykman Pilot Program | Weather 50 Rain

Measuring Pt. Description TOC | Screen Setting (ft-bmp) 3.10'-13.10' | Casing Diameter (in.) 2 | Well Material X PVC ___ SS

Static Water Level (ft-bmp) 5.47 | Total Depth (ft-bmp) 13.11 | Water Column/ Gallons in Well ___

MP Elevation 19.65 | Pump Intake (ft-bmp) ~12' | Purge Method: low-flow | Sample Method low-flow

Pump On/Off 0905 / 1005 | Volumes Purged 3 gal | Centrifugal Submersible ✓ Other ___

Sample Time: Label 1002 | Start 1002 | End 1005 | Replicate/ Code No. none | Sampled by DK

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
0905	0	—	5.29	—	—	—	—	—	—	—	clear*	
0910	5	150	5.45	—	6.35	0.684	24.5	1.19	16.83	-59.7	clear	
0915	10	—	5.44	—	6.35	0.665	12.8	0.50	17.59	-60.5	clear	
0920	15	—	5.43	—	6.36	0.664	17.5	0.51	17.68	-56.0	clear	
0925	20	200	5.43	1.0	6.35	0.659	13.08	0.30	17.79	-52.5	clear	
0930	25	—	5.44	—	6.35	0.658	8.01	0.28	17.79	-52.9	clear	
0935	30	—	5.43	—	6.31	0.653	5.67	0.32	17.94	-51.0	clear	
0940	35	—	5.43	2.0	6.32	0.653	3.99	0.29	17.91	-52.1	clear	
0945	40	—	5.43	—	6.34	0.652	3.68	0.20	17.91	-53.1	clear	
0950	45	—	5.43	—	6.35	0.652	2.94	0.17	17.90	-48.9	clear	
0955	50	—	5.43	—	6.35	0.652	2.81	0.17	17.88	-52.5	clear	
1000	55	—	5.43	—	6.35	0.651	2.71	0.16	17.89	-52.9	clear	

Constituents Sampled	Container	Number	Preservative
TCL VOCs	40 mL VOA	3	HCl
Sample ID = MW-10S(111215)			

*Some suspended black floc/sediment upon initial purge

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: SW corner of bldg in valve yard

Condition of Well: OK

Well Completion: flush mount

Well Locked at Arrival: Y

Well Locked at Departure: Y

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

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Project No. 30266417.0000 Well ID MW-25S Date 11-12-15

Project Name/Location Crown Dykman Pilot Program Weather 50s, cloudy

Measuring Pt. Description TOC Screen Setting (ft-bmp) 10-20 Casing Diameter (in.) 2 Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 11.50 Total Depth (ft-bmp) 16.87 Water Column/ Gallons in Well ___

MP Elevation 18.86 Pump Intake (ft-bmp) 15 Purge Method: low flow Centrifugal ___ Submersible ✓ Other ___ Sample Method low-flow

Pump On/Off 1020/1021 Volumes Purged ___

Sample Time: Label NA Start NA End NA Replicate/ Code No. NA Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
~~Sample to MW-25S (HHDS)~~ AL			
Purple color encountered.			
* Not sampled.			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: SW corner of Bldg 6

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

ARCADIS

Groundwater Sampling Form

Project No. 60266417.0000 | Well ID MW-25D | Date 11-12-15

Project Name/Location Duwamish Dykeman Pilot Program | Weather 50s, Rain

Measuring Pt. Description TOC | Screen Setting (ft-bmp) 20-30 | Casing Diameter (in.) 2 | Well Material ✓ PVC ___ SS

Static Water Level (ft-bmp) 7.42 | Total Depth (ft-bmp) 30.11 | Water Column/ Gallons in Well

MP Elevation 18.77 | Pump Intake (ft-bmp) 26 | Purge Method: Low-flow | Sample Method Low-flow

Pump On/Off 900/949 | Volumes Purged ~2.5 gal | Centrifugal ___ Submersible ___ Other ___

Sample Time: Label 945 | Start 945 | End 948 | Replicate/ Code No. NA | Sampled by AL

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
	> 30 min	200 mL/min	< 0.3		+/- 0.1 unit	+/- 3%	+/- 10%	+/- 10 %	+/- 3%	+/- 10 mV		
905	0	200	7.71		6.14	0.642	11.32	1.77	16.37	-19.6	cloudy	none
910	5	"	7.72		6.31	0.664	9.14	2.46	16.40	-41.9	"	"
915	10	"	7.72		6.32	0.665	6.11	1.99	16.33	-43.6	"	"
920	15	"	7.72		6.33	0.668	4.53	1.79	16.31	-44.2	colorless	"
925	20	"	7.69		6.34	0.669	4.51	0.77	16.29	-45.2	"	"
930	25	"	7.68		6.34	0.669	4.79	0.71	16.25	-45.8	"	"
935	30	"	7.66		6.36	0.670	3.34	0.11	16.39	-47.3	"	"
940	35	"	7.65		6.36	0.671	3.45	1.13	16.40	-47.6	"	"
945	40	"	7.66	~2.5	6.36	0.671		1.07	16.42	-47.8	"	"

Constituents Sampled	Container	Number	Preservative
VOCs	40 mL VOA	3	HCl
Sample ID: MW-25D(11215)			

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: SW corner of Bldg.

Condition of Well: Good

Well Completion: Flush

Well Locked at Arrival: No

Well Locked at Departure: No

Key Number To Well: NA

First Post-Injection Analytical Sampling; January 2015

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-13 DATE: 1/13/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 4.70

D: Volume of Water in Casing: _____

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0820	0825	0830	0835	0840	0845	0850	0855				
Gallons	0	0.25	0.5	0.75	1.0	1.25	1.5	1.75				
Well Volume												
Depth to Water (ft.)	5.18	5.25	5.27	5.30	5.30	5.30	5.30	5.30				
Temperature (°C)	12.86	12.59	12.81	12.55	12.70	12.72	12.58	12.52				
pH	6.45	6.44	6.44	6.44	6.44	6.44	6.44	6.44				
REDOX (mV)	-110	-101	-103	-111	-114	-117	-119	-121				
Conductivity (~~mohm~~mS/cm)	0.654	0.615	0.615	0.677	0.685	0.682	0.686	0.691				
Turbidity	159	147	171	213	123	114	119	123				
Dissolved Oxygen mg/L	0	0	0	0	0	0	0	0				
TDS												
Salinity												

Notes: Well Sampled @ 0900

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-23S **DATE:** 1/27/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 2.30

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (\quad)^2 \times (\quad - \quad) =$ _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1520	1525	1530	1535	1540	1545						
Gallons	0	0.5	0.75	1.0	1.25	1.5						
Well Volume												
Depth to Water (ft.)	2.3~~04~~	2.50	2.64	2.67	2.72	2.75						
Temperature (°C)	10.4	10.0	9.8	9.4	9.0	8.9						
pH	7.75	6.98	6.77	6.73	6.73	6.76						
REDOX (mV)	193.7	215.9	220.8	214.0	212.7	211.0						
Conductivity (mohm/cm)	0.570	0.569	0.566	0.557	0.539	0.530						
Turbidity	26.6	20.8	20.0	20.1	18.9	18.3						
Dissolved Oxygen	8.17	7.76	7.82	7.79	8.55	8.26						
TDS												
Salinity												

Notes: Well Sampled @ 1550
1.5 gallons purged

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-23D DATE: 1/27/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 4.06'

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1525	1530	1535	1540	1545								
Gallons					~1.2								
~~Well Volume Rate mL/min~~	150	150	150	150	150								
Depth to Water (ft.)													
Temperature (°C)	12.6	13.0	12.5	12.6	12.7								
pH	6.84	6.37	6.35	6.36	6.35								
REDOX (mV)	193.1	192.3	192.0	192.5	192.5								
Conductivity (mohm/cm)	0.462	0.454	0.456	0.456	0.456								
Turbidity 38.9	~~193.1~~	17.4	13.8	13.6	13.3								
Dissolved Oxygen	4.77	3.86	3.52	3.25	3.24								
TDS													
Salinity													

Notes: Initial purge: Light brown tint, no odor, no sheen, trace suspended solids.

Sampled for VOC's @ 1550

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: GM-9 DATE: 1/28/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 4.18

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0750	0755	0800	0805	0810	0815						
Gallons	-	0.5	0.75	1.0	1.25	1.5						
Well Volume												
Depth to Water (ft.)	4.18											
Temperature (°C)	12.6	12.8	12.8	12.9	12.9	12.9						
pH	6.78	5.87	5.73	5.70	5.69	5.71						
REDOX (mV)	212.2	231.3	232.4	232.4	231.4	227.9						
Conductivity (mohm/cm)	0.96	0.94	0.93	0.93	0.93	0.93						
Turbidity	17.2	13.8	9.72	8.76	6.57							
Dissolved Oxygen	1.23	0.46	0.22	0.18	0.16	0.14						
TDS												
Salinity												

Notes: Well Sampled @ 0820
1.5 gallons purged

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-1DD DATE: 1/28/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 4.42

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )^2 x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0805	0810	0815	0820								
Gallons				~1.0								
~~Well Volume~~ Rate (ml/min)	150	150	150	150								
Depth to Water (ft.)												
Temperature (°C)	12.7	13.2	13.4	13.3								
pH	6.94	6.81	6.81	6.80								
REDOX (mV)	185.0	187.4	189.5	192.4								
Conductivity (mohm/cm)	0.382	0.379	0.379	0.379								
Turbidity	5.35	6.28	2.35	3.02								
Dissolved Oxygen	8.35	7.16	7.16	7.18								
TDS												
Salinity												

Notes: Initial purge: clear, no odor, no sheen.

Sampled for VOCs @ 0825.

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-1D DATE: 1/28/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 3.26

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0830	0835	0840	0845	0850	0855						
Gallons						~1.7						
~~Well Volume~~ Rate (ml/min)	175	175	175	175	175	175						
Depth to Water (ft.)												
Temperature (°C)	10.0	10.7	11.0	11.1	11.1	11.2						
pH	6.53	6.57	6.56	6.55	6.56	6.56						
REDOX (mV)	8.2	-2.3	-5.3	-4.3	-5.0	-7.2						
Conductivity (mohm/cm)	0.73	0.73	0.72	0.72	0.72	0.72						
Turbidity	13.2	11.1	11.9	11.6	11.3	11.0						
Dissolved Oxygen	3.19	1.26	1.09	0.91	0.95	0.92						
TDS												
Salinity												

Notes: Initial purge: clear, no odor, no sheen.

Sampled for VOC's @ 0900.

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-[redacted]-13 DATE: 1/28/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 4.51

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0830	0835	0840	0845	0850	0855	0900	0905	0910	0915		
Gallons	—	0.25	0.5	0.75	1.0	1.25	1.5	1.75	2.0	2.25		
Well Volume												
Depth to Water (ft.)	4.51											
Temperature (°C)	11.6	12.4	12.4	12.3	12.4	12.5	12.4	12.4	12.6	12.6		
pH	6.03	6.22	6.30	6.32	6.32	6.33	6.33	6.35	6.34	6.35		
REDOX (mV)	-68.1	-81.0	-93.7	-100.3	-102.7	-106.4	-107.8	-111.0	-111.5	-111.6		
Conductivity (mohm/cm)	0.92	0.93	0.95	0.97	0.98	0.98	0.98	0.98	0.98	0.98		
Turbidity 36.4	[redacted]	95.3	91.5	87.2	51.2	33.1	24.7	22.0	20.8	20.2		
Dissolved Oxygen	1.14	0.36	0.21	0.16	0.12	0.09	0.09	0.09	0.08	0.07		
TDS												
Salinity												

Notes: Well Sampled @ 0920 *DUP-1-012816 collected here
2.25 gallons purged

Odor Present

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-1 DATE: 1/28/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri and E. Sousa

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: flooded

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (\quad)^2 \times (\quad - \quad) =$ _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	0905	0910	0915	0920	0925								
Gallons					~1.5								
~~Well Volume~~ Rate (mL/min)	175	175	175	175	175								
Depth to Water (ft.)													
Temperature (°C)	7.5	7.6	7.6	7.5	7.9								
pH	6.79	6.69	6.68	6.66	6.66								
REDOX (mV)	27.9	5.1	2.0	-2.4	-3.9								
Conductivity (mohm/cm)	0.653	0.672	0.682	0.689	0.691								
Turbidity	32.4	9.95	8.50	7.64	6.55								
Dissolved Oxygen	1.61	1.02	0.85	0.67	0.51								
TDS													
Salinity													

Notes: Initial purge: clear, no odor, no sheen, trace light brown tint.

Sampled for VOCs @ 0930

Second Post-Injection Analytical Sampling; March 2015

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-23S **DATE:** 3/22/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: M. Mailhot

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 2.79'

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1450		1455	1500	1505	1510	1515	1520				
Gallons												
~~Well Volume~~ Rate (ml/min)												
Depth to Water (ft.)												
± 3% Temperature (°C)	11.9		11.6	11.6	11.6	11.7	11.8	11.8				
±0.10 pH	6.66		6.56	6.51	6.41	6.40	6.39	6.39				
±10mV REDOX (mV)	107.7		105.4	102.1	100.8	101.9	102.2	102.0				
± 3% Conductivity (mohm/cm)	~~587.7~~	584.2	580.2	576.2	574.6	573.1	577.0	580.0				
±10% Turbidity	15.4		10.34	8.82	8.79	8.10	6.37	5.10				
±10% Dissolved Oxygen	1.47		1.31	1.28	1.71	1.70	1.58	1.66				
~~TDS~~												
~~Salinity~~												

Notes: Sampled at 1525, collected DUP-1

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-23D **DATE:** 3/22/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 4.29'

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1505	1510	1515	1520	1525	1530						
Gallons						~2.0						
~~Well Volume~~ Rate (mL/min)	180	180	180	180	180	180						
Depth to Water (ft.)												
Temperature (°C)	13.2	13.3	13.2	13.3	13.1	13.3						
pH	6.56	6.52	6.51	6.50	6.48	6.46						
REDOX (mV)	250.9	251.6	251.8	252.7	253.7	253.9						
Conductivity (mohm/cm)	0.512	0.512	0.512	0.510	0.511	0.510						
Turbidity	27.5	16.4	13.8	10.3	10.5	10.4						
Dissolved Oxygen	4.50	4.20	4.07	4.06	4.03	4.07						
TDS												
Salinity												

Notes: Sampled at 1535, collected MS/MSD.

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-1D DATE: 3/22/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: Flooded

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	1555	1600	1605	1610	1615	1620	1625						
Gallons													
~~Well Volume~~ Rate (mL/min)	150	150	150	150	150	150	150						
Depth to Water (ft.)													
Temperature (°C)	13.3	13.4	13.3	13.4	13.4	13.4	13.4						
pH	6.54	6.52	6.51	6.50	6.49	6.49	6.49						
REDOX (mV)	68.6	45.5	42.4	35.9	38.4	45.1	43.1						
Conductivity (mohm/cm)	0.726	0.730	0.732	0.731	0.731	0.730	0.729						
Turbidity	44.7	77.2	45.5	142	165	13.6	14.2						
Dissolved Oxygen	0.53	0.28	0.20	0.14	0.18	0.17	0.20						
~~TDS~~													
~~Salinity~~													

Notes: Sampled at 1630.

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-1DD **DATE:** 3/22/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: MM

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1550	1555	1600	1605	1610	1615	1620					
Gallons												
Well Volume												
Depth to Water (ft.)												
Temperature (°C)	13.9	13.7	13.9	13.9	13.9	14.5	14.3					
pH	6.36	6.28	6.27	6.25	6.24	6.23	6.22					
REDOX (mV)	121.7	111.6	107.2	99.8	94.8	90.1	89.4					
Conductivity (mohm/cm)	512.1	511.6	512.7	516.4	516.3	523.4	523.4					
Turbidity	4.63	2.16	1.23	1.30	0.86	1.49	0.93					
Dissolved Oxygen	21.2	0.82	0.67	0.62	0.56	0.48	0.48					
TDS												
Salinity												

Notes: Sampled at 1625.

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-1 DATE: 3/22/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: Flooded

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1645	1650	1655	1700	1705	1710	1715					
Gallons												
~~Well Volume~~ Rate (mL/min)	200	200	200	200	200	200	200					
Depth to Water (ft.)												
Temperature (°C)	10.9	10.9	10.9	11.0	11.0	10.9	10.9					
pH	6.84	6.68	6.64	6.61	6.58	6.56	6.55					
REDOX (mV)	170.9	166.9	160.0	147.7	134.4	130.6	124.1					
Conductivity (mohm/cm)	0.724	0.721	0.722	0.723	0.722	0.723	0.722					
Turbidity	42.6	46.3	46.5	44.1	31.1	30.8	29.7					
Dissolved Oxygen	2.15	1.21	1.02	0.93	0.72	0.59	0.42					
~~TDS~~												
~~Salinity~~												

Notes: Sampled at 1720

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-01S DATE: 3/21/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS:

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1650	~~1655~~ 1655	1700	1705								
Gallons												
Well Volume												
Depth to Water (ft.)												
Temperature (°C)	12.9	12.9	13.1	13.2								
pH	6.63	6.61	6.58	6.57								
REDOX (mV)	92.6	93.6	94.9	96.2								
Conductivity (mohm/cm)	742	744	744	742								
Turbidity	2.69	2.08	1.51	1.94								
Dissolved Oxygen	0.52	0.46	0.45	0.42								
TDS												
Salinity												

Notes: SAMPLED AT 1715.

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: GM-9 DATE: 3/22/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS: B. Quaglieri

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 4.30

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
	1730	1735	1740	1745	1750								
Time	~~1530~~	~~1535~~	~~1540~~	~~545~~	~~1550~~								
Gallons													
~~Well Volume~~ Rate (mL/min)	200	200	200	200	200								
Depth to Water (ft.)													
Temperature (°C)	12.3	12.4	12.3	12.2	12.2								
pH	5.97	5.83	5.78	5.76	5.74								
REDOX (mV)	191.4	196.0	201.2	204.3	207.2								
Conductivity (mohm/cm)	0.660	0.658	0.653	0.652	0.651								
Turbidity	11.8	11.5	6.21	5.42	5.81								
Dissolved Oxygen	0.49	0.32	0.23	0.18	0.13								
~~TDS~~													
~~Salinity~~													

Notes: Sampled at ~~1555~~ 1755

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-13 DATE: 3/21/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS:

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1725	1730	1735	1740	1745	1750	1755					
Gallons												
Well Volume												
Depth to Water (ft.)												
Temperature (°C)	12.9	13.0	12.9	12.8	12.6	12.2	12.4					
pH	6.61	6.55	6.54	6.53	6.53	6.54	6.53					
REDOX (mV)	-54.7	-67.4	-72.9	-75.7	-77.9	-78.4	-78.2					
Conductivity (mohm/cm)	659	658	656	656	657	662	657.2					
Turbidity	75.6	81.6	80.3	65.6	26.7	25.5	19.2					
Dissolved Oxygen	0.45	0.46	0.43	0.39	0.38	0.45	0.39					
TDS												
Salinity												

Notes: SAMPLED AT 1800

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-9 **DATE:** 3/23/16

PROJECT NAME: Crown Dykman
PROJECT NUMBER: 00266417.0000
SAMPLERS: MM + BQ

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 4.50

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0815	0820	0825	0830	0835	0840	0845					
Gallons												
~~Well Volume~~ Rate (mL/min)	200	200	200	200	200	200	200					
Depth to Water (ft.)												
Temperature (°C)	11.1	11.1	11.1	11.1	11.1	11.2	11.1					
pH	7.03	6.75	6.73	6.67	6.66	6.65	6.64					
REDOX (mV)	-29.9	-38.4	-40.3	-42.9	-45.3	-47.1	-48.7					
Conductivity (mohm/cm)	0.891	0.894	0.894	0.896	0.899	0.899	0.899					
Turbidity	29.6	37.0	35.9	37.1	29.0	28.0	31.5					
Dissolved Oxygen	2.08	0.92	0.80	0.67	0.62	0.57	0.56					
~~TDS~~												
~~Salinity~~												

Notes: Sampled at 0845.

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MP-20 DATE: 3/23/16

PROJECT NAME: Crown Dykman

PROJECT NUMBER: 00266417.0000

SAMPLERS:

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: _____

C: Water Level Below Top of Casing: _____

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0915	0920	0925	0930	0935	0940						
Gallons												
~~Well Volume~~ Flow	200	200	200	200	200	200						
Depth to Water (ft.)												
Temperature (°C)	10.4	10.3	10.3	10.2	10.4	10.4						
pH	6.32	6.66	6.57	6.51	6.51	6.50						
REDOX (mV)	62.0	78.0	80.7	75.8	73.7	72.7						
Conductivity (mohm/cm)	0.934	0.951	0.973	0.911	0.910	0.910						
Turbidity	2.68	3.44	2.10	1.64	1.64	1.27						
Dissolved Oxygen	2.42	1.54	1.26	1.10	1.05	1.05						
TDS												
Salinity												

Notes: SAMPLED AT 0945

ARCADIS Design & Consultancy for natural and built assets

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: MW-14R DATE: 3/23/16

PROJECT NAME: Crown Dykman
PROJECT NUMBER: 00266417.0000
SAMPLERS:

A: Total Casing and Screen Length: _____

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 5.86

D: Volume of Water in Casing: _____

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 ( )² x (-) = _____ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0915	0920	0925	0930	0935	0940						
Gallons												
~~Well Volume~~ Rate (mL/min)	150	150	150	150	150	150						
Depth to Water (ft.)												
Temperature (°C)	14.0	14.1	14.1	14.1	14.1	14.1						
pH	6.51	6.49	6.47	6.46	6.46	6.46						
REDOX (mV)	-46.5	-67.0	-75.4	-83.1	-86.7	-87.7						
Conductivity (mohm/cm)	0.497	0.516	0.546	0.626	0.627	0.629						
Turbidity	9.8	11.1	5.31	4.28	4.91	5.02						
Dissolved Oxygen	0.87	0.46	0.35	0.24	0.22	0.21						
~~TDS~~												
~~Salinity~~												

Notes: Sampled at 0945. PID = 59.9 ppm

Synoptic Sampling Round;
October-November 2017

Crum Oxman
Site

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: AThomas
Client / Job Number: NYSDEC 002666417.0000
Weather: 60's, overcast
Well ID: IW-01D
Date: 11-6-17
Time In: 1435 Time Out: 1700

Well Information

Depth to Water:	4.55 (feet)	(from MP)
Total Depth:	22.76 (feet)	(from MP)
Length of Water Column:	(feet) 18.21	
Volume of Water in Well:	(gal) 2.96	
Intake depth for tubing:	(feet) 17	

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☐	No	☑
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE	
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐		
Pump Start Time:	1446				
Pump Stop Time:	1645				
Total Volume Removed:	4 (gal)				
Water-Quality Meter Type:	Horiba				
Did well go dry:	NO				

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1505	1510	1525	1535	1545	1555	1605	1615	1625
Volume Purged (Gal)	0.8	~~1.0~~ 1.3	~~2.0~~ 2.4	~~3.0~~ 2.0	2.4	2.7	3.0	3.3	3.6
Rate (mL/min)	~~200~~ 150	~~200~~ 150	175	175	175	175	175	175	175
Depth to Water (ft.)	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72
pH	6.81	6.79	6.75	6.73	6.72	6.76	6.76	6.71	6.71
Temp. (C)	20.25	19.81	19.53	19.29	19.15	19.11	19.09	18.98	18.97
Conductivity (mS/cm)	1.12	1.15	1.16	1.17	1.18	1.19	1.19	1.20	1.21
Dissolved Oxygen (mg/L)	0.54	0.61	0.78	1.13	1.36	1.50	1.51	1.51	1.51
ORP (mV)	39	48	59	70	78	81	82	87	87
Turbidity (NTU)	206	197	189	223	254	245	279	300	~~287~~ 283
Notes:									

SAMPLE @ 1635

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
~~TCL SVOCs~~ DEAS			
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: IW-01D	Sample Time: 1635		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

Initial: Slightly clear with suspended brwn sediment & WL probe had sediment on it after tagging before hooking up to the Horiba. Will let purge Horiba plugged up @ 1500. Strong odor or sheen
Final: turbid, Suspended brwn sediment. Called Tim K. from TA to ask about turbidity. Should not matter for analysis, lab filters it.
PID: 0.2 ppm

Site: Crown Dykman — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: IW-01S
Client / Job Number: 00266417.0000
Date: 11/7/17
Weather: Cloudy 48°F
Time In: 1125 Time Out: 1245

Well Information

Depth to Water:	(feet)	4.50	(from MP)
Total Depth:	(feet)	18.00	(from MP)
Length of Water Column:	(feet)	13.50	
Volume of Water in Well:	(gal)	2.20	
Intake depth for tubing:	(feet)	~17.00	

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☐	No	☑
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 1150
Pump Stop Time: 1240
Total Volume Removed: (gal) ~1.50
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1200	1205	1210	1215	1220	1225	1230		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)									
Depth to Water (ft.)	4.50	5.50	5.60	5.60	5.60	5.60	5.60		
pH	6.68	6.68	6.67	6.66	6.66	6.65	6.65		
Temp. (C)	17.84	17.87	17.96	17.93	17.93	17.89	17.88		
Conductivity (mS/cm)	0.669	0.670	0.670	0.671	0.672	0.671	0.669		
Dissolved Oxygen (mg/L)	2.33	2.12	1.89	1.82	1.81	1.81	1.81		
ORP (mV)	508	510	514	519	520	524	52		
Turbidity (NTU)	566	467	265	125	132	119	121		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: Purple / Brown Tint			
Odor: Slight Odor			
Appearance: Cloudy			
Sample ID: IW-01S	Sample Time: 1235		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

★ Headspace: 97.3 ppm

★ Sampled for VOCs + PFCs

Crun Dykman — 2017 GW Sampling

Site — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: AThomas — **Well ID:** IW-02
Client / Job Number: NYSDEC 00266417.0000 — **Date:** 11-7-17
Weather: 50s, overcast — **Time In:** 1100 **Time Out:** 1230

Well Information

Depth to Water:	6.52	(feet) (from MP)
Total Depth:	20.33	(feet) (from MP)
Length of Water Column:	13.81	(feet)
Volume of Water in Well:	2.25	(gal)
Intake depth for tubing:	15	(feet)

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☑	PVC	☐
Well Locked:	Yes	☑	No	☐
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE	
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐		
Pump Start Time:	1105				
Pump Stop Time:	1220	Water-Quality Meter Type:	Honda		
Total Volume Removed:	(gal) 2.0	Did well go dry:	No		

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	1110	1115	1120	1125	1130	1135	1140	1145	1150	1155
Volume Purged (Gal)	~~0.5~~ 0.2	0.2	0.40	0.55	0.7	0.9	1.1	1.3	1.5	1.7
Rate (mL/min)	180	180	180	180	180	180	180	180	180	180
Depth to Water (ft.)	6.57	6.58	6.58	6.58	6.58	6.58	6.58	6.58	6.58	6.58
pH	6.71	6.81	6.85	6.89	6.91	6.89	6.92	6.92	6.93	6.91
Temp. (C)	18.41	19.70	19.74	19.73	19.69	19.69	19.69	19.65	19.37	19.50
Conductivity (mS/cm)	0.778	0.771	0.763	0.749	0.739	0.733	0.725	0.702	0.689	0.685
Dissolved Oxygen (mg/L)	0.50	0.57	0.47	0.45	0.47	0.50	0.39	0.36	0.36	0.37
ORP (mV)	-147	-142	-147	-150	-153	-155	-154	-155	-155	-154
Turbidity (NTU)	180	173	166	155	145	141	129	120	114	112
Notes:										

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
~~TCL SVOCs~~ PFAS		2	Test America
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: IW-02		Sample Time: 1200	
MS/MSD: Yes ☐		No ☑	
Duplicate: Yes ☐		No ☑	
Duplicate ID —		Dup. Time: —	
Chain of Custody Signed By:			

Problems / Observations

Water in CWO box. NA above well casing.

Initial: screened clear with light brown tint and some suspended particles. Odor: no sheen.

Final: mostly clear. Still strong odor. No sheen

PID = 107.5 ppm

Crum Dykmeer — 2017 GW Sampling

Site — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ATherton — Well ID: IW-03
Client / Job Number: NYSDEC — Date: 11-8-17
Weather: 50s, overcast — Time In: 0780 — Time Out: 0850

Well Information

Depth to Water:	6.71	(feet) (from MP)
Total Depth:	19.40	(feet) (from MP)
Length of Water Column:	(feet)	12.69
Volume of Water in Well:	(gal)	2.06
Intake depth for tubing:	(feet)	14'

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☐
Well Locked:	Yes	☑	No	☐
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE	
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐		

Pump Start Time: 0745
Pump Stop Time: 0845
Water-Quality Meter Type: Horiba
Total Volume Removed: 2.3 (gal)
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0750	0755	0800	0805	0810	0815	0820	0825	S
Volume Purged (Gal)	0.2	0.5	0.7	0.9	1.1	1.3	1.6	~~1.9~~ 1.9	A
Rate (mL/min)	200	200	200	200	200	200	200	200	M
Depth to Water (ft.)	6.79	6.80	6.80	6.80	6.80	6.80	6.80	6.80	D
pH	6.78	6.90	6.93	6.94	6.94	6.95	6.95	6.95	L
Temp. (C)	16.62	18.17	18.81	19.16	19.47	19.68	19.82	19.86	E
Conductivity (mS/cm)	2.67	2.44	1.99	1.73	1.57	1.46	1.43	1.41	@ 0830
Dissolved Oxygen (mg/L)	0.95	0.79	0.72	0.67	0.63	0.56	0.54	0.52	
ORP (mV)	-87	-118	-121	-122	-125	-125	-124	-124	
Turbidity (NTU)	113	110	84	70	54	38	29	26	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFAS		2	
~~Total Cyanide~~			
Color:			
Odor:			
Appearance:			
Sample ID: IW-03		Sample Time: 0830	
MS/MSD: Yes ☐		No ☑	
Duplicate: Yes ☐		No ☑	
Duplicate ID –		Dup. Time: –	
Chain of Custody Signed By:			

Problems / Observations

Initial: Mostly clear with slight light brown tint. Strong odor. No visible sheen.

Final: Mostly clear. Still has an odor. ~~No sheen.~~ Slight sheen in purge bucket

PID = 23.3 ppm

Crown Dyckman — 2017 GW Sampling

Site — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: A Thomas
Client / Job Number: NYSDEC 80216647.0000
Weather: 60's, overcast
Well ID: MW-1
Date: 11-2-17
Time In: 1120 Time Out: 1250

Well Information

Depth to Water: 0.00 (feet) (from MP)
Total Depth: 5.85 (feet) Sediment on bottom (from MP)
Length of Water Column: (feet) 5.85
Volume of Water in Well: (gal) 0.953
Intake depth for tubing: (feet) 2.5

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☐	No	☑
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon	☐ HDPE
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 1130
Pump Stop Time: 1245
Total Volume Removed: 30 (gal)
Water-Quality Meter Type: Honda
Did well go dry: NO

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1210	1215	1220	1225	1230	S			
Volume Purged (Gal)	0.5	0.8	1.1	1.4	1.7	A			
Rate (mL/min)	250	250	250	250	250	M			
Depth to Water (ft.)	0.00	0.00	0.00	0.00	0.00	P			
pH	6.69	6.71	6.72	6.72	6.72	L			
Temp. (C)	18.23	18.13	18.44	18.42	18.43	E			
Conductivity (mS/cm)	1.19	1.18	1.19	1.20	1.20	@			
Dissolved Oxygen (mg/L)	0.54	0.36	0.34	0.33	0.33	1235			
ORP (mV)	21	10	-6	-11	-13				
Turbidity (NTU)	173	142	97.1	86.4	88.9				
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
TCL ~~SVOCs~~ PFAS		2	
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-1	Sample Time: 1235		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID: -	Dup. Time: -		
Chain of Custody Signed By:			

Problems / Observations

Initial; dark brown like sediment. Very cloudy and no transparency - will let it run until visibly clears before plugging in Honda flow through cell. Plugged it in @ 1205

PID - 0.0 ppm

Crown Aykman — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ATnomas
Client / Job Number: NYSDEC 00266417.0000
Weather: 60s, overcast

Well ID: MW-7D
Date: 11-2-17
Time In: 0905 Time Out: 1115

Well Information

Depth to Water: 2.00 (feet) (from MP)
Total Depth: 26.8 (feet) (from MP)
Length of Water Column: 24.8 (feet)
Volume of Water in Well: 4.04 (gal)
Intake depth for tubing: 22 (feet)

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" (2") Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 0925
Pump Stop Time: 1100
Total Volume Removed: 4.3 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: No

Conversion Factors	1" ID	2" ID	4" ID	6" ID
gal / ft. of water	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0930	0935	0945	0955	1005	1015	1025	1035	1045
Volume Purged (Gal)	0.3	0.75	1.2	1.6	2.0	2.4	3.0	3.5	4.0
Rate (mL/min)	160	200	200	200	200	200	200	200	200
Depth to Water (ft.)	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04
pH	|	6.48	6.54	6.56	6.57	6.57	6.59	6.59	6.59
Temp. (C)	|	17.45	17.63	17.71	17.74	17.79	17.80	17.82	17.86
Conductivity (mS/cm)	|	1.15	1.14	1.14	1.13	1.12	1.12	1.12	1.12
Dissolved Oxygen (mg/L)	|	0.69	0.63	0.58	0.50	0.46	0.44	0.42	0.41
ORP (mV)	|	93	80	46	0	-16	-29	-31	-33
Turbidity (NTU)	|	83.1	67.4	38.9	22.2	21.7	18.4	15.6	12.4
Notes:	Horiba not plugged in until 0935 due to turbidity.	raised rate							

SAMPLE @ 1050

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
TCL ~~SVOCs~~ PFAS		2	
Total Cyanide			

Color:
Odor:
Appearance:

Sample ID: MW-7D Sample Time: 1050
MS/MSD: Yes ☑ No ☐
Duplicate: Yes ☐ No ☑
Duplicate ID Dup. Time:
Chain of Custody Signed By: [signature]

Problems / Observations

Notes: when opening the well cover, curb box filled with water. Some sheen present AT removed water before opening j-plug

Initial: mostly cloudy particles visible. faint odor. No visible sheen

PID = 0.0 ppm

Crun Dynamen — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: A Thomas
Client / Job Number: NYSDEC 002606417.0000
Weather: 60-70's, sun + clouds

Well ID: MW-1DD
Date: 11-2-17
Time In: 1255
Time Out: ~~[illegible]~~ 1410

Well Information

Depth to Water: 3.09 (feet) (from MP)
Total Depth: 32.66 (feet) (from MP)
Length of Water Column: (feet) 29.57
Volume of Water in Well: (gal) 4.82
Intake depth for tubing: (feet) 28

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" (2") Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 1310
Pump Stop Time: 1410
Water-Quality Meter Type: Horiba
Total Volume Removed: 2 (gal)
Did well go dry: No

Conversion Factors	1" ID	2" ID	4" ID	6" ID
gal / ft. of water	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1315	1320	1325	1330	1335	1340	1345	1350	S
Volume Purged (Gal)	0.25	0.4	0.6	0.8	1.0	1.2	1.5	1.7	A
Rate (mL/min)	200	200	200	200	200	200	200	200	M
Depth to Water (ft.)	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	P
pH	6.63	6.56	6.49	6.40	6.36	6.37	6.39	6.40	L
Temp. (C)	19.62	19.11	18.80	18.67	18.50	18.47	18.49	18.45	E
Conductivity (mS/cm)	1.33	1.32	1.29	1.26	1.24	1.23	1.23	1.20	@
Dissolved Oxygen (mg/L)	1.49	1.30	1.14	1.03	0.98	0.95	0.92	0.88	1355
ORP (mV)	-35	-35	-34	-33	-33	-36	-39	-42	
Turbidity (NTU)	210	205	183	160	143	113	103	95.0	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFAS		2	
Total Cyanide			

Color:
Odor:
Appearance:
Sample ID: MW-1DD Sample Time: 1355
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID — Dup. Time: —
Chain of Custody Signed By: [signature]

Problems / Observations

Initial: somewhat clear but mostly cloudy, particles suspended. No strong odor. No visible sheen

Final: mostly clear, no odor or visible sheen

PID = 1.0ppm

Site: Crown Dykman

Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 60266417.0000
Weather: Cloudy 41 °F

Well ID: MW-2
Date: 11/8/17
Time In: 0715 Time Out: 0815

Well Information

Depth to Water:	(feet)	5.28	(from MP)
Total Depth:	(feet)	23.68	(from MP)
Length of Water Column:	(feet)	18.40	
Volume of Water in Well:	(gal)	2.99	
Intake depth for tubing:	(feet)	~22.5	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑	
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐	

Pump Start Time: 0720
Pump Stop Time: 0810
Total Volume Removed: (gal) ~1.75
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0725	0730	0735	0740	0745	0750	0755	0800	
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75	
Rate (mL/min)									
Depth to Water (ft.)	5.28	5.90	6.10	6.22	6.29	6.29	6.29	6.29	
pH	6.37	6.62	6.71	6.74	6.75	6.75	6.74	6.75	
Temp. (C)	17.75	18.42	18.72	18.75	18.83	18.79	18.80	18.82	
Conductivity (mS/cm)	0.315	0.270	0.260	0.254	0.251	0.254	0.255	0.255	
Dissolved Oxygen (mg/L)	7.30	3.44	3.12	2.95	2.80	2.60	2.55	2.48	
ORP (mV)	20	-16	-6	17	31	40	46	49	
Turbidity (NTU)	226	168	122	97	71.5	66.3	62.1	59.8	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			

Color: None
Odor: None
Appearance: Clear
Sample ID: MW-2 Sample Time: 0805
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By:

Problems / Observations

* Headspace 0.4 ppm
* Sampled for VOCs + PFCs

Site: Crown Dykman

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-3
Client / Job Number: 0026641.0000
Date: 11/7/17
Weather: Sunny
Time In: 0845 Time Out: 0945

Well Information

Depth to Water:	(feet)	9.79	(from MP)
Total Depth:	(feet)	19.89	(from MP)
Length of Water Column:	(feet)	10.10	
Volume of Water in Well:	(gal)	16.62	
Intake depth for tubing:	(feet)	~19	

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☑	No	☐
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 0850
Pump Stop Time: 0940
Total Volume Removed: (gal) ~1.50
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID (circled)	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0900	0905	0910	0915	0920	0925	0930		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.0	1.25	1.50		
Rate (mL/min)									
Depth to Water (ft.)	9.79	9.80	9.80	9.80	9.80	9.80	9.80		
pH	6.25	6.20	6.18	6.16	6.15	6.12	6.10		
Temp. (C)	16.08	16.11	16.15	16.12	16.17	16.15	16.16		
Conductivity (mS/cm)	0.803	0.801	0.799	0.798	0.798	0.796	0.7		
Dissolved Oxygen (mg/L)	5.08	2.47	2.31	2.22	2.18	2.15	2.11		
ORP (mV)	-11	19	34	47	55	59	60		
Turbidity (NTU)	61.7	29.3	29.8	24.1	22.1	16.5	14.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			

Color: Slightly Tan
Odor: None
Appearance: Slightly Cloudy
Sample ID: MW-3 Sample Time: 0935
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By:

Problems / Observations

- Headspace: 0.2 ppm
- Sampled for VOCs + PFCs

Site: Crown Dykman | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-4R
Client / Job Number: 00266417.0000
Date: 11/2/17
Weather: Cloudy 67°F
Time In: 1300 Time Out: 1315

Well Information

Depth to Water:	(feet)	1.00	(from MP)
Total Depth:	(feet)	19.45	(from MP)
Length of Water Column:	(feet)	18.45	
Volume of Water in Well:	(gal)	3.00	
Intake depth for tubing:	(feet)	18.45	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☑	No	☐	
Measuring Point Marked:	Yes	☐	No	☑	
Well Diameter:	1"	(2")	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 1300
Pump Stop Time: 1310
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal) ~55
Did well go dry: No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1030	1300							
Volume Purged (Gal)	~55	~55							
Rate (mL/min)									
Depth to Water (ft.)									
pH		7.34							
Temp. (C)		20.51							
Conductivity (mS/cm)		0.520							
Dissolved Oxygen (mg/L)		9.96							
ORP (mV)		~~-175~~ ← -159							
Turbidity (NTU)	41.4	58.3							
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			

Color: None
Odor: None
Appearance: Clear
Sample ID: MW-4R Sample Time: 1300
MS/MSD: Yes ☐ No ☐
Duplicate: Yes ☑ No ☐
Duplicate ID DUP-1 Dup. Time: 1300
Chain of Custody Signed By:

Problems / Observations

Site: Crown Dykman | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 00266417.0000
Weather: Cloudy 63°F
Well ID: MW-5R
Date: 11/6/17
Time In: 1120 Time Out: 1215

Well Information

Depth to Water:	(feet)	8.71	(from MP)
Total Depth:	(feet)	25.09	(from MP) TOC
Length of Water Column:	(feet)	16.38	
Volume of Water in Well:	(gal)	2.66	
Intake depth for tubing:	(feet)	~24.0	

Well Type:	Flush mount	☐	Stick-Up	☑	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☑	No	☐	
Measuring Point Marked:	Yes	☐	No	☑	
Well Diameter:	1"	2" (circled)	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 1130
Pump Stop Time: 1210
Total Volume Removed: (gal) ~1
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1130	1135	1140	1145	1150	1155	1200		
Volume Purged (Gal)	0	0.125	0.250	0.375	0.500	0.625	0.750		
Rate (mL/min)									
Depth to Water (ft.)	8.71	9.43	9.67	9.92	10.20	10.30	10.38		
pH	5.74	6.10	6.15	6.21	6.23	6.21	6.22		
Temp. (C)	17.07	17.54	17.68	17.80	17.87	17.96	18.06		
Conductivity (mS/cm)	0.962	0.870	0.854	0.842	0.837	0.832	0.826		
Dissolved Oxygen (mg/L)	6.10	5.04	4.95	4.53	4.17	3.87	3.63		
ORP (mV)	100	28	20	16	16	15	10		
Turbidity (NTU)	38.0	37.8	38.0	39.7	36.8	36.1	36.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: None			
Odor: None			
Appearance: Clear			
Sample ID: MW-5R	Sample Time: 1205		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

* Head space : 0.2 ppm
* Sampled for VOCs + PFCs

Crown Dykman
Site

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Amends
Client / Job Number: NYSDEC 00266417.0000
Weather: 50's, overcast

Well ID: MW-6R
Date: 11-7-17
Time In: 1425 **Time Out:** 1635
resume @ 1515

Well Information

Depth to Water:	6.67 (feet)	(from MP)
Total Depth:	14.09 (feet)	(from MP)
Length of Water Column:	(feet) 7.42	
Volume of Water in Well:	(gal) 0.304	
Intake depth for tubing:	(feet) ~10'	

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☐	No	☑
Measuring Point Marked:	Yes	☑	No	☐
Well Diameter:	(1")		2" Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE	
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐		

Pump Start Time: 1515
Pump Stop Time: 1625
Total Volume Removed: 2.5 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	1520	1525	1530	1535	1540	1545	1550	1555	1600	1605
Volume Purged (Gal)	0.2	0.4	0.6	0.7	1.00	1.2	1.4	1.7	1.9	2.1
Rate (mL/min)	180	180	180	180	180	180	180	180	180	180
Depth to Water (ft.)	6.85	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88
pH	6.66	6.76	6.79	6.86	6.88	6.89	6.89	6.90	6.90	6.90
Temp. (C)	19.75	20.58	20.81	20.94	21.07	21.20	21.26	21.31	21.33	21.41
Conductivity (mS/cm)	0.777	0.749	0.700	0.678	0.644	0.626	0.614	0.607	0.599	0.599
Dissolved Oxygen (mg/L)	1.63	0.93	0.60	0.51	0.43	0.38	0.37	0.31	0.33	0.32
ORP (mV)	-157	-168	-180	-184	-187	-189	-190	-190	-190	-191
Turbidity (NTU)	82.2	52.4	27.4	22.3	15.1	13.4	11.7	12.0	12.3	11.9
Notes:	sample @ 1610									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
~~TCL SVOCs~~ PFCs		2	~~Test America~~
~~Total Cyanide~~			
Color:			
Odor:			
Appearance:			
Sample ID: MW-6R		Sample Time: 1610	
MS/MSD: Yes ☐		No ☑	
Duplicate: Yes ☐		No ☑	
Duplicate ID –		Dup. Time: –	
Chain of Custody Signed By:			

Problems / Observations

Initial: Slightly cloudy light brown tint with small suspended particles. Strong odor. No visible sheen
Final: Clear, still has an odor. No sheen

PID - 0.5 ppm

Crown Dynaman
Site

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: AThomas
Client / Job Number: NYSDEC 0026641 7.0000
Weather: 50-60's, cloudy/sunny

Well ID: MW-7
Date: 10-31-17
Time In: 1015 **Time Out:** 1145

Well Information

Depth to Water: 3.25 (feet) (from MP)
Total Depth: 12.35 (feet) (from MP)
Length of Water Column: 9.1 (feet)
Volume of Water in Well: (gal) 1.48
Intake depth for tubing: ~10 (feet)

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☐	No	☑
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ ~~Polyethylene~~ ☑ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 1035
Pump Stop Time: 1130
Total Volume Removed: 2.5 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1040	1045	1050	1055	1100	1105	1110	1115	S
Volume Purged (Gal)	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	A
Rate (mL/min)	200	200	200	200	200	200	200	200	M
Depth to Water (ft.)	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	P
pH		6.60	6.69	6.75	6.76	6.78	6.78	6.79	L
Temp. (C)		16.99	17.31	17.59	17.64	17.73	17.77	17.81	E
Conductivity (mS/cm)		0.612	0.601	0.596	0.594	0582	0.572	0.566	@1120
Dissolved Oxygen (mg/L)		3.17	3.11	2.99	2.85	2.83	2.73	2.68	
ORP (mV)		86	86	85	~~88~~ 83	83	82	82	
Turbidity (NTU)		0.0	0.0	0.0	0.0	0.0	0.0	6.6	
Notes:	Horiba not plugged in until 1045								

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
~~TCL SVOCs~~ PFCs			
Total ~~Cyanide~~			
Color:			
Odor:			
Appearance:			
Sample ID: MW-7	Sample Time: 1120		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

Initial: clear, no odor, no visible sheen. No injection fluid visible

Final: clear, no odor. no visible sheen. No injection fluid visible

PID: 0.0ppm

Site: Crown Dykman — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-8
Client / Job Number: 0026641 7.0000
Date: 11/6/17
Weather: Cloudy 65°F
Time In: 1325 Time Out: 1420

Well Information

Depth to Water:	(feet)	6.64	(from MP)
Total Depth:	(feet)	14.62	(from MP)
Length of Water Column:	(feet)	7.98	
Volume of Water in Well:	(gal)	1.30	
Intake depth for tubing:	(feet)	~13.5	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☑	No	☐	
Measuring Point Marked:	Yes	☐	No	☑	
Well Diameter:	1"	(2")	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon	☐ HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 1335
Pump Stop Time: 1415
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal) 1.50
Did well go dry: No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1335	1340	1345	1350	1355	1400	1405		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)									
Depth to Water (ft.)	6.64	7.09	7.12	7.12	7.12	7.12	7.12		
pH	6.55	6.54	6.54	6.53	6.53	6.52	6.52		
Temp. (C)	18.86	18.75	18.70	18.70	18.72	18.71	18.71		
Conductivity (mS/cm)	0.656	0.650	0.648	0.646	0.644	0.642	0.642		
Dissolved Oxygen (mg/L)	3.53	3.55	3.45	3.51	3.47	3.41	3.39		
ORP (mV)	-184	-194	-199	-200	-201	-201	-201		
Turbidity (NTU)	13.8	15.0	15.6	14.7	17.3	18.8	18.8		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			

Color: ~~Clear~~ None
Odor: Present
Appearance: Clear, Sheen and product
Sample ID: MW-8 Sample Time: 1410
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By:

Problems / Observations

★ Head space: 315.7 ppm
★ Sampled for VOCs + PFCs

DTP:
DTW:

Site: Crown Dykman

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Attorney
Client / Job Number: NYSDEC 60266417.0000
Weather: 60's, overcast

Well ID: MW-10D
Date: 11-6-17
Time In: 1235 Time Out: 1335

Well Information

Depth to Water:	4.56	(feet) (from MP)
Total Depth:	20.40	(feet) (from MP)
Length of Water Column:	15.84	(feet)
Volume of Water in Well:	2.58	(gal)
Intake depth for tubing:	15	(feet)

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☐	No	☑
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder ☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene ☐	Teflon	☐ HDPE ~~PVC~~
Sampling Method:	Bailer	☐	Peristaltic ☑	Bladder	☐

Pump Start Time: 1240
Pump Stop Time: 1325
Total Volume Removed: 1.3 (gal)

Water-Quality Meter Type: Horiba
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1245	1250	1255	1300	1305	1310	S		
Volume Purged (Gal)	0.2	0.4	0.6	0.8	0.9	1.0	A		
Rate (mL/min)	~~200~~ 160	160	120	120	120	120	M		
Depth to Water (ft.)	5.58	6.35	6.38	6.38	6.38	6.38	P		
pH	6.56	6.54	6.54	6.54	6.55	6.55	L		
Temp. (C)	19.22	19.19	19.29	19.30	19.30	19.30	E		
Conductivity (mS/cm)	1.26	1.26	1.28	1.29	1.30	1.30	@		
Dissolved Oxygen (mg/L)	1.51	1.16	0.69	0.60	0.65	0.62	1315		
ORP (mV)	-28	-25	-29	-31	-34	-34			
Turbidity (NTU)	47.8	43.2	38.0	26.4	38.6	35.3			
Notes:			turned down rate						

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
~~TCL SVOCs~~ PFAs		2	Test America
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-10D	Sample Time: 1315		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID: —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

Initial: mostly clear w slight cloudiness
No odor or sheen noticed.

Final: mostly clear, no sheen, no odor

AD: 0.0ppm

Site: Crown Dykman

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Atnona **Well ID:** MW-10S
Client / Job Number: NYSDEC 002606417.0000 **Date:** 11-6-17
Weather: 60's, cloudy, little rain **Time In:** 1105 **Time Out:** 1240

Well Information

Depth to Water: 4.82 (feet) (from MP)	Well Type:	Flush mount ☑ Stick-Up ☐
Total Depth: 12.95 (feet) (from MP)	Well Material:	Stainless Steel ☐ PVC ☑
Length of Water Column: 8.13 (feet)	Well Locked:	Yes ☐ No ☑
Volume of Water in Well: (gal) 1.32	Measuring Point Marked:	Yes ☑ No ☐
Intake depth for tubing: (feet) 8'	Well Diameter:	1" (2") Other:

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑	
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐	

Pump Start Time: 1135
Pump Stop Time: 1230 Water-Quality Meter Type: Horiba
Total Volume Removed: (gal) 1.8 Did well go dry: NO

Conversion Factors	1" ID	2" ID	4" ID	6" ID
gal / ft. of water	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1145	1150	1155	1200	1205	1210	S		
Volume Purged (Gal)	0.3	0.5	0.8	1.1	1.4	1.65	A		
Rate (mL/min)	200	200	200	200	200	200	M		
Depth to Water (ft.)	4.95	4.96	4.96	4.96	4.96	4.96	P		
pH	6.60	6.65	6.68	6.69	6.70	6.71	L		
Temp. (C)	18.52	18.72	18.85	18.94	19.00	19.05	E		
Conductivity (mS/cm)	1.19	1.19	1.19	1.18	1.18	1.18	@ 1215		
Dissolved Oxygen (mg/L)	0.66	0.61	0.57	0.54	0.51	0.50			
ORP (mV)	-63	-74	-72	-68	-64	-60			
Turbidity (NTU)	44.7	17.6	4.93	6.00	0.06	0.27			
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFAS		2	
Total Cyanide			

Color:
Odor:
Appearance:
Sample ID: MW-10S Sample Time: 1215
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID — Dup. Time: —
Chain of Custody Signed By: [signature]

Problems / Observations

Initial: mostly clear w/ slight brown tint and some suspended particles. No odor or sheen.

Final: clear, no odor, no sheen

PID: 0.2ppm

Site: Crown Dykman

Event: 2017 GW Sampling

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 00266 417.0000
Weather: Cloudy 65°F

Well ID: MW-11
Date: 11/6/17
Time In: 1435 Time Out: 1545

Well Information

Depth to Water:	(feet)	4.24	(from MP)
Total Depth:	(feet)	9.18	(from MP)
Length of Water Column:	(feet)	3.32	
Volume of Water in Well:	(gal)	0.13	
Intake depth for tubing:	(feet)	~8	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☐	No	☑	
Measuring Point Marked:	Yes	☐	No	☑	
Well Diameter:	(1")		2"	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 1445
Pump Stop Time: 1510
Total Volume Removed: (gal) ~0.90
Water-Quality Meter Type: Horiba U-53
Did well go dry: Yes

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1450	1455	1500	1505	1510				
Volume Purged (Gal)	0	0.25	0.50	0.75	0.90				
Rate (mL/min)									
Depth to Water (ft.)	4.24	5.26	5.75	6.25	~~6.~~				
pH	6.78	6.77	6.74	6.69	6.74				
Temp. (C)	18.77	18.30	18.27	18.27	18.30				
Conductivity (mS/cm)	1.13	1.14	1.14	1.14	1.14				
Dissolved Oxygen (mg/L)	4.18	4.43	3.60	2.59	2.49				
ORP (mV)	-129	-173	-181	-199	-203				
Turbidity (NTU)	188	132	79.9	39.3	50.4				
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: None			
Odor: ~~None~~ Present			
Appearance: Clear			
Sample ID: MW-11	Sample Time: 1535		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID: —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

* Head space: 0.6
* Well Sampled for VOCs + PFCs
* 1510 well dry
  ↳ ES allows time to recharge
* 1535 ES Samples MW-11

Site: Crown Dykman — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-13
Client / Job Number: 0826 6417.0000
Date: 11/7/17
Weather: Sunny 43°F
Time In: 0730 Time Out: 0835

Well Information

Depth to Water:	(feet)	5.08	(from MP)
Total Depth:	(feet)	12.22	(from MP)
Length of Water Column:	(feet)	7.14	
Volume of Water in Well:	(gal)	0.29	
Intake depth for tubing:	(feet)	~ 11.5	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☐	No	☑	
Measuring Point Marked:	Yes	☐	No	☑	
Well Diameter:	1"	2"	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 0740
Pump Stop Time: 0830
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal) ~1.75
Did well go dry:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0745	0750	0755	0800	0805	0810	0815	0820	
Volume Purged (Gal)	0	0.25	0.50	0.75	1.0	1.25	1.50	1.75	
Rate (mL/min)									
Depth to Water (ft.)	5.08	5.29	5.48	5.51	5.51	5.51	5.51	5.51	
pH	6.46	6.59	6.68	6.74	6.76	6.78	6.78	6.78	
Temp. (C)	17.26	17.63	18.01	18.21	18.30	18.43	18.43	18.55	
Conductivity (mS/cm)	0.675	0.664	0.652	0.650	0.652	0.652	0.654	0.654	
Dissolved Oxygen (mg/L)	2.13	1.91	1.86	1.71	1.66	1.60	1.58	1.56	
ORP (mV)	-155	-166	-173	-178	-180	-183	-184	-185	
Turbidity (NTU)	125	120	113	105	88.8	113	108	103	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: ~~None~~ Slightly Tan			
Odor: None			
Appearance: ~~Clear~~ Slightly Cloudy			
Sample ID: MW-13 Sample Time: 0825			
MS/MSD: Yes ☐ No ☑			
Duplicate: Yes ☐ No ☑			
Duplicate ID — Dup. Time: —			
Chain of Custody Signed By:			

Problems / Observations

★ Headspace: 0.3 ppm
★ Well sampled for VOCs + PFCs

Site: Crown Pykman | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 60266417.0000
Weather: Cloudy 42°F

Well ID: MW-14R
Date: 11/8/17
Time In: 0900 Time Out: 1025

Well Information

Depth to Water:	(feet)	5.63	(from MP)
Total Depth:	(feet)	12.25	(from MP)
Length of Water Column:	(feet)	6.90	
Volume of Water in Well:	(gal)	1.12	
Intake depth for tubing:	(feet)	~11.25	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE ☑		
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐			

Pump Start Time: 0910
Pump Stop Time: 1020
Total Volume Removed: (gal)
Water-Quality Meter Type: Horiba U-53
Did well go dry:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0910	0915	0920	0925	0930	0935	0940	0945	0950
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Rate (mL/min)									
Depth to Water (ft.)	5.63	6.60	6.80	7.00	7.21	7.31	7.31	7.31	7.31
pH	6.45	6.47	6.47	6.47	6.49	6.50	6.51	6.53	6.54
Temp. (C)	18.46	18.67	19.07	19.37	19.54	19.61	19.63	19.60	19.55
Conductivity (mS/cm)	0.660	0.600	0.528	0.549	0.587	0.670	0.731	0.775	0.815
Dissolved Oxygen (mg/L)	3.57	2.45	2.01	2.00	2.03	2.24	2.40	2.52	2.64
ORP (mV)	-180	-190	-189	-189	-200	-208	-213	-217	-220
Turbidity (NTU)	193	139	58.1	13.1	2.93	0	0	0.47	0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			

Color: None
Odor: Odor Present
Appearance: Clear – Sheen Present
Sample ID: MW-14R Sample Time: 1015
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By:

Problems / Observations

* Headspace 100.3 ppm
* Well Sampled for VOCs + PFCs

MW-14R Continued

2017 GW Sampling

Site: Crown Dykman

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-14R
Client / Job Number: 00366417.0000
Date: 11/8/17
Weather: Cloudy 42°F
Time In: 0900 Time Out: 1025

Well Information

Depth to Water:	(feet)	5.63	(from MP)
Total Depth:	(feet)	12.25	(from MP)
Length of Water Column:	(feet)	6.90	
Volume of Water in Well:	(gal)	1.12	
Intake depth for tubing:	(feet)	~11.25	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☐	No	☑	
Measuring Point Marked:	Yes	☐	No	☑	
Well Diameter:	1"	(2")	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 0910
Pump Stop Time: 1020
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal)
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0955	1000	1005	1010					
Volume Purged (Gal)	2.25	2.50	2.75	3.00					
Rate (mL/min)									
Depth to Water (ft.)	7.31	7.31	7.31	7.31					
pH	6.53	6.54	6.54	6.54					
Temp. (C)	19.63	19.63	19.66	19.66					
Conductivity (mS/cm)	0.877	0.856	0.871	0.879					
Dissolved Oxygen (mg/L)	2.68	2.71	2.75	2.79					
ORP (mV)	-222	-223	-224	-225					
Turbidity (NTU)	0	0	0	0					
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: None			
Odor: Odor Present			
Appearance: Clear - Sheen Present			
Sample ID: MW-14R Sample Time: 1015			
MS/MSD: Yes ☐ No ☑			
Duplicate: Yes ☐ No ☑			
Duplicate ID — Dup. Time: —			
Chain of Custody Signed By:			

Problems / Observations

* Headspace 100.3 ppm
* Well Sampled for VOCs + PFCs

Crown Dykman — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: AThames
Client / Job Number: NYSDEC 0026066417.0000
Well ID: MW-15R
Date: 11-8-17
Weather: 50s, overcast
Time In: 1015 **Time Out:** 1150

Well Information

Depth to Water:	6.43 (feet)	(from MP)
Total Depth:	12.16 (feet)	(from MP)
Length of Water Column:	(feet) 5.73	
Volume of Water in Well:	(gal) 0.93	
Intake depth for tubing:	(feet) ~~9~~ 9'	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☑		No ☐	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐ HDPE
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐

Pump Start Time: 1032
Pump Stop Time: 1140
Total Volume Removed: 2.2 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	1035	1040	1045	1050	1055	1100	1105	1110	1115	1120
Volume Purged (Gal)	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
Rate (mL/min)	250	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	7.83	8.09	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39
pH	6.78	6.82	6.83	6.82	6.81	6.80	6.80	6.80	6.80	6.80
Temp. (C)	21.82	22.58	22.71	22.98	22.96	22.95	22.66	22.94	22.92	22.93
Conductivity (mS/cm)	1.41	1.31	1.15	1.08	1.02	1.01	1.01	1.01	0.998	0.999
Dissolved Oxygen (mg/L)	1.55	1.00	1.02	~~5~~ 3.40	4.97	4.58	4.12	3.68	3.39	3.38
ORP (mV)	-160	-167	-169	-168	-166	-167	-167	-167	-167	-167
Turbidity (NTU)	14.4	8.99 lowered rate	8.25	7.36	0.00	0.00	0.00	0.00	0.00	0.00
Notes:				Sample @ 1125						

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFAS		2	
~~Total Cyanide~~ PFAS			
Color:			
Odor:			
Appearance:			
Sample ID: MW-15R	Sample Time: 1125		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID: -	Dup. Time: -		
Chain of Custody Signed By:			

Problems / Observations

Initial: mostly clear with some suspended particles. Slight odor No sheen

Final: Clear. Still has an odor. No sheen.

PID = 149.0ppm

Crum Bykman
Site

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Thomas
Client / Job Number: MDEC 0026641 7.0000
Weather: 50's, overcast

Well ID: MW-16R
Date: 11-1-17
Time In: 1205 Time Out: 1355

Well Information

Depth to Water: 6.79 (feet) (from MP)
Total Depth: 10.15 (feet) (from MP)
Length of Water Column: (feet) 3.36
Volume of Water in Well: (gal) 0.546
Intake depth for tubing: (feet) 8

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 1225
Pump Stop Time: 1340
Total Volume Removed: 1.1 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: No, WL did continue to drop however purged more than 2 well volumes

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	1230	1235	1240	1250	1255	1300	1305	1310	1315	1320
Volume Purged (Gal)	0.1	0.3	0.3	0.5	0.6	0.7	0.8	0.9	1.0	1.1
Rate (mL/min)	160	150	100	100	100	100	100	100	100	100
Depth to Water (ft.)	7.26	8.0	8.01	8.43	8.76	8.95	9.06	9.15	9.20	9.81
pH		6.26	6.27	6.17	6.24	6.24	6.23	6.23	6.23	6.23
Temp. (C)		21.10	21.18	21.23	21.49	21.61	21.57	21.60	21.87	21.85
Conductivity (mS/cm)		1.57	1.55	1.33	1.35	1.32	1.28	1.28	1.22	1.24
Dissolved Oxygen (mg/L)		0.48	0.45	4.42	4.04	3.83	3.27	3.26	3.25	3.27
ORP (mV)		-177	-167	-163	-174	-176	-176	-178	-174	-178
Turbidity (NTU)		88.2	87.0	103	71.7	59.4	38.1	29.4	22.3	22.1
Notes:			lowered rate							

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
~~TCL SVOCs~~ PCG		2	
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-16R	Sample Time: 1325		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID –	Dup. Time: –		
Chain of Custody Signed By:			

Problems / Observations

Initial: odor, mostly clear, no visible sheen

Final: mostly clear has an odor. No visible sheen

Sample @ 1325

PID = 0.6ppm

Crown Dykeman — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Attorney
Client / Job Number: NYSDEC 0026641 7.0000
Weather: 50's, ~~rain~~ overcast

Well ID: MW-17R
Date: 11-1-17
Time In: 0900 **Time Out:** 1100

Well Information

Depth to Water: 7.12 (feet) (from MP)
Total Depth: 10.2 (feet) (from MP)
Length of Water Column: 3.08 (feet)
Volume of Water in Well: .502 (gal)
Intake depth for tubing: (feet) ~8.5

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☑	No	~~☐~~
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE	
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐		

Pump Start Time: 0925
Pump Stop Time: 1050
Total Volume Removed: 1.9 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	0935	0940	0945	0950	0955	1000	1010	1015	1020	1025
Volume Purged (Gal)	0.3	0.5	0.6	0.7	0.9	1.2	1.3	1.5	1.6	1.7
Rate (mL/min)	120	100	100	100	100	100	100	100	100	100
Depth to Water (ft.)	7.62	7.79	7.79	7.79	7.95	7.95	8.04	8.05	8.05	8.06
pH	6.83	6.86	6.87	6.89	6.91	6.96	6.97	6.97	6.98	6.99
Temp. (C)	20.52	21.09	20.95	21.01	21.54	21.59	21.69	21.75	21.77	21.81
Conductivity (mS/cm)	0.931	0.884	0.838	0.794	0.748	0.711	0.705	0.698	0.691	0.691
Dissolved Oxygen (mg/L)	1.41	1.17	1.66	1.60	0.72	1.24	0.96	0.64	0.54	0.55
ORP (mV)	-201	-206	-206	-207	-212	-216	-217	-218	-220	-221
Turbidity (NTU)	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0	0.0	0.0
Notes:		lowered rate								

11
1030
1.8
100
8.06
6.99
21.79
0.691
0.54
-221
0.0

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs	3		Test America
~~TCL SVOCs~~ PFAS	2		
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-17R	Sample Time: 1035		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Initial - mostly clear, has an odor. No sheen

Final: clear, faint odor. No sheen

Sample @ 1035

PID: 0.9 ppm

Crown Dyeman — 2017 GW Sampling

Site — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Attorney — Well ID: MW-18
Client / Job Number: NYSDEC 0026064L7.0000 — Date: 11-6-17
Weather: 60s, overcast — Time In: 1335 — Time Out: 1435

Well Information

Depth to Water:	5.15 (feet)	(from MP)
Total Depth:	11.62 (feet)	(from MP)
Length of Water Column:	(feet) 6.47	
Volume of Water in Well:	(gal) 1.05	
Intake depth for tubing:	(feet) ~ 8'	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☐	No	☑	
Measuring Point Marked:	Yes	☐	No	☑	
Well Diameter:	(1")		2"	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder ☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene ☐	Teflon ☐	HDPE
Sampling Method:	Bailer	☐	Peristaltic ☑	Bladder ☐	

Pump Start Time: 1338
Pump Stop Time: 1425
Total Volume Removed: 1.3 (gal)
Water-Quality Meter Type: Horiba
Did well go dry:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1345	1350	1355	1400	1405	1410	S		
Volume Purged (Gal)	0.2	0.5	0.65	0.8	1.0	1.1	A		
Rate (mL/min)	160	160	160	160	160	160	M		
Depth to Water (ft.)	5.22	5.22	5.22	5.22	5.22	5.22	P		
pH	6.71	6.77	6.77	6.77	6.76	6.77	L		
Temp. (C)	20.13	20.16	20.18	20.18	20.17	20.19	E		
Conductivity (mS/cm)	1.18	1.17	1.15	1.14	1.13	1.12	@		
Dissolved Oxygen (mg/L)	0.67	0.60	0.51	0.45	0.43	0.41	1415		
ORP (mV)	-87	-91	-92	-94	-95	-96			
Turbidity (NTU)	68.2	36.5	19.2	11.9	7.28	6.92			
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
TCL ~~SVOCs~~ PFAS		2	
~~Total Cyanide~~			
Color:			
Odor:			
Appearance:			
Sample ID: MW-18	Sample Time: 1415		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

Initial: mostly clear with slight light brown tint. No strong odor or sh
Final: mostly clear. No odor or sheen

PID = 0.0ppm

Crown Dykeman — 2017 GW Sampling

Site — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ATTorney
Client / Job Number: NYSDEC 0026626417.0000
Weather: ~~60s~~, 50's, overcast

Well ID: MW-19
Date: 11-1-17
Time In: 1355 Time Out: 1520

Well Information

Depth to Water:	10.00 (feet)	(from MP)
Total Depth:	12.16 (feet)	(from MP)
Length of Water Column:	(feet) 6.16	
Volume of Water in Well:	(gal) 1.004	
Intake depth for tubing:	(feet) ~10	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☑		No ☐	
Measuring Point Marked:	Yes ☐		No ☐	
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐ HDPE
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐

Pump Start Time: ~~0840~~ 1410
Pump Stop Time: 1515
Total Volume Removed: 2.3 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	1415	1420	1425	1430	1435	1440	1445	1450	1455	1500
Volume Purged (Gal)	0.2	0.35	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
Rate (mL/min)	200	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	6.18	6.15	6.15	6.18	6.18	6.18	6.18	6.18	6.18	6.18
pH	6.70	6.72	6.72	6.70	6.68	6.67	6.66	6.65	6.65	6.65
Temp. (C)	22.53	22.57	22.69	22.76	22.81	22.85	22.88	22.90	22.90	22.92
Conductivity (mS/cm)	0.766	0.762	0.757	0.758	0.758	0.757	0.757	0.758	0.759	0.759
Dissolved Oxygen (mg/L)	1.23	1.39	1.02	0.67	0.49	0.40	0.33	0.29	0.27	0.27
ORP (mV)	-60	-56	-47	-44	-41	-39	-37	-34	-33	-32
Turbidity (NTU)	256	232	170	147	99	66	41	35	27	18
Notes:										

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
TCL ~~SVOCs~~ PFAS		2	
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-19	Sample Time: 1505		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

Initial: brown tint, ~~yellow~~ some cloudiness, Odor. No visible sheen

Final: mostly clear, no visible sheen

Sample @ 1505

PID: 1.2 ppm

Crown Oakmont — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ATTorney
Client / Job Number: NYSDEC 0026647.0000
Weather: 50's, overcast
Well ID: MW-20
Date: 11-1-17
Time In: 1110 **Time Out:**

Well Information

Depth to Water:	(feet)	7.98	(from MP)
Total Depth:	(feet)	8.72	(from MP)
Length of Water Column:	(feet)	0.93	
Volume of Water in Well:	(gal)	0.15	
Intake depth for tubing:	(feet)	8.3	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☑	No	☐	
Measuring Point Marked:	Yes	☑	No	☐	
Well Diameter:	1"	2"	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder ☐	Peristaltic	☑	
Tubing/Bailer Material:	Steel	☐	Polyethylene ☐	Teflon	☐	HDPE
Sampling Method:	Bailer	☐	Peristaltic ☑	Bladder	☐	

Pump Start Time: 1125
Pump Stop Time:
Water-Quality Meter Type: Horiba
Total Volume Removed: 0.15 (gal)
Did well go dry: YES

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1140	1150	1210						
Volume Purged (Gal)	0.1	0.15	—						
Rate (mL/min)	100	200	—						
Depth to Water (ft.)	8.33	8.72							
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:	★MW-20 not sampled due to going dry and not able to recharge successfully★								

★NOT SAMPLED★

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
~~TCL SVOCs~~ PFAS		2	
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-20	Sample Time:		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

MW-20 went dry at 1150. Will let recharge and sample following recharge. No parameters will be taken. Shut pump off at 1152.

Initial: clear, no notable odor/sheen
Final: Same as above.
★ see notes above and in Field Book

PID = 0.0 ppm

ON 11-7-17 checked water level. 8.14

Site: Crown Dykman | Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-21D
Client / Job Number: 00266417.0000
Date: 11/7/17
Weather: Cloudy 48°F
Time In: 1010 Time Out: 1105

Well Information

Depth to Water:	(feet) 2.87	(from MP)
Total Depth:	(feet) 22.60	(from MP)
Length of Water Column:	(feet) 19.73	
Volume of Water in Well:	(gal) 3.21	
Intake depth for tubing:	(feet) ~21.5	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE ☑		
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐			

Pump Start Time: 1015
Pump Stop Time: 1100
Total Volume Removed: (gal) ~1.75
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1015	1020	1025	1030	1035	1040	1045	1050	
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75	
Rate (mL/min)									
Depth to Water (ft.)	2.87	5.06	5.79	6.52	7.43	8.00	8.57	8.98	
pH	6.63	6.62	6.61	6.61	6.62	6.63	6.63	6.64	
Temp. (C)	17.48	17.56	17.71	17.70	17.79	17.81	17.82	17.79	
Conductivity (mS/cm)	0.903	0.892	0.884	0.892	0.904	0.906	0.910	0.920	
Dissolved Oxygen (mg/L)	6.53	2.92	2.68	2.56	2.46	2.38	2.33	2.25	
ORP (mV)	387	420	454	476	492	499	503	507	
Turbidity (NTU)	302	215	152	128	125	117	112	109	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: Purple Tint			
Odor: Slight odor			
Appearance: Slightly Cloudy			
Sample ID: MW-21D	Sample Time: 1055		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID: —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

* Headspace: 0.2 ppm
* Sampled for VOCs + PFCs

Crum Aykmen — 2017 GW Sampling

Site — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Attorneys
Client / Job Number: NYSDEC 00266417.0000
Weather: 60's, sunny

Well ID: MW-21S
Date: 11-3-17
Time In: 1000 Time Out: 1210

Well Information

Depth to Water: 1.74 (feet) (from MP)
Total Depth: 12.52 (feet) (from MP)
Length of Water Column: (feet) 10.78
Volume of Water in Well: (gal) 1.75
Intake depth for tubing: (feet) ~~11~~ 9'

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐

Pump Start Time: 1010
Pump Stop Time: 1155
Total Volume Removed: 5.4 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	
Time	1035	1100	1105	1110	1115	1120	1125	1130	1135	SAMPLE
Volume Purged (Gal)	2.1	3.0	3.3	3.6	4.0	4.3	4.6	4.9	5.1	
Rate (mL/min)	200	200	200	200	200	200	200	200	200	
Depth to Water (ft.)	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	
pH		6.59	6.60	6.74	6.75	6.74	6.73	6.73	6.74	
Temp. (C)		21.47	20.86	21.29	21.41	21.43	21.93	21.98	21.99	
Conductivity (mS/cm)		0.926	0.946	0.954	0.952	0.952	0.952	0.953	0.954	
Dissolved Oxygen (mg/L)		0.44	0.41	0.35	0.36	0.35	0.30	0.30	0.29	1140
ORP (mV)		22	28	24	24	26	27	27	27	
Turbidity (NTU)		960	862	639	586	488	422	389	361	
Notes:	Horiba not plugged in until 1100									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
TCL ~~SVOCs~~ PFAS		2	
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-21S	Sample Time: 1140		
MS/MSD: Yes ☑	No ☐		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Notes:
Initial: very turbid, clay/brown colored liquid. Not very transparent, suspended particles. Will let purge until visibly clears before plugging in Horiba.
Horiba plugged in @ 1100
Final: Resembles permanganate fluid. Clear, Red tint.

Crum Dykman
Site

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ATHoma
Client / Job Number: NYSDEC 0024604 7.0000
Weather: 60's, sunny

Well ID: MW-22(R)D
Date: 11-3-17
Time In: 0825 Time Out: 0950

Well Information

Depth to Water: 2.98 (feet) (from MP)
Total Depth: 29.92 (feet) (from MP)
Length of Water Column: (feet) 26.94
Volume of Water in Well: (gal) 4.39
Intake depth for tubing: (feet) 25'

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 0850
Pump Stop Time: 0945
Total Volume Removed: (gal) 2.7
Water-Quality Meter Type: Horiba
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0855	0900	0905	0910	0915	0920	0925	0930	S
Volume Purged (Gal)	0.5	0.6	0.8	1.1	1.35	1.5	1.7	1.9	A
Rate (mL/min)	200	200	200	200	200	200	200	200	M
Depth to Water (ft.)	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	P
pH	6.17	6.23	6.28	6.24	6.32	6.28	6.30	6.29	L
Temp. (C)	19.65	19.77	19.83	19.83	19.80	19.76	19.68	19.67	E
Conductivity (mS/cm)	0.786	0.779	0.778	0.777	0.774	0.773	0.770	0.770	@
Dissolved Oxygen (mg/L)	1.05	1.07	1.04	1.01	0.96	0.92	0.86	0.89	0935
ORP (mV)	-117	-132	-138	-137	-142	-140	-140	-143	
Turbidity (NTU)	16.1	15.0	16.6	23.1	26.6	28.9	34.2	36.6	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
TCL ~~SVOCs~~ PFAS		2	Test America
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-22(R)D	Sample Time: ~~0930~~ 0935		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID –	Dup. Time: –		
Chain of Custody Signed By:			

Problems / Observations

Initial: mostly clear with some suspended particles. Has an odor. No visible sheen

Final: mostly clear, has an odor No visible sheen

PID = ~~0.0~~ 1.9 ppm

Crown Dyeman — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Athanas
Client / Job Number: NYSDEC 06260617.0000
Weather: 60-70's, clouds & sun

Well ID: MW-22(R) S
Date: 11-2-17
Time In: 1415 Time Out: 1545

Well Information

Depth to Water:	0.6 (feet)	(from MP)
Total Depth:	19.71 (feet)	(from MP)
Length of Water Column:	(feet) 19.11	
Volume of Water in Well:	(gal) 3.11	
Intake depth for tubing:	(feet) 14'	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐ HDPE
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐

Pump Start Time: 1430
Pump Stop Time: 1535
Total Volume Removed: 3.3 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	1435	1440	1445	1450	1500	1505	1510	1515	1520	1525
Volume Purged (Gal)	0.2	0.4	0.6	0.9	1.2 1.5	1.8	2.1	2.4	2.7	2.9
Rate (mL/min)	200	200	200	200	200	200	200	200	zero	200
Depth to Water (ft.)	2.94	~~3.60~~ 3.60	4.10	4.53	4.93	4.96	4.96	4.97	4.97	4.97
pH	6.74	6.75	6.75	6.73	6.70	6.68	6.64	6.64	6.62	6.62
Temp. (C)	23.40	22.96	22.16	21.57	21.65	21.80	21.67	21.67	21.68	21.68
Conductivity (mS/cm)	2.93	2.90	2.86	2.80	2.74	2.74	2.64	2.64	2.67	2.68
Dissolved Oxygen (mg/L)	1.64	1.47	1.24	1.17	1.10	1.02	0.59	0.54	0.50	0.50
ORP (mV)	-12	-22	-35	-53	-66	-68	-72	-78	-78	-78
Turbidity (NTU)	183	171	161	164	141	130	115	112	114	109
Notes:										

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
TCL ~~SVOCs~~ PFAS		2	Test America
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-22(R)S	Sample Time: 1530		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID –	Dup. Time: –		
Chain of Custody Signed By:			

Problems / Observations

Initial: somewhat clear with orange tinted cloudiness. Suspended orange/light brown particles. No noticable sheen or odor

Final: mostly clear, no odor, no sheen
Sample @ 1530

PID = 1.6 ppm

Site: Crown Dykeman | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Athoma
Client / Job Number: NYSDEC 00206417.0000
Weather: 60's, Sunny, windy
Well ID: MW-23D
Date: 10-31-17
Time In: 1205 Time Out: 1345

Well Information

Depth to Water: 2.67 (feet) (from MP)
Total Depth: 19.17 (feet) (from MP)
Length of Water Column: 16.5 (feet)
Volume of Water in Well: (gal) 2.68
Intake depth for tubing: 15 (feet)

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☐	No	☑
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☒
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon	☐ HDPE
Sampling Method:	Bailer	☐	Peristaltic	☒	Bladder	☐

Pump Start Time: 1215
Pump Stop Time: 1320
Water-Quality Meter Type: Horiba
Total Volume Removed: 3.2 (gal)
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1220	1225	1230	1235	1240	1245	1250	1255	1305
Volume Purged (Gal)	0.1	0.8	1.0	1.25	1.5	1.7	2.0	2.25	2.5
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74
pH	6.63	6.62	6.60	6.59	6.58	6.57	6.57	6.57	6.57
Temp. (C)	17.57	17.67	17.86	17.95	18.02	18.19	18.36	18.46	18.73
Conductivity (mS/cm)	0.444	0.452	0.467	0.488	0.508	0.527	0.544	0.550	0.553
Dissolved Oxygen (mg/L)	1.11	1.02	0.91	0.78	0.67	0.62	0.56	0.52	0.51
ORP (mV)	39	36	33	31	31	31	32	32	31
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:									

SAMPLE @ 1310

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-23D	Sample Time: 1310		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID: -	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Initial: Clear, no odor, no visible sheen or injection fluid

Final: Same as above

PID: 0.0 ppm

Crown Ayrerman **2017 GW Sampling**

Site Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: AThomas **Well ID:** MW-235
Client / Job Number: NYSDEC 002666417.0000 **Date:** 10-31-17
Weather: 60's, sunny **Time In:** 1350 **Time Out:**

Well Information

Depth to Water: 2.20 (feet) (from MP)
Total Depth: 12.0 (feet) (from MP)
Length of Water Column: 9.8 (feet)
Volume of Water in Well: 1.59 (gal)
Intake depth for tubing: 8' (feet)

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" (2") Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 1355
Pump Stop Time: Water-Quality Meter Type: Horiba
Total Volume Removed: (gal) Did well go dry:

Conversion Factors	1" ID	2" ID	4" ID	6" ID
gal / ft. of water	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1405	1410	1415	1420	1425	1430	1435	1440	1445
Volume Purged (Gal)	0.3	0.5	0.65	0.9	1.1	1.15	1.4	1.5	1.65
Rate (mL/min)	200	200	200	120 *	120	120	120	120	120
Depth to Water (ft.)	2.93	3.11	3.21	3.61	3.43	3.39	3.32	3.30	3.28
pH	6.42	6.51	6.52	6.55	6.55	6.55	6.55	6.56	6.55
Temp. (C)	17.31	17.28	17.31	17.75	18.03	18.07	18.21	18.36	18.50
Conductivity (mS/cm)	0.701	0.694	0.688	0.678	0.678	0.677	0.673	0.669	0.661
Dissolved Oxygen (mg/L)	4.57	5.12	5.34	4.96	4.13	3.91	3.59	3.45	3.33
ORP (mV)	95	88	87	85	84	83	82	80	77
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:	* lowered rate to 120 after taking WL reading								

SAMPLE @ 1450

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			

Color:
Odor:
Appearance:
Sample ID: MW-235 Sample Time: 1450
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID — Dup. Time: —
Chain of Custody Signed By: [signature]

Problems / Observations

Initial: clear, odorless, no sheen

Final: clear odorless, no sheen

PID: 0.0ppm

Site: Crown Dykman — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 0026641.7.0000
Weather: Cloudy 48°F

Well ID: MW-25D
Date: 11/7/17
Time In: 1440 Time Out: 1550

Well Information

Depth to Water:	(feet)	6.32	(from MP)
Total Depth:	(feet)	30.0	(from MP)
Length of Water Column:	(feet)	23.68	
Volume of Water in Well:	(gal)	3.85	
Intake depth for tubing:	(feet)	~ 29	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑	
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE ☑
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐	

Pump Start Time: 1450
Pump Stop Time: 1545
Total Volume Removed: (gal) 22.0
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1455	1500	1505	1510	1515	1520	1525	1530	1535
Volume Purged (Gal)	~~6.320~~	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Rate (mL/min)									
Depth to Water (ft.)	6.32	6.65	6.68	6.72	6.74	6.69	6.71	6.71	6.71
pH	6.09	6.30	6.40	6.45	6.48	6.51	6.53	6.54	6.55
Temp. (C)	17.12	17.34	17.43	17.40	17.44	17.41	17.43	17.45	17.43
Conductivity (mS/cm)	0.766	0.772	0.772	0.774	0.775	0.776	0.775	0.775	0.774
Dissolved Oxygen (mg/L)	3.20	2.00	1.83	1.82	1.76	1.71	1.73	1.71	1.70
ORP (mV)	250	-94	-138	-152	-158	-163	-167	-169	-171
Turbidity (NTU)	108	84.9	53.0	30.0	26.6	22.6	13.0	12.4	12.0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: None			
Odor: Slight Odor			
Appearance: Clear			
Sample ID: MW-250	Sample Time: 1540		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID ____	Dup. Time: ____		
Chain of Custody Signed By:			

Problems / Observations

* ~~Field~~ Headspace: 7.9 ppm
* Sampled for VOCs + PFCs

Site: Crown Dykman | Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-25S
Client / Job Number: 00266417.0000
Date: 11/7/17
Weather: Cloudy 48°F
Time In: 1300 Time Out: 1405

Well Information

Depth to Water:	(feet)	4.05	(from MP)
Total Depth:	(feet)	20.0	(from MP)
Length of Water Column:	(feet)	15.95	
Volume of Water in Well:	(gal)	2.59	
Intake depth for tubing:	(feet)	~19	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐

Pump Start Time: 1305
Pump Stop Time: 1400
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal) ~2.0
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1310	1315	1320	1325	1330	1335	1340	1345	1350
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Rate (mL/min)									
Depth to Water (ft.)	4.05	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
pH	6.67	6.63	6.63	6.62	6.63	6.63	6.63	6.63	6.63
Temp. (C)	17.43	17.62	17.79	17.85	17.96	17.97	18.01	17.90	17.92
Conductivity (mS/cm)	0.872	~~0.869~~	0.868	0.867	0.868	0.872	0.878	0.885	0.885
Dissolved Oxygen (mg/L)	4.56	3.01	2.85	2.83	2.82	2.89	2.90	2.95	3.00
ORP (mV)	567	573	576	577	579	581	582	584	585
Turbidity (NTU)	191	127	87.2	65.9	50.8	30.2	19.0	14.8	15.9
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: Purple			
Odor: Slight Odor			
Appearance: Slightly Cloudy			
Sample ID: MW-25S	Sample Time: 1355		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID: —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

* Headspace: 0.2 ppm
* Well sampled for VOCs + PFCs

Crown Dykman — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Thomas
Client / Job Number: NYSDEC 00266417.0000
Weather: 50s, overcast
Well ID: MW-26
Date: 11-7-17
Time In: 1230 Time Out: 1425

Well Information

Depth to Water: 6.29 (feet) (from MP)
Total Depth: 13.06 (feet) (from MP)
Length of Water Column: (feet) 6.77
Volume of Water in Well: (gal) 1.10
Intake depth for tubing: (feet) 10'

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☒ No ☑
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 1310
Pump Stop Time: 1415
Water-Quality Meter Type: Horiba
Total Volume Removed: 1.5 (gal)
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1315	1320	1325	1330	1335	1340	1345	1350	1355
Volume Purged (Gal)	0.2	0.5	0.7	0.85	1.0	1.3	1.5	1.7	1.9
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	7.45	8.48	9.17	9.48	9.96	10.37	10.51	10.77	11.00
pH	6.53	6.63	6.66	6.67	6.67	6.68	6.68	6.68	6.68
Temp. (C)	18.55	18.97	19.05	19.09	19.17	19.04	19.04	19.00	18.99
Conductivity (mS/cm)	0.610	0.564	0.535	0.527	0.518	0.500	0.497	0.496	0.495
Dissolved Oxygen (mg/L)	0.48	0.38	0.34	0.37	0.49	0.83	0.46	0.44	0.43
ORP (mV)	-174	-185	-188	-188	-189	-186	-185	-185	-184
Turbidity (NTU)	68.0	74.0	73.1	76.4	80.7	79.2	77.1	77.4	73.8
Notes:	Sample @ 1400								

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	
~~TCL SVOCs~~ PFAS		2	Test America
~~Total Cyanide~~			
Color:			
Odor:			
Appearance:			
Sample ID: MW-26	Sample Time: 1400		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID —	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

Initial: mostly clear. Has an odor. No sheen

Final: mostly clear. Has an odor. No sheen

NOTE: Product on WL meter. Oil sensor went off when gauged. (.2'ish thick)

PID: 1.8 ppm

Crum Dykman — Site

2017 GW Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: A Thomas **Well ID:** MW-27
Client / Job Number: NYSDEC 00266417.0000 **Date:** 11-7-17
Weather: 50's, Overcast **Time In:** 0920 **Time Out:** ~~1050~~ 1100

Well Information

Depth to Water: 6.59 (feet) (from MP)
Total Depth: 15.30 (feet) (from MP)
Length of Water Column: (feet) 8.71
Volume of Water in Well: (gal) 1.42
Intake depth for tubing: (feet) 12

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" (2") Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 0925
Pump Stop Time: 1045
Water-Quality Meter Type: Horiba
Total Volume Removed: (gal) ~~2.0~~ 3.0
Did well go dry: No

Conversion Factors	1" ID	2" ID	4" ID	6" ID
gal / ft. of water	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	0930	0935	0940	0945	0950	0955	1000	1005	1010	1015
Volume Purged (Gal)	0.2	0.3	0.5	0.7	0.9	1.1	1.3	1.5	1.7	1.9
Rate (mL/min)	150	150	150	150	150	150	150	150	150	150
Depth to Water (ft.)	7.63	7.90	8.29	8.44	8.60	8.93	8.99	8.99	8.99	8.99
pH	6.43	6.41	6.42	6.44	6.43	6.43	6.44	6.43	6.44	6.46
Temp. (C)	19.02	19.19	19.37	19.44	19.52	19.53	19.54	19.56	19.58	19.60
Conductivity (mS/cm)	0.984	0.998	0.988	0.969	0.949	0.925	0.900	0.886	0.864	0.839
Dissolved Oxygen (mg/L)	0.90	0.68	0.64	0.58	0.85	1.85	1.33	1.19	~~1.2~~ 0.98	0.33
ORP (mV)	-122	-124	-131	-135	-135	-137	-137	-136	-138	-139
Turbidity (NTU)	210	196	181	165	156	109	92.6	80.6	70.5	59.6
Notes:										

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFAS		2	
Total Cyanide			

Color:
Odor:
Appearance:
Sample ID: MW-27 Sample Time:
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☑ No ☐
Duplicate ID DUP-02 Dup. Time: —
Chain of Custody Signed By: [signature]

Problems / Observations

Initial: mostly clear with slight cloudiness and suspended particles.

Final: clear, still odor. No sheen

PID: 135.1 ppm

MW-27 cont.

Crum Dykeman

Site

2017 GW Sampling

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Anemas
Client / Job Number: NYSDEC
Weather: 50's, overcast

Well ID: MW-27
Date: 11-7-17
Time In: 0920 **Time Out:** ~~1050~~ 1100

Well Information

Depth to Water:	(feet)	6.59 (initial) (from MP)
Total Depth:	(feet)	15.30 (from MP)
Length of Water Column:	(feet)	8.71
Volume of Water in Well:	(gal)	1.42
Intake depth for tubing:	(feet)	12

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☑	No	☐
Measuring Point Marked:	Yes	☐	No	☑
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE	
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐		

Pump Start Time: 0925
Pump Stop Time: 1045
Total Volume Removed: ~~2.5~~ 3.0 (gal)
Water-Quality Meter Type: Horiba
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1020	1025	S						
Volume Purged (Gal)	2.1	2.3	A						
Rate (mL/min)	150	150	M						
Depth to Water (ft.)	8.99	8.99	P						
pH	6.47	6.48	L						
Temp. (C)	19.61	19.61	E						
Conductivity (mS/cm)	0.824	0.817	@						
Dissolved Oxygen (mg/L)	0.35	0.33	1030						
ORP (mV)	-141	-143							
Turbidity (NTU)	48.6	41.3							
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFAS		2	
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-27	Sample Time: 1030		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☑	No ☐		
Duplicate ID DUP-02	Dup. Time: —		
Chain of Custody Signed By:			

Problems / Observations

Crun Dykman — 2017 GW Sampling

Site — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Thomas
Client / Job Number: NYSDEC
Weather: 50's, sunny + breezy
Well ID: MW-28
Date: 11-7-17
Time In: 0730 **Time Out:** 0920

Well Information

Depth to Water: 6.66 (feet) (from MP)
Total Depth: 14.02 (feet) (from MP)
Length of Water Column: (feet) 7.36
Volume of Water in Well: (gal) 1.2
Intake depth for tubing: (feet) 10'

Well Type: Flush mount ☑ Stick-Up ☐
Well Material: Stainless Steel ☐ PVC ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer ☐ Bladder ☐ Peristaltic ☑
Tubing/Bailer Material: Steel ☐ Polyethylene ☐ Teflon ☐ HDPE
Sampling Method: Bailer ☐ Peristaltic ☑ Bladder ☐
Pump Start Time: 0750
Pump Stop Time: 0915
Water-Quality Meter Type: Horiba
Total Volume Removed: (gal) 2.0
Did well go dry: NO

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	0800	0805	0810	0815	0820	0825	0830	0845	~~0900~~ 0850	0855
Volume Purged (Gal)	0.2	0.3	0.5	0.6	0.7	0.9	1.4	1.5	1.6	1.7
Rate (mL/min)	120	120	120	120	120	120	120	120	120	120
Depth to Water (ft.)	7.29	7.33	7.33	7.33	7.33	7.33	7.33	7.33	7.33	7.33
pH	5.91	6.02	6.11	6.15	6.18	6.22	6.34	6.37	6.41	6.42
Temp. (C)	14.26	16.02	16.67	17.05	17.37	17.57	18.04	18.14	18.23	18.20
Conductivity (mS/cm)	0.665	0.659	0.671	0.668	0.671	0.660	0.649	0.631	0.622	0.617
Dissolved Oxygen (mg/L)	0.99	0.75	0.81	0.87	0.74	0.70	0.61	0.58	0.55	0.~~58~~
ORP (mV)	17	-17	-43	-54	-63	-70	-83	-89	-92	-94
Turbidity (NTU)	63.5	71.3	69.5	63.6	51.2	41.6	25.9	19.7	16.5	15.9
Notes:	Sample @ 0900									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFAS		2	
Total Cyanide			
Color:			
Odor:			
Appearance:			
Sample ID: MW-28	Sample Time: 0900		
MS/MSD: Yes ☐	No ☑		
Duplicate: Yes ☐	No ☑		
Duplicate ID –	Dup. Time: –		
Chain of Custody Signed By:			

Problems / Observations

~~TCM~~ Initial: mostly clear with slight cloudiness and suspended particles. Strong odor. No visible sheen

Final: mostly clear, no sheen. Still has an odor.

PID = 6.4ppm

Site: Crown Dykman

2017 GW Sampling
Event

GROUNDWATER SAMPLING LOG

Sampling Personnel:	A Thames	Well ID:	MW-29
Client / Job Number:	NYSDEC 00266417.0000	Date:	11-8-17
Weather:	50s, overcast	Time In: 0855	Time Out: 1015

Well Information

Depth to Water:	6.69	(feet)	(from MP)
Total Depth:	14.18	(feet)	(from MP)
Length of Water Column:	7.49	(feet)	
Volume of Water in Well:	1.22	(gal)	
Intake depth for tubing:	10'	(feet)	

Well Type:	Flush mount ☑	Stick-Up ☐
Well Material:	Stainless Steel ☐	PVC ☑
Well Locked:	Yes ☑	No ☐
Measuring Point Marked:	Yes ☑	No ☐
Well Diameter:	1" / (2") circled	Other:

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑	
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	HDPE
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐	

Pump Start Time: 0910

Pump Stop Time: 1005

Water-Quality Meter Type: Horiba

Total Volume Removed: 1.9 (gal)

Did well go dry: NO

Conversion Factors

	1" ID	2" ID	4" ID	6" ID
gal / ft. of water	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0920	0925	0930	0935	0940	0945	0950	S	
Volume Purged (Gal)	0.4	0.55	0.7	0.9	1.2	1.4	1.6	A	
Rate (mL/min)	140	140	140	140	140	140	140	M	
Depth to Water (ft.)	7.97	8.22	8.27	8.27	8.27	8.27	8.27	P	
pH	6.70	6.74	6.78	6.83	6.85	6.870	6.87	L	
Temp. (C)	19.95	20.43	20.46	20.44	20.51	20.69	20.61	E	
Conductivity (mS/cm)	1.55	1.40	1.32	1.25	1.22	1.19	1.18	@	
Dissolved Oxygen (mg/L)	0.75	0.58	0.50	0.46	0.44	0.44	0.45	0955	
ORP (mV)	-174	-181	-187	-191	-192	-193	-192		
Turbidity (NTU)	5.44	9.70	6.65	9.45	8.23	10.0	10.7		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs		3	Test America
~~TCL SVOCs~~ PFCs		2	
~~Total Cyanide~~			

Color:

Odor:

Appearance:

Sample ID: MW-29		Sample Time: 0955	
MS/MSD:	Yes ☐	No ☑	
Duplicate:	Yes ☐	No ☑	
Duplicate ID —		Dup. Time: —	
Chain of Custody Signed By:	[signature]		

Problems / Observations

Initial: mostly clear. Strong odor. Some suspended particles. No noticeable sheen

Final: mostly clear. ~~At~~ Strong odor.

PID = 0.6 ppm

1,4-Dioxane Screening;
April 2018

Crown Dykman

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: AThomas **Well ID:** MW-7D
Client / Job Number: 00266417.0000 **Date:** 4-5-18
Weather: 40's, sunny **Time In:** 1210 **Time Out:** 1332

Well Information

Depth to Water:	2.52	(feet) (from MP)
Total Depth:	25.63	(feet) (from MP)
Length of Water Column:	23.11	(feet)
Volume of Water in Well:	3.76	(gal)
Intake depth for tubing:	~22.5	(feet)

Well Type:	Flushmount ☑	Stick-Up ☐		
Well Material:	Stainless Steel ☐	PVC ☑		
Well Locked:	Yes ☐	No ☑		
Measuring Point Marked:	Yes ☐	No ☑		
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other:	HDPE ✓	
Sampling Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:		

Pump Start Time: 1225
Pump Stop Time: 1330 Water-Quality Meter Type: Horiba
Total Volume Removed: 4.4 (gal) Did well go dry: Yes ☐ No ☑

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	1230	1235	1240	1245	1250	1255	1300	1305	1310	1315
Volume Purged (Gal)	0.6	1.0	1.5	1.8	2.2	2.6	3.0	3.4	3.8	4.2
Rate (mL/min)	300	300	300	300	300	300	300	300	300	300
Depth to Water (ft.)	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53
pH	6.76	6.75	6.75	6.72	6.70	6.71	6.74	6.75	6.74	6.71
Temp. (C)	12.33	12.60	12.94	13.17	13.40	13.60	13.75	13.83	13.94	13.99
Conductivity (mS/cm)	0.882	0.898	0.901	0.899	0.901	0.902	0.903	0.907	0.901	0.896
Dissolved Oxygen (mg/L)	0.49	0.45	0.43	0.42	0.41	0.41	0.39	0.39	0.39	0.38
ORP (mV)	-51	-60	-64	-65	-66	-67	-72	-72	-72	-73
Turbidity (NTU)	376	340	299	283	260	238	219	203	191	186
Notes:	✱ See note below									

Sampling Information

Analyses	#	n	Laboratory
1,4 Dioxane			TestAmerica
			8270 SIM
			2 Amber liters
Color:			
Odor:			
Appearance:			
Sample ID: MW-7D-040518			Sample Time: 1320
MS/MSD: Yes ☐			No ☑
Duplicate: Yes ☐			No ☑
Duplicate ID –			Dup. Time: –
Chain of Custody Signed By:			

Problems / Observations

Initial: Turbid, suspended particles orange tint/rusty ish cloud, No odor, no sheen.

Final: Partly cloudy with slight orange tint. No odor. No sheen.

✱Note: When opened, entire curbbox was filled with water (rusty/orange color). Removed water to below PVC casing (2.0 gal). As purging went on, water level in curbbox rose. AT continued to remove water to always be under PVC casing.

Site: Crown Dyekman

Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 00266417.0000
Weather: Sunny 30s

Well ID: MW-2
Date: 4/5/18
Time In: 1245 Time Out: 1345

Well Information

Depth to Water:	(feet)	4.84	(from MP)
Total Depth:	(feet)	13.25	(from MP)
Length of Water Column:	(feet)	8.41	
Volume of Water in Well:	(gal)	1.34	
Intake depth for tubing:	(feet)	~12.5'	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☑	No	☐	
Measuring Point Marked:	Yes	☑	No	☐	
Well Diameter:	1"	(2")	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon	☐ HDPE ✓
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 1250
Pump Stop Time: 1340
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal) ~1.75
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1255	1300	1305	1310	1315	1320	1325	1330	
Volume Purged (Gal)	0	0.25	0.50	0.75	1.0	1.25	1.50	1.75	
Rate (mL/min)									
Depth to Water (ft.)	5.31	5.62	5.96	6.33	6.58	6.91	7.15	7.20	
pH	7.26	7.15	7.10	7.08	7.05	6.99	6.97	6.96	
Temp. (C)	14.22	13.94	13.73	13.63	13.51	13.47	13.49	13.52	
Conductivity (mS/cm)	0.253	0.251	0.254	0.259	0.260	0.277	0.283	0.286	
Dissolved Oxygen (mg/L)	6.12	4.56	4.37	4.09	3.94	3.47	3.29	3.19	
ORP (mV)	-43	-12	3	17	26	38	42	45	
Turbidity (NTU)	399	537	444	337	254	151	155	160	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: Tan / Brown			
Odor: No Odor			
Appearance: Cloudy			
Sample ID: MW-2-040518 Sample Time: 1335			
MS/MSD: Yes ☐ No ☑			
Duplicate: Yes ☐ No ☑			
Duplicate ID — Dup. Time: —			
Chain of Custody Signed By:			

Problems / Observations

* Sampled for 1-4 Dioxane

2017 GW Sampling

Site: Crown Dykeman — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Well ID: MW-3
Client / Job Number: 00266417.0000
Date: 4/5/18
Weather: Sunny 30s
Time In: 1015 Time Out: 1115

Well Information

Depth to Water:	(feet)	8.88	(from MP)
Total Depth:	(feet)	19.89	(from MP)
Length of Water Column:	(feet)	11.01	
Volume of Water in Well:	(gal)	1.76	
Intake depth for tubing:	(feet)	~18'	

Well Type:	Flush mount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☑		No ☐	
Measuring Point Marked:	Yes ☑		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Bladder ☐	Peristaltic ☑
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐ HDPE ✓
Sampling Method:	Bailer ☐	Peristaltic ☑	Bladder ☐

Pump Start Time: 1020
Pump Stop Time: 1110
Total Volume Removed: (gal) ~1.75
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1025	1030	1035	1040	1045	1050	1055	1100	
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75	
Rate (mL/min)									
Depth to Water (ft.)	8.92	8.92	8.92	8.92	8.92	8.92	8.92	8.97	
pH	6.24	6.14	6.14	6.16	6.15	6.14	6.13	6.13	
Temp. (C)	8.93	9.97	10.06	10.02	10.01	10.04	10.03	10.06	
Conductivity (mS/cm)	0.665	0.644	0.639	0.643	0.642	0.641	0.640	0.640	
Dissolved Oxygen (mg/L)	6.32	5.24	5.08	4.98	4.89	4.80	4.72	4.65	
ORP (mV)	71	126	138	146	153	161	164	169	
Turbidity (NTU)	32.9	31.9	31.9	16.2	14.9	10.1	4.72	7.98	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			

Color: No Color
Odor: No Odor
Appearance: Clear
Sample ID: MW-3-040518 Sample Time: 1105
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By:

Problems / Observations

* Sampled for 1-4 Dioxane *

Site: Crown Plywood — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES — Well ID: MW-4R
Client / Job Number: 002 66417.0000 — Date: 4/5/18
Weather: Sunny 30s — Time In: 0900 — Time Out: 1005

Well Information

Depth to Water:	(feet)	0.46	(from MP)
Total Depth:	(feet)	19.50	(from MP)
Length of Water Column:	(feet)	19.04	
Volume of Water in Well:	(gal)	3.04	
Intake depth for tubing:	(feet)	~18.50	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☑	No	☐	
Measuring Point Marked:	Yes	☑	No	☐	
Well Diameter:	1"	(2")	Other:		

Purging Information

Purging Method:	Bailer	☐	Bladder	☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon	☐ HDPE ✓
Sampling Method:	Bailer	☐	Peristaltic	☑	Bladder	☐

Pump Start Time: 0910
Pump Stop Time: 1000
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal) ~1.50
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0915	0920	0925	0930	0935	0940	0945		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.0	1.25	1.50		
Rate (mL/min)									
Depth to Water (ft.)	0.46	0.46	0.46	0.46	0.46	0.46	0.46		
pH	6.18	6.47	6.53	6.60	6.64	6.65	6.63		
Temp. (C)	9.78	10.07	10.18	10.20	10.17	10.20	10.21		
Conductivity (mS/cm)	0.485	0.477	0.477	0.480	0.483	0.485	0.48		
Dissolved Oxygen (mg/L)	5.97	2.02	1.79	1.65	1.52	1.44	1.40		
ORP (mV)	134	32	12	-4	-14	-19	-20		
Turbidity (NTU)	184	162	125	96.7	67.0	65.4	62.2		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: No Color			
Odor: No Odor			
Appearance: Cloudy/Some Suspended Solids			
Sample ID: MW-4R-040518 Sample Time: 0950			
MS/MSD: Yes ☑ No ☐			
Duplicate: Yes ☐ No ☑			
Duplicate ID: — Dup. Time: —			
Chain of Custody Signed By:			

Problems / Observations

* Sampled for ~~1,4~~ 1-4 Dioxane *
* MS/MSD collected here *

Crown Dykman

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: AThomen **Well ID:** MW-7
Client / Job Number: 00266417.0000 **Date:** 4-3-18
Weather: 40s, sunny **Time In:** 1334 **Time Out:** 1430

Well Information

Depth to Water:	3.62	(feet) (from MP)
Total Depth:	12.25	(feet) (from MP)
Length of Water Column:	8.63	(feet)
Volume of Water in Well:	1.41	(gal)
Intake depth for tubing:	~10'	(feet)

Well Type:	Flushmount ☑	Stick-Up ☐		
Well Material:	Stainless Steel ☐	PVC ☑		
Well Locked:	Yes ☐	No ☑		
Measuring Point Marked:	Yes ☐	No ☑		
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other: HDPE ✓		
Sampling Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:		

Pump Start Time: 1337
Pump Stop Time: 1425 Water-Quality Meter Type: Horiba
Total Volume Removed: 2.3 (gal) Did well go dry: Yes ☐ No ☑

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1342	1347	1352	1357	1402	1407	1412		
Volume Purged (Gal)	0.5	0.8	1.2	1.5	1.8	2.1	S		
Rate (mL/min)	250	250	250	250	250	250	A		
Depth to Water (ft.)	3.67	3.67	3.67	3.67	3.67	3.67	M		
pH	6.96	6.91	6.97	6.99	7.02	7.01	P		
Temp. (C)	12.88	12.72	12.61	12.56	12.45	12.43	L		
Conductivity (mS/cm)	0.853	0.862	0.865	0.869	0.869	0.867	E		
Dissolved Oxygen (mg/L)	4.03	4.02	3.97	3.90	3.83	3.77			
ORP (mV)	46	57	62	65	68	71			
Turbidity (NTU)	149	133	120	112	106	107			
Notes:	~~Reset Below~~ AT								

Sampling Information

Analyses	#	n	Laboratory
1,4 Dioxane			TestAmerica
			8270 SIM
			2 Amber liters
Color:			
Odor:			
Appearance:			
Sample ID: MW-7-040518		Sample Time: 1412	
MS/MSD: Yes ☐		No ☑	
Duplicate: Yes ☐		No ☑	
Duplicate ID –		Dup. Time: –	
Chain of Custody Signed By:			

Problems / Observations

Initial: clear, some suspended particles. No odor. no sheen

Final: Clear, no odor, no sheen

2017 GW Sampling

Site: Crown Dykman — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 00266417.0000
Weather: Sunny 30s

Well ID: MW-11
Date: 4/5/18
Time In: 1120 Time Out: 1230

Well Information

Depth to Water:	(feet)	3.17	(from MP)
Total Depth:	(feet)	9.13	(from MP)
Length of Water Column:	(feet)	5.96	
Volume of Water in Well:	(gal)	~~0.95~~ 0.24	
Intake depth for tubing:	(feet)	~8'	

Well Type:	Flush mount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☑	No	☐	
Measuring Point Marked:	Yes	☑	No	☐	
Well Diameter:	(1")		2"	Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder ☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene ☐	Teflon	☐ HDPE
Sampling Method:	Bailer	☐	Peristaltic ☑	Bladder	☐

Pump Start Time: 1125
Pump Stop Time: 1225
Total Volume Removed: (gal) ~2.25
Water-Quality Meter Type: Horiba U-53
Did well go dry: No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1130	1135	1140	1145	1150	1155	1200	1205	1210
Volume Purged (Gal)	0	0.25	0.50	0.75	1.0	1.25	1.50	1.75	2.0
Rate (mL/min)									
Depth to Water (ft.)	4.68	4.72	4.86	5.04	5.24	5.54	5.71	5.81	5.92
pH	6.95	6.92	6.89	6.87	6.86	6.85	6.86	6.87	6.88
Temp. (C)	10.60	10.30	10.10	9.97	10.03	10.29	10.33	10.40	10.47
Conductivity (mS/cm)	0.813	1.01	1.05	1.08	1.09	1.09	1.08	1.10	1.11
Dissolved Oxygen (mg/L)	4.29	1.75	1.46	1.46	1.50	1.59	1.55	1.46	1.46
ORP (mV)	-43	-68	-81	-87	-89	-92	-94	-96	-99
Turbidity (NTU)	687	184	122	85.9	59.9	30.3	19.0	11.0	10.2
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: Tan / Brown			
Odor: Odor Present			
Appearance: Cloudy			
Sample ID: MW-11-040518 Sample Time: 1220			
MS/MSD: Yes ☐ No ☑			
Duplicate: Yes ☐ No ☑			
Duplicate ID — Dup. Time: —			
Chain of Custody Signed By:			

Problems / Observations

* Sampled for 1-4 Dioxane *

Continued →

Continued

2017 GW Sampling

Site: Crown Dykman — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 00266417.0000
Weather: Sunny 30's
Well ID: MW-11
Date: 4/5/18
Time In: 1120 Time Out: 1230

Well Information

Depth to Water:	(feet)	3.17	(from MP)
Total Depth:	(feet)	9.13	(from MP)
Length of Water Column:	(feet)	5.96	
Volume of Water in Well:	(gal)	0.24	
Intake depth for tubing:	(feet)	~8'	

Well Type:	Flush mount	☑	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☑
Well Locked:	Yes	☑	No	☐
Measuring Point Marked:	Yes	☑	No	☐
Well Diameter:	(1")		2" Other:	

Purging Information

Purging Method:	Bailer	☐	Bladder ☐	Peristaltic	☑
Tubing/Bailer Material:	Steel	☐	Polyethylene ☐	Teflon	☐ HDPE ✓
Sampling Method:	Bailer	☐	Peristaltic ☑	Bladder	☐

Pump Start Time: 1125
Pump Stop Time: 1225
Water-Quality Meter Type: Horiba U-53
Total Volume Removed: (gal) ~2.25
Did well go dry: No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1215								
Volume Purged (Gal)	2.25								
Rate (mL/min)									
Depth to Water (ft.)	5.99								
pH	6.88								
Temp. (C)	10.42								
Conductivity (mS/cm)	1.11								
Dissolved Oxygen (mg/L)	1.42								
ORP (mV)	-100								
Turbidity (NTU)	10.9								
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TCL VOCs			
TCL SVOCs			
Total Cyanide			
Color: Tan / Brown			
Odor: Odor Present			
Appearance: Cloudy			
Sample ID: MW-11-040518 Sample Time: 1220			
MS/MSD: Yes ☐ No ☑			
Duplicate: Yes ☐ No ☑			
Duplicate ID — Dup. Time: —			
Chain of Custody Signed By:			

Problems / Observations

* Sampled for 1-4 Dioxane

Crown Dykman

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: Athena **Well ID:** MW-14R
Client / Job Number: 00266417.0000 **Date:** 4-5-18
Weather: 30°F, sunny, windy **Time In:** 0915 **Time Out:** 1045

Well Information

Depth to Water:	5.03 (feet)	(from MP)
Total Depth:	12.15 (feet)	(from MP)
Length of Water Column:	(feet) 7.12	
Volume of Water in Well:	(gal) 1.16	
Intake depth for tubing:	(feet) ~11	

Well Type:	Flushmount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☑		No ☐	
Measuring Point Marked:	Yes ☑		No ☐	
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other: HDPE ☑			
Sampling Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:			

Pump Start Time: 0938
Pump Stop Time: 1042 Water-Quality Meter Type: Horiba
Total Volume Removed: 1.9 (gal) Did well go dry: Yes ☐ No ☑

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0942	0947	0952	0957	1002	1007	1012	1017	1022
Volume Purged (Gal)	0.2	0.5	0.7	1.0	1.2	1.4	1.6	1.8	S
Rate (mL/min)	200	200	200	200	200	150	150	150	A
Depth to Water (ft.)	5.89	6.52	6.67	6.89	6.93	6.92	6.92	6.92	M
pH	6.17	6.49	6.62	6.63	6.62	6.62	6.66	6.67	P
Temp. (C)	12.48	12.99	13.30	13.37	13.32	13.32	13.45	13.62	L
Conductivity (mS/cm)	0.776	0.821	0.964	0.978	0.998	0.976	0.971	0.969	E
Dissolved Oxygen (mg/L)	1.03	0.66	0.52	0.51	0.51	0.49	0.46	0.45	
ORP (mV)	-161	-179	-194	-195	-196	-199	-201	-204	
Turbidity (NTU)	26.1	22.8	15.8	12.2	11.1	9.64	7.96	6.90	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
1,4 Dioxane			TestAmerica
			8270SIM
			2 Amberlites
Color:			
Odor:			
Appearance:			
Sample ID: MW-14R04 050818 Sample Time: 1022			
MS/MSD: Yes ☐ No ☑			
Duplicate: Yes ☑ No ☐			
Duplicate ID DUP-01-040518 Dup. Time: 1022			
Chain of Custody Signed By:			

Problems / Observations

Initial: Slightly cloudy with dark particles, cleared up quickly. Has a strong odor. No noticeable sheen.

Final: clear, still has a strong odor. no noticeable sheen.

Crown Dykman
Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ATHarnew
Client / Job Number: 00266417.0000
Weather: 40's, sunny, windy

Well ID: MW-18
Date: 4-5-18
Time In: 1100 **Time Out:** 1202

Well Information

Depth to Water:	4.46 (feet)	(from MP)
Total Depth:	11.61 (feet)	(from MP)
Length of Water Column:	(feet) 7.15	
Volume of Water in Well:	(gal) 6.293	
Intake depth for tubing:	(feet) ~10	

Well Type:	Flushmount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☑	
Well Diameter:	1" (circled)	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other:	HDPE ✓	
Sampling Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other:		

Pump Start Time: ~~0840~~ 1108
Pump Stop Time: 1159
Water-Quality Meter Type: Horiba
Total Volume Removed: 2.5 (gal)
Did well go dry: Yes ☐ No ☑

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1115	1120	1125	1130	1135	1140	1145	1150	
Volume Purged (Gal)	0.5	0.8	1.1	1.4	1.6	1.9	2.2	2.5	
Rate (mL/min)	250	200	200	250	250	250	250	~~250~~	
Depth to Water (ft.)	4.54	4.55	4.54	4.54	4.54	4.54	4.54	~~4.54~~	
pH	6.75	6.81	6.77	6.80	6.81	6.81	6.83	~~6.83~~	
Temp. (C)	12.94	13.20	13.16	13.24	13.33	13.36	13.22	~~13.22~~	
Conductivity (mS/cm)	0.713	0.669	0.647	0.634	0.631	0.638	0.648	~~0.648~~	
Dissolved Oxygen (mg/L)	0.64	0.66	0.66	0.63	0.56	0.54	0.54		
ORP (mV)	-72	-75	-74	-76	-78	-80	-81		
Turbidity (NTU)	141	74.2	416.8	36.3	29.8	29.7	36.3		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
1,4 Dioxane			TestAmerica
			8270 SIM
			2 Amber liters
Color:			
Odor:			
Appearance:			
Sample ID: MW-18-040518			Sample Time: 1150
MS/MSD: Yes ☐		No ☑	
Duplicate: Yes ☐		No ☑	
Duplicate ID –		Dup. Time: –	
Chain of Custody Signed By:			

Problems / Observations

Initial: mostly clear w/ slight ~~cloudiness~~ (cloudiness). No odor. No sheen

Final: clear, no odor, no sheen

APPENDIX C

Laboratory Analytical Reports – 2015 ISCO Source Area Pilot Program

Baseline Analytical Sampling – November 2015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-91057-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Authorized for release by:
11/27/2015 1:06:16 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-91057-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-91057-1

Receipt
The samples were received on 11/13/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8º C.

Receipt Exceptions

COC requested MS/MSD and listed container count of 9. However, lab was only provided 3 40ml voa vials for this point. No additional volume with the corresponding sample ID, date and time of collection was received. Ms/msd was not assigned to sample point: IW-03 (111015) (480-91057-2).

GC/MS VOA
Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-29 (111015) (480-91057-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MW-14R (111115) (480-91057-13). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: IW-03 (111015) (480-91057-2), IW-02 (111015) (480-91057-5), MW-1D (111115) (480-91057-8), MW-25D (111215) (480-91057-14), MW-13 (111215) (480-91057-15), (480-91057-B-2 MS) and (480-91057-B-2 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-29 (111015) (480-91057-3), IW-02 (111015) (480-91057-5), MW-26 (111015) (480-91057-6), MW-7 (111115) (480-91057-7), GM-9 (111115) (480-91057-10), MW-14R (111115) (480-91057-13) and IW-01S (111215) (480-91057-16). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-22 (R) D (111115) (480-91057-9). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-1DD (111015) — Lab Sample ID: 480-91057-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.67	J	1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	43		1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	28		1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	13		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: IW-03 (111015) — Lab Sample ID: 480-91057-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.48	J	1.0	0.38	ug/L	1		8260C	Total/NA
1,2-Dichloropropane	1.4		1.0	0.72	ug/L	1		8260C	Total/NA
Benzene	3.8		1.0	0.41	ug/L	1		8260C	Total/NA
Chloroethane	2.9		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	130	E	1.0	0.81	ug/L	1		8260C	Total/NA
Cyclohexane	1.1		1.0	0.18	ug/L	1		8260C	Total/NA
Ethylbenzene	25		1.0	0.74	ug/L	1		8260C	Total/NA
Isopropylbenzene	30		1.0	0.79	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	75		1.0	0.16	ug/L	1		8260C	Total/NA
Methylcyclohexane	3.9		1.0	0.16	ug/L	1		8260C	Total/NA
Toluene	9.2		1.0	0.51	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	2.3		1.0	0.90	ug/L	1		8260C	Total/NA
Vinyl chloride	290	E	1.0	0.90	ug/L	1		8260C	Total/NA
Xylenes, Total	14		2.0	0.66	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	130		10	8.1	ug/L	10		8260C	Total/NA
Ethylbenzene - DL	25		10	7.4	ug/L	10		8260C	Total/NA
Isopropylbenzene - DL	32		10	7.9	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether - DL	76		10	1.6	ug/L	10		8260C	Total/NA
Methylcyclohexane - DL	4.3	J	10	1.6	ug/L	10		8260C	Total/NA
Toluene - DL	9.0	J	10	5.1	ug/L	10		8260C	Total/NA
Vinyl chloride - DL	310		10	9.0	ug/L	10		8260C	Total/NA
Xylenes, Total - DL	7.3	J	20	6.6	ug/L	10		8260C	Total/NA

Client Sample ID: MW-29 (111015) — Lab Sample ID: 480-91057-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3.8	J	4.0	1.2	ug/L	4		8260C	Total/NA
Benzene	1.8	J	4.0	1.6	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	1500	E	4.0	3.2	ug/L	4		8260C	Total/NA
Ethylbenzene	14		4.0	3.0	ug/L	4		8260C	Total/NA
Isopropylbenzene	12		4.0	3.2	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	0.90	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylcyclohexane	1.0	J	4.0	0.64	ug/L	4		8260C	Total/NA
Tetrachloroethene	6.7		4.0	1.4	ug/L	4		8260C	Total/NA
Toluene	2.0	J	4.0	2.0	ug/L	4		8260C	Total/NA
trans-1,2-Dichloroethene	7.1		4.0	3.6	ug/L	4		8260C	Total/NA
Trichloroethene	5.0		4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	610	E	4.0	3.6	ug/L	4		8260C	Total/NA
Xylenes, Total	42		8.0	2.6	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene - DL	1600		25	20	ug/L	25		8260C	Total/NA
Vinyl chloride - DL	600		25	23	ug/L	25		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-29 (111015) (Continued) — Lab Sample ID: 480-91057-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total - DL	48	J	50	17	ug/L	25		8260C	Total/NA

Client Sample ID: MW-19 (111015) — Lab Sample ID: 480-91057-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.53	J	1.0	0.36	ug/L	1		8260C	Total/NA

Client Sample ID: IW-02 (111015) — Lab Sample ID: 480-91057-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11000	E	100	81	ug/L	100		8260C	Total/NA
Tetrachloroethene	12000	E	100	36	ug/L	100		8260C	Total/NA
Trichloroethene	2600		100	46	ug/L	100		8260C	Total/NA
Vinyl chloride	580		100	90	ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene - DL	11000		200	160	ug/L	200		8260C	Total/NA
Tetrachloroethene - DL	13000		200	72	ug/L	200		8260C	Total/NA
Trichloroethene - DL	2600		200	92	ug/L	200		8260C	Total/NA
Vinyl chloride - DL	630		200	180	ug/L	200		8260C	Total/NA

Client Sample ID: MW-26 (111015) — Lab Sample ID: 480-91057-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11000		500	410	ug/L	500		8260C	Total/NA
Tetrachloroethene	670		500	180	ug/L	500		8260C	Total/NA
Trichloroethene	800		500	230	ug/L	500		8260C	Total/NA
Vinyl chloride	630		500	450	ug/L	500		8260C	Total/NA

Client Sample ID: MW-7 (111115) — Lab Sample ID: 480-91057-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	310		10	8.1	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether	5.3	J	10	1.6	ug/L	10		8260C	Total/NA
Tetrachloroethene	210		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	90		10	4.6	ug/L	10		8260C	Total/NA

Client Sample ID: MW-1D (111115) — Lab Sample ID: 480-91057-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	960		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	1900		20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	530		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	32		20	18	ug/L	20		8260C	Total/NA

Client Sample ID: MW-22 (R) D (111115) — Lab Sample ID: 480-91057-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2400		80	65	ug/L	80		8260C	Total/NA
Tetrachloroethene	36	J	80	29	ug/L	80		8260C	Total/NA

Client Sample ID: GM-9 (111115) — Lab Sample ID: 480-91057-10

This Detection Summary does not include radiochemical test results.

Client Sample ID: GM-9 (111115) (Continued) — Lab Sample ID: 480-91057-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	390		10	8.1	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether	1.9	J	10	1.6	ug/L	10		8260C	Total/NA
Tetrachloroethene	440		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	110		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	14		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: MW-2 (111115) — Lab Sample ID: 480-91057-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.0		1.0	0.82	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.57	J	1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	4.6		1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	58		1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	14		1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: MW-4 (111115) — Lab Sample ID: 480-91057-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.58	J	1.0	0.38	ug/L	1		8260C	Total/NA

Client Sample ID: MW-14R (111115) — Lab Sample ID: 480-91057-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	260		4.0	3.2	ug/L	4		8260C	Total/NA
Ethylbenzene	34		4.0	3.0	ug/L	4		8260C	Total/NA
Isopropylbenzene	17		4.0	3.2	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	1.3	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylcyclohexane	1.2	J	4.0	0.64	ug/L	4		8260C	Total/NA
Toluene	11		4.0	2.0	ug/L	4		8260C	Total/NA
Vinyl chloride	460	E	4.0	3.6	ug/L	4		8260C	Total/NA
Xylenes, Total	190		8.0	2.6	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene - DL	250		8.0	6.5	ug/L	8		8260C	Total/NA
Ethylbenzene - DL	35		8.0	5.9	ug/L	8		8260C	Total/NA
Isopropylbenzene - DL	16		8.0	6.3	ug/L	8		8260C	Total/NA
Methyl tert-butyl ether - DL	1.4	J	8.0	1.3	ug/L	8		8260C	Total/NA
Methylcyclohexane - DL	1.3	J	8.0	1.3	ug/L	8		8260C	Total/NA
Toluene - DL	10		8.0	4.1	ug/L	8		8260C	Total/NA
Vinyl chloride - DL	480		8.0	7.2	ug/L	8		8260C	Total/NA
Xylenes, Total - DL	190		16	5.3	ug/L	8		8260C	Total/NA

Client Sample ID: MW-25D (111215) — Lab Sample ID: 480-91057-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	480		10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	26		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	17		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	150		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: MW-13 (111215) — Lab Sample ID: 480-91057-15

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-13 (111215) (Continued) — Lab Sample ID: 480-91057-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	28000		500	410	ug/L	500		8260C	Total/NA
Tetrachloroethene	630		500	180	ug/L	500		8260C	Total/NA
Trichloroethene	410	J	500	230	ug/L	500		8260C	Total/NA
Vinyl chloride	730		500	450	ug/L	500		8260C	Total/NA

Client Sample ID: IW-01S (111215) — Lab Sample ID: 480-91057-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	800		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	35		20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	27		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	33		20	18	ug/L	20		8260C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-91057-17

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-1DD (111015)
Date Collected: 11/10/15 09:10
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/15 13:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 13:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 13:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 13:06	1
1,1-Dichloroethane	**0.67**	**J**	1.0	0.38	ug/L			11/23/15 13:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 13:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 13:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 13:06	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 13:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 13:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 13:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/15 13:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 13:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 13:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 13:06	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 13:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 13:06	1
Acetone	ND		10	3.0	ug/L			11/23/15 13:06	1
Benzene	ND		1.0	0.41	ug/L			11/23/15 13:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 13:06	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 13:06	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 13:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 13:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 13:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 13:06	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/15 13:06	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 13:06	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 13:06	1
cis-1,2-Dichloroethene	**43**		1.0	0.81	ug/L			11/23/15 13:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 13:06	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/15 13:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 13:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 13:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/15 13:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/15 13:06	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 13:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/15 13:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/15 13:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 13:06	1
Styrene	ND		1.0	0.73	ug/L			11/23/15 13:06	1
Tetrachloroethene	**28**		1.0	0.36	ug/L			11/23/15 13:06	1
Toluene	ND		1.0	0.51	ug/L			11/23/15 13:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/15 13:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 13:06	1
Trichloroethene	**11**		1.0	0.46	ug/L			11/23/15 13:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 13:06	1
Vinyl chloride	**13**		1.0	0.90	ug/L			11/23/15 13:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/23/15 13:06	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-1DD (111015)

Lab Sample ID: 480-91057-1

Date Collected: 11/10/15 09:10

Matrix: Water

Date Received: 11/13/15 09:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/23/15 13:06*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/23/15 13:06*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/23/15 13:06*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/23/15 13:06*	*1*

Client Sample ID: IW-03 (111015)

Lab Sample ID: 480-91057-2

Date Collected: 11/10/15 10:50

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/15 02:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 02:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 02:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 02:48	1
1,1-Dichloroethane	**0.48**	**J**	1.0	0.38	ug/L			11/23/15 02:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 02:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 02:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 02:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 02:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 02:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 02:48	1
1,2-Dichloropropane	**1.4**		1.0	0.72	ug/L			11/23/15 02:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 02:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 02:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 02:48	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 02:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 02:48	1
Acetone	ND		10	3.0	ug/L			11/23/15 02:48	1
Benzene	**3.8**		1.0	0.41	ug/L			11/23/15 02:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 02:48	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 02:48	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 02:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 02:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 02:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 02:48	1
Chloroethane	**2.9**		1.0	0.32	ug/L			11/23/15 02:48	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 02:48	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 02:48	1
cis-1,2-Dichloroethene	**130**	**E**	1.0	0.81	ug/L			11/23/15 02:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 02:48	1
Cyclohexane	**1.1**		1.0	0.18	ug/L			11/23/15 02:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 02:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 02:48	1
Ethylbenzene	**25**		1.0	0.74	ug/L			11/23/15 02:48	1
Isopropylbenzene	**30**		1.0	0.79	ug/L			11/23/15 02:48	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 02:48	1
Methyl tert-butyl ether	**75**		1.0	0.16	ug/L			11/23/15 02:48	1
Methylcyclohexane	**3.9**		1.0	0.16	ug/L			11/23/15 02:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 02:48	1

Client Sample ID: IW-03 (111015)
Date Collected: 11/10/15 10:50
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	0.73	ug/L			11/23/15 02:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/15 02:48	1
Toluene	**9.2**		1.0	0.51	ug/L			11/23/15 02:48	1
trans-1,2-Dichloroethene	**2.3**		1.0	0.90	ug/L			11/23/15 02:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 02:48	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/15 02:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 02:48	1
Vinyl chloride	**290**	**E**	1.0	0.90	ug/L			11/23/15 02:48	1
Xylenes, Total	**14**		2.0	0.66	ug/L			11/23/15 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/23/15 02:48*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*11/23/15 02:48*	*1*
Toluene-d8 (Surr)	*98*		*71 - 126*		*11/23/15 02:48*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/23/15 02:48*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/23/15 13:29	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/23/15 13:29	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/23/15 13:29	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/23/15 13:29	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/23/15 13:29	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/23/15 13:29	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/23/15 13:29	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/23/15 13:29	10
1,2-Dibromoethane	ND		10	7.3	ug/L			11/23/15 13:29	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/23/15 13:29	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/23/15 13:29	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/23/15 13:29	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/23/15 13:29	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/23/15 13:29	10
2-Butanone (MEK)	ND		100	13	ug/L			11/23/15 13:29	10
2-Hexanone	ND		50	12	ug/L			11/23/15 13:29	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/23/15 13:29	10
Acetone	ND		100	30	ug/L			11/23/15 13:29	10
Benzene	ND		10	4.1	ug/L			11/23/15 13:29	10
Bromodichloromethane	ND		10	3.9	ug/L			11/23/15 13:29	10
Bromoform	ND		10	2.6	ug/L			11/23/15 13:29	10
Bromomethane	ND		10	6.9	ug/L			11/23/15 13:29	10
Carbon disulfide	ND		10	1.9	ug/L			11/23/15 13:29	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/23/15 13:29	10
Chlorobenzene	ND		10	7.5	ug/L			11/23/15 13:29	10
Chloroethane	ND		10	3.2	ug/L			11/23/15 13:29	10
Chloroform	ND		10	3.4	ug/L			11/23/15 13:29	10
Chloromethane	ND		10	3.5	ug/L			11/23/15 13:29	10
cis-1,2-Dichloroethene	**130**		10	8.1	ug/L			11/23/15 13:29	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/23/15 13:29	10
Cyclohexane	ND		10	1.8	ug/L			11/23/15 13:29	10
Dibromochloromethane	ND		10	3.2	ug/L			11/23/15 13:29	10

Client Sample ID: IW-03 (111015)

Lab Sample ID: 480-91057-2

Date Collected: 11/10/15 10:50

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/23/15 13:29	10
Ethylbenzene	**25**		10	7.4	ug/L			11/23/15 13:29	10
Isopropylbenzene	**32**		10	7.9	ug/L			11/23/15 13:29	10
Methyl acetate	ND		25	13	ug/L			11/23/15 13:29	10
Methyl tert-butyl ether	**76**		10	1.6	ug/L			11/23/15 13:29	10
Methylcyclohexane	**4.3**	**J**	10	1.6	ug/L			11/23/15 13:29	10
Methylene Chloride	ND		10	4.4	ug/L			11/23/15 13:29	10
Styrene	ND		10	7.3	ug/L			11/23/15 13:29	10
Tetrachloroethene	ND		10	3.6	ug/L			11/23/15 13:29	10
Toluene	**9.0**	**J**	10	5.1	ug/L			11/23/15 13:29	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/23/15 13:29	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/23/15 13:29	10
Trichloroethene	ND		10	4.6	ug/L			11/23/15 13:29	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/23/15 13:29	10
Vinyl chloride	**310**		10	9.0	ug/L			11/23/15 13:29	10
Xylenes, Total	**7.3**	**J**	20	6.6	ug/L			11/23/15 13:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*11/23/15 13:29*	*10*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/23/15 13:29*	*10*
Toluene-d8 (Surr)	*96*		*71 - 126*		*11/23/15 13:29*	*10*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/23/15 13:29*	*10*

Client Sample ID: MW-29 (111015)

Lab Sample ID: 480-91057-3

Date Collected: 11/10/15 12:25

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			11/23/15 03:12	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			11/23/15 03:12	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			11/23/15 03:12	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			11/23/15 03:12	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			11/23/15 03:12	4
1,1-Dichloroethene	**3.8**	**J**	4.0	1.2	ug/L			11/23/15 03:12	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			11/23/15 03:12	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			11/23/15 03:12	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			11/23/15 03:12	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			11/23/15 03:12	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			11/23/15 03:12	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			11/23/15 03:12	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			11/23/15 03:12	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			11/23/15 03:12	4
2-Butanone (MEK)	ND		40	5.3	ug/L			11/23/15 03:12	4
2-Hexanone	ND		20	5.0	ug/L			11/23/15 03:12	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			11/23/15 03:12	4
Acetone	ND		40	12	ug/L			11/23/15 03:12	4
Benzene	**1.8**	**J**	4.0	1.6	ug/L			11/23/15 03:12	4
Bromodichloromethane	ND		4.0	1.6	ug/L			11/23/15 03:12	4
Bromoform	ND		4.0	1.0	ug/L			11/23/15 03:12	4

Client Sample ID: MW-29 (111015)

Date Collected: 11/10/15 12:25
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		4.0	2.8	ug/L			11/23/15 03:12	4
Carbon disulfide	ND		4.0	0.76	ug/L			11/23/15 03:12	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			11/23/15 03:12	4
Chlorobenzene	ND		4.0	3.0	ug/L			11/23/15 03:12	4
Chloroethane	ND		4.0	1.3	ug/L			11/23/15 03:12	4
Chloroform	ND		4.0	1.4	ug/L			11/23/15 03:12	4
Chloromethane	ND		4.0	1.4	ug/L			11/23/15 03:12	4
cis-1,2-Dichloroethene	**1500**	**E**	4.0	3.2	ug/L			11/23/15 03:12	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			11/23/15 03:12	4
Cyclohexane	ND		4.0	0.72	ug/L			11/23/15 03:12	4
Dibromochloromethane	ND		4.0	1.3	ug/L			11/23/15 03:12	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			11/23/15 03:12	4
Ethylbenzene	**14**		4.0	3.0	ug/L			11/23/15 03:12	4
Isopropylbenzene	**12**		4.0	3.2	ug/L			11/23/15 03:12	4
Methyl acetate	ND		10	5.2	ug/L			11/23/15 03:12	4
Methyl tert-butyl ether	**0.90**	**J**	4.0	0.64	ug/L			11/23/15 03:12	4
Methylcyclohexane	**1.0**	**J**	4.0	0.64	ug/L			11/23/15 03:12	4
Methylene Chloride	ND		4.0	1.8	ug/L			11/23/15 03:12	4
Styrene	ND		4.0	2.9	ug/L			11/23/15 03:12	4
Tetrachloroethene	**6.7**		4.0	1.4	ug/L			11/23/15 03:12	4
Toluene	**2.0**	**J**	4.0	2.0	ug/L			11/23/15 03:12	4
trans-1,2-Dichloroethene	**7.1**		4.0	3.6	ug/L			11/23/15 03:12	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			11/23/15 03:12	4
Trichloroethene	**5.0**		4.0	1.8	ug/L			11/23/15 03:12	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			11/23/15 03:12	4
Vinyl chloride	**610**	**E**	4.0	3.6	ug/L			11/23/15 03:12	4
Xylenes, Total	**42**		8.0	2.6	ug/L			11/23/15 03:12	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*11/23/15 03:12*	*4*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*11/23/15 03:12*	*4*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/23/15 03:12*	*4*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*11/23/15 03:12*	*4*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	21	ug/L			11/23/15 23:54	25
1,1,2,2-Tetrachloroethane	ND		25	5.3	ug/L			11/23/15 23:54	25
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	7.8	ug/L			11/23/15 23:54	25
1,1,2-Trichloroethane	ND		25	5.8	ug/L			11/23/15 23:54	25
1,1-Dichloroethane	ND		25	9.5	ug/L			11/23/15 23:54	25
1,1-Dichloroethene	ND		25	7.3	ug/L			11/23/15 23:54	25
1,2,4-Trichlorobenzene	ND		25	10	ug/L			11/23/15 23:54	25
1,2-Dibromo-3-Chloropropane	ND		25	9.8	ug/L			11/23/15 23:54	25
1,2-Dibromoethane	ND		25	18	ug/L			11/23/15 23:54	25
1,2-Dichlorobenzene	ND		25	20	ug/L			11/23/15 23:54	25
1,2-Dichloroethane	ND		25	5.3	ug/L			11/23/15 23:54	25
1,2-Dichloropropane	ND		25	18	ug/L			11/23/15 23:54	25
1,3-Dichlorobenzene	ND		25	20	ug/L			11/23/15 23:54	25
1,4-Dichlorobenzene	ND		25	21	ug/L			11/23/15 23:54	25

Client Sample ID: MW-29 (111015)

Date Collected: 11/10/15 12:25
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		250	33	ug/L			11/23/15 23:54	25
2-Hexanone	ND		130	31	ug/L			11/23/15 23:54	25
4-Methyl-2-pentanone (MIBK)	ND		130	53	ug/L			11/23/15 23:54	25
Acetone	ND		250	75	ug/L			11/23/15 23:54	25
Benzene	ND		25	10	ug/L			11/23/15 23:54	25
Bromodichloromethane	ND		25	9.8	ug/L			11/23/15 23:54	25
Bromoform	ND		25	6.5	ug/L			11/23/15 23:54	25
Bromomethane	ND		25	17	ug/L			11/23/15 23:54	25
Carbon disulfide	ND		25	4.8	ug/L			11/23/15 23:54	25
Carbon tetrachloride	ND		25	6.8	ug/L			11/23/15 23:54	25
Chlorobenzene	ND		25	19	ug/L			11/23/15 23:54	25
Chloroethane	ND		25	8.0	ug/L			11/23/15 23:54	25
Chloroform	ND		25	8.5	ug/L			11/23/15 23:54	25
Chloromethane	ND		25	8.8	ug/L			11/23/15 23:54	25
cis-1,2-Dichloroethene	**1600**		25	20	ug/L			11/23/15 23:54	25
cis-1,3-Dichloropropene	ND		25	9.0	ug/L			11/23/15 23:54	25
Cyclohexane	ND		25	4.5	ug/L			11/23/15 23:54	25
Dibromochloromethane	ND		25	8.0	ug/L			11/23/15 23:54	25
Dichlorodifluoromethane	ND		25	17	ug/L			11/23/15 23:54	25
Ethylbenzene	ND		25	19	ug/L			11/23/15 23:54	25
Isopropylbenzene	ND		25	20	ug/L			11/23/15 23:54	25
Methyl acetate	ND		63	33	ug/L			11/23/15 23:54	25
Methyl tert-butyl ether	ND		25	4.0	ug/L			11/23/15 23:54	25
Methylcyclohexane	ND		25	4.0	ug/L			11/23/15 23:54	25
Methylene Chloride	ND		25	11	ug/L			11/23/15 23:54	25
Styrene	ND		25	18	ug/L			11/23/15 23:54	25
Tetrachloroethene	ND		25	9.0	ug/L			11/23/15 23:54	25
Toluene	ND		25	13	ug/L			11/23/15 23:54	25
trans-1,2-Dichloroethene	ND		25	23	ug/L			11/23/15 23:54	25
trans-1,3-Dichloropropene	ND		25	9.3	ug/L			11/23/15 23:54	25
Trichloroethene	ND		25	12	ug/L			11/23/15 23:54	25
Trichlorofluoromethane	ND		25	22	ug/L			11/23/15 23:54	25
Vinyl chloride	**600**		25	23	ug/L			11/23/15 23:54	25
Xylenes, Total	**48**	**J**	50	17	ug/L			11/23/15 23:54	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*11/23/15 23:54*	*25*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/23/15 23:54*	*25*
Toluene-d8 (Surr)	*96*		*71 - 126*		*11/23/15 23:54*	*25*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/23/15 23:54*	*25*

Client Sample ID: MW-19 (111015)

Date Collected: 11/10/15 14:25
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/15 03:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 03:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 03:36	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-19 (111015)
Date Collected: 11/10/15 14:25
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 03:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/15 03:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 03:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 03:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 03:36	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 03:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 03:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 03:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/15 03:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 03:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 03:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 03:36	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 03:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 03:36	1
Acetone	ND		10	3.0	ug/L			11/23/15 03:36	1
Benzene	ND		1.0	0.41	ug/L			11/23/15 03:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 03:36	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 03:36	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 03:36	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 03:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 03:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 03:36	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/15 03:36	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 03:36	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 03:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/15 03:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 03:36	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/15 03:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 03:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 03:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/15 03:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/15 03:36	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 03:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/15 03:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/15 03:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 03:36	1
Styrene	ND		1.0	0.73	ug/L			11/23/15 03:36	1
Tetrachloroethene	**0.53**	**J**	1.0	0.36	ug/L			11/23/15 03:36	1
Toluene	ND		1.0	0.51	ug/L			11/23/15 03:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/15 03:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 03:36	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/15 03:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 03:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/15 03:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/23/15 03:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*11/23/15 03:36*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/23/15 03:36*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/23/15 03:36*	*1*

Client Sample ID: MW-19 (111015)

Lab Sample ID: 480-91057-4

Date Collected: 11/10/15 14:25

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*11/23/15 03:36*	*1*

Client Sample ID: IW-02 (111015)

Lab Sample ID: 480-91057-5

Date Collected: 11/10/15 15:55

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			11/23/15 14:17	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			11/23/15 14:17	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	31	ug/L			11/23/15 14:17	100
1,1,2-Trichloroethane	ND		100	23	ug/L			11/23/15 14:17	100
1,1-Dichloroethane	ND		100	38	ug/L			11/23/15 14:17	100
1,1-Dichloroethene	ND		100	29	ug/L			11/23/15 14:17	100
1,2,4-Trichlorobenzene	ND		100	41	ug/L			11/23/15 14:17	100
1,2-Dibromo-3-Chloropropane	ND		100	39	ug/L			11/23/15 14:17	100
1,2-Dibromoethane	ND		100	73	ug/L			11/23/15 14:17	100
1,2-Dichlorobenzene	ND		100	79	ug/L			11/23/15 14:17	100
1,2-Dichloroethane	ND		100	21	ug/L			11/23/15 14:17	100
1,2-Dichloropropane	ND		100	72	ug/L			11/23/15 14:17	100
1,3-Dichlorobenzene	ND		100	78	ug/L			11/23/15 14:17	100
1,4-Dichlorobenzene	ND		100	84	ug/L			11/23/15 14:17	100
2-Butanone (MEK)	ND		1000	130	ug/L			11/23/15 14:17	100
2-Hexanone	ND		500	120	ug/L			11/23/15 14:17	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			11/23/15 14:17	100
Acetone	ND		1000	300	ug/L			11/23/15 14:17	100
Benzene	ND		100	41	ug/L			11/23/15 14:17	100
Bromodichloromethane	ND		100	39	ug/L			11/23/15 14:17	100
Bromoform	ND		100	26	ug/L			11/23/15 14:17	100
Bromomethane	ND		100	69	ug/L			11/23/15 14:17	100
Carbon disulfide	ND		100	19	ug/L			11/23/15 14:17	100
Carbon tetrachloride	ND		100	27	ug/L			11/23/15 14:17	100
Chlorobenzene	ND		100	75	ug/L			11/23/15 14:17	100
Chloroethane	ND		100	32	ug/L			11/23/15 14:17	100
Chloroform	ND		100	34	ug/L			11/23/15 14:17	100
Chloromethane	ND		100	35	ug/L			11/23/15 14:17	100
cis-1,2-Dichloroethene	**11000**	**E**	100	81	ug/L			11/23/15 14:17	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			11/23/15 14:17	100
Cyclohexane	ND		100	18	ug/L			11/23/15 14:17	100
Dibromochloromethane	ND		100	32	ug/L			11/23/15 14:17	100
Dichlorodifluoromethane	ND		100	68	ug/L			11/23/15 14:17	100
Ethylbenzene	ND		100	74	ug/L			11/23/15 14:17	100
Isopropylbenzene	ND		100	79	ug/L			11/23/15 14:17	100
Methyl acetate	ND		250	130	ug/L			11/23/15 14:17	100
Methyl tert-butyl ether	ND		100	16	ug/L			11/23/15 14:17	100
Methylcyclohexane	ND		100	16	ug/L			11/23/15 14:17	100
Methylene Chloride	ND		100	44	ug/L			11/23/15 14:17	100
Styrene	ND		100	73	ug/L			11/23/15 14:17	100
Tetrachloroethene	**12000**	**E**	100	36	ug/L			11/23/15 14:17	100

Client Sample ID: IW-02 (111015)

Date Collected: 11/10/15 15:55
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		100	51	ug/L			11/23/15 14:17	100
trans-1,2-Dichloroethene	ND		100	90	ug/L			11/23/15 14:17	100
trans-1,3-Dichloropropene	ND		100	37	ug/L			11/23/15 14:17	100
Trichloroethene	**2600**		100	46	ug/L			11/23/15 14:17	100
Trichlorofluoromethane	ND		100	88	ug/L			11/23/15 14:17	100
Vinyl chloride	**580**		100	90	ug/L			11/23/15 14:17	100
Xylenes, Total	ND		200	66	ug/L			11/23/15 14:17	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*11/23/15 14:17*	*100*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*11/23/15 14:17*	*100*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/23/15 14:17*	*100*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/23/15 14:17*	*100*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		200	160	ug/L			11/24/15 00:17	200
1,1,2,2-Tetrachloroethane	ND		200	42	ug/L			11/24/15 00:17	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		200	62	ug/L			11/24/15 00:17	200
1,1,2-Trichloroethane	ND		200	46	ug/L			11/24/15 00:17	200
1,1-Dichloroethane	ND		200	76	ug/L			11/24/15 00:17	200
1,1-Dichloroethene	ND		200	58	ug/L			11/24/15 00:17	200
1,2,4-Trichlorobenzene	ND		200	82	ug/L			11/24/15 00:17	200
1,2-Dibromo-3-Chloropropane	ND		200	78	ug/L			11/24/15 00:17	200
1,2-Dibromoethane	ND		200	150	ug/L			11/24/15 00:17	200
1,2-Dichlorobenzene	ND		200	160	ug/L			11/24/15 00:17	200
1,2-Dichloroethane	ND		200	42	ug/L			11/24/15 00:17	200
1,2-Dichloropropane	ND		200	140	ug/L			11/24/15 00:17	200
1,3-Dichlorobenzene	ND		200	160	ug/L			11/24/15 00:17	200
1,4-Dichlorobenzene	ND		200	170	ug/L			11/24/15 00:17	200
2-Butanone (MEK)	ND		2000	260	ug/L			11/24/15 00:17	200
2-Hexanone	ND		1000	250	ug/L			11/24/15 00:17	200
4-Methyl-2-pentanone (MIBK)	ND		1000	420	ug/L			11/24/15 00:17	200
Acetone	ND		2000	600	ug/L			11/24/15 00:17	200
Benzene	ND		200	82	ug/L			11/24/15 00:17	200
Bromodichloromethane	ND		200	78	ug/L			11/24/15 00:17	200
Bromoform	ND		200	52	ug/L			11/24/15 00:17	200
Bromomethane	ND		200	140	ug/L			11/24/15 00:17	200
Carbon disulfide	ND		200	38	ug/L			11/24/15 00:17	200
Carbon tetrachloride	ND		200	54	ug/L			11/24/15 00:17	200
Chlorobenzene	ND		200	150	ug/L			11/24/15 00:17	200
Chloroethane	ND		200	64	ug/L			11/24/15 00:17	200
Chloroform	ND		200	68	ug/L			11/24/15 00:17	200
Chloromethane	ND		200	70	ug/L			11/24/15 00:17	200
cis-1,2-Dichloroethene	**11000**		200	160	ug/L			11/24/15 00:17	200
cis-1,3-Dichloropropene	ND		200	72	ug/L			11/24/15 00:17	200
Cyclohexane	ND		200	36	ug/L			11/24/15 00:17	200
Dibromochloromethane	ND		200	64	ug/L			11/24/15 00:17	200
Dichlorodifluoromethane	ND		200	140	ug/L			11/24/15 00:17	200
Ethylbenzene	ND		200	150	ug/L			11/24/15 00:17	200

Client Sample ID: IW-02 (111015)

Date Collected: 11/10/15 15:55
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		200	160	ug/L			11/24/15 00:17	200
Methyl acetate	ND		500	260	ug/L			11/24/15 00:17	200
Methyl tert-butyl ether	ND		200	32	ug/L			11/24/15 00:17	200
Methylcyclohexane	ND		200	32	ug/L			11/24/15 00:17	200
Methylene Chloride	ND		200	88	ug/L			11/24/15 00:17	200
Styrene	ND		200	150	ug/L			11/24/15 00:17	200
Tetrachloroethene	**13000**		200	72	ug/L			11/24/15 00:17	200
Toluene	ND		200	100	ug/L			11/24/15 00:17	200
trans-1,2-Dichloroethene	ND		200	180	ug/L			11/24/15 00:17	200
trans-1,3-Dichloropropene	ND		200	74	ug/L			11/24/15 00:17	200
Trichloroethene	**2600**		200	92	ug/L			11/24/15 00:17	200
Trichlorofluoromethane	ND		200	180	ug/L			11/24/15 00:17	200
Vinyl chloride	**630**		200	180	ug/L			11/24/15 00:17	200
Xylenes, Total	ND		400	130	ug/L			11/24/15 00:17	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*		*11/24/15 00:17*	*200*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/24/15 00:17*	*200*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/24/15 00:17*	*200*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/24/15 00:17*	*200*

Client Sample ID: MW-26 (111015)

Date Collected: 11/10/15 17:15
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		500	410	ug/L			11/24/15 00:41	500
1,1,2,2-Tetrachloroethane	ND		500	110	ug/L			11/24/15 00:41	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160	ug/L			11/24/15 00:41	500
1,1,2-Trichloroethane	ND		500	120	ug/L			11/24/15 00:41	500
1,1-Dichloroethane	ND		500	190	ug/L			11/24/15 00:41	500
1,1-Dichloroethene	ND		500	150	ug/L			11/24/15 00:41	500
1,2,4-Trichlorobenzene	ND		500	210	ug/L			11/24/15 00:41	500
1,2-Dibromo-3-Chloropropane	ND		500	200	ug/L			11/24/15 00:41	500
1,2-Dibromoethane	ND		500	370	ug/L			11/24/15 00:41	500
1,2-Dichlorobenzene	ND		500	400	ug/L			11/24/15 00:41	500
1,2-Dichloroethane	ND		500	110	ug/L			11/24/15 00:41	500
1,2-Dichloropropane	ND		500	360	ug/L			11/24/15 00:41	500
1,3-Dichlorobenzene	ND		500	390	ug/L			11/24/15 00:41	500
1,4-Dichlorobenzene	ND		500	420	ug/L			11/24/15 00:41	500
2-Butanone (MEK)	ND		5000	660	ug/L			11/24/15 00:41	500
2-Hexanone	ND		2500	620	ug/L			11/24/15 00:41	500
4-Methyl-2-pentanone (MIBK)	ND		2500	1100	ug/L			11/24/15 00:41	500
Acetone	ND		5000	1500	ug/L			11/24/15 00:41	500
Benzene	ND		500	210	ug/L			11/24/15 00:41	500
Bromodichloromethane	ND		500	200	ug/L			11/24/15 00:41	500
Bromoform	ND		500	130	ug/L			11/24/15 00:41	500
Bromomethane	ND		500	350	ug/L			11/24/15 00:41	500
Carbon disulfide	ND		500	95	ug/L			11/24/15 00:41	500

Client Sample ID: MW-26 (111015)

Lab Sample ID: 480-91057-6
Matrix: Water
Date Collected: 11/10/15 17:15
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		500	140	ug/L			11/24/15 00:41	500
Chlorobenzene	ND		500	380	ug/L			11/24/15 00:41	500
Chloroethane	ND		500	160	ug/L			11/24/15 00:41	500
Chloroform	ND		500	170	ug/L			11/24/15 00:41	500
Chloromethane	ND		500	180	ug/L			11/24/15 00:41	500
cis-1,2-Dichloroethene	**11000**		500	410	ug/L			11/24/15 00:41	500
cis-1,3-Dichloropropene	ND		500	180	ug/L			11/24/15 00:41	500
Cyclohexane	ND		500	90	ug/L			11/24/15 00:41	500
Dibromochloromethane	ND		500	160	ug/L			11/24/15 00:41	500
Dichlorodifluoromethane	ND		500	340	ug/L			11/24/15 00:41	500
Ethylbenzene	ND		500	370	ug/L			11/24/15 00:41	500
Isopropylbenzene	ND		500	400	ug/L			11/24/15 00:41	500
Methyl acetate	ND		1300	650	ug/L			11/24/15 00:41	500
Methyl tert-butyl ether	ND		500	80	ug/L			11/24/15 00:41	500
Methylcyclohexane	ND		500	80	ug/L			11/24/15 00:41	500
Methylene Chloride	ND		500	220	ug/L			11/24/15 00:41	500
Styrene	ND		500	370	ug/L			11/24/15 00:41	500
Tetrachloroethene	**670**		500	180	ug/L			11/24/15 00:41	500
Toluene	ND		500	260	ug/L			11/24/15 00:41	500
trans-1,2-Dichloroethene	ND		500	450	ug/L			11/24/15 00:41	500
trans-1,3-Dichloropropene	ND		500	190	ug/L			11/24/15 00:41	500
Trichloroethene	**800**		500	230	ug/L			11/24/15 00:41	500
Trichlorofluoromethane	ND		500	440	ug/L			11/24/15 00:41	500
Vinyl chloride	**630**		500	450	ug/L			11/24/15 00:41	500
Xylenes, Total	ND		1000	330	ug/L			11/24/15 00:41	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*66 - 137*		*11/24/15 00:41*	*500*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/24/15 00:41*	*500*
Toluene-d8 (Surr)	*96*		*71 - 126*		*11/24/15 00:41*	*500*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/24/15 00:41*	*500*

Client Sample ID: MW-7 (111115)

Lab Sample ID: 480-91057-7
Matrix: Water
Date Collected: 11/11/15 08:50
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/24/15 01:05	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/24/15 01:05	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/24/15 01:05	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/24/15 01:05	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/24/15 01:05	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/24/15 01:05	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/24/15 01:05	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/24/15 01:05	10
1,2-Dibromoethane	ND		10	7.3	ug/L			11/24/15 01:05	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/24/15 01:05	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/24/15 01:05	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/24/15 01:05	10

Client Sample ID: MW-7 (111115)

Lab Sample ID: 480-91057-7

Date Collected: 11/11/15 08:50

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/24/15 01:05	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/24/15 01:05	10
2-Butanone (MEK)	ND		100	13	ug/L			11/24/15 01:05	10
2-Hexanone	ND		50	12	ug/L			11/24/15 01:05	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/24/15 01:05	10
Acetone	ND		100	30	ug/L			11/24/15 01:05	10
Benzene	ND		10	4.1	ug/L			11/24/15 01:05	10
Bromodichloromethane	ND		10	3.9	ug/L			11/24/15 01:05	10
Bromoform	ND		10	2.6	ug/L			11/24/15 01:05	10
Bromomethane	ND		10	6.9	ug/L			11/24/15 01:05	10
Carbon disulfide	ND		10	1.9	ug/L			11/24/15 01:05	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/24/15 01:05	10
Chlorobenzene	ND		10	7.5	ug/L			11/24/15 01:05	10
Chloroethane	ND		10	3.2	ug/L			11/24/15 01:05	10
Chloroform	ND		10	3.4	ug/L			11/24/15 01:05	10
Chloromethane	ND		10	3.5	ug/L			11/24/15 01:05	10
cis-1,2-Dichloroethene	**310**		10	8.1	ug/L			11/24/15 01:05	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/24/15 01:05	10
Cyclohexane	ND		10	1.8	ug/L			11/24/15 01:05	10
Dibromochloromethane	ND		10	3.2	ug/L			11/24/15 01:05	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/24/15 01:05	10
Ethylbenzene	ND		10	7.4	ug/L			11/24/15 01:05	10
Isopropylbenzene	ND		10	7.9	ug/L			11/24/15 01:05	10
Methyl acetate	ND		25	13	ug/L			11/24/15 01:05	10
Methyl tert-butyl ether	**5.3**	**J**	10	1.6	ug/L			11/24/15 01:05	10
Methylcyclohexane	ND		10	1.6	ug/L			11/24/15 01:05	10
Methylene Chloride	ND		10	4.4	ug/L			11/24/15 01:05	10
Styrene	ND		10	7.3	ug/L			11/24/15 01:05	10
Tetrachloroethene	**210**		10	3.6	ug/L			11/24/15 01:05	10
Toluene	ND		10	5.1	ug/L			11/24/15 01:05	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/24/15 01:05	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/24/15 01:05	10
Trichloroethene	**90**		10	4.6	ug/L			11/24/15 01:05	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/24/15 01:05	10
Vinyl chloride	ND		10	9.0	ug/L			11/24/15 01:05	10
Xylenes, Total	ND		20	6.6	ug/L			11/24/15 01:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/24/15 01:05*	*10*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/24/15 01:05*	*10*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/24/15 01:05*	*10*
Dibromofluoromethane (Surr)	*97*		*60 - 140*		*11/24/15 01:05*	*10*

Client Sample ID: MW-1D (111115)

Lab Sample ID: 480-91057-8

Date Collected: 11/11/15 09:50

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			11/23/15 15:29	20

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-1D (111115)
Date Collected: 11/11/15 09:50
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			11/23/15 15:29	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			11/23/15 15:29	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			11/23/15 15:29	20
1,1-Dichloroethane	ND		20	7.6	ug/L			11/23/15 15:29	20
1,1-Dichloroethene	ND		20	5.8	ug/L			11/23/15 15:29	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			11/23/15 15:29	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			11/23/15 15:29	20
1,2-Dibromoethane	ND		20	15	ug/L			11/23/15 15:29	20
1,2-Dichlorobenzene	ND		20	16	ug/L			11/23/15 15:29	20
1,2-Dichloroethane	ND		20	4.2	ug/L			11/23/15 15:29	20
1,2-Dichloropropane	ND		20	14	ug/L			11/23/15 15:29	20
1,3-Dichlorobenzene	ND		20	16	ug/L			11/23/15 15:29	20
1,4-Dichlorobenzene	ND		20	17	ug/L			11/23/15 15:29	20
2-Butanone (MEK)	ND		200	26	ug/L			11/23/15 15:29	20
2-Hexanone	ND		100	25	ug/L			11/23/15 15:29	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			11/23/15 15:29	20
Acetone	ND		200	60	ug/L			11/23/15 15:29	20
Benzene	ND		20	8.2	ug/L			11/23/15 15:29	20
Bromodichloromethane	ND		20	7.8	ug/L			11/23/15 15:29	20
Bromoform	ND		20	5.2	ug/L			11/23/15 15:29	20
Bromomethane	ND		20	14	ug/L			11/23/15 15:29	20
Carbon disulfide	ND		20	3.8	ug/L			11/23/15 15:29	20
Carbon tetrachloride	ND		20	5.4	ug/L			11/23/15 15:29	20
Chlorobenzene	ND		20	15	ug/L			11/23/15 15:29	20
Chloroethane	ND		20	6.4	ug/L			11/23/15 15:29	20
Chloroform	ND		20	6.8	ug/L			11/23/15 15:29	20
Chloromethane	ND		20	7.0	ug/L			11/23/15 15:29	20
cis-1,2-Dichloroethene	**960**		20	16	ug/L			11/23/15 15:29	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			11/23/15 15:29	20
Cyclohexane	ND		20	3.6	ug/L			11/23/15 15:29	20
Dibromochloromethane	ND		20	6.4	ug/L			11/23/15 15:29	20
Dichlorodifluoromethane	ND		20	14	ug/L			11/23/15 15:29	20
Ethylbenzene	ND		20	15	ug/L			11/23/15 15:29	20
Isopropylbenzene	ND		20	16	ug/L			11/23/15 15:29	20
Methyl acetate	ND		50	26	ug/L			11/23/15 15:29	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			11/23/15 15:29	20
Methylcyclohexane	ND		20	3.2	ug/L			11/23/15 15:29	20
Methylene Chloride	ND		20	8.8	ug/L			11/23/15 15:29	20
Styrene	ND		20	15	ug/L			11/23/15 15:29	20
Tetrachloroethene	**1900**		20	7.2	ug/L			11/23/15 15:29	20
Toluene	ND		20	10	ug/L			11/23/15 15:29	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			11/23/15 15:29	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			11/23/15 15:29	20
Trichloroethene	**530**		20	9.2	ug/L			11/23/15 15:29	20
Trichlorofluoromethane	ND		20	18	ug/L			11/23/15 15:29	20
Vinyl chloride	**32**		20	18	ug/L			11/23/15 15:29	20
Xylenes, Total	ND		40	13	ug/L			11/23/15 15:29	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/23/15 15:29*	*20*

Client Sample ID: MW-1D (111115)

Lab Sample ID: 480-91057-8
Matrix: Water
Date Collected: 11/11/15 09:50
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/23/15 15:29*	*20*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/23/15 15:29*	*20*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/23/15 15:29*	*20*

Client Sample ID: MW-22 (R) D (111115)

Lab Sample ID: 480-91057-9
Matrix: Water
Date Collected: 11/11/15 11:20
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		80	66	ug/L			11/24/15 22:01	80
1,1,2,2-Tetrachloroethane	ND		80	17	ug/L			11/24/15 22:01	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		80	25	ug/L			11/24/15 22:01	80
1,1,2-Trichloroethane	ND		80	18	ug/L			11/24/15 22:01	80
1,1-Dichloroethane	ND		80	30	ug/L			11/24/15 22:01	80
1,1-Dichloroethene	ND		80	23	ug/L			11/24/15 22:01	80
1,2,4-Trichlorobenzene	ND		80	33	ug/L			11/24/15 22:01	80
1,2-Dibromo-3-Chloropropane	ND		80	31	ug/L			11/24/15 22:01	80
1,2-Dibromoethane	ND		80	58	ug/L			11/24/15 22:01	80
1,2-Dichlorobenzene	ND		80	63	ug/L			11/24/15 22:01	80
1,2-Dichloroethane	ND		80	17	ug/L			11/24/15 22:01	80
1,2-Dichloropropane	ND		80	58	ug/L			11/24/15 22:01	80
1,3-Dichlorobenzene	ND		80	62	ug/L			11/24/15 22:01	80
1,4-Dichlorobenzene	ND		80	67	ug/L			11/24/15 22:01	80
2-Butanone (MEK)	ND		800	110	ug/L			11/24/15 22:01	80
2-Hexanone	ND		400	99	ug/L			11/24/15 22:01	80
4-Methyl-2-pentanone (MIBK)	ND		400	170	ug/L			11/24/15 22:01	80
Acetone	ND		800	240	ug/L			11/24/15 22:01	80
Benzene	ND		80	33	ug/L			11/24/15 22:01	80
Bromodichloromethane	ND		80	31	ug/L			11/24/15 22:01	80
Bromoform	ND		80	21	ug/L			11/24/15 22:01	80
Bromomethane	ND		80	55	ug/L			11/24/15 22:01	80
Carbon disulfide	ND		80	15	ug/L			11/24/15 22:01	80
Carbon tetrachloride	ND		80	22	ug/L			11/24/15 22:01	80
Chlorobenzene	ND		80	60	ug/L			11/24/15 22:01	80
Chloroethane	ND		80	26	ug/L			11/24/15 22:01	80
Chloroform	ND		80	27	ug/L			11/24/15 22:01	80
Chloromethane	ND		80	28	ug/L			11/24/15 22:01	80
cis-1,2-Dichloroethene	**2400**		80	65	ug/L			11/24/15 22:01	80
cis-1,3-Dichloropropene	ND		80	29	ug/L			11/24/15 22:01	80
Cyclohexane	ND		80	14	ug/L			11/24/15 22:01	80
Dibromochloromethane	ND		80	26	ug/L			11/24/15 22:01	80
Dichlorodifluoromethane	ND		80	54	ug/L			11/24/15 22:01	80
Ethylbenzene	ND		80	59	ug/L			11/24/15 22:01	80
Isopropylbenzene	ND		80	63	ug/L			11/24/15 22:01	80
Methyl acetate	ND		200	100	ug/L			11/24/15 22:01	80
Methyl tert-butyl ether	ND		80	13	ug/L			11/24/15 22:01	80
Methylcyclohexane	ND		80	13	ug/L			11/24/15 22:01	80
Methylene Chloride	ND		80	35	ug/L			11/24/15 22:01	80

Client Sample ID: MW-22 (R) D (111115)

Lab Sample ID: 480-91057-9

Date Collected: 11/11/15 11:20

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		80	58	ug/L			11/24/15 22:01	80
Tetrachloroethene	**36**	**J**	80	29	ug/L			11/24/15 22:01	80
Toluene	ND		80	41	ug/L			11/24/15 22:01	80
trans-1,2-Dichloroethene	ND		80	72	ug/L			11/24/15 22:01	80
trans-1,3-Dichloropropene	ND		80	30	ug/L			11/24/15 22:01	80
Trichloroethene	ND		80	37	ug/L			11/24/15 22:01	80
Trichlorofluoromethane	ND		80	70	ug/L			11/24/15 22:01	80
Vinyl chloride	ND		80	72	ug/L			11/24/15 22:01	80
Xylenes, Total	ND		160	53	ug/L			11/24/15 22:01	80

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/24/15 22:01*	*80*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/24/15 22:01*	*80*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/24/15 22:01*	*80*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/24/15 22:01*	*80*

Client Sample ID: GM-9 (111115)

Lab Sample ID: 480-91057-10

Date Collected: 11/11/15 15:35

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/24/15 01:52	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/24/15 01:52	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/24/15 01:52	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/24/15 01:52	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/24/15 01:52	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/24/15 01:52	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/24/15 01:52	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/24/15 01:52	10
1,2-Dibromoethane	ND		10	7.3	ug/L			11/24/15 01:52	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/24/15 01:52	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/24/15 01:52	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/24/15 01:52	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/24/15 01:52	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/24/15 01:52	10
2-Butanone (MEK)	ND		100	13	ug/L			11/24/15 01:52	10
2-Hexanone	ND		50	12	ug/L			11/24/15 01:52	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/24/15 01:52	10
Acetone	ND		100	30	ug/L			11/24/15 01:52	10
Benzene	ND		10	4.1	ug/L			11/24/15 01:52	10
Bromodichloromethane	ND		10	3.9	ug/L			11/24/15 01:52	10
Bromoform	ND		10	2.6	ug/L			11/24/15 01:52	10
Bromomethane	ND		10	6.9	ug/L			11/24/15 01:52	10
Carbon disulfide	ND		10	1.9	ug/L			11/24/15 01:52	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/24/15 01:52	10
Chlorobenzene	ND		10	7.5	ug/L			11/24/15 01:52	10
Chloroethane	ND		10	3.2	ug/L			11/24/15 01:52	10
Chloroform	ND		10	3.4	ug/L			11/24/15 01:52	10
Chloromethane	ND		10	3.5	ug/L			11/24/15 01:52	10

Client Sample ID: GM-9 (111115)

Lab Sample ID: 480-91057-10
Matrix: Water
Date Collected: 11/11/15 15:35
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**390**		10	8.1	ug/L			11/24/15 01:52	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/24/15 01:52	10
Cyclohexane	ND		10	1.8	ug/L			11/24/15 01:52	10
Dibromochloromethane	ND		10	3.2	ug/L			11/24/15 01:52	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/24/15 01:52	10
Ethylbenzene	ND		10	7.4	ug/L			11/24/15 01:52	10
Isopropylbenzene	ND		10	7.9	ug/L			11/24/15 01:52	10
Methyl acetate	ND		25	13	ug/L			11/24/15 01:52	10
Methyl tert-butyl ether	**1.9**	**J**	10	1.6	ug/L			11/24/15 01:52	10
Methylcyclohexane	ND		10	1.6	ug/L			11/24/15 01:52	10
Methylene Chloride	ND		10	4.4	ug/L			11/24/15 01:52	10
Styrene	ND		10	7.3	ug/L			11/24/15 01:52	10
Tetrachloroethene	**440**		10	3.6	ug/L			11/24/15 01:52	10
Toluene	ND		10	5.1	ug/L			11/24/15 01:52	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/24/15 01:52	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/24/15 01:52	10
Trichloroethene	**110**		10	4.6	ug/L			11/24/15 01:52	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/24/15 01:52	10
Vinyl chloride	**14**		10	9.0	ug/L			11/24/15 01:52	10
Xylenes, Total	ND		20	6.6	ug/L			11/24/15 01:52	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*11/24/15 01:52*	*10*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/24/15 01:52*	*10*
Toluene-d8 (Surr)	*98*		*71 - 126*		*11/24/15 01:52*	*10*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*11/24/15 01:52*	*10*

Client Sample ID: MW-2 (111115)

Lab Sample ID: 480-91057-11
Matrix: Water
Date Collected: 11/11/15 18:50
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.0**		1.0	0.82	ug/L			11/23/15 16:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 16:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 16:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 16:40	1
1,1-Dichloroethane	**0.57**	**J**	1.0	0.38	ug/L			11/23/15 16:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 16:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 16:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 16:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 16:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 16:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 16:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/15 16:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 16:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 16:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 16:40	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 16:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 16:40	1

Client Sample ID: MW-2 (111115)

Lab Sample ID: 480-91057-11

Date Collected: 11/11/15 18:50

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			11/23/15 16:40	1
Benzene	ND		1.0	0.41	ug/L			11/23/15 16:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 16:40	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 16:40	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 16:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 16:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 16:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 16:40	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/15 16:40	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 16:40	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 16:40	1
cis-1,2-Dichloroethene	**4.6**		1.0	0.81	ug/L			11/23/15 16:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 16:40	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/15 16:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 16:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 16:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/15 16:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/15 16:40	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 16:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/15 16:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/15 16:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 16:40	1
Styrene	ND		1.0	0.73	ug/L			11/23/15 16:40	1
Tetrachloroethene	**58**		1.0	0.36	ug/L			11/23/15 16:40	1
Toluene	ND		1.0	0.51	ug/L			11/23/15 16:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/15 16:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 16:40	1
Trichloroethene	**14**		1.0	0.46	ug/L			11/23/15 16:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 16:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/15 16:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/23/15 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*		*11/23/15 16:40*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*11/23/15 16:40*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/23/15 16:40*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/23/15 16:40*	*1*

Client Sample ID: MW-4 (111115)

Lab Sample ID: 480-91057-12

Date Collected: 11/11/15 20:10

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/15 17:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 17:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 17:04	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 17:04	1
1,1-Dichloroethane	**0.58**	**J**	1.0	0.38	ug/L			11/23/15 17:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 17:04	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-4 (111115)
Date Collected: 11/11/15 20:10
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 17:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 17:04	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 17:04	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 17:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 17:04	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/15 17:04	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 17:04	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 17:04	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 17:04	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 17:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 17:04	1
Acetone	ND		10	3.0	ug/L			11/23/15 17:04	1
Benzene	ND		1.0	0.41	ug/L			11/23/15 17:04	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 17:04	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 17:04	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 17:04	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 17:04	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 17:04	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 17:04	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/15 17:04	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 17:04	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 17:04	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/15 17:04	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 17:04	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/15 17:04	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 17:04	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 17:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/15 17:04	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/15 17:04	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 17:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/15 17:04	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/15 17:04	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 17:04	1
Styrene	ND		1.0	0.73	ug/L			11/23/15 17:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/15 17:04	1
Toluene	ND		1.0	0.51	ug/L			11/23/15 17:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/15 17:04	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 17:04	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/15 17:04	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 17:04	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/15 17:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/23/15 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*11/23/15 17:04*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/23/15 17:04*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/23/15 17:04*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/23/15 17:04*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-14R (111115)
Date Collected: 11/11/15 22:10
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			11/23/15 17:28	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			11/23/15 17:28	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			11/23/15 17:28	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			11/23/15 17:28	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			11/23/15 17:28	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			11/23/15 17:28	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			11/23/15 17:28	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			11/23/15 17:28	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			11/23/15 17:28	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			11/23/15 17:28	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			11/23/15 17:28	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			11/23/15 17:28	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			11/23/15 17:28	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			11/23/15 17:28	4
2-Butanone (MEK)	ND		40	5.3	ug/L			11/23/15 17:28	4
2-Hexanone	ND		20	5.0	ug/L			11/23/15 17:28	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			11/23/15 17:28	4
Acetone	ND		40	12	ug/L			11/23/15 17:28	4
Benzene	ND		4.0	1.6	ug/L			11/23/15 17:28	4
Bromodichloromethane	ND		4.0	1.6	ug/L			11/23/15 17:28	4
Bromoform	ND		4.0	1.0	ug/L			11/23/15 17:28	4
Bromomethane	ND		4.0	2.8	ug/L			11/23/15 17:28	4
Carbon disulfide	ND		4.0	0.76	ug/L			11/23/15 17:28	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			11/23/15 17:28	4
Chlorobenzene	ND		4.0	3.0	ug/L			11/23/15 17:28	4
Chloroethane	ND		4.0	1.3	ug/L			11/23/15 17:28	4
Chloroform	ND		4.0	1.4	ug/L			11/23/15 17:28	4
Chloromethane	ND		4.0	1.4	ug/L			11/23/15 17:28	4
cis-1,2-Dichloroethene	**260**		4.0	3.2	ug/L			11/23/15 17:28	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			11/23/15 17:28	4
Cyclohexane	ND		4.0	0.72	ug/L			11/23/15 17:28	4
Dibromochloromethane	ND		4.0	1.3	ug/L			11/23/15 17:28	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			11/23/15 17:28	4
Ethylbenzene	**34**		4.0	3.0	ug/L			11/23/15 17:28	4
Isopropylbenzene	**17**		4.0	3.2	ug/L			11/23/15 17:28	4
Methyl acetate	ND		10	5.2	ug/L			11/23/15 17:28	4
Methyl tert-butyl ether	**1.3**	**J**	4.0	0.64	ug/L			11/23/15 17:28	4
Methylcyclohexane	**1.2**	**J**	4.0	0.64	ug/L			11/23/15 17:28	4
Methylene Chloride	ND		4.0	1.8	ug/L			11/23/15 17:28	4
Styrene	ND		4.0	2.9	ug/L			11/23/15 17:28	4
Tetrachloroethene	ND		4.0	1.4	ug/L			11/23/15 17:28	4
Toluene	**11**		4.0	2.0	ug/L			11/23/15 17:28	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			11/23/15 17:28	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			11/23/15 17:28	4
Trichloroethene	ND		4.0	1.8	ug/L			11/23/15 17:28	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			11/23/15 17:28	4
Vinyl chloride	**460**	**E**	4.0	3.6	ug/L			11/23/15 17:28	4
Xylenes, Total	**190**		8.0	2.6	ug/L			11/23/15 17:28	4

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-14R (111115)
Date Collected: 11/11/15 22:10
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-13
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		66 - 137		11/23/15 17:28	4
4-Bromofluorobenzene (Surr)	100		73 - 120		11/23/15 17:28	4
Toluene-d8 (Surr)	95		71 - 126		11/23/15 17:28	4
Dibromofluoromethane (Surr)	96		60 - 140		11/23/15 17:28	4

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			11/24/15 02:16	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			11/24/15 02:16	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5	ug/L			11/24/15 02:16	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			11/24/15 02:16	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			11/24/15 02:16	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			11/24/15 02:16	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			11/24/15 02:16	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			11/24/15 02:16	8
1,2-Dibromoethane	ND		8.0	5.8	ug/L			11/24/15 02:16	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			11/24/15 02:16	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			11/24/15 02:16	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			11/24/15 02:16	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			11/24/15 02:16	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			11/24/15 02:16	8
2-Butanone (MEK)	ND		80	11	ug/L			11/24/15 02:16	8
2-Hexanone	ND		40	9.9	ug/L			11/24/15 02:16	8
4-Methyl-2-pentanone (MIBK)	ND		40	17	ug/L			11/24/15 02:16	8
Acetone	ND		80	24	ug/L			11/24/15 02:16	8
Benzene	ND		8.0	3.3	ug/L			11/24/15 02:16	8
Bromodichloromethane	ND		8.0	3.1	ug/L			11/24/15 02:16	8
Bromoform	ND		8.0	2.1	ug/L			11/24/15 02:16	8
Bromomethane	ND		8.0	5.5	ug/L			11/24/15 02:16	8
Carbon disulfide	ND		8.0	1.5	ug/L			11/24/15 02:16	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			11/24/15 02:16	8
Chlorobenzene	ND		8.0	6.0	ug/L			11/24/15 02:16	8
Chloroethane	ND		8.0	2.6	ug/L			11/24/15 02:16	8
Chloroform	ND		8.0	2.7	ug/L			11/24/15 02:16	8
Chloromethane	ND		8.0	2.8	ug/L			11/24/15 02:16	8
cis-1,2-Dichloroethene	**250**		8.0	6.5	ug/L			11/24/15 02:16	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			11/24/15 02:16	8
Cyclohexane	ND		8.0	1.4	ug/L			11/24/15 02:16	8
Dibromochloromethane	ND		8.0	2.6	ug/L			11/24/15 02:16	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			11/24/15 02:16	8
Ethylbenzene	**35**		8.0	5.9	ug/L			11/24/15 02:16	8
Isopropylbenzene	**16**		8.0	6.3	ug/L			11/24/15 02:16	8
Methyl acetate	ND		20	10	ug/L			11/24/15 02:16	8
Methyl tert-butyl ether	**1.4**	**J**	8.0	1.3	ug/L			11/24/15 02:16	8
Methylcyclohexane	**1.3**	**J**	8.0	1.3	ug/L			11/24/15 02:16	8
Methylene Chloride	ND		8.0	3.5	ug/L			11/24/15 02:16	8
Styrene	ND		8.0	5.8	ug/L			11/24/15 02:16	8
Tetrachloroethene	ND		8.0	2.9	ug/L			11/24/15 02:16	8
Toluene	**10**		8.0	4.1	ug/L			11/24/15 02:16	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			11/24/15 02:16	8

Client Sample ID: MW-14R (111115)

Lab Sample ID: 480-91057-13

Date Collected: 11/11/15 22:10

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			11/24/15 02:16	8
Trichloroethene	ND		8.0	3.7	ug/L			11/24/15 02:16	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			11/24/15 02:16	8
Vinyl chloride	**480**		8.0	7.2	ug/L			11/24/15 02:16	8
Xylenes, Total	**190**		16	5.3	ug/L			11/24/15 02:16	8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/24/15 02:16*	*8*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*11/24/15 02:16*	*8*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/24/15 02:16*	*8*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/24/15 02:16*	*8*

Client Sample ID: MW-25D (111215)

Lab Sample ID: 480-91057-14

Date Collected: 11/12/15 09:45

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/23/15 17:51	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/23/15 17:51	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/23/15 17:51	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/23/15 17:51	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/23/15 17:51	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/23/15 17:51	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/23/15 17:51	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/23/15 17:51	10
1,2-Dibromoethane	ND		10	7.3	ug/L			11/23/15 17:51	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/23/15 17:51	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/23/15 17:51	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/23/15 17:51	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/23/15 17:51	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/23/15 17:51	10
2-Butanone (MEK)	ND		100	13	ug/L			11/23/15 17:51	10
2-Hexanone	ND		50	12	ug/L			11/23/15 17:51	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/23/15 17:51	10
Acetone	ND		100	30	ug/L			11/23/15 17:51	10
Benzene	ND		10	4.1	ug/L			11/23/15 17:51	10
Bromodichloromethane	ND		10	3.9	ug/L			11/23/15 17:51	10
Bromoform	ND		10	2.6	ug/L			11/23/15 17:51	10
Bromomethane	ND		10	6.9	ug/L			11/23/15 17:51	10
Carbon disulfide	ND		10	1.9	ug/L			11/23/15 17:51	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/23/15 17:51	10
Chlorobenzene	ND		10	7.5	ug/L			11/23/15 17:51	10
Chloroethane	ND		10	3.2	ug/L			11/23/15 17:51	10
Chloroform	ND		10	3.4	ug/L			11/23/15 17:51	10
Chloromethane	ND		10	3.5	ug/L			11/23/15 17:51	10
cis-1,2-Dichloroethene	**480**		10	8.1	ug/L			11/23/15 17:51	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/23/15 17:51	10
Cyclohexane	ND		10	1.8	ug/L			11/23/15 17:51	10
Dibromochloromethane	ND		10	3.2	ug/L			11/23/15 17:51	10

Client Sample ID: MW-25D (111215)

Lab Sample ID: 480-91057-14

Date Collected: 11/12/15 09:45

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/23/15 17:51	10
Ethylbenzene	ND		10	7.4	ug/L			11/23/15 17:51	10
Isopropylbenzene	ND		10	7.9	ug/L			11/23/15 17:51	10
Methyl acetate	ND		25	13	ug/L			11/23/15 17:51	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			11/23/15 17:51	10
Methylcyclohexane	ND		10	1.6	ug/L			11/23/15 17:51	10
Methylene Chloride	ND		10	4.4	ug/L			11/23/15 17:51	10
Styrene	ND		10	7.3	ug/L			11/23/15 17:51	10
Tetrachloroethene	**26**		10	3.6	ug/L			11/23/15 17:51	10
Toluene	ND		10	5.1	ug/L			11/23/15 17:51	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/23/15 17:51	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/23/15 17:51	10
Trichloroethene	**17**		10	4.6	ug/L			11/23/15 17:51	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/23/15 17:51	10
Vinyl chloride	**150**		10	9.0	ug/L			11/23/15 17:51	10
Xylenes, Total	ND		20	6.6	ug/L			11/23/15 17:51	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*11/23/15 17:51*	*10*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/23/15 17:51*	*10*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/23/15 17:51*	*10*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/23/15 17:51*	*10*

Client Sample ID: MW-13 (111215)

Lab Sample ID: 480-91057-15

Date Collected: 11/12/15 11:40

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		500	410	ug/L			11/23/15 18:15	500
1,1,2,2-Tetrachloroethane	ND		500	110	ug/L			11/23/15 18:15	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160	ug/L			11/23/15 18:15	500
1,1,2-Trichloroethane	ND		500	120	ug/L			11/23/15 18:15	500
1,1-Dichloroethane	ND		500	190	ug/L			11/23/15 18:15	500
1,1-Dichloroethene	ND		500	150	ug/L			11/23/15 18:15	500
1,2,4-Trichlorobenzene	ND		500	210	ug/L			11/23/15 18:15	500
1,2-Dibromo-3-Chloropropane	ND		500	200	ug/L			11/23/15 18:15	500
1,2-Dibromoethane	ND		500	370	ug/L			11/23/15 18:15	500
1,2-Dichlorobenzene	ND		500	400	ug/L			11/23/15 18:15	500
1,2-Dichloroethane	ND		500	110	ug/L			11/23/15 18:15	500
1,2-Dichloropropane	ND		500	360	ug/L			11/23/15 18:15	500
1,3-Dichlorobenzene	ND		500	390	ug/L			11/23/15 18:15	500
1,4-Dichlorobenzene	ND		500	420	ug/L			11/23/15 18:15	500
2-Butanone (MEK)	ND		5000	660	ug/L			11/23/15 18:15	500
2-Hexanone	ND		2500	620	ug/L			11/23/15 18:15	500
4-Methyl-2-pentanone (MIBK)	ND		2500	1100	ug/L			11/23/15 18:15	500
Acetone	ND		5000	1500	ug/L			11/23/15 18:15	500
Benzene	ND		500	210	ug/L			11/23/15 18:15	500
Bromodichloromethane	ND		500	200	ug/L			11/23/15 18:15	500
Bromoform	ND		500	130	ug/L			11/23/15 18:15	500

Client Sample ID: MW-13 (111215)

Lab Sample ID: 480-91057-15

Date Collected: 11/12/15 11:40

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		500	350	ug/L			11/23/15 18:15	500
Carbon disulfide	ND		500	95	ug/L			11/23/15 18:15	500
Carbon tetrachloride	ND		500	140	ug/L			11/23/15 18:15	500
Chlorobenzene	ND		500	380	ug/L			11/23/15 18:15	500
Chloroethane	ND		500	160	ug/L			11/23/15 18:15	500
Chloroform	ND		500	170	ug/L			11/23/15 18:15	500
Chloromethane	ND		500	180	ug/L			11/23/15 18:15	500
cis-1,2-Dichloroethene	**28000**		500	410	ug/L			11/23/15 18:15	500
cis-1,3-Dichloropropene	ND		500	180	ug/L			11/23/15 18:15	500
Cyclohexane	ND		500	90	ug/L			11/23/15 18:15	500
Dibromochloromethane	ND		500	160	ug/L			11/23/15 18:15	500
Dichlorodifluoromethane	ND		500	340	ug/L			11/23/15 18:15	500
Ethylbenzene	ND		500	370	ug/L			11/23/15 18:15	500
Isopropylbenzene	ND		500	400	ug/L			11/23/15 18:15	500
Methyl acetate	ND		1300	650	ug/L			11/23/15 18:15	500
Methyl tert-butyl ether	ND		500	80	ug/L			11/23/15 18:15	500
Methylcyclohexane	ND		500	80	ug/L			11/23/15 18:15	500
Methylene Chloride	ND		500	220	ug/L			11/23/15 18:15	500
Styrene	ND		500	370	ug/L			11/23/15 18:15	500
Tetrachloroethene	**630**		500	180	ug/L			11/23/15 18:15	500
Toluene	ND		500	260	ug/L			11/23/15 18:15	500
trans-1,2-Dichloroethene	ND		500	450	ug/L			11/23/15 18:15	500
trans-1,3-Dichloropropene	ND		500	190	ug/L			11/23/15 18:15	500
Trichloroethene	**410**	**J**	500	230	ug/L			11/23/15 18:15	500
Trichlorofluoromethane	ND		500	440	ug/L			11/23/15 18:15	500
Vinyl chloride	**730**		500	450	ug/L			11/23/15 18:15	500
Xylenes, Total	ND		1000	330	ug/L			11/23/15 18:15	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*11/23/15 18:15*	*500*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/23/15 18:15*	*500*
Toluene-d8 (Surr)	*98*		*71 - 126*		*11/23/15 18:15*	*500*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/23/15 18:15*	*500*

Client Sample ID: IW-01S (111215)

Lab Sample ID: 480-91057-16

Date Collected: 11/12/15 13:10

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			11/24/15 02:40	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			11/24/15 02:40	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			11/24/15 02:40	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			11/24/15 02:40	20
1,1-Dichloroethane	ND		20	7.6	ug/L			11/24/15 02:40	20
1,1-Dichloroethene	ND		20	5.8	ug/L			11/24/15 02:40	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			11/24/15 02:40	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			11/24/15 02:40	20
1,2-Dibromoethane	ND		20	15	ug/L			11/24/15 02:40	20
1,2-Dichlorobenzene	ND		20	16	ug/L			11/24/15 02:40	20

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: IW-01S (111215)
Date Collected: 11/12/15 13:10
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		20	4.2	ug/L			11/24/15 02:40	20
1,2-Dichloropropane	ND		20	14	ug/L			11/24/15 02:40	20
1,3-Dichlorobenzene	ND		20	16	ug/L			11/24/15 02:40	20
1,4-Dichlorobenzene	ND		20	17	ug/L			11/24/15 02:40	20
2-Butanone (MEK)	ND		200	26	ug/L			11/24/15 02:40	20
2-Hexanone	ND		100	25	ug/L			11/24/15 02:40	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			11/24/15 02:40	20
Acetone	ND		200	60	ug/L			11/24/15 02:40	20
Benzene	ND		20	8.2	ug/L			11/24/15 02:40	20
Bromodichloromethane	ND		20	7.8	ug/L			11/24/15 02:40	20
Bromoform	ND		20	5.2	ug/L			11/24/15 02:40	20
Bromomethane	ND		20	14	ug/L			11/24/15 02:40	20
Carbon disulfide	ND		20	3.8	ug/L			11/24/15 02:40	20
Carbon tetrachloride	ND		20	5.4	ug/L			11/24/15 02:40	20
Chlorobenzene	ND		20	15	ug/L			11/24/15 02:40	20
Chloroethane	ND		20	6.4	ug/L			11/24/15 02:40	20
Chloroform	ND		20	6.8	ug/L			11/24/15 02:40	20
Chloromethane	ND		20	7.0	ug/L			11/24/15 02:40	20
cis-1,2-Dichloroethene	**800**		20	16	ug/L			11/24/15 02:40	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			11/24/15 02:40	20
Cyclohexane	ND		20	3.6	ug/L			11/24/15 02:40	20
Dibromochloromethane	ND		20	6.4	ug/L			11/24/15 02:40	20
Dichlorodifluoromethane	ND		20	14	ug/L			11/24/15 02:40	20
Ethylbenzene	ND		20	15	ug/L			11/24/15 02:40	20
Isopropylbenzene	ND		20	16	ug/L			11/24/15 02:40	20
Methyl acetate	ND		50	26	ug/L			11/24/15 02:40	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			11/24/15 02:40	20
Methylcyclohexane	ND		20	3.2	ug/L			11/24/15 02:40	20
Methylene Chloride	ND		20	8.8	ug/L			11/24/15 02:40	20
Styrene	ND		20	15	ug/L			11/24/15 02:40	20
Tetrachloroethene	**35**		20	7.2	ug/L			11/24/15 02:40	20
Toluene	ND		20	10	ug/L			11/24/15 02:40	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			11/24/15 02:40	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			11/24/15 02:40	20
Trichloroethene	**27**		20	9.2	ug/L			11/24/15 02:40	20
Trichlorofluoromethane	ND		20	18	ug/L			11/24/15 02:40	20
Vinyl chloride	**33**		20	18	ug/L			11/24/15 02:40	20
Xylenes, Total	ND		40	13	ug/L			11/24/15 02:40	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*11/24/15 02:40*	*20*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/24/15 02:40*	*20*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/24/15 02:40*	*20*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/24/15 02:40*	*20*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: TRIP BLANK
Date Collected: 11/12/15 00:00
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 03:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 03:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 03:04	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 03:04	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 03:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 03:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 03:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 03:04	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 03:04	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 03:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 03:04	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 03:04	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 03:04	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 03:04	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 03:04	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 03:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 03:04	1
Acetone	ND		10	3.0	ug/L			11/24/15 03:04	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 03:04	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 03:04	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 03:04	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 03:04	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 03:04	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 03:04	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 03:04	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 03:04	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 03:04	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 03:04	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/24/15 03:04	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 03:04	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 03:04	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 03:04	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 03:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 03:04	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 03:04	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 03:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 03:04	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 03:04	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 03:04	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 03:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/24/15 03:04	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 03:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 03:04	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 03:04	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 03:04	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 03:04	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 03:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 03:04	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: TRIP BLANK
Date Collected: 11/12/15 00:00
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-17
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		66 - 137		11/24/15 03:04	1
4-Bromofluorobenzene (Surr)	99		73 - 120		11/24/15 03:04	1
Toluene-d8 (Surr)	98		71 - 126		11/24/15 03:04	1
Dibromofluoromethane (Surr)	89		60 - 140		11/24/15 03:04	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)	(60-140)
480-91057-1	MW-1DD (111015)	102	100	95	91
480-91057-2	IW-03 (111015)	102	104	98	93
480-91057-2 - DL	IW-03 (111015)	100	98	96	92
480-91057-2 MS	IW-03 (111015)	101	101	97	93
480-91057-2 MSD	IW-03 (111015)	99	100	96	95
480-91057-3	MW-29 (111015)	103	101	97	96
480-91057-3 - DL	MW-29 (111015)	99	98	96	93
480-91057-4	MW-19 (111015)	103	99	97	94
480-91057-5	IW-02 (111015)	99	95	94	91
480-91057-5 - DL	IW-02 (111015)	101	96	94	92
480-91057-6	MW-26 (111015)	96	100	96	92
480-91057-7	MW-7 (111115)	102	97	95	97
480-91057-8	MW-1D (111115)	102	99	95	93
480-91057-9	MW-22 (R) D (111115)	102	98	97	93
480-91057-10	GM-9 (111115)	103	100	98	94
480-91057-11	MW-2 (111115)	101	101	97	91
480-91057-12	MW-4 (111115)	104	96	94	91
480-91057-13	MW-14R (111115)	103	100	95	96
480-91057-13 - DL	MW-14R (111115)	102	101	95	92
480-91057-14	MW-25D (111215)	104	99	95	93
480-91057-15	MW-13 (111215)	100	100	98	92
480-91057-16	IW-01S (111215)	103	99	97	93
480-91057-17	TRIP BLANK	97	99	98	89
LCS 480-276376/5	Lab Control Sample	100	101	96	94
LCS 480-276407/5	Lab Control Sample	100	100	96	97
LCS 480-276559/5	Lab Control Sample	97	102	98	90
LCS 480-276779/5	Lab Control Sample	98	100	96	92
MB 480-276376/8	Method Blank	101	98	97	95
MB 480-276407/7	Method Blank	101	97	96	94
MB 480-276559/7	Method Blank	100	99	97	91
MB 480-276779/7	Method Blank	102	100	96	90

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-276376/8
Matrix: Water
Analysis Batch: 276376

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/22/15 21:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/22/15 21:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/22/15 21:38	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/22/15 21:38	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/22/15 21:38	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/22/15 21:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/22/15 21:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/22/15 21:38	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/22/15 21:38	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/22/15 21:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/22/15 21:38	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/22/15 21:38	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/22/15 21:38	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/22/15 21:38	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/22/15 21:38	1
2-Hexanone	ND		5.0	1.2	ug/L			11/22/15 21:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/22/15 21:38	1
Acetone	ND		10	3.0	ug/L			11/22/15 21:38	1
Benzene	ND		1.0	0.41	ug/L			11/22/15 21:38	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/22/15 21:38	1
Bromoform	ND		1.0	0.26	ug/L			11/22/15 21:38	1
Bromomethane	ND		1.0	0.69	ug/L			11/22/15 21:38	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/22/15 21:38	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/22/15 21:38	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/22/15 21:38	1
Chloroethane	ND		1.0	0.32	ug/L			11/22/15 21:38	1
Chloroform	ND		1.0	0.34	ug/L			11/22/15 21:38	1
Chloromethane	ND		1.0	0.35	ug/L			11/22/15 21:38	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/22/15 21:38	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/22/15 21:38	1
Cyclohexane	ND		1.0	0.18	ug/L			11/22/15 21:38	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/22/15 21:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/22/15 21:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/22/15 21:38	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/22/15 21:38	1
Methyl acetate	ND		2.5	1.3	ug/L			11/22/15 21:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/22/15 21:38	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/22/15 21:38	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/22/15 21:38	1
Styrene	ND		1.0	0.73	ug/L			11/22/15 21:38	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/22/15 21:38	1
Toluene	ND		1.0	0.51	ug/L			11/22/15 21:38	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/22/15 21:38	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/22/15 21:38	1
Trichloroethene	ND		1.0	0.46	ug/L			11/22/15 21:38	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/22/15 21:38	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/22/15 21:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/22/15 21:38	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276376/8
Matrix: Water
Analysis Batch: 276376

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		66 - 137		11/22/15 21:38	1
4-Bromofluorobenzene (Surr)	98		73 - 120		11/22/15 21:38	1
Toluene-d8 (Surr)	97		71 - 126		11/22/15 21:38	1
Dibromofluoromethane (Surr)	95		60 - 140		11/22/15 21:38	1

Lab Sample ID: LCS 480-276376/5
Matrix: Water
Analysis Batch: 276376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.7		ug/L		103	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.0		ug/L		104	52 - 148
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	76 - 122
1,1-Dichloroethane	25.0	25.2		ug/L		101	71 - 129
1,1-Dichloroethene	25.0	24.8		ug/L		99	58 - 121
1,2,4-Trichlorobenzene	25.0	25.4		ug/L		102	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	26.2		ug/L		105	56 - 134
1,2-Dibromoethane	25.0	25.0		ug/L		100	77 - 120
1,2-Dichlorobenzene	25.0	24.4		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 127
1,2-Dichloropropane	25.0	24.3		ug/L		97	76 - 120
1,3-Dichlorobenzene	25.0	24.3		ug/L		97	77 - 120
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	75 - 120
2-Butanone (MEK)	125	134		ug/L		107	57 - 140
2-Hexanone	125	138		ug/L		110	65 - 127
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		101	71 - 125
Acetone	125	141		ug/L		113	56 - 142
Benzene	25.0	24.8		ug/L		99	71 - 124
Bromodichloromethane	25.0	23.4		ug/L		93	80 - 122
Bromoform	25.0	23.4		ug/L		93	52 - 132
Bromomethane	25.0	31.9		ug/L		128	55 - 144
Carbon disulfide	25.0	24.9		ug/L		100	59 - 134
Carbon tetrachloride	25.0	25.0		ug/L		100	72 - 134
Chlorobenzene	25.0	25.0		ug/L		100	72 - 120
Chloroethane	25.0	31.2		ug/L		125	69 - 136
Chloroform	25.0	24.5		ug/L		98	73 - 127
Chloromethane	25.0	22.7		ug/L		91	68 - 124
cis-1,2-Dichloroethene	25.0	23.6		ug/L		94	74 - 124
cis-1,3-Dichloropropene	25.0	23.9		ug/L		96	74 - 124
Cyclohexane	25.0	23.2		ug/L		93	59 - 135
Dibromochloromethane	25.0	23.3		ug/L		93	75 - 125
Dichlorodifluoromethane	25.0	20.8		ug/L		83	59 - 135
Ethylbenzene	25.0	25.0		ug/L		100	77 - 123
Isopropylbenzene	25.0	25.8		ug/L		103	77 - 122
Methyl acetate	125	132		ug/L		105	74 - 133
Methyl tert-butyl ether	25.0	24.3		ug/L		97	64 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-276376/5
Matrix: Water
Analysis Batch: 276376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	25.0	25.3		ug/L		101	61 - 138
Methylene Chloride	25.0	25.8		ug/L		103	57 - 132
Styrene	25.0	24.2		ug/L		97	70 - 130
Tetrachloroethene	25.0	24.6		ug/L		98	74 - 122
Toluene	25.0	24.6		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	73 - 127
trans-1,3-Dichloropropene	25.0	25.2		ug/L		101	72 - 123
Trichloroethene	25.0	23.5		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	28.8		ug/L		115	62 - 152
Vinyl chloride	25.0	24.6		ug/L		98	65 - 133
Xylenes, Total	50.0	48.2		ug/L		96	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*
Dibromofluoromethane (Surr)	*94*		*60 - 140*

Lab Sample ID: MB 480-276407/7
Matrix: Water
Analysis Batch: 276407

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/15 11:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 11:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 11:02	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 11:02	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/15 11:02	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 11:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 11:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 11:02	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 11:02	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 11:02	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 11:02	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/15 11:02	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 11:02	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 11:02	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 11:02	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 11:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 11:02	1
Acetone	ND		10	3.0	ug/L			11/23/15 11:02	1
Benzene	ND		1.0	0.41	ug/L			11/23/15 11:02	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 11:02	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 11:02	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 11:02	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 11:02	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 11:02	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 11:02	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276407/7
Matrix: Water
Analysis Batch: 276407

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		1.0	0.32	ug/L			11/23/15 11:02	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 11:02	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 11:02	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/15 11:02	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 11:02	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/15 11:02	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 11:02	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 11:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/15 11:02	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/15 11:02	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 11:02	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/15 11:02	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/15 11:02	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 11:02	1
Styrene	ND		1.0	0.73	ug/L			11/23/15 11:02	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/15 11:02	1
Toluene	ND		1.0	0.51	ug/L			11/23/15 11:02	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/15 11:02	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 11:02	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/15 11:02	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 11:02	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/15 11:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/23/15 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*		*11/23/15 11:02*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/23/15 11:02*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*11/23/15 11:02*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*11/23/15 11:02*	*1*

Lab Sample ID: LCS 480-276407/5
Matrix: Water
Analysis Batch: 276407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.3		ug/L		93	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.5		ug/L		94	52 - 148
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	76 - 122
1,1-Dichloroethane	25.0	23.9		ug/L		96	71 - 129
1,1-Dichloroethene	25.0	22.8		ug/L		91	58 - 121
1,2,4-Trichlorobenzene	25.0	24.8		ug/L		99	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.2		ug/L		89	56 - 134
1,2-Dibromoethane	25.0	24.2		ug/L		97	77 - 120
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	80 - 124
1,2-Dichloroethane	25.0	23.8		ug/L		95	75 - 127
1,2-Dichloropropane	25.0	22.8		ug/L		91	76 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-276407/5
Matrix: Water
Analysis Batch: 276407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	22.9		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	75 - 120
2-Butanone (MEK)	125	134		ug/L		107	57 - 140
2-Hexanone	125	136		ug/L		108	65 - 127
4-Methyl-2-pentanone (MIBK)	125	124		ug/L		99	71 - 125
Acetone	125	144		ug/L		115	56 - 142
Benzene	25.0	23.0		ug/L		92	71 - 124
Bromodichloromethane	25.0	22.3		ug/L		89	80 - 122
Bromoform	25.0	20.8		ug/L		83	52 - 132
Bromomethane	25.0	22.3		ug/L		89	55 - 144
Carbon disulfide	25.0	22.1		ug/L		88	59 - 134
Carbon tetrachloride	25.0	23.0		ug/L		92	72 - 134
Chlorobenzene	25.0	23.7		ug/L		95	72 - 120
Chloroethane	25.0	24.9		ug/L		99	69 - 136
Chloroform	25.0	22.8		ug/L		91	73 - 127
Chloromethane	25.0	21.1		ug/L		84	68 - 124
cis-1,2-Dichloroethene	25.0	21.9		ug/L		88	74 - 124
cis-1,3-Dichloropropene	25.0	22.6		ug/L		90	74 - 124
Cyclohexane	25.0	21.7		ug/L		87	59 - 135
Dibromochloromethane	25.0	22.1		ug/L		89	75 - 125
Dichlorodifluoromethane	25.0	20.3		ug/L		81	59 - 135
Ethylbenzene	25.0	23.9		ug/L		96	77 - 123
Isopropylbenzene	25.0	24.0		ug/L		96	77 - 122
Methyl acetate	125	130		ug/L		104	74 - 133
Methyl tert-butyl ether	25.0	23.8		ug/L		95	64 - 127
Methylcyclohexane	25.0	23.5		ug/L		94	61 - 138
Methylene Chloride	25.0	23.7		ug/L		95	57 - 132
Styrene	25.0	23.3		ug/L		93	70 - 130
Tetrachloroethene	25.0	23.6		ug/L		94	74 - 122
Toluene	25.0	23.3		ug/L		93	80 - 122
trans-1,2-Dichloroethene	25.0	22.4		ug/L		90	73 - 127
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	72 - 123
Trichloroethene	25.0	21.6		ug/L		87	74 - 123
Trichlorofluoromethane	25.0	25.7		ug/L		103	62 - 152
Vinyl chloride	25.0	22.8		ug/L		91	65 - 133
Xylenes, Total	50.0	45.8		ug/L		92	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*
Dibromofluoromethane (Surr)	*97*		*60 - 140*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-91057-2 MS
Matrix: Water
Analysis Batch: 276407

Client Sample ID: IW-03 (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		250	242		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	ND		250	254		ug/L		102	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	250		ug/L		100	52 - 148
1,1,2-Trichloroethane	ND		250	251		ug/L		100	76 - 122
1,1-Dichloroethane	ND		250	250		ug/L		100	71 - 129
1,1-Dichloroethene	ND		250	241		ug/L		96	58 - 121
1,2,4-Trichlorobenzene	ND		250	250		ug/L		100	70 - 122
1,2-Dibromo-3-Chloropropane	ND		250	222		ug/L		89	56 - 134
1,2-Dibromoethane	ND		250	244		ug/L		98	77 - 120
1,2-Dichlorobenzene	ND		250	241		ug/L		96	80 - 124
1,2-Dichloroethane	ND		250	246		ug/L		98	75 - 127
1,2-Dichloropropane	ND		250	237		ug/L		95	76 - 120
1,3-Dichlorobenzene	ND		250	233		ug/L		93	77 - 120
1,4-Dichlorobenzene	ND		250	236		ug/L		94	75 - 120
2-Butanone (MEK)	ND		1250	1310		ug/L		105	57 - 140
2-Hexanone	ND		1250	1340		ug/L		107	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		1250	1240		ug/L		99	71 - 125
Acetone	ND		1250	1420		ug/L		114	56 - 142
Benzene	ND		250	245		ug/L		98	71 - 124
Bromodichloromethane	ND		250	216		ug/L		86	80 - 122
Bromoform	ND		250	169		ug/L		68	52 - 132
Bromomethane	ND		250	257		ug/L		103	55 - 144
Carbon disulfide	ND		250	223		ug/L		89	59 - 134
Carbon tetrachloride	ND		250	241		ug/L		96	72 - 134
Chlorobenzene	ND		250	241		ug/L		97	72 - 120
Chloroethane	ND		250	271		ug/L		108	69 - 136
Chloroform	ND		250	242		ug/L		97	73 - 127
Chloromethane	ND		250	226		ug/L		90	68 - 124
cis-1,2-Dichloroethene	130		250	352		ug/L		88	74 - 124
cis-1,3-Dichloropropene	ND		250	226		ug/L		91	74 - 124
Cyclohexane	ND		250	228		ug/L		91	59 - 135
Dibromochloromethane	ND		250	200		ug/L		80	75 - 125
Dichlorodifluoromethane	ND		250	207		ug/L		83	59 - 135
Ethylbenzene	25		250	270		ug/L		98	77 - 123
Isopropylbenzene	32		250	269		ug/L		95	77 - 122
Methyl acetate	ND		1250	1280		ug/L		102	74 - 133
Methyl tert-butyl ether	76		250	313		ug/L		95	64 - 127
Methylcyclohexane	4.3	J	250	243		ug/L		96	61 - 138
Methylene Chloride	ND		250	253		ug/L		101	57 - 132
Styrene	ND		250	236		ug/L		94	70 - 130
Tetrachloroethene	ND		250	240		ug/L		96	74 - 122
Toluene	9.0	J	250	251		ug/L		97	80 - 122
trans-1,2-Dichloroethene	ND		250	238		ug/L		95	73 - 127
trans-1,3-Dichloropropene	ND		250	241		ug/L		97	72 - 123
Trichloroethene	ND		250	225		ug/L		90	74 - 123
Trichlorofluoromethane	ND		250	283		ug/L		113	62 - 152
Vinyl chloride	310		250	489		ug/L		72	65 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-91057-2 MS
Matrix: Water
Analysis Batch: 276407

Client Sample ID: IW-03 (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	7.3	J	500	479		ug/L		94	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Toluene-d8 (Surr)	*97*		*71 - 126*
Dibromofluoromethane (Surr)	*93*		*60 - 140*

Lab Sample ID: 480-91057-2 MSD
Matrix: Water
Analysis Batch: 276407

Client Sample ID: IW-03 (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		250	231		ug/L		92	73 - 126	5	15
1,1,2,2-Tetrachloroethane	ND		250	236		ug/L		95	70 - 126	7	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	245		ug/L		98	52 - 148	2	20
1,1,2-Trichloroethane	ND		250	240		ug/L		96	76 - 122	4	15
1,1-Dichloroethane	ND		250	239		ug/L		95	71 - 129	5	20
1,1-Dichloroethene	ND		250	233		ug/L		93	58 - 121	3	16
1,2,4-Trichlorobenzene	ND		250	240		ug/L		96	70 - 122	4	20
1,2-Dibromo-3-Chloropropane	ND		250	219		ug/L		88	56 - 134	1	15
1,2-Dibromoethane	ND		250	236		ug/L		95	77 - 120	3	15
1,2-Dichlorobenzene	ND		250	231		ug/L		92	80 - 124	4	20
1,2-Dichloroethane	ND		250	248		ug/L		99	75 - 127	1	20
1,2-Dichloropropane	ND		250	230		ug/L		92	76 - 120	3	20
1,3-Dichlorobenzene	ND		250	227		ug/L		91	77 - 120	3	20
1,4-Dichlorobenzene	ND		250	229		ug/L		92	75 - 120	3	20
2-Butanone (MEK)	ND		1250	1310		ug/L		105	57 - 140	0	20
2-Hexanone	ND		1250	1300		ug/L		104	65 - 127	3	15
4-Methyl-2-pentanone (MIBK)	ND		1250	1200		ug/L		96	71 - 125	3	35
Acetone	ND		1250	1450		ug/L		116	56 - 142	2	15
Benzene	ND		250	234		ug/L		94	71 - 124	5	13
Bromodichloromethane	ND		250	212		ug/L		85	80 - 122	2	15
Bromoform	ND		250	167		ug/L		67	52 - 132	2	15
Bromomethane	ND		250	224		ug/L		90	55 - 144	14	15
Carbon disulfide	ND		250	209		ug/L		83	59 - 134	7	15
Carbon tetrachloride	ND		250	225		ug/L		90	72 - 134	7	15
Chlorobenzene	ND		250	230		ug/L		92	72 - 120	5	25
Chloroethane	ND		250	256		ug/L		102	69 - 136	6	15
Chloroform	ND		250	233		ug/L		93	73 - 127	4	20
Chloromethane	ND		250	213		ug/L		85	68 - 124	6	15
cis-1,2-Dichloroethene	130		250	335		ug/L		81	74 - 124	5	15
cis-1,3-Dichloropropene	ND		250	218		ug/L		87	74 - 124	4	15
Cyclohexane	ND		250	218		ug/L		87	59 - 135	5	20
Dibromochloromethane	ND		250	191		ug/L		76	75 - 125	5	15
Dichlorodifluoromethane	ND		250	202		ug/L		81	59 - 135	2	20
Ethylbenzene	25		250	257		ug/L		93	77 - 123	5	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-91057-2 MSD
Matrix: Water
Analysis Batch: 276407

Client Sample ID: IW-03 (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropylbenzene	32		250	260		ug/L		91	77 - 122	4	20
Methyl acetate	ND		1250	1280		ug/L		103	74 - 133	1	20
Methyl tert-butyl ether	76		250	316		ug/L		96	64 - 127	1	37
Methylcyclohexane	4.3	J	250	240		ug/L		94	61 - 138	1	20
Methylene Chloride	ND		250	252		ug/L		101	57 - 132	1	15
Styrene	ND		250	229		ug/L		92	70 - 130	3	20
Tetrachloroethene	ND		250	228		ug/L		91	74 - 122	5	20
Toluene	9.0	J	250	237		ug/L		91	80 - 122	6	15
trans-1,2-Dichloroethene	ND		250	229		ug/L		92	73 - 127	4	20
trans-1,3-Dichloropropene	ND		250	227		ug/L		91	72 - 123	6	15
Trichloroethene	ND		250	217		ug/L		87	74 - 123	4	16
Trichlorofluoromethane	ND		250	261		ug/L		104	62 - 152	8	20
Vinyl chloride	310		250	473		ug/L		65	65 - 133	3	15
Xylenes, Total	7.3	J	500	465		ug/L		92	76 - 122	3	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*
Dibromofluoromethane (Surr)	*95*		*60 - 140*

Lab Sample ID: MB 480-276559/7
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/15 23:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 23:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 23:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 23:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/15 23:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 23:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 23:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 23:06	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 23:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 23:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 23:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/15 23:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 23:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 23:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 23:06	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 23:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 23:06	1
Acetone	ND		10	3.0	ug/L			11/23/15 23:06	1
Benzene	ND		1.0	0.41	ug/L			11/23/15 23:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 23:06	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 23:06	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 23:06	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276559/7
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 23:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 23:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 23:06	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/15 23:06	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 23:06	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 23:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/15 23:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 23:06	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/15 23:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 23:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 23:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/15 23:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/15 23:06	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 23:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/15 23:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/15 23:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 23:06	1
Styrene	ND		1.0	0.73	ug/L			11/23/15 23:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/15 23:06	1
Toluene	ND		1.0	0.51	ug/L			11/23/15 23:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/15 23:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 23:06	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/15 23:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 23:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/15 23:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/23/15 23:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*11/23/15 23:06*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/23/15 23:06*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/23/15 23:06*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/23/15 23:06*	*1*

Lab Sample ID: LCS 480-276559/5
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	22.7		ug/L		91	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.9		ug/L		92	52 - 148
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	23.3		ug/L		93	71 - 129
1,1-Dichloroethene	25.0	21.8		ug/L		87	58 - 121
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	56 - 134
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-276559/5
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	25.0	23.2		ug/L		93	80 - 124
1,2-Dichloroethane	25.0	23.8		ug/L		95	75 - 127
1,2-Dichloropropane	25.0	22.5		ug/L		90	76 - 120
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	75 - 120
2-Butanone (MEK)	125	128		ug/L		103	57 - 140
2-Hexanone	125	140		ug/L		112	65 - 127
4-Methyl-2-pentanone (MIBK)	125	126		ug/L		101	71 - 125
Acetone	125	141		ug/L		113	56 - 142
Benzene	25.0	22.6		ug/L		90	71 - 124
Bromodichloromethane	25.0	21.4		ug/L		86	80 - 122
Bromoform	25.0	21.4		ug/L		86	52 - 132
Bromomethane	25.0	27.8		ug/L		111	55 - 144
Carbon disulfide	25.0	21.3		ug/L		85	59 - 134
Carbon tetrachloride	25.0	22.0		ug/L		88	72 - 134
Chlorobenzene	25.0	23.6		ug/L		94	72 - 120
Chloroethane	25.0	27.1		ug/L		109	69 - 136
Chloroform	25.0	22.8		ug/L		91	73 - 127
Chloromethane	25.0	19.4		ug/L		77	68 - 124
cis-1,2-Dichloroethene	25.0	22.0		ug/L		88	74 - 124
cis-1,3-Dichloropropene	25.0	22.6		ug/L		91	74 - 124
Cyclohexane	25.0	21.0		ug/L		84	59 - 135
Dibromochloromethane	25.0	22.0		ug/L		88	75 - 125
Dichlorodifluoromethane	25.0	17.1		ug/L		68	59 - 135
Ethylbenzene	25.0	24.6		ug/L		99	77 - 123
Isopropylbenzene	25.0	24.0		ug/L		96	77 - 122
Methyl acetate	125	125		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	23.3		ug/L		93	64 - 127
Methylcyclohexane	25.0	22.6		ug/L		91	61 - 138
Methylene Chloride	25.0	23.4		ug/L		94	57 - 132
Styrene	25.0	24.0		ug/L		96	70 - 130
Tetrachloroethene	25.0	24.1		ug/L		96	74 - 122
Toluene	25.0	24.0		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	21.7		ug/L		87	73 - 127
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	72 - 123
Trichloroethene	25.0	21.1		ug/L		85	74 - 123
Trichlorofluoromethane	25.0	24.8		ug/L		99	62 - 152
Vinyl chloride	25.0	21.3		ug/L		85	65 - 133
Xylenes, Total	50.0	46.7		ug/L		93	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*66 - 137*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Toluene-d8 (Surr)	*98*		*71 - 126*
Dibromofluoromethane (Surr)	*90*		*60 - 140*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276779/7
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 21:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 21:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 21:29	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 21:29	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 21:29	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 21:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 21:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 21:29	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 21:29	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 21:29	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 21:29	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 21:29	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 21:29	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 21:29	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 21:29	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 21:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 21:29	1
Acetone	ND		10	3.0	ug/L			11/24/15 21:29	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 21:29	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 21:29	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 21:29	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 21:29	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 21:29	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 21:29	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 21:29	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 21:29	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 21:29	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 21:29	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/24/15 21:29	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 21:29	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 21:29	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 21:29	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 21:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 21:29	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 21:29	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 21:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 21:29	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 21:29	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 21:29	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 21:29	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/24/15 21:29	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 21:29	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 21:29	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 21:29	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 21:29	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 21:29	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 21:29	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 21:29	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276779/7
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		66 - 137		11/24/15 21:29	1
4-Bromofluorobenzene (Surr)	100		73 - 120		11/24/15 21:29	1
Toluene-d8 (Surr)	96		71 - 126		11/24/15 21:29	1
Dibromofluoromethane (Surr)	90		60 - 140		11/24/15 21:29	1

Lab Sample ID: LCS 480-276779/5
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.3		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		99	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.5		ug/L		98	52 - 148
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	24.6		ug/L		98	71 - 129
1,1-Dichloroethene	25.0	23.8		ug/L		95	58 - 121
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.6		ug/L		94	56 - 134
1,2-Dibromoethane	25.0	25.3		ug/L		101	77 - 120
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	25.6		ug/L		102	75 - 127
1,2-Dichloropropane	25.0	23.3		ug/L		93	76 - 120
1,3-Dichlorobenzene	25.0	23.1		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	23.6		ug/L		94	75 - 120
2-Butanone (MEK)	125	142		ug/L		114	57 - 140
2-Hexanone	125	143		ug/L		114	65 - 127
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		103	71 - 125
Acetone	125	157		ug/L		126	56 - 142
Benzene	25.0	24.2		ug/L		97	71 - 124
Bromodichloromethane	25.0	22.9		ug/L		92	80 - 122
Bromoform	25.0	21.3		ug/L		85	52 - 132
Bromomethane	25.0	28.4		ug/L		113	55 - 144
Carbon disulfide	25.0	23.8		ug/L		95	59 - 134
Carbon tetrachloride	25.0	24.1		ug/L		97	72 - 134
Chlorobenzene	25.0	24.5		ug/L		98	72 - 120
Chloroethane	25.0	29.2		ug/L		117	69 - 136
Chloroform	25.0	24.5		ug/L		98	73 - 127
Chloromethane	25.0	19.4		ug/L		78	68 - 124
cis-1,2-Dichloroethene	25.0	22.9		ug/L		92	74 - 124
cis-1,3-Dichloropropene	25.0	23.7		ug/L		95	74 - 124
Cyclohexane	25.0	22.1		ug/L		88	59 - 135
Dibromochloromethane	25.0	22.8		ug/L		91	75 - 125
Dichlorodifluoromethane	25.0	15.1		ug/L		60	59 - 135
Ethylbenzene	25.0	25.4		ug/L		102	77 - 123
Isopropylbenzene	25.0	24.5		ug/L		98	77 - 122
Methyl acetate	125	134		ug/L		107	74 - 133
Methyl tert-butyl ether	25.0	24.7		ug/L		99	64 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-276779/5
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylcyclohexane			25.0	23.7		ug/L		95	61 - 138		
Methylene Chloride			25.0	25.2		ug/L		101	57 - 132		
Styrene			25.0	24.2		ug/L		97	70 - 130		
Tetrachloroethene			25.0	23.7		ug/L		95	74 - 122		
Toluene			25.0	24.6		ug/L		98	80 - 122		
trans-1,2-Dichloroethene			25.0	23.8		ug/L		95	73 - 127		
trans-1,3-Dichloropropene			25.0	25.3		ug/L		101	72 - 123		
Trichloroethene			25.0	22.7		ug/L		91	74 - 123		
Trichlorofluoromethane			25.0	26.4		ug/L		106	62 - 152		
Vinyl chloride			25.0	21.4		ug/L		86	65 - 133		
Xylenes, Total			50.0	47.3		ug/L		95	76 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*66 - 137*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*
Dibromofluoromethane (Surr)	*92*		*60 - 140*

GC/MS VOA

Analysis Batch: 276376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91057-2	IW-03 (111015)	Total/NA	Water	8260C	
480-91057-3	MW-29 (111015)	Total/NA	Water	8260C	
480-91057-4	MW-19 (111015)	Total/NA	Water	8260C	
LCS 480-276376/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-276376/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 276407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91057-1	MW-1DD (111015)	Total/NA	Water	8260C	
480-91057-2 - DL	IW-03 (111015)	Total/NA	Water	8260C	
480-91057-2 MS	IW-03 (111015)	Total/NA	Water	8260C	
480-91057-2 MSD	IW-03 (111015)	Total/NA	Water	8260C	
480-91057-5	IW-02 (111015)	Total/NA	Water	8260C	
480-91057-8	MW-1D (111115)	Total/NA	Water	8260C	
480-91057-11	MW-2 (111115)	Total/NA	Water	8260C	
480-91057-12	MW-4 (111115)	Total/NA	Water	8260C	
480-91057-13	MW-14R (111115)	Total/NA	Water	8260C	
480-91057-14	MW-25D (111215)	Total/NA	Water	8260C	
480-91057-15	MW-13 (111215)	Total/NA	Water	8260C	
LCS 480-276407/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-276407/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 276559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91057-3 - DL	MW-29 (111015)	Total/NA	Water	8260C	
480-91057-5 - DL	IW-02 (111015)	Total/NA	Water	8260C	
480-91057-6	MW-26 (111015)	Total/NA	Water	8260C	
480-91057-7	MW-7 (111115)	Total/NA	Water	8260C	
480-91057-10	GM-9 (111115)	Total/NA	Water	8260C	
480-91057-13 - DL	MW-14R (111115)	Total/NA	Water	8260C	
480-91057-16	IW-01S (111215)	Total/NA	Water	8260C	
480-91057-17	TRIP BLANK	Total/NA	Water	8260C	
LCS 480-276559/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-276559/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 276779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91057-9	MW-22 (R) D (111115)	Total/NA	Water	8260C	
LCS 480-276779/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-276779/7	Method Blank	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-1DD (111015)
Lab Sample ID: 480-91057-1
Date Collected: 11/10/15 09:10
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276407	11/23/15 13:06	GTG	TAL BUF

Client Sample ID: IW-03 (111015)
Lab Sample ID: 480-91057-2
Date Collected: 11/10/15 10:50
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276376	11/23/15 02:48	GTG	TAL BUF
Total/NA	Analysis	8260C	DL	10	276407	11/23/15 13:29	GTG	TAL BUF

Client Sample ID: MW-29 (111015)
Lab Sample ID: 480-91057-3
Date Collected: 11/10/15 12:25
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	276376	11/23/15 03:12	GTG	TAL BUF
Total/NA	Analysis	8260C	DL	25	276559	11/23/15 23:54	GTG	TAL BUF

Client Sample ID: MW-19 (111015)
Lab Sample ID: 480-91057-4
Date Collected: 11/10/15 14:25
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276376	11/23/15 03:36	GTG	TAL BUF

Client Sample ID: IW-02 (111015)
Lab Sample ID: 480-91057-5
Date Collected: 11/10/15 15:55
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	276407	11/23/15 14:17	GTG	TAL BUF
Total/NA	Analysis	8260C	DL	200	276559	11/24/15 00:17	GTG	TAL BUF

Client Sample ID: MW-26 (111015)
Lab Sample ID: 480-91057-6
Date Collected: 11/10/15 17:15
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	276559	11/24/15 00:41	GTG	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-7 (111115)
Date Collected: 11/11/15 08:50
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	276559	11/24/15 01:05	GTG	TAL BUF

Client Sample ID: MW-1D (111115)
Date Collected: 11/11/15 09:50
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	276407	11/23/15 15:29	GTG	TAL BUF

Client Sample ID: MW-22 (R) D (111115)
Date Collected: 11/11/15 11:20
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		80	276779	11/24/15 22:01	GTG	TAL BUF

Client Sample ID: GM-9 (111115)
Date Collected: 11/11/15 15:35
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	276559	11/24/15 01:52	GTG	TAL BUF

Client Sample ID: MW-2 (111115)
Date Collected: 11/11/15 18:50
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276407	11/23/15 16:40	GTG	TAL BUF

Client Sample ID: MW-4 (111115)
Date Collected: 11/11/15 20:10
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91057-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276407	11/23/15 17:04	GTG	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Client Sample ID: MW-14R (111115)

Lab Sample ID: 480-91057-13

Date Collected: 11/11/15 22:10
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	276407	11/23/15 17:28	GTG	TAL BUF
Total/NA	Analysis	8260C	DL	8	276559	11/24/15 02:16	GTG	TAL BUF

Client Sample ID: MW-25D (111215)

Lab Sample ID: 480-91057-14

Date Collected: 11/12/15 09:45
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	276407	11/23/15 17:51	GTG	TAL BUF

Client Sample ID: MW-13 (111215)

Lab Sample ID: 480-91057-15

Date Collected: 11/12/15 11:40
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	276407	11/23/15 18:15	GTG	TAL BUF

Client Sample ID: IW-01S (111215)

Lab Sample ID: 480-91057-16

Date Collected: 11/12/15 13:10
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	276559	11/24/15 02:40	GTG	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-91057-17

Date Collected: 11/12/15 00:00
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276559	11/24/15 03:04	GTG	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91057-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-91057-1	MW-1DD (111015)	Water	11/10/15 09:10	11/13/15 09:30
480-91057-2	IW-03 (111015)	Water	11/10/15 10:50	11/13/15 09:30
480-91057-3	MW-29 (111015)	Water	11/10/15 12:25	11/13/15 09:30
480-91057-4	MW-19 (111015)	Water	11/10/15 14:25	11/13/15 09:30
480-91057-5	IW-02 (111015)	Water	11/10/15 15:55	11/13/15 09:30
480-91057-6	MW-26 (111015)	Water	11/10/15 17:15	11/13/15 09:30
480-91057-7	MW-7 (111115)	Water	11/11/15 08:50	11/13/15 09:30
480-91057-8	MW-1D (111115)	Water	11/11/15 09:50	11/13/15 09:30
480-91057-9	MW-22 (R) D (111115)	Water	11/11/15 11:20	11/13/15 09:30
480-91057-10	GM-9 (111115)	Water	11/11/15 15:35	11/13/15 09:30
480-91057-11	MW-2 (111115)	Water	11/11/15 18:50	11/13/15 09:30
480-91057-12	MW-4 (111115)	Water	11/11/15 20:10	11/13/15 09:30
480-91057-13	MW-14R (111115)	Water	11/11/15 22:10	11/13/15 09:30
480-91057-14	MW-25D (111215)	Water	11/12/15 09:45	11/13/15 09:30
480-91057-15	MW-13 (111215)	Water	11/12/15 11:40	11/13/15 09:30
480-91057-16	IW-01S (111215)	Water	11/12/15 13:10	11/13/15 09:30
480-91057-17	TRIP BLANK	Water	11/12/15 00:00	11/13/15 09:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Andrew Leavitt	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-73997-18814.3
Client Contact: Aaron Bobar	Phone: (570) 778-7458	E-Mail: melissa.deyo@testamericainc.com		Page: ~~Page 3 of 5~~ 1 of 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:		Analysis Requested	
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7330	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: 66 Herb Hill Road	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA

5 (specify)

480-91057 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	Total # of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-1DD(111015)	11-10-15	910	G	Water	N		X	3	
IW-03(111015)	11-10-15	1050	G	Water	N	Y	X	9	
MW-29(111015)	11-10-15	1225	G	Water	N		X	3	
MW-19(111015)	11-10-15	1425	G	Water	N		X	3	
IW-02(111015)	11-10-15	1555	G	Water	N		X	3	
MW-26(111015)	11-10-15	1715	G	Water	N		X	3	
MW-7(111115)	11-11-15	850	G	Water	N		X	3	
MW-1D(111115)	11-11-15	950	G	Water	N		X	3	
MW-22(R)D(111115)	11-11-15	1120	G	Water	N		X	3	
GM-9(111115)	11-11-15	1535	G	Water	N		X	3	
MW-2(111115)	11-11-15	1850	G	Water	N		X	3	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Contact Aaron Bobar

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Andrew C. Leavitt	11-12-15 / 1600	ARCADIS	Wallace	11/13/15 0935	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.8

11/27/2015

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Andrew Leavitt	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-73997-18814.4
Client Contact: Aaron Bobar	Phone: (570) 778-7458	E-Mail: melissa.deyo@testamericainc.com		Page: ~~Page 1 of 5~~ 2 of 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7330	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: 66 Herb Hill Road	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-4(111115)	11-11-15	2010	G	Water	N		X		
MW-14R(111115)	11-11-15	2210	G	Water	N		X		
MW-25D(111215)	11-12-15	945	G	Water	N		X		
MW-13(111215)	11-12-15	1140	G	Water	N		X		
IW-01S(111215)	11-12-15	1310	G	Water	N		X		
TRIP BLANK				Water	N		X		
				Water					
				Water					
				Water					
				Water					
				Water					

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Contact Aaron Bobar

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Andrew C. Leavitt	11-12-15 / 1600	ARCADIS	C. Wallace	11/13/15 0930	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: FI. 3.8

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-91057-1

Login Number: 91057
List Number: 1
Creator: Kolb, Chris M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	arcadis
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-91066-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Authorized for release by:
11/27/2015 2:05:52 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-91066-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-91066-1

Receipt
The samples were received on 11/13/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.8º C and 3.8º C.

Receipt Exceptions

The container label for the sample time does not match the information listed on the Chain-of-Custody (COC) for the following sample: IW-01D (111215) (480-91066-14). The container labels list a collection time of 13:15, while the COC lists a collection time of 13:12. Sample was logged in according to Sample label, COC was not received until 4 days later.

A Chain-of-Custody (COC) was not received with these samples. The COC was sent by the client on 11/17/15.

GC/MS VOA
Method(s) 8260C: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-6R (111015) (480-91066-1), MW-6R (111015) (480-91066-1[MS]), MW-6R (111015) (480-91066-1[MSD]), DUP-01 (111015) (480-91066-2), MW-1 (111015) (480-91066-3), MW-27 (111015) (480-91066-4), MW-28 (111015) (480-91066-5) and MW-23S (111115) (480-91066-6). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-23D (111115) (480-91066-7), MW-22D (111115) (480-91066-10), MW-9 (111115) (480-91066-11), MW-18 (111115) (480-91066-15), MW-10S (111215) (480-91066-17), (480-91066-B-7 MS) and (480-91066-B-7 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-10D (111215) (480-91066-13), IW-01D (111215) (480-91066-14) and MW-18 (111115) (480-91066-15). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-6R (111015) — Lab Sample ID: 480-91066-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	190	F1	5.0	4.1	ug/L	5		8260C	Total/NA
Ethylbenzene	25		5.0	3.7	ug/L	5		8260C	Total/NA
Isopropylbenzene	20		5.0	4.0	ug/L	5		8260C	Total/NA
Methyl tert-butyl ether	9.9	F1	5.0	0.80	ug/L	5		8260C	Total/NA
Methylcyclohexane	1.7	J	5.0	0.80	ug/L	5		8260C	Total/NA
Vinyl chloride	220		5.0	4.5	ug/L	5		8260C	Total/NA
Xylenes, Total	11		10	3.3	ug/L	5		8260C	Total/NA

Client Sample ID: DUP-01 (111015) — Lab Sample ID: 480-91066-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	1.8	J	5.0	1.6	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	210		5.0	4.1	ug/L	5		8260C	Total/NA
Ethylbenzene	25		5.0	3.7	ug/L	5		8260C	Total/NA
Isopropylbenzene	19		5.0	4.0	ug/L	5		8260C	Total/NA
Methyl tert-butyl ether	12		5.0	0.80	ug/L	5		8260C	Total/NA
Methylcyclohexane	1.7	J	5.0	0.80	ug/L	5		8260C	Total/NA
Vinyl chloride	240		5.0	4.5	ug/L	5		8260C	Total/NA
Xylenes, Total	11		10	3.3	ug/L	5		8260C	Total/NA

Client Sample ID: MW-1 (111015) — Lab Sample ID: 480-91066-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1700		40	32	ug/L	40		8260C	Total/NA
Tetrachloroethene	260		40	14	ug/L	40		8260C	Total/NA
Trichloroethene	170		40	18	ug/L	40		8260C	Total/NA

Client Sample ID: MW-27 (111015) — Lab Sample ID: 480-91066-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	140000		2000	1600	ug/L	2000		8260C	Total/NA
Tetrachloroethene	140000		2000	720	ug/L	2000		8260C	Total/NA
Trichloroethene	18000		2000	920	ug/L	2000		8260C	Total/NA
Vinyl chloride	7700		2000	1800	ug/L	2000		8260C	Total/NA

Client Sample ID: MW-28 (111015) — Lab Sample ID: 480-91066-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	47000		2000	1600	ug/L	2000		8260C	Total/NA
Tetrachloroethene	26000		2000	720	ug/L	2000		8260C	Total/NA
Trichloroethene	15000		2000	920	ug/L	2000		8260C	Total/NA
Vinyl chloride	1800	J	2000	1800	ug/L	2000		8260C	Total/NA

Client Sample ID: MW-23S (111115) — Lab Sample ID: 480-91066-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	750		10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	780		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	270		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	11		10	9.0	ug/L	10		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-23D (111115) — Lab Sample ID: 480-91066-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1300	F1	20	16	ug/L	20		8260C	Total/NA
Methyl tert-butyl ether	12	J	20	3.2	ug/L	20		8260C	Total/NA
Tetrachloroethene	1300	F1	20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	500	F1	20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	140		20	18	ug/L	20		8260C	Total/NA

Client Sample ID: MW-17R (111015) — Lab Sample ID: 480-91066-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	1.7		1.0	0.72	ug/L	1		8260C	Total/NA
Benzene	4.3		1.0	0.41	ug/L	1		8260C	Total/NA
Chloroethane	4.5		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	55		1.0	0.81	ug/L	1		8260C	Total/NA
Cyclohexane	0.50	J	1.0	0.18	ug/L	1		8260C	Total/NA
Ethylbenzene	8.6		1.0	0.74	ug/L	1		8260C	Total/NA
Isopropylbenzene	26		1.0	0.79	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	14		1.0	0.16	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.7		1.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.74	J	1.0	0.36	ug/L	1		8260C	Total/NA
Toluene	0.61	J	1.0	0.51	ug/L	1		8260C	Total/NA
Vinyl chloride	62		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: MW-16R (111015) — Lab Sample ID: 480-91066-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.0	0.41	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	16		1.0	0.81	ug/L	1		8260C	Total/NA
Ethylbenzene	34		1.0	0.74	ug/L	1		8260C	Total/NA
Isopropylbenzene	15		1.0	0.79	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.96	J	1.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	18		1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	3.2		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	1.0		1.0	0.90	ug/L	1		8260C	Total/NA
Xylenes, Total	5.7		2.0	0.66	ug/L	1		8260C	Total/NA

Client Sample ID: MW-22D (111115) — Lab Sample ID: 480-91066-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	380		5.0	4.1	ug/L	5		8260C	Total/NA
Tetrachloroethene	180		5.0	1.8	ug/L	5		8260C	Total/NA
Trichloroethene	130		5.0	2.3	ug/L	5		8260C	Total/NA
Vinyl chloride	23		5.0	4.5	ug/L	5		8260C	Total/NA

Client Sample ID: MW-9 (111115) — Lab Sample ID: 480-91066-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	700		10	8.1	ug/L	10		8260C	Total/NA
Vinyl chloride	340		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: MP-20 (111115) — Lab Sample ID: 480-91066-12

This Detection Summary does not include radiochemical test results.

Client Sample ID: MP-20 (111115) (Continued) — Lab Sample ID: 480-91066-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.0		1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.69	J	1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	0.91	J	1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: MW-10D (111215) — Lab Sample ID: 480-91066-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	28000		1000	360	ug/L	1000		8260C	Total/NA
Trichloroethene	2500		1000	460	ug/L	1000		8260C	Total/NA

Client Sample ID: IW-01D (111215) — Lab Sample ID: 480-91066-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2,2-Tetrachloroethane	0.22	J	1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.2		1.0	0.38	ug/L	1		8260C	Total/NA
Acetone	8.9	J	10	3.0	ug/L	1		8260C	Total/NA
Carbon tetrachloride	0.41	J	1.0	0.27	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	120	E	1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	1700	E	1.0	0.36	ug/L	1		8260C	Total/NA
Toluene	0.84	J	1.0	0.51	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.1		1.0	0.90	ug/L	1		8260C	Total/NA
Trichloroethene	15		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	9.9		1.0	0.90	ug/L	1		8260C	Total/NA
Xylenes, Total	6.4		2.0	0.66	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	120		100	81	ug/L	100		8260C	Total/NA
Tetrachloroethene - DL	2300		100	36	ug/L	100		8260C	Total/NA

Client Sample ID: MW-18 (111115) — Lab Sample ID: 480-91066-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4100	E	40	32	ug/L	40		8260C	Total/NA
Tetrachloroethene	4900	E	40	14	ug/L	40		8260C	Total/NA
Trichloroethene	1500		40	18	ug/L	40		8260C	Total/NA
Vinyl chloride	350		40	36	ug/L	40		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3300		80	65	ug/L	80		8260C	Total/NA
Tetrachloroethene - DL	4300		80	29	ug/L	80		8260C	Total/NA
Trichloroethene - DL	1300		80	37	ug/L	80		8260C	Total/NA
Vinyl chloride - DL	290		80	72	ug/L	80		8260C	Total/NA

Client Sample ID: MW-3 (111115) — Lab Sample ID: 480-91066-16

No Detections.

Client Sample ID: MW-10S (111215) — Lab Sample ID: 480-91066-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3600		100	81	ug/L	100		8260C	Total/NA
Tetrachloroethene	2500		100	36	ug/L	100		8260C	Total/NA
Trichloroethene	860		100	46	ug/L	100		8260C	Total/NA
Vinyl chloride	100		100	90	ug/L	100		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-15R (111115)

Lab Sample ID: 480-91066-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.99	J	1.0	0.81	ug/L	1		8260C	Total/NA
Cyclohexane	0.54	J	1.0	0.18	ug/L	1		8260C	Total/NA
Ethylbenzene	13		1.0	0.74	ug/L	1		8260C	Total/NA
Isopropylbenzene	15		1.0	0.79	ug/L	1		8260C	Total/NA
Methylcyclohexane	3.2		1.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.5		1.0	0.36	ug/L	1		8260C	Total/NA

Client Sample ID: TB

Lab Sample ID: 480-91066-19

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-6R (111015)
Date Collected: 11/10/15 10:52
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			11/24/15 03:28	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			11/24/15 03:28	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			11/24/15 03:28	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			11/24/15 03:28	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			11/24/15 03:28	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			11/24/15 03:28	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			11/24/15 03:28	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			11/24/15 03:28	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			11/24/15 03:28	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			11/24/15 03:28	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			11/24/15 03:28	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			11/24/15 03:28	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			11/24/15 03:28	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			11/24/15 03:28	5
2-Butanone (MEK)	ND		50	6.6	ug/L			11/24/15 03:28	5
2-Hexanone	ND		25	6.2	ug/L			11/24/15 03:28	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			11/24/15 03:28	5
Acetone	ND		50	15	ug/L			11/24/15 03:28	5
Benzene	ND		5.0	2.1	ug/L			11/24/15 03:28	5
Bromodichloromethane	ND		5.0	2.0	ug/L			11/24/15 03:28	5
Bromoform	ND		5.0	1.3	ug/L			11/24/15 03:28	5
Bromomethane	ND		5.0	3.5	ug/L			11/24/15 03:28	5
Carbon disulfide	ND		5.0	0.95	ug/L			11/24/15 03:28	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			11/24/15 03:28	5
Chlorobenzene	ND		5.0	3.8	ug/L			11/24/15 03:28	5
Chloroethane	ND		5.0	1.6	ug/L			11/24/15 03:28	5
Chloroform	ND		5.0	1.7	ug/L			11/24/15 03:28	5
Chloromethane	ND		5.0	1.8	ug/L			11/24/15 03:28	5
cis-1,2-Dichloroethene	**190**	**F1**	5.0	4.1	ug/L			11/24/15 03:28	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			11/24/15 03:28	5
Cyclohexane	ND		5.0	0.90	ug/L			11/24/15 03:28	5
Dibromochloromethane	ND		5.0	1.6	ug/L			11/24/15 03:28	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			11/24/15 03:28	5
Ethylbenzene	**25**		5.0	3.7	ug/L			11/24/15 03:28	5
Isopropylbenzene	**20**		5.0	4.0	ug/L			11/24/15 03:28	5
Methyl acetate	ND		13	6.5	ug/L			11/24/15 03:28	5
Methyl tert-butyl ether	**9.9**	**F1**	5.0	0.80	ug/L			11/24/15 03:28	5
Methylcyclohexane	**1.7**	**J**	5.0	0.80	ug/L			11/24/15 03:28	5
Methylene Chloride	ND		5.0	2.2	ug/L			11/24/15 03:28	5
Styrene	ND		5.0	3.7	ug/L			11/24/15 03:28	5
Tetrachloroethene	ND		5.0	1.8	ug/L			11/24/15 03:28	5
Toluene	ND		5.0	2.6	ug/L			11/24/15 03:28	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			11/24/15 03:28	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			11/24/15 03:28	5
Trichloroethene	ND		5.0	2.3	ug/L			11/24/15 03:28	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			11/24/15 03:28	5
Vinyl chloride	**220**		5.0	4.5	ug/L			11/24/15 03:28	5
Xylenes, Total	**11**		10	3.3	ug/L			11/24/15 03:28	5

Client Sample ID: MW-6R (111015)

Lab Sample ID: 480-91066-1

Date Collected: 11/10/15 10:52

Matrix: Water

Date Received: 11/13/15 09:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		66 - 137		11/24/15 03:28	5
4-Bromofluorobenzene (Surr)	98		73 - 120		11/24/15 03:28	5
Toluene-d8 (Surr)	96		71 - 126		11/24/15 03:28	5
Dibromofluoromethane (Surr)	92		60 - 140		11/24/15 03:28	5

Client Sample ID: DUP-01 (111015)

Lab Sample ID: 480-91066-2

Date Collected: 11/10/15 00:00

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			11/24/15 06:14	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			11/24/15 06:14	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			11/24/15 06:14	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			11/24/15 06:14	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			11/24/15 06:14	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			11/24/15 06:14	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			11/24/15 06:14	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			11/24/15 06:14	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			11/24/15 06:14	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			11/24/15 06:14	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			11/24/15 06:14	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			11/24/15 06:14	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			11/24/15 06:14	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			11/24/15 06:14	5
2-Butanone (MEK)	ND		50	6.6	ug/L			11/24/15 06:14	5
2-Hexanone	ND		25	6.2	ug/L			11/24/15 06:14	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			11/24/15 06:14	5
Acetone	ND		50	15	ug/L			11/24/15 06:14	5
Benzene	ND		5.0	2.1	ug/L			11/24/15 06:14	5
Bromodichloromethane	ND		5.0	2.0	ug/L			11/24/15 06:14	5
Bromoform	ND		5.0	1.3	ug/L			11/24/15 06:14	5
Bromomethane	ND		5.0	3.5	ug/L			11/24/15 06:14	5
Carbon disulfide	ND		5.0	0.95	ug/L			11/24/15 06:14	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			11/24/15 06:14	5
Chlorobenzene	ND		5.0	3.8	ug/L			11/24/15 06:14	5
Chloroethane	**1.8**	**J**	5.0	1.6	ug/L			11/24/15 06:14	5
Chloroform	ND		5.0	1.7	ug/L			11/24/15 06:14	5
Chloromethane	ND		5.0	1.8	ug/L			11/24/15 06:14	5
cis-1,2-Dichloroethene	**210**		5.0	4.1	ug/L			11/24/15 06:14	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			11/24/15 06:14	5
Cyclohexane	ND		5.0	0.90	ug/L			11/24/15 06:14	5
Dibromochloromethane	ND		5.0	1.6	ug/L			11/24/15 06:14	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			11/24/15 06:14	5
Ethylbenzene	**25**		5.0	3.7	ug/L			11/24/15 06:14	5
Isopropylbenzene	**19**		5.0	4.0	ug/L			11/24/15 06:14	5
Methyl acetate	ND		13	6.5	ug/L			11/24/15 06:14	5
Methyl tert-butyl ether	**12**		5.0	0.80	ug/L			11/24/15 06:14	5
Methylcyclohexane	**1.7**	**J**	5.0	0.80	ug/L			11/24/15 06:14	5
Methylene Chloride	ND		5.0	2.2	ug/L			11/24/15 06:14	5

Client Sample ID: DUP-01 (111015)

Date Collected: 11/10/15 00:00
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		5.0	3.7	ug/L			11/24/15 06:14	5
Tetrachloroethene	ND		5.0	1.8	ug/L			11/24/15 06:14	5
Toluene	ND		5.0	2.6	ug/L			11/24/15 06:14	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			11/24/15 06:14	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			11/24/15 06:14	5
Trichloroethene	ND		5.0	2.3	ug/L			11/24/15 06:14	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			11/24/15 06:14	5
Vinyl chloride	**240**		5.0	4.5	ug/L			11/24/15 06:14	5
Xylenes, Total	**11**		10	3.3	ug/L			11/24/15 06:14	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/24/15 06:14*	*5*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/24/15 06:14*	*5*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/24/15 06:14*	*5*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*11/24/15 06:14*	*5*

Client Sample ID: MW-1 (111015)

Date Collected: 11/10/15 09:10
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	33	ug/L			11/24/15 03:52	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			11/24/15 03:52	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	12	ug/L			11/24/15 03:52	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			11/24/15 03:52	40
1,1-Dichloroethane	ND		40	15	ug/L			11/24/15 03:52	40
1,1-Dichloroethene	ND		40	12	ug/L			11/24/15 03:52	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			11/24/15 03:52	40
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			11/24/15 03:52	40
1,2-Dibromoethane	ND		40	29	ug/L			11/24/15 03:52	40
1,2-Dichlorobenzene	ND		40	32	ug/L			11/24/15 03:52	40
1,2-Dichloroethane	ND		40	8.4	ug/L			11/24/15 03:52	40
1,2-Dichloropropane	ND		40	29	ug/L			11/24/15 03:52	40
1,3-Dichlorobenzene	ND		40	31	ug/L			11/24/15 03:52	40
1,4-Dichlorobenzene	ND		40	34	ug/L			11/24/15 03:52	40
2-Butanone (MEK)	ND		400	53	ug/L			11/24/15 03:52	40
2-Hexanone	ND		200	50	ug/L			11/24/15 03:52	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			11/24/15 03:52	40
Acetone	ND		400	120	ug/L			11/24/15 03:52	40
Benzene	ND		40	16	ug/L			11/24/15 03:52	40
Bromodichloromethane	ND		40	16	ug/L			11/24/15 03:52	40
Bromoform	ND		40	10	ug/L			11/24/15 03:52	40
Bromomethane	ND		40	28	ug/L			11/24/15 03:52	40
Carbon disulfide	ND		40	7.6	ug/L			11/24/15 03:52	40
Carbon tetrachloride	ND		40	11	ug/L			11/24/15 03:52	40
Chlorobenzene	ND		40	30	ug/L			11/24/15 03:52	40
Chloroethane	ND		40	13	ug/L			11/24/15 03:52	40
Chloroform	ND		40	14	ug/L			11/24/15 03:52	40
Chloromethane	ND		40	14	ug/L			11/24/15 03:52	40

Client Sample ID: MW-1 (111015)

Lab Sample ID: 480-91066-3

Date Collected: 11/10/15 09:10

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**1700**		40	32	ug/L			11/24/15 03:52	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			11/24/15 03:52	40
Cyclohexane	ND		40	7.2	ug/L			11/24/15 03:52	40
Dibromochloromethane	ND		40	13	ug/L			11/24/15 03:52	40
Dichlorodifluoromethane	ND		40	27	ug/L			11/24/15 03:52	40
Ethylbenzene	ND		40	30	ug/L			11/24/15 03:52	40
Isopropylbenzene	ND		40	32	ug/L			11/24/15 03:52	40
Methyl acetate	ND		100	52	ug/L			11/24/15 03:52	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			11/24/15 03:52	40
Methylcyclohexane	ND		40	6.4	ug/L			11/24/15 03:52	40
Methylene Chloride	ND		40	18	ug/L			11/24/15 03:52	40
Styrene	ND		40	29	ug/L			11/24/15 03:52	40
Tetrachloroethene	**260**		40	14	ug/L			11/24/15 03:52	40
Toluene	ND		40	20	ug/L			11/24/15 03:52	40
trans-1,2-Dichloroethene	ND		40	36	ug/L			11/24/15 03:52	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			11/24/15 03:52	40
Trichloroethene	**170**		40	18	ug/L			11/24/15 03:52	40
Trichlorofluoromethane	ND		40	35	ug/L			11/24/15 03:52	40
Vinyl chloride	ND		40	36	ug/L			11/24/15 03:52	40
Xylenes, Total	ND		80	26	ug/L			11/24/15 03:52	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*11/24/15 03:52*	*40*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/24/15 03:52*	*40*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/24/15 03:52*	*40*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/24/15 03:52*	*40*

Client Sample ID: MW-27 (111015)

Lab Sample ID: 480-91066-4

Date Collected: 11/10/15 12:17

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2000	1600	ug/L			11/24/15 04:15	2000
1,1,2,2-Tetrachloroethane	ND		2000	420	ug/L			11/24/15 04:15	2000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	620	ug/L			11/24/15 04:15	2000
1,1,2-Trichloroethane	ND		2000	460	ug/L			11/24/15 04:15	2000
1,1-Dichloroethane	ND		2000	760	ug/L			11/24/15 04:15	2000
1,1-Dichloroethene	ND		2000	580	ug/L			11/24/15 04:15	2000
1,2,4-Trichlorobenzene	ND		2000	820	ug/L			11/24/15 04:15	2000
1,2-Dibromo-3-Chloropropane	ND		2000	780	ug/L			11/24/15 04:15	2000
1,2-Dibromoethane	ND		2000	1500	ug/L			11/24/15 04:15	2000
1,2-Dichlorobenzene	ND		2000	1600	ug/L			11/24/15 04:15	2000
1,2-Dichloroethane	ND		2000	420	ug/L			11/24/15 04:15	2000
1,2-Dichloropropane	ND		2000	1400	ug/L			11/24/15 04:15	2000
1,3-Dichlorobenzene	ND		2000	1600	ug/L			11/24/15 04:15	2000
1,4-Dichlorobenzene	ND		2000	1700	ug/L			11/24/15 04:15	2000
2-Butanone (MEK)	ND		20000	2600	ug/L			11/24/15 04:15	2000
2-Hexanone	ND		10000	2500	ug/L			11/24/15 04:15	2000
4-Methyl-2-pentanone (MIBK)	ND		10000	4200	ug/L			11/24/15 04:15	2000

Client Sample ID: MW-27 (111015)

Lab Sample ID: 480-91066-4

Date Collected: 11/10/15 12:17

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20000	6000	ug/L			11/24/15 04:15	2000
Benzene	ND		2000	820	ug/L			11/24/15 04:15	2000
Bromodichloromethane	ND		2000	780	ug/L			11/24/15 04:15	2000
Bromoform	ND		2000	520	ug/L			11/24/15 04:15	2000
Bromomethane	ND		2000	1400	ug/L			11/24/15 04:15	2000
Carbon disulfide	ND		2000	380	ug/L			11/24/15 04:15	2000
Carbon tetrachloride	ND		2000	540	ug/L			11/24/15 04:15	2000
Chlorobenzene	ND		2000	1500	ug/L			11/24/15 04:15	2000
Chloroethane	ND		2000	640	ug/L			11/24/15 04:15	2000
Chloroform	ND		2000	680	ug/L			11/24/15 04:15	2000
Chloromethane	ND		2000	700	ug/L			11/24/15 04:15	2000
cis-1,2-Dichloroethene	**140000**		2000	1600	ug/L			11/24/15 04:15	2000
cis-1,3-Dichloropropene	ND		2000	720	ug/L			11/24/15 04:15	2000
Cyclohexane	ND		2000	360	ug/L			11/24/15 04:15	2000
Dibromochloromethane	ND		2000	640	ug/L			11/24/15 04:15	2000
Dichlorodifluoromethane	ND		2000	1400	ug/L			11/24/15 04:15	2000
Ethylbenzene	ND		2000	1500	ug/L			11/24/15 04:15	2000
Isopropylbenzene	ND		2000	1600	ug/L			11/24/15 04:15	2000
Methyl acetate	ND		5000	2600	ug/L			11/24/15 04:15	2000
Methyl tert-butyl ether	ND		2000	320	ug/L			11/24/15 04:15	2000
Methylcyclohexane	ND		2000	320	ug/L			11/24/15 04:15	2000
Methylene Chloride	ND		2000	880	ug/L			11/24/15 04:15	2000
Styrene	ND		2000	1500	ug/L			11/24/15 04:15	2000
Tetrachloroethene	**140000**		2000	720	ug/L			11/24/15 04:15	2000
Toluene	ND		2000	1000	ug/L			11/24/15 04:15	2000
trans-1,2-Dichloroethene	ND		2000	1800	ug/L			11/24/15 04:15	2000
trans-1,3-Dichloropropene	ND		2000	740	ug/L			11/24/15 04:15	2000
Trichloroethene	**18000**		2000	920	ug/L			11/24/15 04:15	2000
Trichlorofluoromethane	ND		2000	1800	ug/L			11/24/15 04:15	2000
Vinyl chloride	**7700**		2000	1800	ug/L			11/24/15 04:15	2000
Xylenes, Total	ND		4000	1300	ug/L			11/24/15 04:15	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*11/24/15 04:15*	*2000*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/24/15 04:15*	*2000*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/24/15 04:15*	*2000*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*11/24/15 04:15*	*2000*

Client Sample ID: MW-28 (111015)

Lab Sample ID: 480-91066-5

Date Collected: 11/10/15 17:35

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2000	1600	ug/L			11/24/15 04:39	2000
1,1,2,2-Tetrachloroethane	ND		2000	420	ug/L			11/24/15 04:39	2000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	620	ug/L			11/24/15 04:39	2000
1,1,2-Trichloroethane	ND		2000	460	ug/L			11/24/15 04:39	2000
1,1-Dichloroethane	ND		2000	760	ug/L			11/24/15 04:39	2000
1,1-Dichloroethene	ND		2000	580	ug/L			11/24/15 04:39	2000

Client Sample ID: MW-28 (111015)
Date Collected: 11/10/15 17:35
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2000	820	ug/L			11/24/15 04:39	2000
1,2-Dibromo-3-Chloropropane	ND		2000	780	ug/L			11/24/15 04:39	2000
1,2-Dibromoethane	ND		2000	1500	ug/L			11/24/15 04:39	2000
1,2-Dichlorobenzene	ND		2000	1600	ug/L			11/24/15 04:39	2000
1,2-Dichloroethane	ND		2000	420	ug/L			11/24/15 04:39	2000
1,2-Dichloropropane	ND		2000	1400	ug/L			11/24/15 04:39	2000
1,3-Dichlorobenzene	ND		2000	1600	ug/L			11/24/15 04:39	2000
1,4-Dichlorobenzene	ND		2000	1700	ug/L			11/24/15 04:39	2000
2-Butanone (MEK)	ND		20000	2600	ug/L			11/24/15 04:39	2000
2-Hexanone	ND		10000	2500	ug/L			11/24/15 04:39	2000
4-Methyl-2-pentanone (MIBK)	ND		10000	4200	ug/L			11/24/15 04:39	2000
Acetone	ND		20000	6000	ug/L			11/24/15 04:39	2000
Benzene	ND		2000	820	ug/L			11/24/15 04:39	2000
Bromodichloromethane	ND		2000	780	ug/L			11/24/15 04:39	2000
Bromoform	ND		2000	520	ug/L			11/24/15 04:39	2000
Bromomethane	ND		2000	1400	ug/L			11/24/15 04:39	2000
Carbon disulfide	ND		2000	380	ug/L			11/24/15 04:39	2000
Carbon tetrachloride	ND		2000	540	ug/L			11/24/15 04:39	2000
Chlorobenzene	ND		2000	1500	ug/L			11/24/15 04:39	2000
Chloroethane	ND		2000	640	ug/L			11/24/15 04:39	2000
Chloroform	ND		2000	680	ug/L			11/24/15 04:39	2000
Chloromethane	ND		2000	700	ug/L			11/24/15 04:39	2000
cis-1,2-Dichloroethene	**47000**		2000	1600	ug/L			11/24/15 04:39	2000
cis-1,3-Dichloropropene	ND		2000	720	ug/L			11/24/15 04:39	2000
Cyclohexane	ND		2000	360	ug/L			11/24/15 04:39	2000
Dibromochloromethane	ND		2000	640	ug/L			11/24/15 04:39	2000
Dichlorodifluoromethane	ND		2000	1400	ug/L			11/24/15 04:39	2000
Ethylbenzene	ND		2000	1500	ug/L			11/24/15 04:39	2000
Isopropylbenzene	ND		2000	1600	ug/L			11/24/15 04:39	2000
Methyl acetate	ND		5000	2600	ug/L			11/24/15 04:39	2000
Methyl tert-butyl ether	ND		2000	320	ug/L			11/24/15 04:39	2000
Methylcyclohexane	ND		2000	320	ug/L			11/24/15 04:39	2000
Methylene Chloride	ND		2000	880	ug/L			11/24/15 04:39	2000
Styrene	ND		2000	1500	ug/L			11/24/15 04:39	2000
Tetrachloroethene	**26000**		2000	720	ug/L			11/24/15 04:39	2000
Toluene	ND		2000	1000	ug/L			11/24/15 04:39	2000
trans-1,2-Dichloroethene	ND		2000	1800	ug/L			11/24/15 04:39	2000
trans-1,3-Dichloropropene	ND		2000	740	ug/L			11/24/15 04:39	2000
Trichloroethene	**15000**		2000	920	ug/L			11/24/15 04:39	2000
Trichlorofluoromethane	ND		2000	1800	ug/L			11/24/15 04:39	2000
Vinyl chloride	**1800**	**J**	2000	1800	ug/L			11/24/15 04:39	2000
Xylenes, Total	ND		4000	1300	ug/L			11/24/15 04:39	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*11/24/15 04:39*	*2000*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/24/15 04:39*	*2000*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/24/15 04:39*	*2000*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*11/24/15 04:39*	*2000*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-23S (111115)
Date Collected: 11/11/15 09:02
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/24/15 05:03	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/24/15 05:03	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/24/15 05:03	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/24/15 05:03	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/24/15 05:03	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/24/15 05:03	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/24/15 05:03	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/24/15 05:03	10
1,2-Dibromoethane	ND		10	7.3	ug/L			11/24/15 05:03	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/24/15 05:03	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/24/15 05:03	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/24/15 05:03	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/24/15 05:03	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/24/15 05:03	10
2-Butanone (MEK)	ND		100	13	ug/L			11/24/15 05:03	10
2-Hexanone	ND		50	12	ug/L			11/24/15 05:03	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/24/15 05:03	10
Acetone	ND		100	30	ug/L			11/24/15 05:03	10
Benzene	ND		10	4.1	ug/L			11/24/15 05:03	10
Bromodichloromethane	ND		10	3.9	ug/L			11/24/15 05:03	10
Bromoform	ND		10	2.6	ug/L			11/24/15 05:03	10
Bromomethane	ND		10	6.9	ug/L			11/24/15 05:03	10
Carbon disulfide	ND		10	1.9	ug/L			11/24/15 05:03	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/24/15 05:03	10
Chlorobenzene	ND		10	7.5	ug/L			11/24/15 05:03	10
Chloroethane	ND		10	3.2	ug/L			11/24/15 05:03	10
Chloroform	ND		10	3.4	ug/L			11/24/15 05:03	10
Chloromethane	ND		10	3.5	ug/L			11/24/15 05:03	10
cis-1,2-Dichloroethene	**750**		10	8.1	ug/L			11/24/15 05:03	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/24/15 05:03	10
Cyclohexane	ND		10	1.8	ug/L			11/24/15 05:03	10
Dibromochloromethane	ND		10	3.2	ug/L			11/24/15 05:03	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/24/15 05:03	10
Ethylbenzene	ND		10	7.4	ug/L			11/24/15 05:03	10
Isopropylbenzene	ND		10	7.9	ug/L			11/24/15 05:03	10
Methyl acetate	ND		25	13	ug/L			11/24/15 05:03	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			11/24/15 05:03	10
Methylcyclohexane	ND		10	1.6	ug/L			11/24/15 05:03	10
Methylene Chloride	ND		10	4.4	ug/L			11/24/15 05:03	10
Styrene	ND		10	7.3	ug/L			11/24/15 05:03	10
Tetrachloroethene	**780**		10	3.6	ug/L			11/24/15 05:03	10
Toluene	ND		10	5.1	ug/L			11/24/15 05:03	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/24/15 05:03	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/24/15 05:03	10
Trichloroethene	**270**		10	4.6	ug/L			11/24/15 05:03	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/24/15 05:03	10
Vinyl chloride	**11**		10	9.0	ug/L			11/24/15 05:03	10
Xylenes, Total	ND		20	6.6	ug/L			11/24/15 05:03	10

Client Sample ID: MW-23S (111115)

Lab Sample ID: 480-91066-6

Date Collected: 11/11/15 09:02

Matrix: Water

Date Received: 11/13/15 09:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*11/24/15 05:03*	*10*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*11/24/15 05:03*	*10*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/24/15 05:03*	*10*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*11/24/15 05:03*	*10*

Client Sample ID: MW-23D (111115)

Lab Sample ID: 480-91066-7

Date Collected: 11/11/15 09:58

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			11/24/15 14:48	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			11/24/15 14:48	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			11/24/15 14:48	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			11/24/15 14:48	20
1,1-Dichloroethane	ND		20	7.6	ug/L			11/24/15 14:48	20
1,1-Dichloroethene	ND		20	5.8	ug/L			11/24/15 14:48	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			11/24/15 14:48	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			11/24/15 14:48	20
1,2-Dibromoethane	ND		20	15	ug/L			11/24/15 14:48	20
1,2-Dichlorobenzene	ND		20	16	ug/L			11/24/15 14:48	20
1,2-Dichloroethane	ND		20	4.2	ug/L			11/24/15 14:48	20
1,2-Dichloropropane	ND		20	14	ug/L			11/24/15 14:48	20
1,3-Dichlorobenzene	ND		20	16	ug/L			11/24/15 14:48	20
1,4-Dichlorobenzene	ND		20	17	ug/L			11/24/15 14:48	20
2-Butanone (MEK)	ND		200	26	ug/L			11/24/15 14:48	20
2-Hexanone	ND		100	25	ug/L			11/24/15 14:48	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			11/24/15 14:48	20
Acetone	ND		200	60	ug/L			11/24/15 14:48	20
Benzene	ND		20	8.2	ug/L			11/24/15 14:48	20
Bromodichloromethane	ND		20	7.8	ug/L			11/24/15 14:48	20
Bromoform	ND		20	5.2	ug/L			11/24/15 14:48	20
Bromomethane	ND		20	14	ug/L			11/24/15 14:48	20
Carbon disulfide	ND		20	3.8	ug/L			11/24/15 14:48	20
Carbon tetrachloride	ND		20	5.4	ug/L			11/24/15 14:48	20
Chlorobenzene	ND		20	15	ug/L			11/24/15 14:48	20
Chloroethane	ND		20	6.4	ug/L			11/24/15 14:48	20
Chloroform	ND		20	6.8	ug/L			11/24/15 14:48	20
Chloromethane	ND		20	7.0	ug/L			11/24/15 14:48	20
cis-1,2-Dichloroethene	**1300**	**F1**	20	16	ug/L			11/24/15 14:48	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			11/24/15 14:48	20
Cyclohexane	ND		20	3.6	ug/L			11/24/15 14:48	20
Dibromochloromethane	ND		20	6.4	ug/L			11/24/15 14:48	20
Dichlorodifluoromethane	ND		20	14	ug/L			11/24/15 14:48	20
Ethylbenzene	ND		20	15	ug/L			11/24/15 14:48	20
Isopropylbenzene	ND		20	16	ug/L			11/24/15 14:48	20
Methyl acetate	ND		50	26	ug/L			11/24/15 14:48	20
Methyl tert-butyl ether	**12**	**J**	20	3.2	ug/L			11/24/15 14:48	20
Methylcyclohexane	ND		20	3.2	ug/L			11/24/15 14:48	20
Methylene Chloride	ND		20	8.8	ug/L			11/24/15 14:48	20

Client Sample ID: MW-23D (111115)

Lab Sample ID: 480-91066-7

Date Collected: 11/11/15 09:58

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		20	15	ug/L			11/24/15 14:48	20
Tetrachloroethene	**1300**	**F1**	20	7.2	ug/L			11/24/15 14:48	20
Toluene	ND		20	10	ug/L			11/24/15 14:48	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			11/24/15 14:48	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			11/24/15 14:48	20
Trichloroethene	**500**	**F1**	20	9.2	ug/L			11/24/15 14:48	20
Trichlorofluoromethane	ND		20	18	ug/L			11/24/15 14:48	20
Vinyl chloride	**140**		20	18	ug/L			11/24/15 14:48	20
Xylenes, Total	ND		40	13	ug/L			11/24/15 14:48	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*11/24/15 14:48*	*20*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*11/24/15 14:48*	*20*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/24/15 14:48*	*20*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/24/15 14:48*	*20*

Client Sample ID: MW-17R (111015)

Lab Sample ID: 480-91066-8

Date Collected: 11/10/15 16:17

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 05:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 05:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 05:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 05:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 05:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 05:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 05:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 05:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 05:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 05:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 05:26	1
1,2-Dichloropropane	**1.7**		1.0	0.72	ug/L			11/24/15 05:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 05:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 05:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 05:26	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 05:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 05:26	1
Acetone	ND		10	3.0	ug/L			11/24/15 05:26	1
Benzene	**4.3**		1.0	0.41	ug/L			11/24/15 05:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 05:26	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 05:26	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 05:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 05:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 05:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 05:26	1
Chloroethane	**4.5**		1.0	0.32	ug/L			11/24/15 05:26	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 05:26	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 05:26	1

Client Sample ID: MW-17R (111015)

Lab Sample ID: 480-91066-8

Date Collected: 11/10/15 16:17

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**55**		1.0	0.81	ug/L			11/24/15 05:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 05:26	1
Cyclohexane	**0.50**	**J**	1.0	0.18	ug/L			11/24/15 05:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 05:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 05:26	1
Ethylbenzene	**8.6**		1.0	0.74	ug/L			11/24/15 05:26	1
Isopropylbenzene	**26**		1.0	0.79	ug/L			11/24/15 05:26	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 05:26	1
Methyl tert-butyl ether	**14**		1.0	0.16	ug/L			11/24/15 05:26	1
Methylcyclohexane	**1.7**		1.0	0.16	ug/L			11/24/15 05:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 05:26	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 05:26	1
Tetrachloroethene	**0.74**	**J**	1.0	0.36	ug/L			11/24/15 05:26	1
Toluene	**0.61**	**J**	1.0	0.51	ug/L			11/24/15 05:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 05:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 05:26	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 05:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 05:26	1
Vinyl chloride	**62**		1.0	0.90	ug/L			11/24/15 05:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 05:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*11/24/15 05:26*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*11/24/15 05:26*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/24/15 05:26*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/24/15 05:26*	*1*

Client Sample ID: MW-16R (111015)

Lab Sample ID: 480-91066-9

Date Collected: 11/10/15 15:20

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 05:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 05:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 05:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 05:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 05:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 05:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 05:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 05:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 05:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 05:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 05:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 05:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 05:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 05:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 05:50	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 05:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 05:50	1

Client Sample ID: MW-16R (111015)

Lab Sample ID: 480-91066-9

Date Collected: 11/10/15 15:20

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			11/24/15 05:50	1
Benzene	**0.41**	**J**	1.0	0.41	ug/L			11/24/15 05:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 05:50	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 05:50	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 05:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 05:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 05:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 05:50	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 05:50	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 05:50	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 05:50	1
cis-1,2-Dichloroethene	**16**		1.0	0.81	ug/L			11/24/15 05:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 05:50	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 05:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 05:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 05:50	1
Ethylbenzene	**34**		1.0	0.74	ug/L			11/24/15 05:50	1
Isopropylbenzene	**15**		1.0	0.79	ug/L			11/24/15 05:50	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 05:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 05:50	1
Methylcyclohexane	**0.96**	**J**	1.0	0.16	ug/L			11/24/15 05:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 05:50	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 05:50	1
Tetrachloroethene	**18**		1.0	0.36	ug/L			11/24/15 05:50	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 05:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 05:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 05:50	1
Trichloroethene	**3.2**		1.0	0.46	ug/L			11/24/15 05:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 05:50	1
Vinyl chloride	**1.0**		1.0	0.90	ug/L			11/24/15 05:50	1
Xylenes, Total	**5.7**		2.0	0.66	ug/L			11/24/15 05:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*11/24/15 05:50*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*11/24/15 05:50*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/24/15 05:50*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/24/15 05:50*	*1*

Client Sample ID: MW-22D (111115)

Lab Sample ID: 480-91066-10

Date Collected: 11/11/15 13:02

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			11/24/15 15:11	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			11/24/15 15:11	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			11/24/15 15:11	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			11/24/15 15:11	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			11/24/15 15:11	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			11/24/15 15:11	5

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-22D (111115)
Date Collected: 11/11/15 13:02
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			11/24/15 15:11	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			11/24/15 15:11	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			11/24/15 15:11	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			11/24/15 15:11	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			11/24/15 15:11	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			11/24/15 15:11	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			11/24/15 15:11	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			11/24/15 15:11	5
2-Butanone (MEK)	ND		50	6.6	ug/L			11/24/15 15:11	5
2-Hexanone	ND		25	6.2	ug/L			11/24/15 15:11	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			11/24/15 15:11	5
Acetone	ND		50	15	ug/L			11/24/15 15:11	5
Benzene	ND		5.0	2.1	ug/L			11/24/15 15:11	5
Bromodichloromethane	ND		5.0	2.0	ug/L			11/24/15 15:11	5
Bromoform	ND		5.0	1.3	ug/L			11/24/15 15:11	5
Bromomethane	ND		5.0	3.5	ug/L			11/24/15 15:11	5
Carbon disulfide	ND		5.0	0.95	ug/L			11/24/15 15:11	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			11/24/15 15:11	5
Chlorobenzene	ND		5.0	3.8	ug/L			11/24/15 15:11	5
Chloroethane	ND		5.0	1.6	ug/L			11/24/15 15:11	5
Chloroform	ND		5.0	1.7	ug/L			11/24/15 15:11	5
Chloromethane	ND		5.0	1.8	ug/L			11/24/15 15:11	5
cis-1,2-Dichloroethene	**380**		5.0	4.1	ug/L			11/24/15 15:11	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			11/24/15 15:11	5
Cyclohexane	ND		5.0	0.90	ug/L			11/24/15 15:11	5
Dibromochloromethane	ND		5.0	1.6	ug/L			11/24/15 15:11	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			11/24/15 15:11	5
Ethylbenzene	ND		5.0	3.7	ug/L			11/24/15 15:11	5
Isopropylbenzene	ND		5.0	4.0	ug/L			11/24/15 15:11	5
Methyl acetate	ND		13	6.5	ug/L			11/24/15 15:11	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			11/24/15 15:11	5
Methylcyclohexane	ND		5.0	0.80	ug/L			11/24/15 15:11	5
Methylene Chloride	ND		5.0	2.2	ug/L			11/24/15 15:11	5
Styrene	ND		5.0	3.7	ug/L			11/24/15 15:11	5
Tetrachloroethene	**180**		5.0	1.8	ug/L			11/24/15 15:11	5
Toluene	ND		5.0	2.6	ug/L			11/24/15 15:11	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			11/24/15 15:11	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			11/24/15 15:11	5
Trichloroethene	**130**		5.0	2.3	ug/L			11/24/15 15:11	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			11/24/15 15:11	5
Vinyl chloride	**23**		5.0	4.5	ug/L			11/24/15 15:11	5
Xylenes, Total	ND		10	3.3	ug/L			11/24/15 15:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*11/24/15 15:11*	*5*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/24/15 15:11*	*5*
Toluene-d8 (Surr)	*93*		*71 - 126*		*11/24/15 15:11*	*5*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/24/15 15:11*	*5*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-9 (111115)
Date Collected: 11/11/15 16:17
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/24/15 15:35	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/24/15 15:35	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/24/15 15:35	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/24/15 15:35	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/24/15 15:35	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/24/15 15:35	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/24/15 15:35	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/24/15 15:35	10
1,2-Dibromoethane	ND		10	7.3	ug/L			11/24/15 15:35	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/24/15 15:35	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/24/15 15:35	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/24/15 15:35	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/24/15 15:35	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/24/15 15:35	10
2-Butanone (MEK)	ND		100	13	ug/L			11/24/15 15:35	10
2-Hexanone	ND		50	12	ug/L			11/24/15 15:35	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/24/15 15:35	10
Acetone	ND		100	30	ug/L			11/24/15 15:35	10
Benzene	ND		10	4.1	ug/L			11/24/15 15:35	10
Bromodichloromethane	ND		10	3.9	ug/L			11/24/15 15:35	10
Bromoform	ND		10	2.6	ug/L			11/24/15 15:35	10
Bromomethane	ND		10	6.9	ug/L			11/24/15 15:35	10
Carbon disulfide	ND		10	1.9	ug/L			11/24/15 15:35	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/24/15 15:35	10
Chlorobenzene	ND		10	7.5	ug/L			11/24/15 15:35	10
Chloroethane	ND		10	3.2	ug/L			11/24/15 15:35	10
Chloroform	ND		10	3.4	ug/L			11/24/15 15:35	10
Chloromethane	ND		10	3.5	ug/L			11/24/15 15:35	10
cis-1,2-Dichloroethene	**700**		10	8.1	ug/L			11/24/15 15:35	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/24/15 15:35	10
Cyclohexane	ND		10	1.8	ug/L			11/24/15 15:35	10
Dibromochloromethane	ND		10	3.2	ug/L			11/24/15 15:35	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/24/15 15:35	10
Ethylbenzene	ND		10	7.4	ug/L			11/24/15 15:35	10
Isopropylbenzene	ND		10	7.9	ug/L			11/24/15 15:35	10
Methyl acetate	ND		25	13	ug/L			11/24/15 15:35	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			11/24/15 15:35	10
Methylcyclohexane	ND		10	1.6	ug/L			11/24/15 15:35	10
Methylene Chloride	ND		10	4.4	ug/L			11/24/15 15:35	10
Styrene	ND		10	7.3	ug/L			11/24/15 15:35	10
Tetrachloroethene	ND		10	3.6	ug/L			11/24/15 15:35	10
Toluene	ND		10	5.1	ug/L			11/24/15 15:35	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/24/15 15:35	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/24/15 15:35	10
Trichloroethene	ND		10	4.6	ug/L			11/24/15 15:35	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/24/15 15:35	10
Vinyl chloride	**340**		10	9.0	ug/L			11/24/15 15:35	10
Xylenes, Total	ND		20	6.6	ug/L			11/24/15 15:35	10

Client Sample ID: MW-9 (111115)

Lab Sample ID: 480-91066-11

Date Collected: 11/11/15 16:17

Matrix: Water

Date Received: 11/13/15 09:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*11/24/15 15:35*	*10*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/24/15 15:35*	*10*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/24/15 15:35*	*10*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/24/15 15:35*	*10*

Client Sample ID: MP-20 (111115)

Lab Sample ID: 480-91066-12

Date Collected: 11/11/15 15:12

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 15:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 15:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 15:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 15:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 15:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 15:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 15:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 15:59	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 15:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 15:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 15:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 15:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 15:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 15:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 15:59	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 15:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 15:59	1
Acetone	ND		10	3.0	ug/L			11/24/15 15:59	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 15:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 15:59	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 15:59	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 15:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 15:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 15:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 15:59	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 15:59	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 15:59	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 15:59	1
cis-1,2-Dichloroethene	**3.0**		1.0	0.81	ug/L			11/24/15 15:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 15:59	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 15:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 15:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 15:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 15:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 15:59	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 15:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 15:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 15:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 15:59	1

Client Sample ID: MP-20 (111115)

Lab Sample ID: 480-91066-12

Date Collected: 11/11/15 15:12

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	0.73	ug/L			11/24/15 15:59	1
Tetrachloroethene	**0.69**	**J**	1.0	0.36	ug/L			11/24/15 15:59	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 15:59	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 15:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 15:59	1
Trichloroethene	**0.91**	**J**	1.0	0.46	ug/L			11/24/15 15:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 15:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 15:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*11/24/15 15:59*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/24/15 15:59*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/24/15 15:59*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/24/15 15:59*	*1*

Client Sample ID: MW-10D (111215)

Lab Sample ID: 480-91066-13

Date Collected: 11/12/15 11:22

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1000	820	ug/L			11/24/15 22:24	1000
1,1,2,2-Tetrachloroethane	ND		1000	210	ug/L			11/24/15 22:24	1000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1000	310	ug/L			11/24/15 22:24	1000
1,1,2-Trichloroethane	ND		1000	230	ug/L			11/24/15 22:24	1000
1,1-Dichloroethane	ND		1000	380	ug/L			11/24/15 22:24	1000
1,1-Dichloroethene	ND		1000	290	ug/L			11/24/15 22:24	1000
1,2,4-Trichlorobenzene	ND		1000	410	ug/L			11/24/15 22:24	1000
1,2-Dibromo-3-Chloropropane	ND		1000	390	ug/L			11/24/15 22:24	1000
1,2-Dibromoethane	ND		1000	730	ug/L			11/24/15 22:24	1000
1,2-Dichlorobenzene	ND		1000	790	ug/L			11/24/15 22:24	1000
1,2-Dichloroethane	ND		1000	210	ug/L			11/24/15 22:24	1000
1,2-Dichloropropane	ND		1000	720	ug/L			11/24/15 22:24	1000
1,3-Dichlorobenzene	ND		1000	780	ug/L			11/24/15 22:24	1000
1,4-Dichlorobenzene	ND		1000	840	ug/L			11/24/15 22:24	1000
2-Butanone (MEK)	ND		10000	1300	ug/L			11/24/15 22:24	1000
2-Hexanone	ND		5000	1200	ug/L			11/24/15 22:24	1000
4-Methyl-2-pentanone (MIBK)	ND		5000	2100	ug/L			11/24/15 22:24	1000
Acetone	ND		10000	3000	ug/L			11/24/15 22:24	1000
Benzene	ND		1000	410	ug/L			11/24/15 22:24	1000
Bromodichloromethane	ND		1000	390	ug/L			11/24/15 22:24	1000
Bromoform	ND		1000	260	ug/L			11/24/15 22:24	1000
Bromomethane	ND		1000	690	ug/L			11/24/15 22:24	1000
Carbon disulfide	ND		1000	190	ug/L			11/24/15 22:24	1000
Carbon tetrachloride	ND		1000	270	ug/L			11/24/15 22:24	1000
Chlorobenzene	ND		1000	750	ug/L			11/24/15 22:24	1000
Chloroethane	ND		1000	320	ug/L			11/24/15 22:24	1000
Chloroform	ND		1000	340	ug/L			11/24/15 22:24	1000
Chloromethane	ND		1000	350	ug/L			11/24/15 22:24	1000

Client Sample ID: MW-10D (111215)

Lab Sample ID: 480-91066-13

Date Collected: 11/12/15 11:22

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1000	810	ug/L			11/24/15 22:24	1000
cis-1,3-Dichloropropene	ND		1000	360	ug/L			11/24/15 22:24	1000
Cyclohexane	ND		1000	180	ug/L			11/24/15 22:24	1000
Dibromochloromethane	ND		1000	320	ug/L			11/24/15 22:24	1000
Dichlorodifluoromethane	ND		1000	680	ug/L			11/24/15 22:24	1000
Ethylbenzene	ND		1000	740	ug/L			11/24/15 22:24	1000
Isopropylbenzene	ND		1000	790	ug/L			11/24/15 22:24	1000
Methyl acetate	ND		2500	1300	ug/L			11/24/15 22:24	1000
Methyl tert-butyl ether	ND		1000	160	ug/L			11/24/15 22:24	1000
Methylcyclohexane	ND		1000	160	ug/L			11/24/15 22:24	1000
Methylene Chloride	ND		1000	440	ug/L			11/24/15 22:24	1000
Styrene	ND		1000	730	ug/L			11/24/15 22:24	1000
Tetrachloroethene	**28000**		1000	360	ug/L			11/24/15 22:24	1000
Toluene	ND		1000	510	ug/L			11/24/15 22:24	1000
trans-1,2-Dichloroethene	ND		1000	900	ug/L			11/24/15 22:24	1000
trans-1,3-Dichloropropene	ND		1000	370	ug/L			11/24/15 22:24	1000
Trichloroethene	**2500**		1000	460	ug/L			11/24/15 22:24	1000
Trichlorofluoromethane	ND		1000	880	ug/L			11/24/15 22:24	1000
Vinyl chloride	ND		1000	900	ug/L			11/24/15 22:24	1000
Xylenes, Total	ND		2000	660	ug/L			11/24/15 22:24	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/24/15 22:24*	*1000*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/24/15 22:24*	*1000*
Toluene-d8 (Surr)	*95*		*71 - 126*		*11/24/15 22:24*	*1000*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*11/24/15 22:24*	*1000*

Client Sample ID: IW-01D (111215)

Lab Sample ID: 480-91066-14

Date Collected: 11/12/15 13:15

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 16:47	1
1,1,2,2-Tetrachloroethane	**0.22**	**J**	1.0	0.21	ug/L			11/24/15 16:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 16:47	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 16:47	1
1,1-Dichloroethane	**1.2**		1.0	0.38	ug/L			11/24/15 16:47	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 16:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 16:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 16:47	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 16:47	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 16:47	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 16:47	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 16:47	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 16:47	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 16:47	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 16:47	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 16:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 16:47	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: IW-01D (111215)
Date Collected: 11/12/15 13:15
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.9**	**J**	10	3.0	ug/L			11/24/15 16:47	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 16:47	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 16:47	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 16:47	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 16:47	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 16:47	1
Carbon tetrachloride	**0.41**	**J**	1.0	0.27	ug/L			11/24/15 16:47	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 16:47	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 16:47	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 16:47	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 16:47	1
cis-1,2-Dichloroethene	**120**	**E**	1.0	0.81	ug/L			11/24/15 16:47	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 16:47	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 16:47	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 16:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 16:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 16:47	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 16:47	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 16:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 16:47	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 16:47	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 16:47	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 16:47	1
Tetrachloroethene	**1700**	**E**	1.0	0.36	ug/L			11/24/15 16:47	1
Toluene	**0.84**	**J**	1.0	0.51	ug/L			11/24/15 16:47	1
trans-1,2-Dichloroethene	**1.1**		1.0	0.90	ug/L			11/24/15 16:47	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 16:47	1
Trichloroethene	**15**		1.0	0.46	ug/L			11/24/15 16:47	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 16:47	1
Vinyl chloride	**9.9**		1.0	0.90	ug/L			11/24/15 16:47	1
Xylenes, Total	**6.4**		2.0	0.66	ug/L			11/24/15 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*11/24/15 16:47*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/24/15 16:47*	*1*
Toluene-d8 (Surr)	*90*		*71 - 126*		*11/24/15 16:47*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*11/24/15 16:47*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			11/24/15 22:48	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			11/24/15 22:48	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	31	ug/L			11/24/15 22:48	100
1,1,2-Trichloroethane	ND		100	23	ug/L			11/24/15 22:48	100
1,1-Dichloroethane	ND		100	38	ug/L			11/24/15 22:48	100
1,1-Dichloroethene	ND		100	29	ug/L			11/24/15 22:48	100
1,2,4-Trichlorobenzene	ND		100	41	ug/L			11/24/15 22:48	100
1,2-Dibromo-3-Chloropropane	ND		100	39	ug/L			11/24/15 22:48	100
1,2-Dibromoethane	ND		100	73	ug/L			11/24/15 22:48	100
1,2-Dichlorobenzene	ND		100	79	ug/L			11/24/15 22:48	100

Client Sample ID: IW-01D (111215)
Date Collected: 11/12/15 13:15
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		100	21	ug/L			11/24/15 22:48	100
1,2-Dichloropropane	ND		100	72	ug/L			11/24/15 22:48	100
1,3-Dichlorobenzene	ND		100	78	ug/L			11/24/15 22:48	100
1,4-Dichlorobenzene	ND		100	84	ug/L			11/24/15 22:48	100
2-Butanone (MEK)	ND		1000	130	ug/L			11/24/15 22:48	100
2-Hexanone	ND		500	120	ug/L			11/24/15 22:48	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			11/24/15 22:48	100
Acetone	ND		1000	300	ug/L			11/24/15 22:48	100
Benzene	ND		100	41	ug/L			11/24/15 22:48	100
Bromodichloromethane	ND		100	39	ug/L			11/24/15 22:48	100
Bromoform	ND		100	26	ug/L			11/24/15 22:48	100
Bromomethane	ND		100	69	ug/L			11/24/15 22:48	100
Carbon disulfide	ND		100	19	ug/L			11/24/15 22:48	100
Carbon tetrachloride	ND		100	27	ug/L			11/24/15 22:48	100
Chlorobenzene	ND		100	75	ug/L			11/24/15 22:48	100
Chloroethane	ND		100	32	ug/L			11/24/15 22:48	100
Chloroform	ND		100	34	ug/L			11/24/15 22:48	100
Chloromethane	ND		100	35	ug/L			11/24/15 22:48	100
cis-1,2-Dichloroethene	**120**		100	81	ug/L			11/24/15 22:48	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			11/24/15 22:48	100
Cyclohexane	ND		100	18	ug/L			11/24/15 22:48	100
Dibromochloromethane	ND		100	32	ug/L			11/24/15 22:48	100
Dichlorodifluoromethane	ND		100	68	ug/L			11/24/15 22:48	100
Ethylbenzene	ND		100	74	ug/L			11/24/15 22:48	100
Isopropylbenzene	ND		100	79	ug/L			11/24/15 22:48	100
Methyl acetate	ND		250	130	ug/L			11/24/15 22:48	100
Methyl tert-butyl ether	ND		100	16	ug/L			11/24/15 22:48	100
Methylcyclohexane	ND		100	16	ug/L			11/24/15 22:48	100
Methylene Chloride	ND		100	44	ug/L			11/24/15 22:48	100
Styrene	ND		100	73	ug/L			11/24/15 22:48	100
Tetrachloroethene	**2300**		100	36	ug/L			11/24/15 22:48	100
Toluene	ND		100	51	ug/L			11/24/15 22:48	100
trans-1,2-Dichloroethene	ND		100	90	ug/L			11/24/15 22:48	100
trans-1,3-Dichloropropene	ND		100	37	ug/L			11/24/15 22:48	100
Trichloroethene	ND		100	46	ug/L			11/24/15 22:48	100
Trichlorofluoromethane	ND		100	88	ug/L			11/24/15 22:48	100
Vinyl chloride	ND		100	90	ug/L			11/24/15 22:48	100
Xylenes, Total	ND		200	66	ug/L			11/24/15 22:48	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*11/24/15 22:48*	*100*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/24/15 22:48*	*100*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/24/15 22:48*	*100*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/24/15 22:48*	*100*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-18 (111115)
Date Collected: 11/11/15 19:57
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-15
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	33	ug/L			11/24/15 17:10	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			11/24/15 17:10	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	12	ug/L			11/24/15 17:10	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			11/24/15 17:10	40
1,1-Dichloroethane	ND		40	15	ug/L			11/24/15 17:10	40
1,1-Dichloroethene	ND		40	12	ug/L			11/24/15 17:10	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			11/24/15 17:10	40
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			11/24/15 17:10	40
1,2-Dibromoethane	ND		40	29	ug/L			11/24/15 17:10	40
1,2-Dichlorobenzene	ND		40	32	ug/L			11/24/15 17:10	40
1,2-Dichloroethane	ND		40	8.4	ug/L			11/24/15 17:10	40
1,2-Dichloropropane	ND		40	29	ug/L			11/24/15 17:10	40
1,3-Dichlorobenzene	ND		40	31	ug/L			11/24/15 17:10	40
1,4-Dichlorobenzene	ND		40	34	ug/L			11/24/15 17:10	40
2-Butanone (MEK)	ND		400	53	ug/L			11/24/15 17:10	40
2-Hexanone	ND		200	50	ug/L			11/24/15 17:10	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			11/24/15 17:10	40
Acetone	ND		400	120	ug/L			11/24/15 17:10	40
Benzene	ND		40	16	ug/L			11/24/15 17:10	40
Bromodichloromethane	ND		40	16	ug/L			11/24/15 17:10	40
Bromoform	ND		40	10	ug/L			11/24/15 17:10	40
Bromomethane	ND		40	28	ug/L			11/24/15 17:10	40
Carbon disulfide	ND		40	7.6	ug/L			11/24/15 17:10	40
Carbon tetrachloride	ND		40	11	ug/L			11/24/15 17:10	40
Chlorobenzene	ND		40	30	ug/L			11/24/15 17:10	40
Chloroethane	ND		40	13	ug/L			11/24/15 17:10	40
Chloroform	ND		40	14	ug/L			11/24/15 17:10	40
Chloromethane	ND		40	14	ug/L			11/24/15 17:10	40
cis-1,2-Dichloroethene	**4100**	**E**	40	32	ug/L			11/24/15 17:10	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			11/24/15 17:10	40
Cyclohexane	ND		40	7.2	ug/L			11/24/15 17:10	40
Dibromochloromethane	ND		40	13	ug/L			11/24/15 17:10	40
Dichlorodifluoromethane	ND		40	27	ug/L			11/24/15 17:10	40
Ethylbenzene	ND		40	30	ug/L			11/24/15 17:10	40
Isopropylbenzene	ND		40	32	ug/L			11/24/15 17:10	40
Methyl acetate	ND		100	52	ug/L			11/24/15 17:10	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			11/24/15 17:10	40
Methylcyclohexane	ND		40	6.4	ug/L			11/24/15 17:10	40
Methylene Chloride	ND		40	18	ug/L			11/24/15 17:10	40
Styrene	ND		40	29	ug/L			11/24/15 17:10	40
Tetrachloroethene	**4900**	**E**	40	14	ug/L			11/24/15 17:10	40
Toluene	ND		40	20	ug/L			11/24/15 17:10	40
trans-1,2-Dichloroethene	ND		40	36	ug/L			11/24/15 17:10	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			11/24/15 17:10	40
Trichloroethene	**1500**		40	18	ug/L			11/24/15 17:10	40
Trichlorofluoromethane	ND		40	35	ug/L			11/24/15 17:10	40
Vinyl chloride	**350**		40	36	ug/L			11/24/15 17:10	40
Xylenes, Total	ND		80	26	ug/L			11/24/15 17:10	40

Client Sample ID: MW-18 (111115)

Date Collected: 11/11/15 19:57
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-15

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*11/24/15 17:10*	*40*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/24/15 17:10*	*40*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/24/15 17:10*	*40*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/24/15 17:10*	*40*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		80	66	ug/L			11/24/15 23:12	80
1,1,2,2-Tetrachloroethane	ND		80	17	ug/L			11/24/15 23:12	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		80	25	ug/L			11/24/15 23:12	80
1,1,2-Trichloroethane	ND		80	18	ug/L			11/24/15 23:12	80
1,1-Dichloroethane	ND		80	30	ug/L			11/24/15 23:12	80
1,1-Dichloroethene	ND		80	23	ug/L			11/24/15 23:12	80
1,2,4-Trichlorobenzene	ND		80	33	ug/L			11/24/15 23:12	80
1,2-Dibromo-3-Chloropropane	ND		80	31	ug/L			11/24/15 23:12	80
1,2-Dibromoethane	ND		80	58	ug/L			11/24/15 23:12	80
1,2-Dichlorobenzene	ND		80	63	ug/L			11/24/15 23:12	80
1,2-Dichloroethane	ND		80	17	ug/L			11/24/15 23:12	80
1,2-Dichloropropane	ND		80	58	ug/L			11/24/15 23:12	80
1,3-Dichlorobenzene	ND		80	62	ug/L			11/24/15 23:12	80
1,4-Dichlorobenzene	ND		80	67	ug/L			11/24/15 23:12	80
2-Butanone (MEK)	ND		800	110	ug/L			11/24/15 23:12	80
2-Hexanone	ND		400	99	ug/L			11/24/15 23:12	80
4-Methyl-2-pentanone (MIBK)	ND		400	170	ug/L			11/24/15 23:12	80
Acetone	ND		800	240	ug/L			11/24/15 23:12	80
Benzene	ND		80	33	ug/L			11/24/15 23:12	80
Bromodichloromethane	ND		80	31	ug/L			11/24/15 23:12	80
Bromoform	ND		80	21	ug/L			11/24/15 23:12	80
Bromomethane	ND		80	55	ug/L			11/24/15 23:12	80
Carbon disulfide	ND		80	15	ug/L			11/24/15 23:12	80
Carbon tetrachloride	ND		80	22	ug/L			11/24/15 23:12	80
Chlorobenzene	ND		80	60	ug/L			11/24/15 23:12	80
Chloroethane	ND		80	26	ug/L			11/24/15 23:12	80
Chloroform	ND		80	27	ug/L			11/24/15 23:12	80
Chloromethane	ND		80	28	ug/L			11/24/15 23:12	80
cis-1,2-Dichloroethene	**3300**		80	65	ug/L			11/24/15 23:12	80
cis-1,3-Dichloropropene	ND		80	29	ug/L			11/24/15 23:12	80
Cyclohexane	ND		80	14	ug/L			11/24/15 23:12	80
Dibromochloromethane	ND		80	26	ug/L			11/24/15 23:12	80
Dichlorodifluoromethane	ND		80	54	ug/L			11/24/15 23:12	80
Ethylbenzene	ND		80	59	ug/L			11/24/15 23:12	80
Isopropylbenzene	ND		80	63	ug/L			11/24/15 23:12	80
Methyl acetate	ND		200	100	ug/L			11/24/15 23:12	80
Methyl tert-butyl ether	ND		80	13	ug/L			11/24/15 23:12	80
Methylcyclohexane	ND		80	13	ug/L			11/24/15 23:12	80
Methylene Chloride	ND		80	35	ug/L			11/24/15 23:12	80
Styrene	ND		80	58	ug/L			11/24/15 23:12	80
Tetrachloroethene	**4300**		80	29	ug/L			11/24/15 23:12	80
Toluene	ND		80	41	ug/L			11/24/15 23:12	80
trans-1,2-Dichloroethene	ND		80	72	ug/L			11/24/15 23:12	80

Client Sample ID: MW-18 (111115)

Lab Sample ID: 480-91066-15
Matrix: Water
Date Collected: 11/11/15 19:57
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		80	30	ug/L			11/24/15 23:12	80
Trichloroethene	**1300**		80	37	ug/L			11/24/15 23:12	80
Trichlorofluoromethane	ND		80	70	ug/L			11/24/15 23:12	80
Vinyl chloride	**290**		80	72	ug/L			11/24/15 23:12	80
Xylenes, Total	ND		160	53	ug/L			11/24/15 23:12	80

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*11/24/15 23:12*	*80*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*11/24/15 23:12*	*80*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/24/15 23:12*	*80*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/24/15 23:12*	*80*

Client Sample ID: MW-3 (111115)

Lab Sample ID: 480-91066-16
Matrix: Water
Date Collected: 11/11/15 18:12
Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 17:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 17:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 17:34	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 17:34	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 17:34	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 17:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 17:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 17:34	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 17:34	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 17:34	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 17:34	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 17:34	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 17:34	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 17:34	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 17:34	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 17:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 17:34	1
Acetone	ND		10	3.0	ug/L			11/24/15 17:34	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 17:34	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 17:34	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 17:34	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 17:34	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 17:34	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 17:34	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 17:34	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 17:34	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 17:34	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 17:34	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/24/15 17:34	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 17:34	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 17:34	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 17:34	1

Client Sample ID: MW-3 (111115)

Lab Sample ID: 480-91066-16

Date Collected: 11/11/15 18:12

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 17:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 17:34	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 17:34	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 17:34	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 17:34	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 17:34	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 17:34	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 17:34	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/24/15 17:34	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 17:34	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 17:34	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 17:34	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 17:34	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 17:34	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 17:34	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*11/24/15 17:34*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/24/15 17:34*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*11/24/15 17:34*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/24/15 17:34*	*1*

Client Sample ID: MW-10S (111215)

Lab Sample ID: 480-91066-17

Date Collected: 11/12/15 10:02

Matrix: Water

Date Received: 11/13/15 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			11/24/15 17:58	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			11/24/15 17:58	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	31	ug/L			11/24/15 17:58	100
1,1,2-Trichloroethane	ND		100	23	ug/L			11/24/15 17:58	100
1,1-Dichloroethane	ND		100	38	ug/L			11/24/15 17:58	100
1,1-Dichloroethene	ND		100	29	ug/L			11/24/15 17:58	100
1,2,4-Trichlorobenzene	ND		100	41	ug/L			11/24/15 17:58	100
1,2-Dibromo-3-Chloropropane	ND		100	39	ug/L			11/24/15 17:58	100
1,2-Dibromoethane	ND		100	73	ug/L			11/24/15 17:58	100
1,2-Dichlorobenzene	ND		100	79	ug/L			11/24/15 17:58	100
1,2-Dichloroethane	ND		100	21	ug/L			11/24/15 17:58	100
1,2-Dichloropropane	ND		100	72	ug/L			11/24/15 17:58	100
1,3-Dichlorobenzene	ND		100	78	ug/L			11/24/15 17:58	100
1,4-Dichlorobenzene	ND		100	84	ug/L			11/24/15 17:58	100
2-Butanone (MEK)	ND		1000	130	ug/L			11/24/15 17:58	100
2-Hexanone	ND		500	120	ug/L			11/24/15 17:58	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			11/24/15 17:58	100
Acetone	ND		1000	300	ug/L			11/24/15 17:58	100
Benzene	ND		100	41	ug/L			11/24/15 17:58	100
Bromodichloromethane	ND		100	39	ug/L			11/24/15 17:58	100
Bromoform	ND		100	26	ug/L			11/24/15 17:58	100

Client Sample ID: MW-10S (111215)

Date Collected: 11/12/15 10:02
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		100	69	ug/L			11/24/15 17:58	100
Carbon disulfide	ND		100	19	ug/L			11/24/15 17:58	100
Carbon tetrachloride	ND		100	27	ug/L			11/24/15 17:58	100
Chlorobenzene	ND		100	75	ug/L			11/24/15 17:58	100
Chloroethane	ND		100	32	ug/L			11/24/15 17:58	100
Chloroform	ND		100	34	ug/L			11/24/15 17:58	100
Chloromethane	ND		100	35	ug/L			11/24/15 17:58	100
cis-1,2-Dichloroethene	**3600**		100	81	ug/L			11/24/15 17:58	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			11/24/15 17:58	100
Cyclohexane	ND		100	18	ug/L			11/24/15 17:58	100
Dibromochloromethane	ND		100	32	ug/L			11/24/15 17:58	100
Dichlorodifluoromethane	ND		100	68	ug/L			11/24/15 17:58	100
Ethylbenzene	ND		100	74	ug/L			11/24/15 17:58	100
Isopropylbenzene	ND		100	79	ug/L			11/24/15 17:58	100
Methyl acetate	ND		250	130	ug/L			11/24/15 17:58	100
Methyl tert-butyl ether	ND		100	16	ug/L			11/24/15 17:58	100
Methylcyclohexane	ND		100	16	ug/L			11/24/15 17:58	100
Methylene Chloride	ND		100	44	ug/L			11/24/15 17:58	100
Styrene	ND		100	73	ug/L			11/24/15 17:58	100
Tetrachloroethene	**2500**		100	36	ug/L			11/24/15 17:58	100
Toluene	ND		100	51	ug/L			11/24/15 17:58	100
trans-1,2-Dichloroethene	ND		100	90	ug/L			11/24/15 17:58	100
trans-1,3-Dichloropropene	ND		100	37	ug/L			11/24/15 17:58	100
Trichloroethene	**860**		100	46	ug/L			11/24/15 17:58	100
Trichlorofluoromethane	ND		100	88	ug/L			11/24/15 17:58	100
Vinyl chloride	**100**		100	90	ug/L			11/24/15 17:58	100
Xylenes, Total	ND		200	66	ug/L			11/24/15 17:58	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*11/24/15 17:58*	*100*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/24/15 17:58*	*100*
Toluene-d8 (Surr)	*96*		*71 - 126*		*11/24/15 17:58*	*100*
Dibromofluoromethane (Surr)	*89*		*60 - 140*		*11/24/15 17:58*	*100*

Client Sample ID: MW-15R (111115)

Date Collected: 11/11/15 22:48
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-18
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 18:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 18:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 18:21	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 18:21	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 18:21	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 18:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 18:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 18:21	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 18:21	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 18:21	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-15R (111115)
Date Collected: 11/11/15 22:48
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-18
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 18:21	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 18:21	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 18:21	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 18:21	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 18:21	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 18:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 18:21	1
Acetone	ND		10	3.0	ug/L			11/24/15 18:21	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 18:21	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 18:21	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 18:21	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 18:21	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 18:21	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 18:21	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 18:21	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 18:21	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 18:21	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 18:21	1
cis-1,2-Dichloroethene	**0.99**	**J**	1.0	0.81	ug/L			11/24/15 18:21	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 18:21	1
Cyclohexane	**0.54**	**J**	1.0	0.18	ug/L			11/24/15 18:21	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 18:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 18:21	1
Ethylbenzene	**13**		1.0	0.74	ug/L			11/24/15 18:21	1
Isopropylbenzene	**15**		1.0	0.79	ug/L			11/24/15 18:21	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 18:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 18:21	1
Methylcyclohexane	**3.2**		1.0	0.16	ug/L			11/24/15 18:21	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 18:21	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 18:21	1
Tetrachloroethene	**1.5**		1.0	0.36	ug/L			11/24/15 18:21	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 18:21	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 18:21	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 18:21	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 18:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 18:21	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 18:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*11/24/15 18:21*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*11/24/15 18:21*	*1*
Toluene-d8 (Surr)	*92*		*71 - 126*		*11/24/15 18:21*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*11/24/15 18:21*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: TB
Date Collected: 11/12/15 00:00
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-19
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 14:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 14:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 14:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 14:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 14:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 14:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 14:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 14:24	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 14:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 14:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 14:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 14:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 14:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 14:24	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 14:24	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 14:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 14:24	1
Acetone	ND		10	3.0	ug/L			11/24/15 14:24	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 14:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 14:24	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 14:24	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 14:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 14:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 14:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 14:24	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 14:24	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 14:24	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 14:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/24/15 14:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 14:24	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 14:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 14:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 14:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 14:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 14:24	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 14:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 14:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 14:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 14:24	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 14:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/24/15 14:24	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 14:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 14:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 14:24	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 14:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 14:24	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 14:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 14:24	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: TB
Date Collected: 11/12/15 00:00
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-19
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		66 - 137		11/24/15 14:24	1
4-Bromofluorobenzene (Surr)	98		73 - 120		11/24/15 14:24	1
Toluene-d8 (Surr)	94		71 - 126		11/24/15 14:24	1
Dibromofluoromethane (Surr)	98		60 - 140		11/24/15 14:24	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (66-137)	BFB (73-120)	TOL (71-126)	DBFM (60-140)
480-91066-1	MW-6R (111015)	102	98	96	92
480-91066-1 MS	MW-6R (111015)	98	100	96	93
480-91066-1 MSD	MW-6R (111015)	102	101	99	93
480-91066-2	DUP-01 (111015)	102	99	95	98
480-91066-3	MW-1 (111015)	100	98	97	92
480-91066-4	MW-27 (111015)	106	100	97	94
480-91066-5	MW-28 (111015)	104	96	95	94
480-91066-6	MW-23S (111115)	103	95	95	95
480-91066-7	MW-23D (111115)	104	95	95	93
480-91066-7 MS	MW-23D (111115)	97	103	94	90
480-91066-7 MSD	MW-23D (111115)	102	101	97	94
480-91066-8	MW-17R (111015)	99	103	94	92
480-91066-9	MW-16R (111015)	99	105	94	91
480-91066-10	MW-22D (111115)	100	97	93	93
480-91066-11	MW-9 (111115)	99	97	94	93
480-91066-12	MP-20 (111115)	99	98	97	92
480-91066-13	MW-10D (111215)	102	98	95	94
480-91066-14	IW-01D (111215)	103	98	90	96
480-91066-14 - DL	IW-01D (111215)	100	97	97	91
480-91066-15	MW-18 (111115)	104	100	94	93
480-91066-15 - DL	MW-18 (111115)	100	94	94	92
480-91066-16	MW-3 (111115)	105	96	96	93
480-91066-17	MW-10S (111215)	102	96	96	89
480-91066-18	MW-15R (111115)	104	101	92	95
480-91066-19	TB	105	98	94	98
LCS 480-276559/5	Lab Control Sample	97	102	98	90
LCS 480-276625/5	Lab Control Sample	95	103	98	92
LCS 480-276779/5	Lab Control Sample	98	100	96	92
MB 480-276559/7	Method Blank	100	99	97	91
MB 480-276625/7	Method Blank	98	98	94	91
MB 480-276779/7	Method Blank	102	100	96	90

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-276559/7
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/15 23:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/15 23:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/15 23:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/15 23:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/15 23:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/15 23:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/15 23:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/15 23:06	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/23/15 23:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/15 23:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/15 23:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/15 23:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/15 23:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/15 23:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/15 23:06	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/15 23:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/15 23:06	1
Acetone	ND		10	3.0	ug/L			11/23/15 23:06	1
Benzene	ND		1.0	0.41	ug/L			11/23/15 23:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/15 23:06	1
Bromoform	ND		1.0	0.26	ug/L			11/23/15 23:06	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/15 23:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/15 23:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/15 23:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/15 23:06	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/15 23:06	1
Chloroform	ND		1.0	0.34	ug/L			11/23/15 23:06	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/15 23:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/15 23:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/15 23:06	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/15 23:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/15 23:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/15 23:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/15 23:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/15 23:06	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/15 23:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/15 23:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/15 23:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/15 23:06	1
Styrene	ND		1.0	0.73	ug/L			11/23/15 23:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/15 23:06	1
Toluene	ND		1.0	0.51	ug/L			11/23/15 23:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/15 23:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/15 23:06	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/15 23:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/15 23:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/15 23:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/23/15 23:06	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276559/7
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		66 - 137		11/23/15 23:06	1
4-Bromofluorobenzene (Surr)	99		73 - 120		11/23/15 23:06	1
Toluene-d8 (Surr)	97		71 - 126		11/23/15 23:06	1
Dibromofluoromethane (Surr)	91		60 - 140		11/23/15 23:06	1

Lab Sample ID: LCS 480-276559/5
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	22.7		ug/L		91	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.9		ug/L		92	52 - 148
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	23.3		ug/L		93	71 - 129
1,1-Dichloroethene	25.0	21.8		ug/L		87	58 - 121
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	56 - 134
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120
1,2-Dichlorobenzene	25.0	23.2		ug/L		93	80 - 124
1,2-Dichloroethane	25.0	23.8		ug/L		95	75 - 127
1,2-Dichloropropane	25.0	22.5		ug/L		90	76 - 120
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	75 - 120
2-Butanone (MEK)	125	128		ug/L		103	57 - 140
2-Hexanone	125	140		ug/L		112	65 - 127
4-Methyl-2-pentanone (MIBK)	125	126		ug/L		101	71 - 125
Acetone	125	141		ug/L		113	56 - 142
Benzene	25.0	22.6		ug/L		90	71 - 124
Bromodichloromethane	25.0	21.4		ug/L		86	80 - 122
Bromoform	25.0	21.4		ug/L		86	52 - 132
Bromomethane	25.0	27.8		ug/L		111	55 - 144
Carbon disulfide	25.0	21.3		ug/L		85	59 - 134
Carbon tetrachloride	25.0	22.0		ug/L		88	72 - 134
Chlorobenzene	25.0	23.6		ug/L		94	72 - 120
Chloroethane	25.0	27.1		ug/L		109	69 - 136
Chloroform	25.0	22.8		ug/L		91	73 - 127
Chloromethane	25.0	19.4		ug/L		77	68 - 124
cis-1,2-Dichloroethene	25.0	22.0		ug/L		88	74 - 124
cis-1,3-Dichloropropene	25.0	22.6		ug/L		91	74 - 124
Cyclohexane	25.0	21.0		ug/L		84	59 - 135
Dibromochloromethane	25.0	22.0		ug/L		88	75 - 125
Dichlorodifluoromethane	25.0	17.1		ug/L		68	59 - 135
Ethylbenzene	25.0	24.6		ug/L		99	77 - 123
Isopropylbenzene	25.0	24.0		ug/L		96	77 - 122
Methyl acetate	125	125		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	23.3		ug/L		93	64 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-276559/5
Matrix: Water
Analysis Batch: 276559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	25.0	22.6		ug/L		91	61 - 138
Methylene Chloride	25.0	23.4		ug/L		94	57 - 132
Styrene	25.0	24.0		ug/L		96	70 - 130
Tetrachloroethene	25.0	24.1		ug/L		96	74 - 122
Toluene	25.0	24.0		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	21.7		ug/L		87	73 - 127
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	72 - 123
Trichloroethene	25.0	21.1		ug/L		85	74 - 123
Trichlorofluoromethane	25.0	24.8		ug/L		99	62 - 152
Vinyl chloride	25.0	21.3		ug/L		85	65 - 133
Xylenes, Total	50.0	46.7		ug/L		93	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*66 - 137*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Toluene-d8 (Surr)	*98*		*71 - 126*
Dibromofluoromethane (Surr)	*90*		*60 - 140*

Lab Sample ID: 480-91066-1 MS
Matrix: Water
Analysis Batch: 276559

Client Sample ID: MW-6R (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		125	123		ug/L		99	73 - 126
1,1,2,2-Tetrachloroethane	ND		125	130		ug/L		104	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		125	122		ug/L		98	52 - 148
1,1,2-Trichloroethane	ND		125	124		ug/L		99	76 - 122
1,1-Dichloroethane	ND		125	122		ug/L		98	71 - 129
1,1-Dichloroethene	ND		125	121		ug/L		97	58 - 121
1,2,4-Trichlorobenzene	ND		125	123		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	ND		125	118		ug/L		94	56 - 134
1,2-Dibromoethane	ND		125	125		ug/L		100	77 - 120
1,2-Dichlorobenzene	ND		125	118		ug/L		94	80 - 124
1,2-Dichloroethane	ND		125	124		ug/L		99	75 - 127
1,2-Dichloropropane	ND		125	119		ug/L		95	76 - 120
1,3-Dichlorobenzene	ND		125	119		ug/L		95	77 - 120
1,4-Dichlorobenzene	ND		125	119		ug/L		95	75 - 120
2-Butanone (MEK)	ND		625	665		ug/L		106	57 - 140
2-Hexanone	ND		625	686		ug/L		110	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		625	637		ug/L		102	71 - 125
Acetone	ND		625	704		ug/L		113	56 - 142
Benzene	ND		125	124		ug/L		99	71 - 124
Bromodichloromethane	ND		125	108		ug/L		87	80 - 122
Bromoform	ND		125	85.6		ug/L		69	52 - 132
Bromomethane	ND		125	142		ug/L		114	55 - 144
Carbon disulfide	ND		125	106		ug/L		84	59 - 134
Carbon tetrachloride	ND		125	116		ug/L		93	72 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-91066-1 MS
Matrix: Water
Analysis Batch: 276559

Client Sample ID: MW-6R (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	ND		125	120		ug/L		96	72 - 120
Chloroethane	ND		125	148		ug/L		119	69 - 136
Chloroform	ND		125	119		ug/L		95	73 - 127
Chloromethane	ND		125	102		ug/L		81	68 - 124
cis-1,2-Dichloroethene	190	F1	125	233	F1	ug/L		31	74 - 124
cis-1,3-Dichloropropene	ND		125	109		ug/L		87	74 - 124
Cyclohexane	ND		125	111		ug/L		89	59 - 135
Dibromochloromethane	ND		125	101		ug/L		81	75 - 125
Dichlorodifluoromethane	ND		125	84.3		ug/L		67	59 - 135
Ethylbenzene	25		125	145		ug/L		96	77 - 123
Isopropylbenzene	20		125	155		ug/L		108	77 - 122
Methyl acetate	ND		625	632		ug/L		101	74 - 133
Methyl tert-butyl ether	9.9	F1	125	191	F1	ug/L		145	64 - 127
Methylcyclohexane	1.7	J	125	119		ug/L		94	61 - 138
Methylene Chloride	ND		125	123		ug/L		98	57 - 132
Styrene	ND		125	117		ug/L		94	70 - 130
Tetrachloroethene	ND		125	120		ug/L		96	74 - 122
Toluene	ND		125	128		ug/L		102	80 - 122
trans-1,2-Dichloroethene	ND		125	116		ug/L		93	73 - 127
trans-1,3-Dichloropropene	ND		125	115		ug/L		92	72 - 123
Trichloroethene	ND		125	111		ug/L		89	74 - 123
Trichlorofluoromethane	ND		125	132		ug/L		106	62 - 152
Vinyl chloride	220		125	353		ug/L		109	65 - 133
Xylenes, Total	11		250	246		ug/L		94	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*66 - 137*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*
Dibromofluoromethane (Surr)	*93*		*60 - 140*

Lab Sample ID: 480-91066-1 MSD
Matrix: Water
Analysis Batch: 276559

Client Sample ID: MW-6R (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		125	125		ug/L		100	73 - 126	2	15
1,1,2,2-Tetrachloroethane	ND		125	126		ug/L		101	70 - 126	3	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		125	125		ug/L		100	52 - 148	2	20
1,1,2-Trichloroethane	ND		125	129		ug/L		104	76 - 122	4	15
1,1-Dichloroethane	ND		125	130		ug/L		104	71 - 129	6	20
1,1-Dichloroethene	ND		125	124		ug/L		99	58 - 121	3	16
1,2,4-Trichlorobenzene	ND		125	125		ug/L		100	70 - 122	2	20
1,2-Dibromo-3-Chloropropane	ND		125	121		ug/L		96	56 - 134	2	15
1,2-Dibromoethane	ND		125	123		ug/L		99	77 - 120	1	15
1,2-Dichlorobenzene	ND		125	121		ug/L		96	80 - 124	2	20
1,2-Dichloroethane	ND		125	127		ug/L		101	75 - 127	2	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-91066-1 MSD
Matrix: Water
Analysis Batch: 276559

Client Sample ID: MW-6R (111015)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	ND		125	121		ug/L		96	76 - 120	1	20
1,3-Dichlorobenzene	ND		125	119		ug/L		95	77 - 120	0	20
1,4-Dichlorobenzene	ND		125	121		ug/L		97	75 - 120	2	20
2-Butanone (MEK)	ND		625	688		ug/L		110	57 - 140	3	20
2-Hexanone	ND		625	699		ug/L		112	65 - 127	2	15
4-Methyl-2-pentanone (MIBK)	ND		625	639		ug/L		102	71 - 125	0	35
Acetone	ND		625	713		ug/L		114	56 - 142	1	15
Benzene	ND		125	126		ug/L		101	71 - 124	2	13
Bromodichloromethane	ND		125	113		ug/L		90	80 - 122	4	15
Bromoform	ND		125	90.9		ug/L		73	52 - 132	6	15
Bromomethane	ND		125	146		ug/L		117	55 - 144	3	15
Carbon disulfide	ND		125	112		ug/L		90	59 - 134	6	15
Carbon tetrachloride	ND		125	122		ug/L		97	72 - 134	5	15
Chlorobenzene	ND		125	124		ug/L		99	72 - 120	4	25
Chloroethane	ND		125	150		ug/L		120	69 - 136	1	15
Chloroform	ND		125	124		ug/L		99	73 - 127	5	20
Chloromethane	ND		125	107		ug/L		85	68 - 124	5	15
cis-1,2-Dichloroethene	190	F1	125	239	F1	ug/L		36	74 - 124	3	15
cis-1,3-Dichloropropene	ND		125	114		ug/L		91	74 - 124	5	15
Cyclohexane	ND		125	119		ug/L		95	59 - 135	7	20
Dibromochloromethane	ND		125	103		ug/L		83	75 - 125	2	15
Dichlorodifluoromethane	ND		125	93.1		ug/L		75	59 - 135	10	20
Ethylbenzene	25		125	150		ug/L		100	77 - 123	3	15
Isopropylbenzene	20		125	155		ug/L		108	77 - 122	0	20
Methyl acetate	ND		625	662		ug/L		106	74 - 133	5	20
Methyl tert-butyl ether	9.9	F1	125	196	F1	ug/L		149	64 - 127	2	37
Methylcyclohexane	1.7	J	125	126		ug/L		99	61 - 138	5	20
Methylene Chloride	ND		125	127		ug/L		102	57 - 132	3	15
Styrene	ND		125	120		ug/L		96	70 - 130	2	20
Tetrachloroethene	ND		125	124		ug/L		99	74 - 122	3	20
Toluene	ND		125	134		ug/L		107	80 - 122	5	15
trans-1,2-Dichloroethene	ND		125	121		ug/L		97	73 - 127	4	20
trans-1,3-Dichloropropene	ND		125	121		ug/L		96	72 - 123	5	15
Trichloroethene	ND		125	116		ug/L		93	74 - 123	5	16
Trichlorofluoromethane	ND		125	138		ug/L		111	62 - 152	5	20
Vinyl chloride	220		125	373		ug/L		125	65 - 133	5	15
Xylenes, Total	11		250	256		ug/L		98	76 - 122	4	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Toluene-d8 (Surr)	*99*		*71 - 126*
Dibromofluoromethane (Surr)	*93*		*60 - 140*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276625/7
Matrix: Water
Analysis Batch: 276625

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 10:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 10:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 10:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 10:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 10:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 10:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 10:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 10:59	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 10:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 10:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 10:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 10:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 10:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 10:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 10:59	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 10:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 10:59	1
Acetone	ND		10	3.0	ug/L			11/24/15 10:59	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 10:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 10:59	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 10:59	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 10:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 10:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 10:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 10:59	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 10:59	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 10:59	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 10:59	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/24/15 10:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 10:59	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 10:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 10:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 10:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 10:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 10:59	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 10:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 10:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 10:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 10:59	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 10:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/24/15 10:59	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 10:59	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 10:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 10:59	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 10:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 10:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 10:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 10:59	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276625/7
Matrix: Water
Analysis Batch: 276625

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		66 - 137		11/24/15 10:59	1
4-Bromofluorobenzene (Surr)	98		73 - 120		11/24/15 10:59	1
Toluene-d8 (Surr)	94		71 - 126		11/24/15 10:59	1
Dibromofluoromethane (Surr)	91		60 - 140		11/24/15 10:59	1

Lab Sample ID: LCS 480-276625/5
Matrix: Water
Analysis Batch: 276625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.6		ug/L		94	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.6		ug/L		98	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.3		ug/L		93	52 - 148
1,1,2-Trichloroethane	25.0	24.9		ug/L		100	76 - 122
1,1-Dichloroethane	25.0	24.4		ug/L		98	71 - 129
1,1-Dichloroethene	25.0	23.4		ug/L		93	58 - 121
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.1		ug/L		92	56 - 134
1,2-Dibromoethane	25.0	24.8		ug/L		99	77 - 120
1,2-Dichlorobenzene	25.0	23.8		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	24.2		ug/L		97	75 - 127
1,2-Dichloropropane	25.0	23.3		ug/L		93	76 - 120
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	77 - 120
1,4-Dichlorobenzene	25.0	24.3		ug/L		97	75 - 120
2-Butanone (MEK)	125	133		ug/L		107	57 - 140
2-Hexanone	125	139		ug/L		111	65 - 127
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		102	71 - 125
Acetone	125	146		ug/L		117	56 - 142
Benzene	25.0	23.4		ug/L		94	71 - 124
Bromodichloromethane	25.0	22.3		ug/L		89	80 - 122
Bromoform	25.0	21.1		ug/L		84	52 - 132
Bromomethane	25.0	22.9		ug/L		92	55 - 144
Carbon disulfide	25.0	22.7		ug/L		91	59 - 134
Carbon tetrachloride	25.0	22.2		ug/L		89	72 - 134
Chlorobenzene	25.0	24.1		ug/L		97	72 - 120
Chloroethane	25.0	24.3		ug/L		97	69 - 136
Chloroform	25.0	23.1		ug/L		92	73 - 127
Chloromethane	25.0	22.7		ug/L		91	68 - 124
cis-1,2-Dichloroethene	25.0	21.8		ug/L		87	74 - 124
cis-1,3-Dichloropropene	25.0	22.7		ug/L		91	74 - 124
Cyclohexane	25.0	21.8		ug/L		87	59 - 135
Dibromochloromethane	25.0	22.2		ug/L		89	75 - 125
Dichlorodifluoromethane	25.0	24.3		ug/L		97	59 - 135
Ethylbenzene	25.0	24.7		ug/L		99	77 - 123
Isopropylbenzene	25.0	24.2		ug/L		97	77 - 122
Methyl acetate	125	130		ug/L		104	74 - 133
Methyl tert-butyl ether	25.0	23.9		ug/L		96	64 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-276625/5
Matrix: Water
Analysis Batch: 276625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	25.0	22.9		ug/L		92	61 - 138
Methylene Chloride	25.0	24.8		ug/L		99	57 - 132
Styrene	25.0	24.2		ug/L		97	70 - 130
Tetrachloroethene	25.0	24.6		ug/L		98	74 - 122
Toluene	25.0	24.4		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	22.7		ug/L		91	73 - 127
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	72 - 123
Trichloroethene	25.0	22.3		ug/L		89	74 - 123
Trichlorofluoromethane	25.0	25.5		ug/L		102	62 - 152
Vinyl chloride	25.0	23.5		ug/L		94	65 - 133
Xylenes, Total	50.0	46.8		ug/L		94	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*
Toluene-d8 (Surr)	*98*		*71 - 126*
Dibromofluoromethane (Surr)	*92*		*60 - 140*

Lab Sample ID: 480-91066-7 MS
Matrix: Water
Analysis Batch: 276625

Client Sample ID: MW-23D (111115)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		500	482		ug/L		96	73 - 126
1,1,2,2-Tetrachloroethane	ND		500	506		ug/L		101	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	499		ug/L		100	52 - 148
1,1,2-Trichloroethane	ND		500	532		ug/L		106	76 - 122
1,1-Dichloroethane	ND		500	500		ug/L		100	71 - 129
1,1-Dichloroethene	ND		500	491		ug/L		98	58 - 121
1,2,4-Trichlorobenzene	ND		500	491		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	ND		500	463		ug/L		93	56 - 134
1,2-Dibromoethane	ND		500	499		ug/L		100	77 - 120
1,2-Dichlorobenzene	ND		500	471		ug/L		94	80 - 124
1,2-Dichloroethane	ND		500	482		ug/L		96	75 - 127
1,2-Dichloropropane	ND		500	471		ug/L		94	76 - 120
1,3-Dichlorobenzene	ND		500	481		ug/L		96	77 - 120
1,4-Dichlorobenzene	ND		500	487		ug/L		97	75 - 120
2-Butanone (MEK)	ND		2500	2640		ug/L		106	57 - 140
2-Hexanone	ND		2500	2720		ug/L		109	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		2500	2470		ug/L		99	71 - 125
Acetone	ND		2500	2820		ug/L		113	56 - 142
Benzene	ND		500	486		ug/L		97	71 - 124
Bromodichloromethane	ND		500	437		ug/L		87	80 - 122
Bromoform	ND		500	388		ug/L		78	52 - 132
Bromomethane	ND		500	459		ug/L		92	55 - 144
Carbon disulfide	ND		500	438		ug/L		88	59 - 134
Carbon tetrachloride	ND		500	463		ug/L		93	72 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-91066-7 MS
Matrix: Water
Analysis Batch: 276625

Client Sample ID: MW-23D (111115)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	ND		500	483		ug/L		97	72 - 120
Chloroethane	ND		500	480		ug/L		96	69 - 136
Chloroform	ND		500	481		ug/L		96	73 - 127
Chloromethane	ND		500	407		ug/L		81	68 - 124
cis-1,2-Dichloroethene	1300	F1	500	1520	F1	ug/L		43	74 - 124
cis-1,3-Dichloropropene	ND		500	439		ug/L		88	74 - 124
Cyclohexane	ND		500	453		ug/L		91	59 - 135
Dibromochloromethane	ND		500	421		ug/L		84	75 - 125
Dichlorodifluoromethane	ND		500	349		ug/L		70	59 - 135
Ethylbenzene	ND		500	501		ug/L		100	77 - 123
Isopropylbenzene	ND		500	493		ug/L		99	77 - 122
Methyl acetate	ND		2500	2550		ug/L		102	74 - 133
Methyl tert-butyl ether	12	J	500	487		ug/L		95	64 - 127
Methylcyclohexane	ND		500	471		ug/L		94	61 - 138
Methylene Chloride	ND		500	506		ug/L		101	57 - 132
Styrene	ND		500	493		ug/L		99	70 - 130
Tetrachloroethene	1300	F1	500	1550	F1	ug/L		42	74 - 122
Toluene	ND		500	490		ug/L		98	80 - 122
trans-1,2-Dichloroethene	ND		500	478		ug/L		96	73 - 127
trans-1,3-Dichloropropene	ND		500	479		ug/L		96	72 - 123
Trichloroethene	500	F1	500	857	F1	ug/L		71	74 - 123
Trichlorofluoromethane	ND		500	522		ug/L		104	62 - 152
Vinyl chloride	140		500	553		ug/L		82	65 - 133
Xylenes, Total	ND		1000	950		ug/L		95	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*66 - 137*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*
Toluene-d8 (Surr)	*94*		*71 - 126*
Dibromofluoromethane (Surr)	*90*		*60 - 140*

Lab Sample ID: 480-91066-7 MSD
Matrix: Water
Analysis Batch: 276625

Client Sample ID: MW-23D (111115)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		500	466		ug/L		93	73 - 126	3	15
1,1,2,2-Tetrachloroethane	ND		500	497		ug/L		99	70 - 126	2	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	476		ug/L		95	52 - 148	5	20
1,1,2-Trichloroethane	ND		500	517		ug/L		103	76 - 122	3	15
1,1-Dichloroethane	ND		500	492		ug/L		98	71 - 129	1	20
1,1-Dichloroethene	ND		500	473		ug/L		95	58 - 121	4	16
1,2,4-Trichlorobenzene	ND		500	481		ug/L		96	70 - 122	2	20
1,2-Dibromo-3-Chloropropane	ND		500	437		ug/L		87	56 - 134	6	15
1,2-Dibromoethane	ND		500	499		ug/L		100	77 - 120	0	15
1,2-Dichlorobenzene	ND		500	475		ug/L		95	80 - 124	1	20
1,2-Dichloroethane	ND		500	509		ug/L		102	75 - 127	5	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-91066-7 MSD
Matrix: Water
Analysis Batch: 276625

Client Sample ID: MW-23D (111115)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	ND		500	474		ug/L		95	76 - 120	0	20
1,3-Dichlorobenzene	ND		500	457		ug/L		91	77 - 120	5	20
1,4-Dichlorobenzene	ND		500	466		ug/L		93	75 - 120	4	20
2-Butanone (MEK)	ND		2500	2770		ug/L		111	57 - 140	5	20
2-Hexanone	ND		2500	2690		ug/L		108	65 - 127	1	15
4-Methyl-2-pentanone (MIBK)	ND		2500	2500		ug/L		100	71 - 125	1	35
Acetone	ND		2500	2920		ug/L		117	56 - 142	3	15
Benzene	ND		500	483		ug/L		97	71 - 124	1	13
Bromodichloromethane	ND		500	453		ug/L		91	80 - 122	4	15
Bromoform	ND		500	415		ug/L		83	52 - 132	7	15
Bromomethane	ND		500	448		ug/L		90	55 - 144	3	15
Carbon disulfide	ND		500	448		ug/L		90	59 - 134	2	15
Carbon tetrachloride	ND		500	457		ug/L		91	72 - 134	1	15
Chlorobenzene	ND		500	478		ug/L		96	72 - 120	1	25
Chloroethane	ND		500	472		ug/L		94	69 - 136	2	15
Chloroform	ND		500	489		ug/L		98	73 - 127	2	20
Chloromethane	ND		500	401		ug/L		80	68 - 124	1	15
cis-1,2-Dichloroethene	1300	F1	500	1510	F1	ug/L		41	74 - 124	0	15
cis-1,3-Dichloropropene	ND		500	453		ug/L		91	74 - 124	3	15
Cyclohexane	ND		500	452		ug/L		90	59 - 135	0	20
Dibromochloromethane	ND		500	431		ug/L		86	75 - 125	2	15
Dichlorodifluoromethane	ND		500	345		ug/L		69	59 - 135	1	20
Ethylbenzene	ND		500	485		ug/L		97	77 - 123	3	15
Isopropylbenzene	ND		500	465		ug/L		93	77 - 122	6	20
Methyl acetate	ND		2500	2670		ug/L		107	74 - 133	5	20
Methyl tert-butyl ether	12	J	500	501		ug/L		98	64 - 127	3	37
Methylcyclohexane	ND		500	469		ug/L		94	61 - 138	0	20
Methylene Chloride	ND		500	519		ug/L		104	57 - 132	2	15
Styrene	ND		500	483		ug/L		97	70 - 130	2	20
Tetrachloroethene	1300	F1	500	1470	F1	ug/L		28	74 - 122	5	20
Toluene	ND		500	467		ug/L		93	80 - 122	5	15
trans-1,2-Dichloroethene	ND		500	485		ug/L		97	73 - 127	1	20
trans-1,3-Dichloropropene	ND		500	479		ug/L		96	72 - 123	0	15
Trichloroethene	500	F1	500	824	F1	ug/L		65	74 - 123	4	16
Trichlorofluoromethane	ND		500	509		ug/L		102	62 - 152	3	20
Vinyl chloride	140		500	533		ug/L		78	65 - 133	4	15
Xylenes, Total	ND		1000	937		ug/L		94	76 - 122	1	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Toluene-d8 (Surr)	*97*		*71 - 126*
Dibromofluoromethane (Surr)	*94*		*60 - 140*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276779/7
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/24/15 21:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/15 21:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/24/15 21:29	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/15 21:29	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/15 21:29	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/15 21:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/24/15 21:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/24/15 21:29	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/24/15 21:29	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/24/15 21:29	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/15 21:29	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/15 21:29	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/24/15 21:29	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/24/15 21:29	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/15 21:29	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/15 21:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/15 21:29	1
Acetone	ND		10	3.0	ug/L			11/24/15 21:29	1
Benzene	ND		1.0	0.41	ug/L			11/24/15 21:29	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/15 21:29	1
Bromoform	ND		1.0	0.26	ug/L			11/24/15 21:29	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/15 21:29	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/15 21:29	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/15 21:29	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/15 21:29	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/15 21:29	1
Chloroform	ND		1.0	0.34	ug/L			11/24/15 21:29	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/15 21:29	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/24/15 21:29	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/15 21:29	1
Cyclohexane	ND		1.0	0.18	ug/L			11/24/15 21:29	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/15 21:29	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/24/15 21:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/15 21:29	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/24/15 21:29	1
Methyl acetate	ND		2.5	1.3	ug/L			11/24/15 21:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/24/15 21:29	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/24/15 21:29	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/15 21:29	1
Styrene	ND		1.0	0.73	ug/L			11/24/15 21:29	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/24/15 21:29	1
Toluene	ND		1.0	0.51	ug/L			11/24/15 21:29	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/24/15 21:29	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/15 21:29	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/15 21:29	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/24/15 21:29	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/15 21:29	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/15 21:29	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-276779/7
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		66 - 137		11/24/15 21:29	1
4-Bromofluorobenzene (Surr)	100		73 - 120		11/24/15 21:29	1
Toluene-d8 (Surr)	96		71 - 126		11/24/15 21:29	1
Dibromofluoromethane (Surr)	90		60 - 140		11/24/15 21:29	1

Lab Sample ID: LCS 480-276779/5
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.3		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		99	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.5		ug/L		98	52 - 148
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	24.6		ug/L		98	71 - 129
1,1-Dichloroethene	25.0	23.8		ug/L		95	58 - 121
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.6		ug/L		94	56 - 134
1,2-Dibromoethane	25.0	25.3		ug/L		101	77 - 120
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	25.6		ug/L		102	75 - 127
1,2-Dichloropropane	25.0	23.3		ug/L		93	76 - 120
1,3-Dichlorobenzene	25.0	23.1		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	23.6		ug/L		94	75 - 120
2-Butanone (MEK)	125	142		ug/L		114	57 - 140
2-Hexanone	125	143		ug/L		114	65 - 127
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		103	71 - 125
Acetone	125	157		ug/L		126	56 - 142
Benzene	25.0	24.2		ug/L		97	71 - 124
Bromodichloromethane	25.0	22.9		ug/L		92	80 - 122
Bromoform	25.0	21.3		ug/L		85	52 - 132
Bromomethane	25.0	28.4		ug/L		113	55 - 144
Carbon disulfide	25.0	23.8		ug/L		95	59 - 134
Carbon tetrachloride	25.0	24.1		ug/L		97	72 - 134
Chlorobenzene	25.0	24.5		ug/L		98	72 - 120
Chloroethane	25.0	29.2		ug/L		117	69 - 136
Chloroform	25.0	24.5		ug/L		98	73 - 127
Chloromethane	25.0	19.4		ug/L		78	68 - 124
cis-1,2-Dichloroethene	25.0	22.9		ug/L		92	74 - 124
cis-1,3-Dichloropropene	25.0	23.7		ug/L		95	74 - 124
Cyclohexane	25.0	22.1		ug/L		88	59 - 135
Dibromochloromethane	25.0	22.8		ug/L		91	75 - 125
Dichlorodifluoromethane	25.0	15.1		ug/L		60	59 - 135
Ethylbenzene	25.0	25.4		ug/L		102	77 - 123
Isopropylbenzene	25.0	24.5		ug/L		98	77 - 122
Methyl acetate	125	134		ug/L		107	74 - 133
Methyl tert-butyl ether	25.0	24.7		ug/L		99	64 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-276779/5
Matrix: Water
Analysis Batch: 276779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylcyclohexane			25.0	23.7		ug/L		95	61 - 138		
Methylene Chloride			25.0	25.2		ug/L		101	57 - 132		
Styrene			25.0	24.2		ug/L		97	70 - 130		
Tetrachloroethene			25.0	23.7		ug/L		95	74 - 122		
Toluene			25.0	24.6		ug/L		98	80 - 122		
trans-1,2-Dichloroethene			25.0	23.8		ug/L		95	73 - 127		
trans-1,3-Dichloropropene			25.0	25.3		ug/L		101	72 - 123		
Trichloroethene			25.0	22.7		ug/L		91	74 - 123		
Trichlorofluoromethane			25.0	26.4		ug/L		106	62 - 152		
Vinyl chloride			25.0	21.4		ug/L		86	65 - 133		
Xylenes, Total			50.0	47.3		ug/L		95	76 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*66 - 137*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*
Dibromofluoromethane (Surr)	*92*		*60 - 140*

GC/MS VOA

Analysis Batch: 276559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91066-1	MW-6R (111015)	Total/NA	Water	8260C	
480-91066-1 MS	MW-6R (111015)	Total/NA	Water	8260C	
480-91066-1 MSD	MW-6R (111015)	Total/NA	Water	8260C	
480-91066-2	DUP-01 (111015)	Total/NA	Water	8260C	
480-91066-3	MW-1 (111015)	Total/NA	Water	8260C	
480-91066-4	MW-27 (111015)	Total/NA	Water	8260C	
480-91066-5	MW-28 (111015)	Total/NA	Water	8260C	
480-91066-6	MW-23S (111115)	Total/NA	Water	8260C	
480-91066-8	MW-17R (111015)	Total/NA	Water	8260C	
480-91066-9	MW-16R (111015)	Total/NA	Water	8260C	
LCS 480-276559/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-276559/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 276625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91066-7	MW-23D (111115)	Total/NA	Water	8260C	
480-91066-7 MS	MW-23D (111115)	Total/NA	Water	8260C	
480-91066-7 MSD	MW-23D (111115)	Total/NA	Water	8260C	
480-91066-10	MW-22D (111115)	Total/NA	Water	8260C	
480-91066-11	MW-9 (111115)	Total/NA	Water	8260C	
480-91066-12	MP-20 (111115)	Total/NA	Water	8260C	
480-91066-14	IW-01D (111215)	Total/NA	Water	8260C	
480-91066-15	MW-18 (111115)	Total/NA	Water	8260C	
480-91066-16	MW-3 (111115)	Total/NA	Water	8260C	
480-91066-17	MW-10S (111215)	Total/NA	Water	8260C	
480-91066-18	MW-15R (111115)	Total/NA	Water	8260C	
480-91066-19	TB	Total/NA	Water	8260C	
LCS 480-276625/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-276625/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 276779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91066-13	MW-10D (111215)	Total/NA	Water	8260C	
480-91066-14 - DL	IW-01D (111215)	Total/NA	Water	8260C	
480-91066-15 - DL	MW-18 (111115)	Total/NA	Water	8260C	
LCS 480-276779/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-276779/7	Method Blank	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-6R (111015)
Lab Sample ID: 480-91066-1
Date Collected: 11/10/15 10:52
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	276559	11/24/15 03:28	GTG	TAL BUF

Client Sample ID: DUP-01 (111015)
Lab Sample ID: 480-91066-2
Date Collected: 11/10/15 00:00
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	276559	11/24/15 06:14	GTG	TAL BUF

Client Sample ID: MW-1 (111015)
Lab Sample ID: 480-91066-3
Date Collected: 11/10/15 09:10
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	276559	11/24/15 03:52	GTG	TAL BUF

Client Sample ID: MW-27 (111015)
Lab Sample ID: 480-91066-4
Date Collected: 11/10/15 12:17
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2000	276559	11/24/15 04:15	GTG	TAL BUF

Client Sample ID: MW-28 (111015)
Lab Sample ID: 480-91066-5
Date Collected: 11/10/15 17:35
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2000	276559	11/24/15 04:39	GTG	TAL BUF

Client Sample ID: MW-23S (111115)
Lab Sample ID: 480-91066-6
Date Collected: 11/11/15 09:02
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	276559	11/24/15 05:03	GTG	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-23D (111115)
Lab Sample ID: 480-91066-7
Date Collected: 11/11/15 09:58
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	276625	11/24/15 14:48	GVF	TAL BUF

Client Sample ID: MW-17R (111015)
Lab Sample ID: 480-91066-8
Date Collected: 11/10/15 16:17
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276559	11/24/15 05:26	GTG	TAL BUF

Client Sample ID: MW-16R (111015)
Lab Sample ID: 480-91066-9
Date Collected: 11/10/15 15:20
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276559	11/24/15 05:50	GTG	TAL BUF

Client Sample ID: MW-22D (111115)
Lab Sample ID: 480-91066-10
Date Collected: 11/11/15 13:02
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	276625	11/24/15 15:11	GVF	TAL BUF

Client Sample ID: MW-9 (111115)
Lab Sample ID: 480-91066-11
Date Collected: 11/11/15 16:17
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	276625	11/24/15 15:35	GVF	TAL BUF

Client Sample ID: MP-20 (111115)
Lab Sample ID: 480-91066-12
Date Collected: 11/11/15 15:12
Matrix: Water
Date Received: 11/13/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276625	11/24/15 15:59	GVF	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: MW-10D (111215)
Date Collected: 11/12/15 11:22
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1000	276779	11/24/15 22:24	GTG	TAL BUF

Client Sample ID: IW-01D (111215)
Date Collected: 11/12/15 13:15
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276625	11/24/15 16:47	GVF	TAL BUF
Total/NA	Analysis	8260C	DL	100	276779	11/24/15 22:48	GTG	TAL BUF

Client Sample ID: MW-18 (111115)
Date Collected: 11/11/15 19:57
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	276625	11/24/15 17:10	GVF	TAL BUF
Total/NA	Analysis	8260C	DL	80	276779	11/24/15 23:12	GTG	TAL BUF

Client Sample ID: MW-3 (111115)
Date Collected: 11/11/15 18:12
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276625	11/24/15 17:34	GVF	TAL BUF

Client Sample ID: MW-10S (111215)
Date Collected: 11/12/15 10:02
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	276625	11/24/15 17:58	GVF	TAL BUF

Client Sample ID: MW-15R (111115)
Date Collected: 11/11/15 22:48
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276625	11/24/15 18:21	GVF	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Client Sample ID: TB
Date Collected: 11/12/15 00:00
Date Received: 11/13/15 09:30

Lab Sample ID: 480-91066-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	276625	11/24/15 14:24	GVF	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91066-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-91066-1	MW-6R (111015)	Water	11/10/15 10:52	11/13/15 09:30
480-91066-2	DUP-01 (111015)	Water	11/10/15 00:00	11/13/15 09:30
480-91066-3	MW-1 (111015)	Water	11/10/15 09:10	11/13/15 09:30
480-91066-4	MW-27 (111015)	Water	11/10/15 12:17	11/13/15 09:30
480-91066-5	MW-28 (111015)	Water	11/10/15 17:35	11/13/15 09:30
480-91066-6	MW-23S (111115)	Water	11/11/15 09:02	11/13/15 09:30
480-91066-7	MW-23D (111115)	Water	11/11/15 09:58	11/13/15 09:30
480-91066-8	MW-17R (111015)	Water	11/10/15 16:17	11/13/15 09:30
480-91066-9	MW-16R (111015)	Water	11/10/15 15:20	11/13/15 09:30
480-91066-10	MW-22D (111115)	Water	11/11/15 13:02	11/13/15 09:30
480-91066-11	MW-9 (111115)	Water	11/11/15 16:17	11/13/15 09:30
480-91066-12	MP-20 (111115)	Water	11/11/15 15:12	11/13/15 09:30
480-91066-13	MW-10D (111215)	Water	11/12/15 11:22	11/13/15 09:30
480-91066-14	IW-01D (111215)	Water	11/12/15 13:15	11/13/15 09:30
480-91066-15	MW-18 (111115)	Water	11/11/15 19:57	11/13/15 09:30
480-91066-16	MW-3 (111115)	Water	11/11/15 18:12	11/13/15 09:30
480-91066-17	MW-10S (111215)	Water	11/12/15 10:02	11/13/15 09:30
480-91066-18	MW-15R (111115)	Water	11/11/15 22:48	11/13/15 09:30
480-91066-19	TB	Water	11/12/15 00:00	11/13/15 09:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Dane Kelsey	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-73997-18814.1
Client Contact: Aaron Bobar	Phone: 570.447.2249	E-Mail: melissa.deyo@testamericainc.com		Page: ~~Page 1 of 5~~ Page 1 of 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested: —			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: 518-250-7330	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: 66 Herb Hill Road	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-1 (111015)	11.10.15	0910	G	Water			X	3	
MW-6R (111015)	11.10.15	1052	G	Water			X	3	
DUP-01 (111015)	11.10.15	—	G	Water			X	3	
MW-27 (111015)	11.10.15	1217	G	Water			X	3	
MW-16R (111015)	11.10.15	1520	G	Water			X	3	
MW-17R (111015)	11.10.15	1617	G	Water			X	3	
MW-28 (111015)	11.10.15	1735	G	Water			X	3	
MW-23S (111115)	11.11.15	0902	G	Water			X	3	
MW-23D (111115)	11.11.15	0958	G	Water			X	3	
MW-22D (111115)	11.11.15	1302	G	Water			X	3	
MP-20 (111115)	11.11.15	1512	G	Water			X	3	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Contact Aaron Bobar

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Dane Kelsey	11/12/15	ARCADIS			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Dane Kulsey	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-73997-18814.2
Client Contact: Aaron Bobar	Phone: 570.447.2249	E-Mail: melissa.deyo@testamericainc.com		Page: ~~Page 2 of 5~~ Page 2 of 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested: —		Analysis Requested	Preservation Codes:
City: Clifton Park	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NY, 12065				Other:
Phone: 518-250-7330	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: 66 Herb Hill Road	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-9 (111115)	11.11.15	1617	G	Water			X	3	
MW-3 (111115)	11.11.15	1812	G	Water			X	3	
MW-18 (111115)	11.11.15	1957	G	Water			X	3	
MW-15R (111115)	11.11.15	2248	G	Water			X	3	
MW-10S (111215)	11.12.15	1002	G	Water			X	3	
MW-10D (111215)	11.12.15	1122	G	Water			X	3	
IW-01D (111215)	11.12.15	1312	G	Water			X	3	
Trip Blank	—	—	G	Water			X	3	
				Water					
				Water					
				Water					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Contact Aaron Bobar

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Dane Kulsey	Date/Time: 11/12/15	Company: ARCADIS	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Received by:	Date/Time:	Company		
Received by:	Date/Time:	Company		
Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-91066-1

Login Number: 91066
List Number: 1
Creator: Kinecki, Kenneth P

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	False	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-91445-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Melissa Deyo

Authorized for release by:
11/30/2015 3:51:03 PM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-91445-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-91445-1

Receipt
The samples were received on 11/20/2015 3:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1° C.

GC/MS VOA
Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: 20151118-MW24-INITIAL (480-91445-1) and 20151118-MW24-3V (480-91445-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-277305 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 20151118-MW24-INITIAL (480-91445-1) and 20151118-MW24-3V (480-91445-2).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-277305 recovered outside acceptance criteria, low biased, for 1,1,2-Trichloro-1,2,2-trifluoroethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: 20151118-MW24-INITIAL (480-91445-1) and 20151118-MW24-3V (480-91445-2).

Method(s) 8260C: The laboratory control sample (LCS) for batch analytical batch 480-277305 recovered outside control limits for the following analyte: Acetone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: 20151118-MW24-INITIAL (480-91445-1) and 20151118-MW24-3V (480-91445-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C LL, 8270D: The minimum response factor (RF) criteria for the initial calibration (ICAL) analyzed in batch 480-276424 was outside criteria for the following analytes: Bis(2-chloroethoxy)methane and Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analytes is considered estimated.

Method(s) 8270C LL, 8270D: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 480-276424 was outside criteria for the following analyte(s): Bis(2-chloroethoxy)methane. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-277163 recovered above the upper control limit for bis (2-chloroisopropyl) ether, 2-Methylphenol and 4-Methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: 20151118-MW24-INITIAL (480-91445-1) and 20151118-MW24-3V (480-91445-2).

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 480-277163 was outside the method criteria for the following analytes: 4-Chloro-3-methylphenol, Bis(2-chloroethoxy)methane, Isophorone and N-Nitrosodi-n-propylamine. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes are considered estimated.

Method(s) 8270D: Surrogate recovery for the following samples were outside control limits: 20151118-MW24-INITIAL (480-91445-1) and 20151118-MW24-3V (480-91445-2). Re-extraction and re-analysis was performed with concurring results. Both sets of data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8082A: All primary data is reported from the ZB-35 column.

Job ID: 480-91445-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: 20151118-MW24-INITIAL (480-91445-1). The reporting limit (RL) have been adjusted proportionately.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 480-276865.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 480-276284.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Client Sample ID: 20151118-MW24-INITIAL — Lab Sample ID: 480-91445-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	470		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	77		20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	53		20	9.2	ug/L	20		8260C	Total/NA
Bis(2-ethylhexyl) phthalate	2.2	J	5.8	2.1	ug/L	1		8270D	Total/NA
Butyl benzyl phthalate	0.72	J B	5.8	0.49	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.86	J	5.8	0.26	ug/L	1		8270D	Total/NA
Benzaldehyde - RE	2.4	J	13	0.67	ug/L	1		8270D	Total/NA
Diethyl phthalate - RE	1.1	J	13	0.55	ug/L	1		8270D	Total/NA
Aluminum	1.0		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.045		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.55		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.00048	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.0018	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	45.2		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.23		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.025		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.016		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	42.3		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0080	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	8.0		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	43.7		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.010		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	4.3		0.50	0.10	mg/L	1		6010C	Total/NA
Silver	0.0033	J	0.0060	0.0017	mg/L	1		6010C	Total/NA
Sodium	57.1		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.014		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.020		0.010	0.0015	mg/L	1		6010C	Total/NA
Mercury	0.00013	J	0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: 20151118-MW24-3V — Lab Sample ID: 480-91445-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	620		10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	110		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	72		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	21		10	9.0	ug/L	10		8260C	Total/NA
Butyl benzyl phthalate	0.49	J B	4.9	0.41	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.23	J	4.9	0.21	ug/L	1		8270D	Total/NA
Aluminum	0.25		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.010	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.20		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	44.4		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.056		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.0045		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.0041	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	11.3		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0045	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	8.2		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	21.1		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0080	J	0.010	0.0013	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Client Sample ID: 20151118-MW24-3V (Continued) — Lab Sample ID: 480-91445-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	4.6		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	66.5		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.0036	J	0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.0060	J	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-91445-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Client Sample ID: 20151118-MW24-INITIAL
Date Collected: 11/18/15 15:50
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			11/29/15 12:29	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			11/29/15 12:29	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			11/29/15 12:29	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			11/29/15 12:29	20
1,1-Dichloroethane	ND		20	7.6	ug/L			11/29/15 12:29	20
1,1-Dichloroethene	ND		20	5.8	ug/L			11/29/15 12:29	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			11/29/15 12:29	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			11/29/15 12:29	20
1,2-Dibromoethane	ND		20	15	ug/L			11/29/15 12:29	20
1,2-Dichlorobenzene	ND		20	16	ug/L			11/29/15 12:29	20
1,2-Dichloroethane	ND		20	4.2	ug/L			11/29/15 12:29	20
1,2-Dichloropropane	ND		20	14	ug/L			11/29/15 12:29	20
1,3-Dichlorobenzene	ND		20	16	ug/L			11/29/15 12:29	20
1,4-Dichlorobenzene	ND		20	17	ug/L			11/29/15 12:29	20
2-Butanone (MEK)	ND		200	26	ug/L			11/29/15 12:29	20
2-Hexanone	ND		100	25	ug/L			11/29/15 12:29	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			11/29/15 12:29	20
Acetone	ND	*	200	60	ug/L			11/29/15 12:29	20
Benzene	ND		20	8.2	ug/L			11/29/15 12:29	20
Bromodichloromethane	ND		20	7.8	ug/L			11/29/15 12:29	20
Bromoform	ND		20	5.2	ug/L			11/29/15 12:29	20
Bromomethane	ND		20	14	ug/L			11/29/15 12:29	20
Carbon disulfide	ND		20	3.8	ug/L			11/29/15 12:29	20
Carbon tetrachloride	ND		20	5.4	ug/L			11/29/15 12:29	20
Chlorobenzene	ND		20	15	ug/L			11/29/15 12:29	20
Chloroethane	ND		20	6.4	ug/L			11/29/15 12:29	20
Chloroform	ND		20	6.8	ug/L			11/29/15 12:29	20
Chloromethane	ND		20	7.0	ug/L			11/29/15 12:29	20
cis-1,2-Dichloroethene	**470**		20	16	ug/L			11/29/15 12:29	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			11/29/15 12:29	20
Cyclohexane	ND		20	3.6	ug/L			11/29/15 12:29	20
Dibromochloromethane	ND		20	6.4	ug/L			11/29/15 12:29	20
Dichlorodifluoromethane	ND		20	14	ug/L			11/29/15 12:29	20
Ethylbenzene	ND		20	15	ug/L			11/29/15 12:29	20
Isopropylbenzene	ND		20	16	ug/L			11/29/15 12:29	20
Methyl acetate	ND		50	26	ug/L			11/29/15 12:29	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			11/29/15 12:29	20
Methylcyclohexane	ND		20	3.2	ug/L			11/29/15 12:29	20
Methylene Chloride	ND		20	8.8	ug/L			11/29/15 12:29	20
Styrene	ND		20	15	ug/L			11/29/15 12:29	20
Tetrachloroethene	**77**		20	7.2	ug/L			11/29/15 12:29	20
Toluene	ND		20	10	ug/L			11/29/15 12:29	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			11/29/15 12:29	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			11/29/15 12:29	20
Trichloroethene	**53**		20	9.2	ug/L			11/29/15 12:29	20
Trichlorofluoromethane	ND		20	18	ug/L			11/29/15 12:29	20
Vinyl chloride	ND		20	18	ug/L			11/29/15 12:29	20
Xylenes, Total	ND		40	13	ug/L			11/29/15 12:29	20

Client Sample ID: 20151118-MW24-INITIAL

Date Collected: 11/18/15 15:50
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*66 - 137*		*11/29/15 12:29*	*20*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/29/15 12:29*	*20*
Toluene-d8 (Surr)	*93*		*71 - 126*		*11/29/15 12:29*	*20*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*11/29/15 12:29*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.8	0.76	ug/L		11/20/15 15:04	11/23/15 15:10	1
bis (2-chloroisopropyl) ether	ND		5.8	0.60	ug/L		11/20/15 15:04	11/23/15 15:10	1
2,4,5-Trichlorophenol	ND		5.8	0.56	ug/L		11/20/15 15:04	11/23/15 15:10	1
2,4,6-Trichlorophenol	ND		5.8	0.71	ug/L		11/20/15 15:04	11/23/15 15:10	1
2,4-Dichlorophenol	ND		5.8	0.59	ug/L		11/20/15 15:04	11/23/15 15:10	1
2,4-Dimethylphenol	ND		5.8	0.58	ug/L		11/20/15 15:04	11/23/15 15:10	1
2,4-Dinitrophenol	ND		12	2.6	ug/L		11/20/15 15:04	11/23/15 15:10	1
2,4-Dinitrotoluene	ND		5.8	0.52	ug/L		11/20/15 15:04	11/23/15 15:10	1
2,6-Dinitrotoluene	ND		5.8	0.46	ug/L		11/20/15 15:04	11/23/15 15:10	1
2-Chloronaphthalene	ND		5.8	0.53	ug/L		11/20/15 15:04	11/23/15 15:10	1
2-Chlorophenol	ND		5.8	0.61	ug/L		11/20/15 15:04	11/23/15 15:10	1
2-Methylphenol	ND		5.8	0.46	ug/L		11/20/15 15:04	11/23/15 15:10	1
2-Methylnaphthalene	ND		5.8	0.70	ug/L		11/20/15 15:04	11/23/15 15:10	1
2-Nitroaniline	ND		12	0.49	ug/L		11/20/15 15:04	11/23/15 15:10	1
2-Nitrophenol	ND		5.8	0.56	ug/L		11/20/15 15:04	11/23/15 15:10	1
3,3'-Dichlorobenzidine	ND		5.8	0.46	ug/L		11/20/15 15:04	11/23/15 15:10	1
3-Nitroaniline	ND		12	0.56	ug/L		11/20/15 15:04	11/23/15 15:10	1
4,6-Dinitro-2-methylphenol	ND		12	2.6	ug/L		11/20/15 15:04	11/23/15 15:10	1
4-Bromophenyl phenyl ether	ND		5.8	0.52	ug/L		11/20/15 15:04	11/23/15 15:10	1
4-Chloro-3-methylphenol	ND		5.8	0.52	ug/L		11/20/15 15:04	11/23/15 15:10	1
4-Chloroaniline	ND		5.8	0.68	ug/L		11/20/15 15:04	11/23/15 15:10	1
4-Chlorophenyl phenyl ether	ND		5.8	0.41	ug/L		11/20/15 15:04	11/23/15 15:10	1
4-Methylphenol	ND		12	0.42	ug/L		11/20/15 15:04	11/23/15 15:10	1
4-Nitroaniline	ND		12	0.29	ug/L		11/20/15 15:04	11/23/15 15:10	1
4-Nitrophenol	ND		12	1.8	ug/L		11/20/15 15:04	11/23/15 15:10	1
Acenaphthene	ND		5.8	0.48	ug/L		11/20/15 15:04	11/23/15 15:10	1
Acenaphthylene	ND		5.8	0.44	ug/L		11/20/15 15:04	11/23/15 15:10	1
Acetophenone	ND		5.8	0.63	ug/L		11/20/15 15:04	11/23/15 15:10	1
Anthracene	ND		5.8	0.32	ug/L		11/20/15 15:04	11/23/15 15:10	1
Atrazine	ND		5.8	0.53	ug/L		11/20/15 15:04	11/23/15 15:10	1
Benzaldehyde	ND		5.8	0.31	ug/L		11/20/15 15:04	11/23/15 15:10	1
Benzo[a]anthracene	ND		5.8	0.42	ug/L		11/20/15 15:04	11/23/15 15:10	1
Benzo[a]pyrene	ND		5.8	0.55	ug/L		11/20/15 15:04	11/23/15 15:10	1
Benzo[b]fluoranthene	ND		5.8	0.39	ug/L		11/20/15 15:04	11/23/15 15:10	1
Benzo[g,h,i]perylene	ND		5.8	0.41	ug/L		11/20/15 15:04	11/23/15 15:10	1
Benzo[k]fluoranthene	ND		5.8	0.85	ug/L		11/20/15 15:04	11/23/15 15:10	1
Bis(2-chloroethoxy)methane	ND		5.8	0.41	ug/L		11/20/15 15:04	11/23/15 15:10	1
Bis(2-chloroethyl)ether	ND		5.8	0.46	ug/L		11/20/15 15:04	11/23/15 15:10	1
Bis(2-ethylhexyl) phthalate	**2.2**	**J**	5.8	2.1	ug/L		11/20/15 15:04	11/23/15 15:10	1
Butyl benzyl phthalate	**0.72**	**J B**	5.8	0.49	ug/L		11/20/15 15:04	11/23/15 15:10	1
Caprolactam	ND		5.8	2.6	ug/L		11/20/15 15:04	11/23/15 15:10	1
Carbazole	ND		5.8	0.35	ug/L		11/20/15 15:04	11/23/15 15:10	1
Chrysene	ND		5.8	0.38	ug/L		11/20/15 15:04	11/23/15 15:10	1

Client Sample ID: 20151118-MW24-INITIAL
Date Collected: 11/18/15 15:50
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		5.8	0.49	ug/L		11/20/15 15:04	11/23/15 15:10	1
Di-n-butyl phthalate	ND		5.8	0.36	ug/L		11/20/15 15:04	11/23/15 15:10	1
Di-n-octyl phthalate	ND		5.8	0.55	ug/L		11/20/15 15:04	11/23/15 15:10	1
Dibenzofuran	ND		12	0.59	ug/L		11/20/15 15:04	11/23/15 15:10	1
Diethyl phthalate	**0.86**	**J**	5.8	0.26	ug/L		11/20/15 15:04	11/23/15 15:10	1
Dimethyl phthalate	ND		5.8	0.42	ug/L		11/20/15 15:04	11/23/15 15:10	1
Fluoranthene	ND		5.8	0.46	ug/L		11/20/15 15:04	11/23/15 15:10	1
Fluorene	ND		5.8	0.42	ug/L		11/20/15 15:04	11/23/15 15:10	1
Hexachlorobenzene	ND		5.8	0.59	ug/L		11/20/15 15:04	11/23/15 15:10	1
Hexachlorobutadiene	ND		5.8	0.79	ug/L		11/20/15 15:04	11/23/15 15:10	1
Hexachlorocyclopentadiene	ND		5.8	0.68	ug/L		11/20/15 15:04	11/23/15 15:10	1
Hexachloroethane	ND		5.8	0.68	ug/L		11/20/15 15:04	11/23/15 15:10	1
Indeno[1,2,3-cd]pyrene	ND		5.8	0.55	ug/L		11/20/15 15:04	11/23/15 15:10	1
Isophorone	ND		5.8	0.50	ug/L		11/20/15 15:04	11/23/15 15:10	1
N-Nitrosodi-n-propylamine	ND		5.8	0.63	ug/L		11/20/15 15:04	11/23/15 15:10	1
N-Nitrosodiphenylamine	ND		5.8	0.59	ug/L		11/20/15 15:04	11/23/15 15:10	1
Naphthalene	ND		5.8	0.88	ug/L		11/20/15 15:04	11/23/15 15:10	1
Nitrobenzene	ND		5.8	0.34	ug/L		11/20/15 15:04	11/23/15 15:10	1
Pentachlorophenol	ND		12	2.6	ug/L		11/20/15 15:04	11/23/15 15:10	1
Phenanthrene	ND		5.8	0.51	ug/L		11/20/15 15:04	11/23/15 15:10	1
Phenol	ND		5.8	0.45	ug/L		11/20/15 15:04	11/23/15 15:10	1
Pyrene	ND		5.8	0.39	ug/L		11/20/15 15:04	11/23/15 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*46 - 120*	*11/20/15 15:04*	*11/23/15 15:10*	*1*
Phenol-d5 (Surr)	*0.04*	*X*	*16 - 120*	*11/20/15 15:04*	*11/23/15 15:10*	*1*
p-Terphenyl-d14 (Surr)	*66*	*X*	*67 - 150*	*11/20/15 15:04*	*11/23/15 15:10*	*1*
2,4,6-Tribromophenol (Surr)	*3*	*X*	*52 - 132*	*11/20/15 15:04*	*11/23/15 15:10*	*1*
2-Fluorobiphenyl	*88*		*48 - 120*	*11/20/15 15:04*	*11/23/15 15:10*	*1*
2-Fluorophenol (Surr)	*0*	*X*	*20 - 120*	*11/20/15 15:04*	*11/23/15 15:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		13	1.6	ug/L		11/25/15 08:18	11/27/15 19:04	1
bis (2-chloroisopropyl) ether	ND		13	1.3	ug/L		11/25/15 08:18	11/27/15 19:04	1
2,4,5-Trichlorophenol	ND		13	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1
2,4,6-Trichlorophenol	ND		13	1.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
2,4-Dichlorophenol	ND		13	1.3	ug/L		11/25/15 08:18	11/27/15 19:04	1
2,4-Dimethylphenol	ND		13	1.3	ug/L		11/25/15 08:18	11/27/15 19:04	1
2,4-Dinitrophenol	ND		25	5.6	ug/L		11/25/15 08:18	11/27/15 19:04	1
2,4-Dinitrotoluene	ND		13	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
2,6-Dinitrotoluene	ND		13	1.0	ug/L		11/25/15 08:18	11/27/15 19:04	1
2-Chloronaphthalene	ND		13	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1
2-Chlorophenol	ND		13	1.3	ug/L		11/25/15 08:18	11/27/15 19:04	1
2-Methylphenol	ND		13	1.0	ug/L		11/25/15 08:18	11/27/15 19:04	1
2-Methylnaphthalene	ND		13	1.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
2-Nitroaniline	ND		25	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
2-Nitrophenol	ND		13	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1
3,3'-Dichlorobenzidine	ND		13	1.0	ug/L		11/25/15 08:18	11/27/15 19:04	1
3-Nitroaniline	ND		25	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Client Sample ID: 20151118-MW24-INITIAL
Date Collected: 11/18/15 15:50
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		25	5.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
4-Bromophenyl phenyl ether	ND		13	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
4-Chloro-3-methylphenol	ND		13	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
4-Chloroaniline	ND		13	1.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
4-Chlorophenyl phenyl ether	ND		13	0.88	ug/L		11/25/15 08:18	11/27/15 19:04	1
4-Methylphenol	ND		25	0.90	ug/L		11/25/15 08:18	11/27/15 19:04	1
4-Nitroaniline	ND		25	0.63	ug/L		11/25/15 08:18	11/27/15 19:04	1
4-Nitrophenol	ND		25	3.8	ug/L		11/25/15 08:18	11/27/15 19:04	1
Acenaphthene	ND		13	1.0	ug/L		11/25/15 08:18	11/27/15 19:04	1
Acenaphthylene	ND		13	0.95	ug/L		11/25/15 08:18	11/27/15 19:04	1
Acetophenone	ND		13	1.4	ug/L		11/25/15 08:18	11/27/15 19:04	1
Anthracene	ND		13	0.70	ug/L		11/25/15 08:18	11/27/15 19:04	1
Atrazine	ND		13	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1
Benzaldehyde	**2.4**	**J**	13	0.67	ug/L		11/25/15 08:18	11/27/15 19:04	1
Benzo[a]anthracene	ND		13	0.90	ug/L		11/25/15 08:18	11/27/15 19:04	1
Benzo[a]pyrene	ND		13	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1
Benzo[b]fluoranthene	ND		13	0.85	ug/L		11/25/15 08:18	11/27/15 19:04	1
Benzo[g,h,i]perylene	ND		13	0.88	ug/L		11/25/15 08:18	11/27/15 19:04	1
Benzo[k]fluoranthene	ND		13	1.8	ug/L		11/25/15 08:18	11/27/15 19:04	1
Bis(2-chloroethoxy)methane	ND		13	0.88	ug/L		11/25/15 08:18	11/27/15 19:04	1
Bis(2-chloroethyl)ether	ND		13	1.0	ug/L		11/25/15 08:18	11/27/15 19:04	1
Bis(2-ethylhexyl) phthalate	ND		13	4.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
Butyl benzyl phthalate	ND		13	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
Caprolactam	ND		13	5.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
Carbazole	ND		13	0.75	ug/L		11/25/15 08:18	11/27/15 19:04	1
Chrysene	ND		13	0.83	ug/L		11/25/15 08:18	11/27/15 19:04	1
Dibenz(a,h)anthracene	ND		13	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
Di-n-butyl phthalate	ND		13	0.78	ug/L		11/25/15 08:18	11/27/15 19:04	1
Di-n-octyl phthalate	ND		13	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1
Dibenzofuran	ND		25	1.3	ug/L		11/25/15 08:18	11/27/15 19:04	1
Diethyl phthalate	**1.1**	**J**	13	0.55	ug/L		11/25/15 08:18	11/27/15 19:04	1
Dimethyl phthalate	ND		13	0.90	ug/L		11/25/15 08:18	11/27/15 19:04	1
Fluoranthene	ND		13	1.0	ug/L		11/25/15 08:18	11/27/15 19:04	1
Fluorene	ND		13	0.90	ug/L		11/25/15 08:18	11/27/15 19:04	1
Hexachlorobenzene	ND		13	1.3	ug/L		11/25/15 08:18	11/27/15 19:04	1
Hexachlorobutadiene	ND		13	1.7	ug/L		11/25/15 08:18	11/27/15 19:04	1
Hexachlorocyclopentadiene	ND		13	1.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
Hexachloroethane	ND		13	1.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
Indeno[1,2,3-cd]pyrene	ND		13	1.2	ug/L		11/25/15 08:18	11/27/15 19:04	1
Isophorone	ND		13	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
N-Nitrosodi-n-propylamine	ND		13	1.4	ug/L		11/25/15 08:18	11/27/15 19:04	1
N-Nitrosodiphenylamine	ND		13	1.3	ug/L		11/25/15 08:18	11/27/15 19:04	1
Naphthalene	ND		13	1.9	ug/L		11/25/15 08:18	11/27/15 19:04	1
Nitrobenzene	ND		13	0.73	ug/L		11/25/15 08:18	11/27/15 19:04	1
Pentachlorophenol	ND		25	5.5	ug/L		11/25/15 08:18	11/27/15 19:04	1
Phenanthrene	ND		13	1.1	ug/L		11/25/15 08:18	11/27/15 19:04	1
Phenol	ND		13	0.98	ug/L		11/25/15 08:18	11/27/15 19:04	1
Pyrene	ND		13	0.85	ug/L		11/25/15 08:18	11/27/15 19:04	1

Client Sample ID: 20151118-MW24-INITIAL

Date Collected: 11/18/15 15:50
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	*75*		*46 - 120*	*11/25/15 08:18*	*11/27/15 19:04*	*1*
Phenol-d5 (Surr)	*0.06*	*X*	*16 - 120*	*11/25/15 08:18*	*11/27/15 19:04*	*1*
p-Terphenyl-d14 (Surr)	*40*	*X*	*67 - 150*	*11/25/15 08:18*	*11/27/15 19:04*	*1*
2,4,6-Tribromophenol (Surr)	*3*	*X*	*52 - 132*	*11/25/15 08:18*	*11/27/15 19:04*	*1*
2-Fluorobiphenyl	*100*		*48 - 120*	*11/25/15 08:18*	*11/27/15 19:04*	*1*
2-Fluorophenol (Surr)	*0*	*X*	*20 - 120*	*11/25/15 08:18*	*11/27/15 19:04*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.51	0.18	ug/L		11/21/15 08:19	11/23/15 16:08	1
PCB-1221	ND		0.51	0.18	ug/L		11/21/15 08:19	11/23/15 16:08	1
PCB-1232	ND		0.51	0.18	ug/L		11/21/15 08:19	11/23/15 16:08	1
PCB-1242	ND		0.51	0.18	ug/L		11/21/15 08:19	11/23/15 16:08	1
PCB-1248	ND		0.51	0.18	ug/L		11/21/15 08:19	11/23/15 16:08	1
PCB-1254	ND		0.51	0.25	ug/L		11/21/15 08:19	11/23/15 16:08	1
PCB-1260	ND		0.51	0.25	ug/L		11/21/15 08:19	11/23/15 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*67*		*24 - 137*	*11/21/15 08:19*	*11/23/15 16:08*	*1*
DCB Decachlorobiphenyl	*52*		*19 - 125*	*11/21/15 08:19*	*11/23/15 16:08*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.0**		0.20	0.060	mg/L		11/23/15 07:30	11/23/15 13:38	1
Antimony	ND		0.020	0.0068	mg/L		11/23/15 07:30	11/23/15 13:38	1
Arsenic	**0.045**		0.015	0.0056	mg/L		11/23/15 07:30	11/23/15 13:38	1
Barium	**0.55**		0.0020	0.00070	mg/L		11/23/15 07:30	11/23/15 13:38	1
Beryllium	**0.00048**	**J**	0.0020	0.00030	mg/L		11/23/15 07:30	11/23/15 13:38	1
Cadmium	**0.0018**	**J**	0.0020	0.00050	mg/L		11/23/15 07:30	11/23/15 13:38	1
Calcium	**45.2**		0.50	0.10	mg/L		11/23/15 07:30	11/23/15 13:38	1
Chromium	**0.23**		0.0040	0.0010	mg/L		11/23/15 07:30	11/23/15 13:38	1
Cobalt	**0.025**		0.0040	0.00063	mg/L		11/23/15 07:30	11/23/15 13:38	1
Copper	**0.016**		0.010	0.0016	mg/L		11/23/15 07:30	11/23/15 13:38	1
Iron	**42.3**		0.050	0.019	mg/L		11/23/15 07:30	11/23/15 13:38	1
Lead	**0.0080**	**J**	0.010	0.0030	mg/L		11/23/15 07:30	11/23/15 13:38	1
Magnesium	**8.0**		0.20	0.043	mg/L		11/23/15 07:30	11/23/15 13:38	1
Manganese	**43.7**		0.0030	0.00040	mg/L		11/23/15 07:30	11/23/15 13:38	1
Nickel	**0.010**		0.010	0.0013	mg/L		11/23/15 07:30	11/23/15 13:38	1
Potassium	**4.3**		0.50	0.10	mg/L		11/23/15 07:30	11/23/15 13:38	1
Selenium	ND		0.025	0.0087	mg/L		11/23/15 07:30	11/23/15 13:38	1
Silver	**0.0033**	**J**	0.0060	0.0017	mg/L		11/23/15 07:30	11/23/15 13:38	1
Sodium	**57.1**		1.0	0.32	mg/L		11/23/15 07:30	11/23/15 13:38	1
Thallium	ND		0.020	0.010	mg/L		11/23/15 07:30	11/23/15 13:38	1
Vanadium	**0.014**		0.0050	0.0015	mg/L		11/23/15 07:30	11/23/15 13:38	1
Zinc	**0.020**		0.010	0.0015	mg/L		11/23/15 07:30	11/23/15 13:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00013**	**J**	0.00020	0.00012	mg/L		11/23/15 09:15	11/23/15 14:28	1

Client Sample ID: 20151118-MW24-3V
Date Collected: 11/18/15 18:00
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			11/29/15 12:52	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			11/29/15 12:52	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			11/29/15 12:52	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			11/29/15 12:52	10
1,1-Dichloroethane	ND		10	3.8	ug/L			11/29/15 12:52	10
1,1-Dichloroethene	ND		10	2.9	ug/L			11/29/15 12:52	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			11/29/15 12:52	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			11/29/15 12:52	10
1,2-Dibromoethane	ND		10	7.3	ug/L			11/29/15 12:52	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			11/29/15 12:52	10
1,2-Dichloroethane	ND		10	2.1	ug/L			11/29/15 12:52	10
1,2-Dichloropropane	ND		10	7.2	ug/L			11/29/15 12:52	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			11/29/15 12:52	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			11/29/15 12:52	10
2-Butanone (MEK)	ND		100	13	ug/L			11/29/15 12:52	10
2-Hexanone	ND		50	12	ug/L			11/29/15 12:52	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			11/29/15 12:52	10
Acetone	ND	*	100	30	ug/L			11/29/15 12:52	10
Benzene	ND		10	4.1	ug/L			11/29/15 12:52	10
Bromodichloromethane	ND		10	3.9	ug/L			11/29/15 12:52	10
Bromoform	ND		10	2.6	ug/L			11/29/15 12:52	10
Bromomethane	ND		10	6.9	ug/L			11/29/15 12:52	10
Carbon disulfide	ND		10	1.9	ug/L			11/29/15 12:52	10
Carbon tetrachloride	ND		10	2.7	ug/L			11/29/15 12:52	10
Chlorobenzene	ND		10	7.5	ug/L			11/29/15 12:52	10
Chloroethane	ND		10	3.2	ug/L			11/29/15 12:52	10
Chloroform	ND		10	3.4	ug/L			11/29/15 12:52	10
Chloromethane	ND		10	3.5	ug/L			11/29/15 12:52	10
cis-1,2-Dichloroethene	**620**		10	8.1	ug/L			11/29/15 12:52	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			11/29/15 12:52	10
Cyclohexane	ND		10	1.8	ug/L			11/29/15 12:52	10
Dibromochloromethane	ND		10	3.2	ug/L			11/29/15 12:52	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			11/29/15 12:52	10
Ethylbenzene	ND		10	7.4	ug/L			11/29/15 12:52	10
Isopropylbenzene	ND		10	7.9	ug/L			11/29/15 12:52	10
Methyl acetate	ND		25	13	ug/L			11/29/15 12:52	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			11/29/15 12:52	10
Methylcyclohexane	ND		10	1.6	ug/L			11/29/15 12:52	10
Methylene Chloride	ND		10	4.4	ug/L			11/29/15 12:52	10
Styrene	ND		10	7.3	ug/L			11/29/15 12:52	10
Tetrachloroethene	**110**		10	3.6	ug/L			11/29/15 12:52	10
Toluene	ND		10	5.1	ug/L			11/29/15 12:52	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			11/29/15 12:52	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			11/29/15 12:52	10
Trichloroethene	**72**		10	4.6	ug/L			11/29/15 12:52	10
Trichlorofluoromethane	ND		10	8.8	ug/L			11/29/15 12:52	10
Vinyl chloride	**21**		10	9.0	ug/L			11/29/15 12:52	10
Xylenes, Total	ND		20	6.6	ug/L			11/29/15 12:52	10

Client Sample ID: 20151118-MW24-3V
Date Collected: 11/18/15 18:00
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-2
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*		*11/29/15 12:52*	*10*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/29/15 12:52*	*10*
Toluene-d8 (Surr)	*96*		*71 - 126*		*11/29/15 12:52*	*10*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*11/29/15 12:52*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4.9	0.63	ug/L		11/20/15 15:04	11/23/15 15:39	1
bis (2-chloroisopropyl) ether	ND		4.9	0.50	ug/L		11/20/15 15:04	11/23/15 15:39	1
2,4,5-Trichlorophenol	ND		4.9	0.47	ug/L		11/20/15 15:04	11/23/15 15:39	1
2,4,6-Trichlorophenol	ND		4.9	0.59	ug/L		11/20/15 15:04	11/23/15 15:39	1
2,4-Dichlorophenol	ND		4.9	0.49	ug/L		11/20/15 15:04	11/23/15 15:39	1
2,4-Dimethylphenol	ND		4.9	0.49	ug/L		11/20/15 15:04	11/23/15 15:39	1
2,4-Dinitrophenol	ND		9.7	2.2	ug/L		11/20/15 15:04	11/23/15 15:39	1
2,4-Dinitrotoluene	ND		4.9	0.43	ug/L		11/20/15 15:04	11/23/15 15:39	1
2,6-Dinitrotoluene	ND		4.9	0.39	ug/L		11/20/15 15:04	11/23/15 15:39	1
2-Chloronaphthalene	ND		4.9	0.45	ug/L		11/20/15 15:04	11/23/15 15:39	1
2-Chlorophenol	ND		4.9	0.51	ug/L		11/20/15 15:04	11/23/15 15:39	1
2-Methylphenol	ND		4.9	0.39	ug/L		11/20/15 15:04	11/23/15 15:39	1
2-Methylnaphthalene	ND		4.9	0.58	ug/L		11/20/15 15:04	11/23/15 15:39	1
2-Nitroaniline	ND		9.7	0.41	ug/L		11/20/15 15:04	11/23/15 15:39	1
2-Nitrophenol	ND		4.9	0.47	ug/L		11/20/15 15:04	11/23/15 15:39	1
3,3'-Dichlorobenzidine	ND		4.9	0.39	ug/L		11/20/15 15:04	11/23/15 15:39	1
3-Nitroaniline	ND		9.7	0.47	ug/L		11/20/15 15:04	11/23/15 15:39	1
4,6-Dinitro-2-methylphenol	ND		9.7	2.1	ug/L		11/20/15 15:04	11/23/15 15:39	1
4-Bromophenyl phenyl ether	ND		4.9	0.44	ug/L		11/20/15 15:04	11/23/15 15:39	1
4-Chloro-3-methylphenol	ND		4.9	0.44	ug/L		11/20/15 15:04	11/23/15 15:39	1
4-Chloroaniline	ND		4.9	0.57	ug/L		11/20/15 15:04	11/23/15 15:39	1
4-Chlorophenyl phenyl ether	ND		4.9	0.34	ug/L		11/20/15 15:04	11/23/15 15:39	1
4-Methylphenol	ND		9.7	0.35	ug/L		11/20/15 15:04	11/23/15 15:39	1
4-Nitroaniline	ND		9.7	0.24	ug/L		11/20/15 15:04	11/23/15 15:39	1
4-Nitrophenol	ND		9.7	1.5	ug/L		11/20/15 15:04	11/23/15 15:39	1
Acenaphthene	ND		4.9	0.40	ug/L		11/20/15 15:04	11/23/15 15:39	1
Acenaphthylene	ND		4.9	0.37	ug/L		11/20/15 15:04	11/23/15 15:39	1
Acetophenone	ND		4.9	0.52	ug/L		11/20/15 15:04	11/23/15 15:39	1
Anthracene	ND		4.9	0.27	ug/L		11/20/15 15:04	11/23/15 15:39	1
Atrazine	ND		4.9	0.45	ug/L		11/20/15 15:04	11/23/15 15:39	1
Benzaldehyde	ND		4.9	0.26	ug/L		11/20/15 15:04	11/23/15 15:39	1
Benzo[a]anthracene	ND		4.9	0.35	ug/L		11/20/15 15:04	11/23/15 15:39	1
Benzo[a]pyrene	ND		4.9	0.46	ug/L		11/20/15 15:04	11/23/15 15:39	1
Benzo[b]fluoranthene	ND		4.9	0.33	ug/L		11/20/15 15:04	11/23/15 15:39	1
Benzo[g,h,i]perylene	ND		4.9	0.34	ug/L		11/20/15 15:04	11/23/15 15:39	1
Benzo[k]fluoranthene	ND		4.9	0.71	ug/L		11/20/15 15:04	11/23/15 15:39	1
Bis(2-chloroethoxy)methane	ND		4.9	0.34	ug/L		11/20/15 15:04	11/23/15 15:39	1
Bis(2-chloroethyl)ether	ND		4.9	0.39	ug/L		11/20/15 15:04	11/23/15 15:39	1
Bis(2-ethylhexyl) phthalate	ND		4.9	1.7	ug/L		11/20/15 15:04	11/23/15 15:39	1
Butyl benzyl phthalate	**0.49**	**J B**	4.9	0.41	ug/L		11/20/15 15:04	11/23/15 15:39	1
Caprolactam	ND		4.9	2.1	ug/L		11/20/15 15:04	11/23/15 15:39	1
Carbazole	ND		4.9	0.29	ug/L		11/20/15 15:04	11/23/15 15:39	1
Chrysene	ND		4.9	0.32	ug/L		11/20/15 15:04	11/23/15 15:39	1

Client Sample ID: 20151118-MW24-3V
Date Collected: 11/18/15 18:00
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		4.9	0.41	ug/L		11/20/15 15:04	11/23/15 15:39	1
Di-n-butyl phthalate	ND		4.9	0.30	ug/L		11/20/15 15:04	11/23/15 15:39	1
Di-n-octyl phthalate	ND		4.9	0.46	ug/L		11/20/15 15:04	11/23/15 15:39	1
Dibenzofuran	ND		9.7	0.49	ug/L		11/20/15 15:04	11/23/15 15:39	1
Diethyl phthalate	**0.23**	**J**	4.9	0.21	ug/L		11/20/15 15:04	11/23/15 15:39	1
Dimethyl phthalate	ND		4.9	0.35	ug/L		11/20/15 15:04	11/23/15 15:39	1
Fluoranthene	ND		4.9	0.39	ug/L		11/20/15 15:04	11/23/15 15:39	1
Fluorene	ND		4.9	0.35	ug/L		11/20/15 15:04	11/23/15 15:39	1
Hexachlorobenzene	ND		4.9	0.49	ug/L		11/20/15 15:04	11/23/15 15:39	1
Hexachlorobutadiene	ND		4.9	0.66	ug/L		11/20/15 15:04	11/23/15 15:39	1
Hexachlorocyclopentadiene	ND		4.9	0.57	ug/L		11/20/15 15:04	11/23/15 15:39	1
Hexachloroethane	ND		4.9	0.57	ug/L		11/20/15 15:04	11/23/15 15:39	1
Indeno[1,2,3-cd]pyrene	ND		4.9	0.46	ug/L		11/20/15 15:04	11/23/15 15:39	1
Isophorone	ND		4.9	0.42	ug/L		11/20/15 15:04	11/23/15 15:39	1
N-Nitrosodi-n-propylamine	ND		4.9	0.52	ug/L		11/20/15 15:04	11/23/15 15:39	1
N-Nitrosodiphenylamine	ND		4.9	0.49	ug/L		11/20/15 15:04	11/23/15 15:39	1
Naphthalene	ND		4.9	0.74	ug/L		11/20/15 15:04	11/23/15 15:39	1
Nitrobenzene	ND		4.9	0.28	ug/L		11/20/15 15:04	11/23/15 15:39	1
Pentachlorophenol	ND		9.7	2.1	ug/L		11/20/15 15:04	11/23/15 15:39	1
Phenanthrene	ND		4.9	0.43	ug/L		11/20/15 15:04	11/23/15 15:39	1
Phenol	ND		4.9	0.38	ug/L		11/20/15 15:04	11/23/15 15:39	1
Pyrene	ND		4.9	0.33	ug/L		11/20/15 15:04	11/23/15 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*46 - 120*	*11/20/15 15:04*	*11/23/15 15:39*	*1*
Phenol-d5 (Surr)	*0.5*	*X*	*16 - 120*	*11/20/15 15:04*	*11/23/15 15:39*	*1*
p-Terphenyl-d14 (Surr)	*82*		*67 - 150*	*11/20/15 15:04*	*11/23/15 15:39*	*1*
2,4,6-Tribromophenol (Surr)	*14*	*X*	*52 - 132*	*11/20/15 15:04*	*11/23/15 15:39*	*1*
2-Fluorobiphenyl	*88*		*48 - 120*	*11/20/15 15:04*	*11/23/15 15:39*	*1*
2-Fluorophenol (Surr)	*2*	*X*	*20 - 120*	*11/20/15 15:04*	*11/23/15 15:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4.8	0.63	ug/L		11/25/15 08:18	11/27/15 19:32	1
bis (2-chloroisopropyl) ether	ND		4.8	0.50	ug/L		11/25/15 08:18	11/27/15 19:32	1
2,4,5-Trichlorophenol	ND		4.8	0.46	ug/L		11/25/15 08:18	11/27/15 19:32	1
2,4,6-Trichlorophenol	ND		4.8	0.59	ug/L		11/25/15 08:18	11/27/15 19:32	1
2,4-Dichlorophenol	ND		4.8	0.49	ug/L		11/25/15 08:18	11/27/15 19:32	1
2,4-Dimethylphenol	ND		4.8	0.48	ug/L		11/25/15 08:18	11/27/15 19:32	1
2,4-Dinitrophenol	ND		9.6	2.1	ug/L		11/25/15 08:18	11/27/15 19:32	1
2,4-Dinitrotoluene	ND		4.8	0.43	ug/L		11/25/15 08:18	11/27/15 19:32	1
2,6-Dinitrotoluene	ND		4.8	0.39	ug/L		11/25/15 08:18	11/27/15 19:32	1
2-Chloronaphthalene	ND		4.8	0.44	ug/L		11/25/15 08:18	11/27/15 19:32	1
2-Chlorophenol	ND		4.8	0.51	ug/L		11/25/15 08:18	11/27/15 19:32	1
2-Methylphenol	ND		4.8	0.39	ug/L		11/25/15 08:18	11/27/15 19:32	1
2-Methylnaphthalene	ND		4.8	0.58	ug/L		11/25/15 08:18	11/27/15 19:32	1
2-Nitroaniline	ND		9.6	0.40	ug/L		11/25/15 08:18	11/27/15 19:32	1
2-Nitrophenol	ND		4.8	0.46	ug/L		11/25/15 08:18	11/27/15 19:32	1
3,3'-Dichlorobenzidine	ND		4.8	0.39	ug/L		11/25/15 08:18	11/27/15 19:32	1
3-Nitroaniline	ND		9.6	0.46	ug/L		11/25/15 08:18	11/27/15 19:32	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Client Sample ID: 20151118-MW24-3V
Date Collected: 11/18/15 18:00
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		9.6	2.1	ug/L		11/25/15 08:18	11/27/15 19:32	1
4-Bromophenyl phenyl ether	ND		4.8	0.43	ug/L		11/25/15 08:18	11/27/15 19:32	1
4-Chloro-3-methylphenol	ND		4.8	0.43	ug/L		11/25/15 08:18	11/27/15 19:32	1
4-Chloroaniline	ND		4.8	0.57	ug/L		11/25/15 08:18	11/27/15 19:32	1
4-Chlorophenyl phenyl ether	ND		4.8	0.34	ug/L		11/25/15 08:18	11/27/15 19:32	1
4-Methylphenol	ND		9.6	0.35	ug/L		11/25/15 08:18	11/27/15 19:32	1
4-Nitroaniline	ND		9.6	0.24	ug/L		11/25/15 08:18	11/27/15 19:32	1
4-Nitrophenol	ND		9.6	1.5	ug/L		11/25/15 08:18	11/27/15 19:32	1
Acenaphthene	ND		4.8	0.39	ug/L		11/25/15 08:18	11/27/15 19:32	1
Acenaphthylene	ND		4.8	0.37	ug/L		11/25/15 08:18	11/27/15 19:32	1
Acetophenone	ND		4.8	0.52	ug/L		11/25/15 08:18	11/27/15 19:32	1
Anthracene	ND		4.8	0.27	ug/L		11/25/15 08:18	11/27/15 19:32	1
Atrazine	ND		4.8	0.44	ug/L		11/25/15 08:18	11/27/15 19:32	1
Benzaldehyde	ND		4.8	0.26	ug/L		11/25/15 08:18	11/27/15 19:32	1
Benzo[a]anthracene	ND		4.8	0.35	ug/L		11/25/15 08:18	11/27/15 19:32	1
Benzo[a]pyrene	ND		4.8	0.45	ug/L		11/25/15 08:18	11/27/15 19:32	1
Benzo[b]fluoranthene	ND		4.8	0.33	ug/L		11/25/15 08:18	11/27/15 19:32	1
Benzo[g,h,i]perylene	ND		4.8	0.34	ug/L		11/25/15 08:18	11/27/15 19:32	1
Benzo[k]fluoranthene	ND		4.8	0.70	ug/L		11/25/15 08:18	11/27/15 19:32	1
Bis(2-chloroethoxy)methane	ND		4.8	0.34	ug/L		11/25/15 08:18	11/27/15 19:32	1
Bis(2-chloroethyl)ether	ND		4.8	0.39	ug/L		11/25/15 08:18	11/27/15 19:32	1
Bis(2-ethylhexyl) phthalate	ND		4.8	1.7	ug/L		11/25/15 08:18	11/27/15 19:32	1
Butyl benzyl phthalate	ND		4.8	0.40	ug/L		11/25/15 08:18	11/27/15 19:32	1
Caprolactam	ND		4.8	2.1	ug/L		11/25/15 08:18	11/27/15 19:32	1
Carbazole	ND		4.8	0.29	ug/L		11/25/15 08:18	11/27/15 19:32	1
Chrysene	ND		4.8	0.32	ug/L		11/25/15 08:18	11/27/15 19:32	1
Dibenz(a,h)anthracene	ND		4.8	0.40	ug/L		11/25/15 08:18	11/27/15 19:32	1
Di-n-butyl phthalate	ND		4.8	0.30	ug/L		11/25/15 08:18	11/27/15 19:32	1
Di-n-octyl phthalate	ND		4.8	0.45	ug/L		11/25/15 08:18	11/27/15 19:32	1
Dibenzofuran	ND		9.6	0.49	ug/L		11/25/15 08:18	11/27/15 19:32	1
Diethyl phthalate	ND		4.8	0.21	ug/L		11/25/15 08:18	11/27/15 19:32	1
Dimethyl phthalate	ND		4.8	0.35	ug/L		11/25/15 08:18	11/27/15 19:32	1
Fluoranthene	ND		4.8	0.39	ug/L		11/25/15 08:18	11/27/15 19:32	1
Fluorene	ND		4.8	0.35	ug/L		11/25/15 08:18	11/27/15 19:32	1
Hexachlorobenzene	ND		4.8	0.49	ug/L		11/25/15 08:18	11/27/15 19:32	1
Hexachlorobutadiene	ND		4.8	0.65	ug/L		11/25/15 08:18	11/27/15 19:32	1
Hexachlorocyclopentadiene	ND		4.8	0.57	ug/L		11/25/15 08:18	11/27/15 19:32	1
Hexachloroethane	ND		4.8	0.57	ug/L		11/25/15 08:18	11/27/15 19:32	1
Indeno[1,2,3-cd]pyrene	ND		4.8	0.45	ug/L		11/25/15 08:18	11/27/15 19:32	1
Isophorone	ND		4.8	0.41	ug/L		11/25/15 08:18	11/27/15 19:32	1
N-Nitrosodi-n-propylamine	ND		4.8	0.52	ug/L		11/25/15 08:18	11/27/15 19:32	1
N-Nitrosodiphenylamine	ND		4.8	0.49	ug/L		11/25/15 08:18	11/27/15 19:32	1
Naphthalene	ND		4.8	0.73	ug/L		11/25/15 08:18	11/27/15 19:32	1
Nitrobenzene	ND		4.8	0.28	ug/L		11/25/15 08:18	11/27/15 19:32	1
Pentachlorophenol	ND		9.6	2.1	ug/L		11/25/15 08:18	11/27/15 19:32	1
Phenanthrene	ND		4.8	0.42	ug/L		11/25/15 08:18	11/27/15 19:32	1
Phenol	ND		4.8	0.38	ug/L		11/25/15 08:18	11/27/15 19:32	1
Pyrene	ND		4.8	0.33	ug/L		11/25/15 08:18	11/27/15 19:32	1

Client Sample ID: 20151118-MW24-3V

Date Collected: 11/18/15 18:00
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	77		46 - 120	11/25/15 08:18	11/27/15 19:32	1
Phenol-d5 (Surr)	2	X	16 - 120	11/25/15 08:18	11/27/15 19:32	1
p-Terphenyl-d14 (Surr)	86		67 - 150	11/25/15 08:18	11/27/15 19:32	1
2,4,6-Tribromophenol (Surr)	20	X	52 - 132	11/25/15 08:18	11/27/15 19:32	1
2-Fluorobiphenyl	100		48 - 120	11/25/15 08:18	11/27/15 19:32	1
2-Fluorophenol (Surr)	4	X	20 - 120	11/25/15 08:18	11/27/15 19:32	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.49	0.17	ug/L		11/21/15 08:19	11/23/15 16:24	1
PCB-1221	ND		0.49	0.17	ug/L		11/21/15 08:19	11/23/15 16:24	1
PCB-1232	ND		0.49	0.17	ug/L		11/21/15 08:19	11/23/15 16:24	1
PCB-1242	ND		0.49	0.17	ug/L		11/21/15 08:19	11/23/15 16:24	1
PCB-1248	ND		0.49	0.17	ug/L		11/21/15 08:19	11/23/15 16:24	1
PCB-1254	ND		0.49	0.24	ug/L		11/21/15 08:19	11/23/15 16:24	1
PCB-1260	ND		0.49	0.24	ug/L		11/21/15 08:19	11/23/15 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		24 - 137	11/21/15 08:19	11/23/15 16:24	1
DCB Decachlorobiphenyl	75		19 - 125	11/21/15 08:19	11/23/15 16:24	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.25**		0.20	0.060	mg/L		11/23/15 07:30	11/23/15 13:41	1
Antimony	ND		0.020	0.0068	mg/L		11/23/15 07:30	11/23/15 13:41	1
Arsenic	**0.010**	**J**	0.015	0.0056	mg/L		11/23/15 07:30	11/23/15 13:41	1
Barium	**0.20**		0.0020	0.00070	mg/L		11/23/15 07:30	11/23/15 13:41	1
Beryllium	ND		0.0020	0.00030	mg/L		11/23/15 07:30	11/23/15 13:41	1
Cadmium	ND		0.0020	0.00050	mg/L		11/23/15 07:30	11/23/15 13:41	1
Calcium	**44.4**		0.50	0.10	mg/L		11/23/15 07:30	11/23/15 13:41	1
Chromium	**0.056**		0.0040	0.0010	mg/L		11/23/15 07:30	11/23/15 13:41	1
Cobalt	**0.0045**		0.0040	0.00063	mg/L		11/23/15 07:30	11/23/15 13:41	1
Copper	**0.0041**	**J**	0.010	0.0016	mg/L		11/23/15 07:30	11/23/15 13:41	1
Iron	**11.3**		0.050	0.019	mg/L		11/23/15 07:30	11/23/15 13:41	1
Lead	**0.0045**	**J**	0.010	0.0030	mg/L		11/23/15 07:30	11/23/15 13:41	1
Magnesium	**8.2**		0.20	0.043	mg/L		11/23/15 07:30	11/23/15 13:41	1
Manganese	**21.1**		0.0030	0.00040	mg/L		11/23/15 07:30	11/23/15 13:41	1
Nickel	**0.0080**	**J**	0.010	0.0013	mg/L		11/23/15 07:30	11/23/15 13:41	1
Potassium	**4.6**		0.50	0.10	mg/L		11/23/15 07:30	11/23/15 13:41	1
Selenium	ND		0.025	0.0087	mg/L		11/23/15 07:30	11/23/15 13:41	1
Silver	ND		0.0060	0.0017	mg/L		11/23/15 07:30	11/23/15 13:41	1
Sodium	**66.5**		1.0	0.32	mg/L		11/23/15 07:30	11/23/15 13:41	1
Thallium	ND		0.020	0.010	mg/L		11/23/15 07:30	11/23/15 13:41	1
Vanadium	**0.0036**	**J**	0.0050	0.0015	mg/L		11/23/15 07:30	11/23/15 13:41	1
Zinc	**0.0060**	**J**	0.010	0.0015	mg/L		11/23/15 07:30	11/23/15 13:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/23/15 09:15	11/23/15 14:33	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Client Sample ID: TRIP BLANK
Date Collected: 11/18/15 00:00
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/15 21:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/15 21:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/15 21:52	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/15 21:52	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/15 21:52	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/15 21:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/15 21:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/15 21:52	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/27/15 21:52	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/15 21:52	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/15 21:52	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/15 21:52	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/15 21:52	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/15 21:52	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/15 21:52	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/15 21:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/15 21:52	1
Acetone	ND		10	3.0	ug/L			11/27/15 21:52	1
Benzene	ND		1.0	0.41	ug/L			11/27/15 21:52	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/15 21:52	1
Bromoform	ND		1.0	0.26	ug/L			11/27/15 21:52	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/15 21:52	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/15 21:52	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/15 21:52	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/15 21:52	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/15 21:52	1
Chloroform	ND		1.0	0.34	ug/L			11/27/15 21:52	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/15 21:52	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/15 21:52	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/15 21:52	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/15 21:52	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/15 21:52	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/15 21:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/15 21:52	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/15 21:52	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/15 21:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/15 21:52	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/15 21:52	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/15 21:52	1
Styrene	ND		1.0	0.73	ug/L			11/27/15 21:52	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/15 21:52	1
Toluene	ND		1.0	0.51	ug/L			11/27/15 21:52	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/15 21:52	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/15 21:52	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/15 21:52	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/15 21:52	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/15 21:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/15 21:52	1

Client Sample ID: TRIP BLANK
Date Collected: 11/18/15 00:00
Date Received: 11/20/15 03:10

Lab Sample ID: 480-91445-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		66 - 137		11/27/15 21:52	1
4-Bromofluorobenzene (Surr)	100		73 - 120		11/27/15 21:52	1
Toluene-d8 (Surr)	96		71 - 126		11/27/15 21:52	1
Dibromofluoromethane (Surr)	98		60 - 140		11/27/15 21:52	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)	(60-140)
480-91445-1	20151118-MW24-INITIAL	89	100	93	92
480-91445-2	20151118-MW24-3V	91	99	96	98
480-91445-3	TRIP BLANK	94	100	96	98
LCS 480-277214/4	Lab Control Sample	90	105	97	96
LCS 480-277305/4	Lab Control Sample	90	104	96	95
MB 480-277214/6	Method Blank	95	100	97	99
MB 480-277305/6	Method Blank	91	100	94	95

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	FBP	2FP
Lab Sample ID	Client Sample ID	(46-120)	(16-120)	(67-150)	(52-132)	(48-120)	(20-120)
480-91445-1	20151118-MW24-INITIAL	82	0.04 X	66 X	3 X	88	0 X
480-91445-1 - RE	20151118-MW24-INITIAL	75	0.06 X	40 X	3 X	100	0 X
480-91445-2	20151118-MW24-3V	80	0.5 X	82	14 X	88	2 X
480-91445-2 - RE	20151118-MW24-3V	77	2 X	86	20 X	100	4 X
LCS 480-276209/2-A	Lab Control Sample	69	44	89	78	72	58
MB 480-276209/1-A	Method Blank	63	34	88	66	69	48
MB 480-276865/1-A	Method Blank	80	49	100	81	104	59

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(24-137)	(19-125)
480-91445-1	20151118-MW24-INITIAL	67	52
480-91445-2	20151118-MW24-3V	85	75
LCS 480-276284/2-A	Lab Control Sample	66	84
LCSD 480-276284/3-A	Lab Control Sample Dup	73	80
MB 480-276284/1-A	Method Blank	68	69

Surrogate Legend

TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-277214/6
Matrix: Water
Analysis Batch: 277214

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/15 20:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/15 20:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/15 20:47	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/15 20:47	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/15 20:47	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/15 20:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/15 20:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/15 20:47	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/27/15 20:47	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/15 20:47	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/15 20:47	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/15 20:47	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/15 20:47	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/15 20:47	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/15 20:47	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/15 20:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/15 20:47	1
Acetone	ND		10	3.0	ug/L			11/27/15 20:47	1
Benzene	ND		1.0	0.41	ug/L			11/27/15 20:47	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/15 20:47	1
Bromoform	ND		1.0	0.26	ug/L			11/27/15 20:47	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/15 20:47	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/15 20:47	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/15 20:47	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/15 20:47	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/15 20:47	1
Chloroform	ND		1.0	0.34	ug/L			11/27/15 20:47	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/15 20:47	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/15 20:47	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/15 20:47	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/15 20:47	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/15 20:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/15 20:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/15 20:47	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/15 20:47	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/15 20:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/15 20:47	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/15 20:47	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/15 20:47	1
Styrene	ND		1.0	0.73	ug/L			11/27/15 20:47	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/15 20:47	1
Toluene	ND		1.0	0.51	ug/L			11/27/15 20:47	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/15 20:47	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/15 20:47	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/15 20:47	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/15 20:47	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/27/15 20:47	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/15 20:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*11/27/15 20:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/27/15 20:47*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*11/27/15 20:47*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*11/27/15 20:47*	*1*

Lab Sample ID: LCS 480-277214/4
Matrix: Water
Analysis Batch: 277214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	21.7		ug/L		87	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.9		ug/L		96	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.4		ug/L		90	52 - 148
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	76 - 122
1,1-Dichloroethane	25.0	23.6		ug/L		94	71 - 129
1,1-Dichloroethene	25.0	25.1		ug/L		100	58 - 121
1,2,4-Trichlorobenzene	25.0	22.5		ug/L		90	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	20.9		ug/L		84	56 - 134
1,2-Dibromoethane	25.0	26.4		ug/L		105	77 - 120
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	21.8		ug/L		87	75 - 127
1,2-Dichloropropane	25.0	25.5		ug/L		102	76 - 120
1,3-Dichlorobenzene	25.0	24.6		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	75 - 120
2-Butanone (MEK)	125	123		ug/L		98	57 - 140
2-Hexanone	125	120		ug/L		96	65 - 127
4-Methyl-2-pentanone (MIBK)	125	115		ug/L		92	71 - 125
Acetone	125	156		ug/L		125	56 - 142
Benzene	25.0	24.7		ug/L		99	71 - 124
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	24.2		ug/L		97	52 - 132
Bromomethane	25.0	22.5		ug/L		90	55 - 144
Carbon disulfide	25.0	23.3		ug/L		93	59 - 134
Carbon tetrachloride	25.0	22.0		ug/L		88	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	72 - 120
Chloroethane	25.0	22.6		ug/L		90	69 - 136
Chloroform	25.0	23.7		ug/L		95	73 - 127
Chloromethane	25.0	24.1		ug/L		96	68 - 124
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	74 - 124
cis-1,3-Dichloropropene	25.0	27.3		ug/L		109	74 - 124
Cyclohexane	25.0	23.5		ug/L		94	59 - 135
Dibromochloromethane	25.0	24.7		ug/L		99	75 - 125
Dichlorodifluoromethane	25.0	26.3		ug/L		105	59 - 135
Ethylbenzene	25.0	24.0		ug/L		96	77 - 123
Isopropylbenzene	25.0	23.5		ug/L		94	77 - 122
Methyl acetate	125	137		ug/L		110	74 - 133
Methyl tert-butyl ether	25.0	22.8		ug/L		91	64 - 127
Methylcyclohexane	25.0	24.2		ug/L		97	61 - 138
Methylene Chloride	25.0	27.4		ug/L		110	57 - 132
Styrene	25.0	24.4		ug/L		98	70 - 130
Tetrachloroethene	25.0	25.6		ug/L		102	74 - 122
Toluene	25.0	23.6		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	25.1		ug/L		100	73 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-277214/4
Matrix: Water
Analysis Batch: 277214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	25.0	24.4		ug/L		97	72 - 123
Trichloroethene	25.0	25.3		ug/L		101	74 - 123
Trichlorofluoromethane	25.0	23.4		ug/L		94	62 - 152
Vinyl chloride	25.0	25.1		ug/L		100	65 - 133
Xylenes, Total	50.0	48.4		ug/L		97	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*66 - 137*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*
Toluene-d8 (Surr)	*97*		*71 - 126*
Dibromofluoromethane (Surr)	*96*		*60 - 140*

Lab Sample ID: MB 480-277305/6
Matrix: Water
Analysis Batch: 277305

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/15 11:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/15 11:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/15 11:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/15 11:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/15 11:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/15 11:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/15 11:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/15 11:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/29/15 11:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/15 11:39	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/15 11:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/15 11:39	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/15 11:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/15 11:39	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/15 11:39	1
2-Hexanone	ND		5.0	1.2	ug/L			11/29/15 11:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/29/15 11:39	1
Acetone	ND		10	3.0	ug/L			11/29/15 11:39	1
Benzene	ND		1.0	0.41	ug/L			11/29/15 11:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/15 11:39	1
Bromoform	ND		1.0	0.26	ug/L			11/29/15 11:39	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/15 11:39	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/15 11:39	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/15 11:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/15 11:39	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/15 11:39	1
Chloroform	ND		1.0	0.34	ug/L			11/29/15 11:39	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/15 11:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/15 11:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/15 11:39	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/15 11:39	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-277305/6
Matrix: Water
Analysis Batch: 277305

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/15 11:39	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/15 11:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/15 11:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/15 11:39	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/15 11:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/15 11:39	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/15 11:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/15 11:39	1
Styrene	ND		1.0	0.73	ug/L			11/29/15 11:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/15 11:39	1
Toluene	ND		1.0	0.51	ug/L			11/29/15 11:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/15 11:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/15 11:39	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/15 11:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/15 11:39	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/15 11:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/29/15 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*		*11/29/15 11:39*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/29/15 11:39*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/29/15 11:39*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*11/29/15 11:39*	*1*

Lab Sample ID: LCS 480-277305/4
Matrix: Water
Analysis Batch: 277305

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.2		ug/L		93	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.9		ug/L		92	52 - 148
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	23.9		ug/L		96	71 - 129
1,1-Dichloroethene	25.0	26.5		ug/L		106	58 - 121
1,2,4-Trichlorobenzene	25.0	23.6		ug/L		94	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.7		ug/L		91	56 - 134
1,2-Dibromoethane	25.0	26.3		ug/L		105	77 - 120
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	21.9		ug/L		88	75 - 127
1,2-Dichloropropane	25.0	25.6		ug/L		102	76 - 120
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	75 - 120
2-Butanone (MEK)	125	136		ug/L		109	57 - 140
2-Hexanone	125	128		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125
Acetone	125	186	*	ug/L		149	56 - 142

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-277305/4
Matrix: Water
Analysis Batch: 277305

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.5		ug/L		102	71 - 124
Bromodichloromethane	25.0	24.5		ug/L		98	80 - 122
Bromoform	25.0	25.6		ug/L		102	52 - 132
Bromomethane	25.0	21.6		ug/L		86	55 - 144
Carbon disulfide	25.0	24.3		ug/L		97	59 - 134
Carbon tetrachloride	25.0	24.0		ug/L		96	72 - 134
Chlorobenzene	25.0	25.7		ug/L		103	72 - 120
Chloroethane	25.0	22.8		ug/L		91	69 - 136
Chloroform	25.0	23.9		ug/L		96	73 - 127
Chloromethane	25.0	25.1		ug/L		100	68 - 124
cis-1,2-Dichloroethene	25.0	25.4		ug/L		102	74 - 124
cis-1,3-Dichloropropene	25.0	27.6		ug/L		111	74 - 124
Cyclohexane	25.0	25.6		ug/L		102	59 - 135
Dibromochloromethane	25.0	25.0		ug/L		100	75 - 125
Dichlorodifluoromethane	25.0	30.1		ug/L		121	59 - 135
Ethylbenzene	25.0	24.4		ug/L		98	77 - 123
Isopropylbenzene	25.0	23.9		ug/L		96	77 - 122
Methyl acetate	125	145		ug/L		116	74 - 133
Methyl tert-butyl ether	25.0	23.1		ug/L		92	64 - 127
Methylcyclohexane	25.0	27.2		ug/L		109	61 - 138
Methylene Chloride	25.0	28.2		ug/L		113	57 - 132
Styrene	25.0	24.8		ug/L		99	70 - 130
Tetrachloroethene	25.0	26.7		ug/L		107	74 - 122
Toluene	25.0	24.0		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	26.0		ug/L		104	73 - 127
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	72 - 123
Trichloroethene	25.0	26.2		ug/L		105	74 - 123
Trichlorofluoromethane	25.0	23.1		ug/L		92	62 - 152
Vinyl chloride	25.0	26.3		ug/L		105	65 - 133
Xylenes, Total	50.0	49.3		ug/L		99	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*66 - 137*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*
Dibromofluoromethane (Surr)	*95*		*60 - 140*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-276209/1-A
Matrix: Water
Analysis Batch: 276424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		11/20/15 15:04	11/23/15 13:42	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		11/20/15 15:04	11/23/15 13:42	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		11/20/15 15:04	11/23/15 13:42	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		11/20/15 15:04	11/23/15 13:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-276209/1-A
Matrix: Water
Analysis Batch: 276424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		11/20/15 15:04	11/23/15 13:42	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		11/20/15 15:04	11/23/15 13:42	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		11/20/15 15:04	11/23/15 13:42	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		11/20/15 15:04	11/23/15 13:42	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		11/20/15 15:04	11/23/15 13:42	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		11/20/15 15:04	11/23/15 13:42	1
2-Chlorophenol	ND		5.0	0.53	ug/L		11/20/15 15:04	11/23/15 13:42	1
2-Methylphenol	ND		5.0	0.40	ug/L		11/20/15 15:04	11/23/15 13:42	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		11/20/15 15:04	11/23/15 13:42	1
2-Nitroaniline	ND		10	0.42	ug/L		11/20/15 15:04	11/23/15 13:42	1
2-Nitrophenol	ND		5.0	0.48	ug/L		11/20/15 15:04	11/23/15 13:42	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		11/20/15 15:04	11/23/15 13:42	1
3-Nitroaniline	ND		10	0.48	ug/L		11/20/15 15:04	11/23/15 13:42	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		11/20/15 15:04	11/23/15 13:42	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		11/20/15 15:04	11/23/15 13:42	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		11/20/15 15:04	11/23/15 13:42	1
4-Chloroaniline	ND		5.0	0.59	ug/L		11/20/15 15:04	11/23/15 13:42	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		11/20/15 15:04	11/23/15 13:42	1
4-Methylphenol	ND		10	0.36	ug/L		11/20/15 15:04	11/23/15 13:42	1
4-Nitroaniline	ND		10	0.25	ug/L		11/20/15 15:04	11/23/15 13:42	1
4-Nitrophenol	ND		10	1.5	ug/L		11/20/15 15:04	11/23/15 13:42	1
Acenaphthene	ND		5.0	0.41	ug/L		11/20/15 15:04	11/23/15 13:42	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/20/15 15:04	11/23/15 13:42	1
Acetophenone	ND		5.0	0.54	ug/L		11/20/15 15:04	11/23/15 13:42	1
Anthracene	ND		5.0	0.28	ug/L		11/20/15 15:04	11/23/15 13:42	1
Atrazine	ND		5.0	0.46	ug/L		11/20/15 15:04	11/23/15 13:42	1
Benzaldehyde	ND		5.0	0.27	ug/L		11/20/15 15:04	11/23/15 13:42	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/20/15 15:04	11/23/15 13:42	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/20/15 15:04	11/23/15 13:42	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/20/15 15:04	11/23/15 13:42	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/20/15 15:04	11/23/15 13:42	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/20/15 15:04	11/23/15 13:42	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		11/20/15 15:04	11/23/15 13:42	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		11/20/15 15:04	11/23/15 13:42	1
Bis(2-ethylhexyl) phthalate	ND		5.0	1.8	ug/L		11/20/15 15:04	11/23/15 13:42	1
Butyl benzyl phthalate	0.495	J	5.0	0.42	ug/L		11/20/15 15:04	11/23/15 13:42	1
Caprolactam	ND		5.0	2.2	ug/L		11/20/15 15:04	11/23/15 13:42	1
Carbazole	ND		5.0	0.30	ug/L		11/20/15 15:04	11/23/15 13:42	1
Chrysene	ND		5.0	0.33	ug/L		11/20/15 15:04	11/23/15 13:42	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/20/15 15:04	11/23/15 13:42	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		11/20/15 15:04	11/23/15 13:42	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		11/20/15 15:04	11/23/15 13:42	1
Dibenzofuran	ND		10	0.51	ug/L		11/20/15 15:04	11/23/15 13:42	1
Diethyl phthalate	ND		5.0	0.22	ug/L		11/20/15 15:04	11/23/15 13:42	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		11/20/15 15:04	11/23/15 13:42	1
Fluoranthene	ND		5.0	0.40	ug/L		11/20/15 15:04	11/23/15 13:42	1
Fluorene	ND		5.0	0.36	ug/L		11/20/15 15:04	11/23/15 13:42	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		11/20/15 15:04	11/23/15 13:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-276209/1-A
Matrix: Water
Analysis Batch: 276424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	0.68	ug/L		11/20/15 15:04	11/23/15 13:42	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		11/20/15 15:04	11/23/15 13:42	1
Hexachloroethane	ND		5.0	0.59	ug/L		11/20/15 15:04	11/23/15 13:42	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/20/15 15:04	11/23/15 13:42	1
Isophorone	ND		5.0	0.43	ug/L		11/20/15 15:04	11/23/15 13:42	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		11/20/15 15:04	11/23/15 13:42	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		11/20/15 15:04	11/23/15 13:42	1
Naphthalene	ND		5.0	0.76	ug/L		11/20/15 15:04	11/23/15 13:42	1
Nitrobenzene	ND		5.0	0.29	ug/L		11/20/15 15:04	11/23/15 13:42	1
Pentachlorophenol	ND		10	2.2	ug/L		11/20/15 15:04	11/23/15 13:42	1
Phenanthrene	ND		5.0	0.44	ug/L		11/20/15 15:04	11/23/15 13:42	1
Phenol	ND		5.0	0.39	ug/L		11/20/15 15:04	11/23/15 13:42	1
Pyrene	ND		5.0	0.34	ug/L		11/20/15 15:04	11/23/15 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*46 - 120*	*11/20/15 15:04*	*11/23/15 13:42*	*1*
Phenol-d5 (Surr)	*34*		*16 - 120*	*11/20/15 15:04*	*11/23/15 13:42*	*1*
p-Terphenyl-d14 (Surr)	*88*		*67 - 150*	*11/20/15 15:04*	*11/23/15 13:42*	*1*
2,4,6-Tribromophenol (Surr)	*66*		*52 - 132*	*11/20/15 15:04*	*11/23/15 13:42*	*1*
2-Fluorobiphenyl	*69*		*48 - 120*	*11/20/15 15:04*	*11/23/15 13:42*	*1*
2-Fluorophenol (Surr)	*48*		*20 - 120*	*11/20/15 15:04*	*11/23/15 13:42*	*1*

Lab Sample ID: LCS 480-276209/2-A
Matrix: Water
Analysis Batch: 276424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	16.0	11.8		ug/L		74	30 - 140
bis (2-chloroisopropyl) ether	16.0	11.7		ug/L		73	28 - 136
2,4,5-Trichlorophenol	16.0	12.3		ug/L		77	65 - 126
2,4,6-Trichlorophenol	16.0	12.1		ug/L		75	64 - 120
2,4-Dichlorophenol	16.0	12.2		ug/L		76	64 - 120
2,4-Dimethylphenol	16.0	11.9		ug/L		74	57 - 120
2,4-Dinitrophenol	32.0	24.6		ug/L		77	42 - 153
2,4-Dinitrotoluene	16.0	13.2		ug/L		83	65 - 154
2,6-Dinitrotoluene	16.0	12.9		ug/L		80	74 - 134
2-Chloronaphthalene	16.0	11.6		ug/L		72	41 - 124
2-Chlorophenol	16.0	11.3		ug/L		71	48 - 120
2-Methylphenol	16.0	11.8		ug/L		74	39 - 120
2-Methylnaphthalene	16.0	11.4		ug/L		71	34 - 122
2-Nitroaniline	16.0	13.0		ug/L		81	67 - 136
2-Nitrophenol	16.0	11.6		ug/L		73	59 - 120
3,3'-Dichlorobenzidine	32.0	26.1		ug/L		82	33 - 140
3-Nitroaniline	16.0	11.7		ug/L		73	28 - 130
4,6-Dinitro-2-methylphenol	32.0	24.1		ug/L		75	64 - 159
4-Bromophenyl phenyl ether	16.0	12.7		ug/L		79	71 - 126
4-Chloro-3-methylphenol	16.0	12.3		ug/L		77	64 - 120
4-Chloroaniline	16.0	9.68		ug/L		60	10 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-276209/2-A
Matrix: Water
Analysis Batch: 276424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorophenyl phenyl ether	16.0	12.9		ug/L		80	71 - 122
4-Methylphenol	16.0	11.4		ug/L		71	39 - 120
4-Nitroaniline	16.0	13.9		ug/L		87	47 - 130
4-Nitrophenol	32.0	19.9		ug/L		62	16 - 120
Acenaphthene	16.0	12.3		ug/L		77	60 - 120
Acenaphthylene	16.0	12.2		ug/L		76	63 - 120
Acetophenone	16.0	11.8		ug/L		74	45 - 120
Anthracene	16.0	13.2		ug/L		82	58 - 148
Atrazine	32.0	29.1		ug/L		91	56 - 179
Benzaldehyde	32.0	22.2		ug/L		69	30 - 140
Benzo[a]anthracene	16.0	14.2		ug/L		89	55 - 151
Benzo[a]pyrene	16.0	13.5		ug/L		85	60 - 145
Benzo[b]fluoranthene	16.0	14.9		ug/L		93	54 - 140
Benzo[g,h,i]perylene	16.0	15.8		ug/L		99	66 - 152
Benzo[k]fluoranthene	16.0	14.3		ug/L		89	51 - 153
Bis(2-chloroethoxy)methane	16.0	12.0		ug/L		75	50 - 128
Bis(2-chloroethyl)ether	16.0	10.8		ug/L		67	51 - 120
Bis(2-ethylhexyl) phthalate	16.0	15.0		ug/L		94	53 - 158
Butyl benzyl phthalate	16.0	13.7		ug/L		85	58 - 163
Caprolactam	32.0	12.3		ug/L		38	14 - 130
Carbazole	16.0	13.0		ug/L		81	59 - 148
Chrysene	16.0	14.2		ug/L		89	69 - 140
Dibenz(a,h)anthracene	16.0	14.7		ug/L		92	57 - 148
Di-n-butyl phthalate	16.0	13.5		ug/L		85	58 - 149
Di-n-octyl phthalate	16.0	14.1		ug/L		88	55 - 167
Dibenzofuran	16.0	12.7		ug/L		79	49 - 137
Diethyl phthalate	16.0	13.5		ug/L		84	59 - 146
Dimethyl phthalate	16.0	13.4		ug/L		84	59 - 141
Fluoranthene	16.0	13.5		ug/L		84	55 - 147
Fluorene	16.0	13.0		ug/L		81	55 - 143
Hexachlorobenzene	16.0	12.5		ug/L		78	14 - 130
Hexachlorobutadiene	16.0	9.36		ug/L		59	14 - 130
Hexachlorocyclopentadiene	16.0	8.38		ug/L		52	13 - 130
Hexachloroethane	16.0	9.36		ug/L		59	14 - 130
Indeno[1,2,3-cd]pyrene	16.0	14.7		ug/L		92	69 - 146
Isophorone	16.0	12.2		ug/L		76	48 - 133
N-Nitrosodi-n-propylamine	16.0	12.4		ug/L		77	56 - 120
Naphthalene	16.0	11.0		ug/L		69	35 - 130
Nitrobenzene	16.0	11.2		ug/L		70	45 - 123
Pentachlorophenol	32.0	24.3		ug/L		76	39 - 136
Phenanthrene	16.0	12.9		ug/L		81	57 - 147
Phenol	16.0	7.32		ug/L		46	17 - 120
Pyrene	16.0	13.9		ug/L		87	58 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*69*		*46 - 120*
Phenol-d5 (Surr)	*44*		*16 - 120*
p-Terphenyl-d14 (Surr)	*89*		*67 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-276209/2-A
Matrix: Water
Analysis Batch: 276424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276209

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*78*		*52 - 132*
2-Fluorobiphenyl	*72*		*48 - 120*
2-Fluorophenol (Surr)	*58*		*20 - 120*

Lab Sample ID: MB 480-276865/1-A
Matrix: Water
Analysis Batch: 277163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		11/25/15 08:18	11/27/15 18:35	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		11/25/15 08:18	11/27/15 18:35	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		11/25/15 08:18	11/27/15 18:35	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		11/25/15 08:18	11/27/15 18:35	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		11/25/15 08:18	11/27/15 18:35	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		11/25/15 08:18	11/27/15 18:35	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		11/25/15 08:18	11/27/15 18:35	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		11/25/15 08:18	11/27/15 18:35	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		11/25/15 08:18	11/27/15 18:35	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		11/25/15 08:18	11/27/15 18:35	1
2-Chlorophenol	ND		5.0	0.53	ug/L		11/25/15 08:18	11/27/15 18:35	1
2-Methylphenol	ND		5.0	0.40	ug/L		11/25/15 08:18	11/27/15 18:35	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		11/25/15 08:18	11/27/15 18:35	1
2-Nitroaniline	ND		10	0.42	ug/L		11/25/15 08:18	11/27/15 18:35	1
2-Nitrophenol	ND		5.0	0.48	ug/L		11/25/15 08:18	11/27/15 18:35	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		11/25/15 08:18	11/27/15 18:35	1
3-Nitroaniline	ND		10	0.48	ug/L		11/25/15 08:18	11/27/15 18:35	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		11/25/15 08:18	11/27/15 18:35	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		11/25/15 08:18	11/27/15 18:35	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		11/25/15 08:18	11/27/15 18:35	1
4-Chloroaniline	ND		5.0	0.59	ug/L		11/25/15 08:18	11/27/15 18:35	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		11/25/15 08:18	11/27/15 18:35	1
4-Methylphenol	ND		10	0.36	ug/L		11/25/15 08:18	11/27/15 18:35	1
4-Nitroaniline	ND		10	0.25	ug/L		11/25/15 08:18	11/27/15 18:35	1
4-Nitrophenol	ND		10	1.5	ug/L		11/25/15 08:18	11/27/15 18:35	1
Acenaphthene	ND		5.0	0.41	ug/L		11/25/15 08:18	11/27/15 18:35	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/25/15 08:18	11/27/15 18:35	1
Acetophenone	ND		5.0	0.54	ug/L		11/25/15 08:18	11/27/15 18:35	1
Anthracene	ND		5.0	0.28	ug/L		11/25/15 08:18	11/27/15 18:35	1
Atrazine	ND		5.0	0.46	ug/L		11/25/15 08:18	11/27/15 18:35	1
Benzaldehyde	ND		5.0	0.27	ug/L		11/25/15 08:18	11/27/15 18:35	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/25/15 08:18	11/27/15 18:35	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/25/15 08:18	11/27/15 18:35	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/25/15 08:18	11/27/15 18:35	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/25/15 08:18	11/27/15 18:35	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/25/15 08:18	11/27/15 18:35	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		11/25/15 08:18	11/27/15 18:35	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		11/25/15 08:18	11/27/15 18:35	1
Bis(2-ethylhexyl) phthalate	ND		5.0	1.8	ug/L		11/25/15 08:18	11/27/15 18:35	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-276865/1-A
Matrix: Water
Analysis Batch: 277163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		5.0	0.42	ug/L		11/25/15 08:18	11/27/15 18:35	1
Caprolactam	ND		5.0	2.2	ug/L		11/25/15 08:18	11/27/15 18:35	1
Carbazole	ND		5.0	0.30	ug/L		11/25/15 08:18	11/27/15 18:35	1
Chrysene	ND		5.0	0.33	ug/L		11/25/15 08:18	11/27/15 18:35	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/25/15 08:18	11/27/15 18:35	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		11/25/15 08:18	11/27/15 18:35	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		11/25/15 08:18	11/27/15 18:35	1
Dibenzofuran	ND		10	0.51	ug/L		11/25/15 08:18	11/27/15 18:35	1
Diethyl phthalate	ND		5.0	0.22	ug/L		11/25/15 08:18	11/27/15 18:35	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		11/25/15 08:18	11/27/15 18:35	1
Fluoranthene	ND		5.0	0.40	ug/L		11/25/15 08:18	11/27/15 18:35	1
Fluorene	ND		5.0	0.36	ug/L		11/25/15 08:18	11/27/15 18:35	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		11/25/15 08:18	11/27/15 18:35	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		11/25/15 08:18	11/27/15 18:35	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		11/25/15 08:18	11/27/15 18:35	1
Hexachloroethane	ND		5.0	0.59	ug/L		11/25/15 08:18	11/27/15 18:35	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/25/15 08:18	11/27/15 18:35	1
Isophorone	ND		5.0	0.43	ug/L		11/25/15 08:18	11/27/15 18:35	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		11/25/15 08:18	11/27/15 18:35	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		11/25/15 08:18	11/27/15 18:35	1
Naphthalene	ND		5.0	0.76	ug/L		11/25/15 08:18	11/27/15 18:35	1
Nitrobenzene	ND		5.0	0.29	ug/L		11/25/15 08:18	11/27/15 18:35	1
Pentachlorophenol	ND		10	2.2	ug/L		11/25/15 08:18	11/27/15 18:35	1
Phenanthrene	ND		5.0	0.44	ug/L		11/25/15 08:18	11/27/15 18:35	1
Phenol	ND		5.0	0.39	ug/L		11/25/15 08:18	11/27/15 18:35	1
Pyrene	ND		5.0	0.34	ug/L		11/25/15 08:18	11/27/15 18:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*46 - 120*	*11/25/15 08:18*	*11/27/15 18:35*	*1*
Phenol-d5 (Surr)	*49*		*16 - 120*	*11/25/15 08:18*	*11/27/15 18:35*	*1*
p-Terphenyl-d14 (Surr)	*100*		*67 - 150*	*11/25/15 08:18*	*11/27/15 18:35*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*52 - 132*	*11/25/15 08:18*	*11/27/15 18:35*	*1*
2-Fluorobiphenyl	*104*		*48 - 120*	*11/25/15 08:18*	*11/27/15 18:35*	*1*
2-Fluorophenol (Surr)	*59*		*20 - 120*	*11/25/15 08:18*	*11/27/15 18:35*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-276284/1-A
Matrix: Water
Analysis Batch: 276502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		11/21/15 08:19	11/23/15 15:20	1
PCB-1221	ND		0.50	0.18	ug/L		11/21/15 08:19	11/23/15 15:20	1
PCB-1232	ND		0.50	0.18	ug/L		11/21/15 08:19	11/23/15 15:20	1
PCB-1242	ND		0.50	0.18	ug/L		11/21/15 08:19	11/23/15 15:20	1
PCB-1248	ND		0.50	0.18	ug/L		11/21/15 08:19	11/23/15 15:20	1
PCB-1254	ND		0.50	0.25	ug/L		11/21/15 08:19	11/23/15 15:20	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 480-276284/1-A
Matrix: Water
Analysis Batch: 276502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.50	0.25	ug/L		11/21/15 08:19	11/23/15 15:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*24 - 137*	*11/21/15 08:19*	*11/23/15 15:20*	*1*
DCB Decachlorobiphenyl	*69*		*19 - 125*	*11/21/15 08:19*	*11/23/15 15:20*	*1*

Lab Sample ID: LCS 480-276284/2-A
Matrix: Water
Analysis Batch: 276502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276284

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.00	3.75		ug/L		94	62 - 130		
PCB-1260			4.00	3.58		ug/L		89	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*66*		*24 - 137*
DCB Decachlorobiphenyl	*84*		*19 - 125*

Lab Sample ID: LCSD 480-276284/3-A
Matrix: Water
Analysis Batch: 276502

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 276284

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			4.00	3.84		ug/L		96	62 - 130	2	50
PCB-1260			4.00	3.58		ug/L		90	56 - 123	0	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*73*		*24 - 137*
DCB Decachlorobiphenyl	*80*		*19 - 125*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-276226/1-A
Matrix: Water
Analysis Batch: 276637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		11/23/15 07:30	11/23/15 13:31	1
Antimony	ND		0.020	0.0068	mg/L		11/23/15 07:30	11/23/15 13:31	1
Arsenic	ND		0.015	0.0056	mg/L		11/23/15 07:30	11/23/15 13:31	1
Barium	ND		0.0020	0.00070	mg/L		11/23/15 07:30	11/23/15 13:31	1
Beryllium	ND		0.0020	0.00030	mg/L		11/23/15 07:30	11/23/15 13:31	1
Cadmium	ND		0.0020	0.00050	mg/L		11/23/15 07:30	11/23/15 13:31	1
Calcium	ND		0.50	0.10	mg/L		11/23/15 07:30	11/23/15 13:31	1
Chromium	ND		0.0040	0.0010	mg/L		11/23/15 07:30	11/23/15 13:31	1
Cobalt	ND		0.0040	0.00063	mg/L		11/23/15 07:30	11/23/15 13:31	1
Copper	ND		0.010	0.0016	mg/L		11/23/15 07:30	11/23/15 13:31	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-276226/1-A
Matrix: Water
Analysis Batch: 276637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		11/23/15 07:30	11/23/15 13:31	1
Lead	ND		0.010	0.0030	mg/L		11/23/15 07:30	11/23/15 13:31	1
Magnesium	ND		0.20	0.043	mg/L		11/23/15 07:30	11/23/15 13:31	1
Manganese	ND		0.0030	0.00040	mg/L		11/23/15 07:30	11/23/15 13:31	1
Nickel	ND		0.010	0.0013	mg/L		11/23/15 07:30	11/23/15 13:31	1
Potassium	ND		0.50	0.10	mg/L		11/23/15 07:30	11/23/15 13:31	1
Selenium	ND		0.025	0.0087	mg/L		11/23/15 07:30	11/23/15 13:31	1
Silver	ND		0.0060	0.0017	mg/L		11/23/15 07:30	11/23/15 13:31	1
Sodium	ND		1.0	0.32	mg/L		11/23/15 07:30	11/23/15 13:31	1
Thallium	ND		0.020	0.010	mg/L		11/23/15 07:30	11/23/15 13:31	1
Vanadium	ND		0.0050	0.0015	mg/L		11/23/15 07:30	11/23/15 13:31	1
Zinc	ND		0.010	0.0015	mg/L		11/23/15 07:30	11/23/15 13:31	1

Lab Sample ID: LCS 480-276226/2-A
Matrix: Water
Analysis Batch: 276637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.05		mg/L		90	80 - 120
Antimony	0.200	0.190		mg/L		95	80 - 120
Arsenic	0.200	0.186		mg/L		93	80 - 120
Barium	0.200	0.190		mg/L		95	80 - 120
Beryllium	0.200	0.191		mg/L		95	80 - 120
Cadmium	0.200	0.193		mg/L		96	80 - 120
Calcium	10.0	9.16		mg/L		92	80 - 120
Chromium	0.200	0.194		mg/L		97	80 - 120
Cobalt	0.200	0.189		mg/L		94	80 - 120
Copper	0.200	0.194		mg/L		97	80 - 120
Iron	10.0	9.26		mg/L		93	80 - 120
Lead	0.200	0.193		mg/L		96	80 - 120
Magnesium	10.0	9.72		mg/L		97	80 - 120
Manganese	0.200	0.193		mg/L		97	80 - 120
Nickel	0.200	0.184		mg/L		92	80 - 120
Potassium	10.0	9.36		mg/L		94	80 - 120
Selenium	0.200	0.188		mg/L		94	80 - 120
Silver	0.0500	0.0488		mg/L		98	80 - 120
Sodium	10.0	9.35		mg/L		93	80 - 120
Thallium	0.200	0.188		mg/L		94	80 - 120
Vanadium	0.200	0.192		mg/L		96	80 - 120
Zinc	0.200	0.190		mg/L		95	80 - 120

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-276414/1-A
Matrix: Water
Analysis Batch: 276608

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276414

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/23/15 09:15	11/23/15 14:16	1

Lab Sample ID: LCS 480-276414/2-A
Matrix: Water
Analysis Batch: 276608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00650		mg/L		97	80 - 120		

GC/MS VOA

Analysis Batch: 277214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-3	TRIP BLANK	Total/NA	Water	8260C	
LCS 480-277214/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-277214/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 277305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	8260C	
480-91445-2	20151118-MW24-3V	Total/NA	Water	8260C	
LCS 480-277305/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-277305/6	Method Blank	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 276209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	3510C	
480-91445-2	20151118-MW24-3V	Total/NA	Water	3510C	
LCS 480-276209/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-276209/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 276424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	8270D	276209
480-91445-2	20151118-MW24-3V	Total/NA	Water	8270D	276209
LCS 480-276209/2-A	Lab Control Sample	Total/NA	Water	8270D	276209
MB 480-276209/1-A	Method Blank	Total/NA	Water	8270D	276209

Prep Batch: 276865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1 - RE	20151118-MW24-INITIAL	Total/NA	Water	3510C	
480-91445-2 - RE	20151118-MW24-3V	Total/NA	Water	3510C	
MB 480-276865/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 277163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1 - RE	20151118-MW24-INITIAL	Total/NA	Water	8270D	276865
480-91445-2 - RE	20151118-MW24-3V	Total/NA	Water	8270D	276865
MB 480-276865/1-A	Method Blank	Total/NA	Water	8270D	276865

GC Semi VOA

Prep Batch: 276284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	3510C	
480-91445-2	20151118-MW24-3V	Total/NA	Water	3510C	
LCS 480-276284/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-276284/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-276284/1-A	Method Blank	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Analysis Batch: 276502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	8082A	276284
480-91445-2	20151118-MW24-3V	Total/NA	Water	8082A	276284
LCS 480-276284/2-A	Lab Control Sample	Total/NA	Water	8082A	276284
LCSD 480-276284/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	276284
MB 480-276284/1-A	Method Blank	Total/NA	Water	8082A	276284

Metals

Prep Batch: 276226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	3005A	
480-91445-2	20151118-MW24-3V	Total/NA	Water	3005A	
LCS 480-276226/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-276226/1-A	Method Blank	Total/NA	Water	3005A	

Prep Batch: 276414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	7470A	
480-91445-2	20151118-MW24-3V	Total/NA	Water	7470A	
LCS 480-276414/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 480-276414/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 276608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	7470A	276414
480-91445-2	20151118-MW24-3V	Total/NA	Water	7470A	276414
LCS 480-276414/2-A	Lab Control Sample	Total/NA	Water	7470A	276414
MB 480-276414/1-A	Method Blank	Total/NA	Water	7470A	276414

Analysis Batch: 276637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-91445-1	20151118-MW24-INITIAL	Total/NA	Water	6010C	276226
480-91445-2	20151118-MW24-3V	Total/NA	Water	6010C	276226
LCS 480-276226/2-A	Lab Control Sample	Total/NA	Water	6010C	276226
MB 480-276226/1-A	Method Blank	Total/NA	Water	6010C	276226

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Client Sample ID: 20151118-MW24-INITIAL

Lab Sample ID: 480-91445-1

Date Collected: 11/18/15 15:50

Matrix: Water

Date Received: 11/20/15 03:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	277305	11/29/15 12:29	CDC	TAL BUF
Total/NA	Prep	3510C	RE		276865	11/25/15 08:18	RMZ	TAL BUF
Total/NA	Analysis	8270D	RE	1	277163	11/27/15 19:04	PJQ	TAL BUF
Total/NA	Prep	3510C			276209	11/20/15 15:04	JIL	TAL BUF
Total/NA	Analysis	8270D		1	276424	11/23/15 15:10	LMW	TAL BUF
Total/NA	Prep	3510C			276284	11/21/15 08:19	RJS	TAL BUF
Total/NA	Analysis	8082A		1	276502	11/23/15 16:08	KS	TAL BUF
Total/NA	Prep	3005A			276226	11/23/15 07:30	CMM	TAL BUF
Total/NA	Analysis	6010C		1	276637	11/23/15 13:38	SLB	TAL BUF
Total/NA	Prep	7470A			276414	11/23/15 09:15	TAS	TAL BUF
Total/NA	Analysis	7470A		1	276608	11/23/15 14:28	TAS	TAL BUF

Client Sample ID: 20151118-MW24-3V

Lab Sample ID: 480-91445-2

Date Collected: 11/18/15 18:00

Matrix: Water

Date Received: 11/20/15 03:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	277305	11/29/15 12:52	CDC	TAL BUF
Total/NA	Prep	3510C	RE		276865	11/25/15 08:18	RMZ	TAL BUF
Total/NA	Analysis	8270D	RE	1	277163	11/27/15 19:32	PJQ	TAL BUF
Total/NA	Prep	3510C			276209	11/20/15 15:04	JIL	TAL BUF
Total/NA	Analysis	8270D		1	276424	11/23/15 15:39	LMW	TAL BUF
Total/NA	Prep	3510C			276284	11/21/15 08:19	RJS	TAL BUF
Total/NA	Analysis	8082A		1	276502	11/23/15 16:24	KS	TAL BUF
Total/NA	Prep	3005A			276226	11/23/15 07:30	CMM	TAL BUF
Total/NA	Analysis	6010C		1	276637	11/23/15 13:41	SLB	TAL BUF
Total/NA	Prep	7470A			276414	11/23/15 09:15	TAS	TAL BUF
Total/NA	Analysis	7470A		1	276608	11/23/15 14:33	TAS	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-91445-3

Date Collected: 11/18/15 00:00

Matrix: Water

Date Received: 11/20/15 03:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	277214	11/27/15 21:52	GVF	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-91445-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-91445-1	20151118-MW24-INITIAL	Water	11/18/15 15:50	11/20/15 03:10
480-91445-2	20151118-MW24-3V	Water	11/18/15 18:00	11/20/15 03:10
480-91445-3	TRIP BLANK	Water	11/18/15 00:00	11/20/15 03:10

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

480501-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Chris Davern	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-74462-18912.1
Client Contact: Aaron Bobar	Phone: 518-250-7300	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S. Inc				Job #:

Address: 855 Route 146 Suite 210	Due Date Requested: 11/25/15
City: Clifton Park	TAT Requested (days): 5 days
State, Zip: NY, 12065	
Phone: 518-250-7300	PO #: 00266417.0000
Email: aaron.bobar@arcadis-us.com	WO #:
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440
Site:	SSOW#:

Analysis Req

480-91445 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	8270D - TCL Semivolatiles	6010C, 7470A	8260C - TCL Volatiles	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	D	A		
20151118-MW24-INITIAL	11/18/15	15:50	G	Water	N	N	X	X	X	X		
20151118-MW24-3V	11/18/15	18:00	G	Water	N	N	X	X	X	X		
TRIP BLANK	—	—								X		

11/19/15

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For std Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat. B.

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	11/19/15 10:47	Arcadis		11/19/15 10:47	TA-ALB
Relinquished by:	11/19/15 1800	TA-ALB		11-20-15 0310	TMS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1

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11/30/2015

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-91445-1

Login Number: 91445
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

First Post-Injection Analytical Sampling – January 2015

ANALYTICAL REPORT

Job Number: 480-94483-1

Job Description: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, NY 12065

Attention: Aaron Bobar

Approved for release.
Rebecca M Jones
Project Management Assistant I
2/4/2016 11:36 AM

Designee for
Melissa L Deyo, Project Manager I
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9874
melissa.deyo@testamericainc.com
02/04/2016

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

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Job Narrative
480-94483-1

Receipt
The samples were received on 1/29/2016 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6º C.

GC/MS VOA
Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-23S (480-94483-1), MW-23D (480-94483-2), MW-1D (480-94483-5), MW-13 (480-94483-6), MW-1 (480-94483-7) and DUP-1_012816 (480-94483-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-285459 recovered outside acceptance criteria, low biased, for 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,1-Dichloroethene, Carbon disulfide, Cyclohexane, and Methylcyclohexane. A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated sample was non-detect for this analyte, the data have been reported. The following samples are impacted: MW-23S (480-94483-1), MW-23D (480-94483-2), MW-1DD (480-94483-3), MW-1D (480-94483-5), MW-13 (480-94483-6), MW-1 (480-94483-7), DUP-1_012816 (480-94483-8) and TRIP BLANK (480-94483-9) .

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: GM-9 (480-94483-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-285817 recovered outside acceptance criteria, low biased, for 2-Hexanone and Cyclohexane. A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following sample is impacted: GM-9 (480-94483-4).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-285817 recovered outside control limits for the following analyte: Acetone. Acetone has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified. The following samples are impacted: GM-9 (480-94483-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-94483-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-94483-1	MW-23S	Water	01/27/16 15:50	01/29/16 01:00
480-94483-2	MW-23D	Water	01/27/16 15:50	01/29/16 01:00
480-94483-3	MW-1DD	Water	01/28/16 08:25	01/29/16 01:00
480-94483-4	GM-9	Water	01/28/16 08:20	01/29/16 01:00
480-94483-5	MW-1D	Water	01/28/16 09:00	01/29/16 01:00
480-94483-6	MW-13	Water	01/28/16 09:20	01/29/16 01:00
480-94483-7	MW-1	Water	01/28/16 09:30	01/29/16 01:00
480-94483-8	DUP-1_012816	Water	01/28/16 00:00	01/29/16 01:00
480-94483-9	TRIP BLANK	Water	01/28/16 00:00	01/29/16 01:00

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-94483-1

Client Sample ID: MW-23S — Lab Sample ID: 480-94483-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	270		10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	210		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	88		10	4.6	ug/L	10		8260C	Total/NA

Client Sample ID: MW-23D — Lab Sample ID: 480-94483-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	500		8.0	6.5	ug/L	8		8260C	Total/NA
Tetrachloroethene	560		8.0	2.9	ug/L	8		8260C	Total/NA
Trichloroethene	220		8.0	3.7	ug/L	8		8260C	Total/NA

Client Sample ID: MW-1DD — Lab Sample ID: 480-94483-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	65		1.0	0.81	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.39	J	1.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	46		1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	18		1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: GM-9 — Lab Sample ID: 480-94483-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.42	J	2.0	0.42	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	89		2.0	1.6	ug/L	2		8260C	Total/NA
Methyl tert-butyl ether	1.6	J	2.0	0.32	ug/L	2		8260C	Total/NA
Tetrachloroethene	120		2.0	0.72	ug/L	2		8260C	Total/NA
Trichloroethene	26		2.0	0.92	ug/L	2		8260C	Total/NA
Vinyl chloride	2.4		2.0	1.8	ug/L	2		8260C	Total/NA

Client Sample ID: MW-1D — Lab Sample ID: 480-94483-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1900		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	1700		20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	810		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	46		20	18	ug/L	20		8260C	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 480-94483-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	44000		500	410	ug/L	500		8260C	Total/NA
Tetrachloroethene	4100		500	180	ug/L	500		8260C	Total/NA
Trichloroethene	2800		500	230	ug/L	500		8260C	Total/NA
Vinyl chloride	1200		500	450	ug/L	500		8260C	Total/NA

Client Sample ID: MW-1 — Lab Sample ID: 480-94483-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1200		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	330		20	7.2	ug/L	20		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1 (Continued) — Lab Sample ID: 480-94483-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	180		20	9.2	ug/L	20		8260C	Total/NA

Client Sample ID: DUP-1_012816 — Lab Sample ID: 480-94483-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	45000		500	410	ug/L	500		8260C	Total/NA
Tetrachloroethene	4400		500	180	ug/L	500		8260C	Total/NA
Trichloroethene	2800		500	230	ug/L	500		8260C	Total/NA
Vinyl chloride	1200		500	450	ug/L	500		8260C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-94483-9

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-94483-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Client Sample ID: MW-23S

Date Collected: 01/27/16 15:50
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			01/29/16 17:46	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			01/29/16 17:46	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			01/29/16 17:46	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			01/29/16 17:46	10
1,1-Dichloroethane	ND		10	3.8	ug/L			01/29/16 17:46	10
1,1-Dichloroethene	ND		10	2.9	ug/L			01/29/16 17:46	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			01/29/16 17:46	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			01/29/16 17:46	10
1,2-Dibromoethane	ND		10	7.3	ug/L			01/29/16 17:46	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			01/29/16 17:46	10
1,2-Dichloroethane	ND		10	2.1	ug/L			01/29/16 17:46	10
1,2-Dichloropropane	ND		10	7.2	ug/L			01/29/16 17:46	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			01/29/16 17:46	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			01/29/16 17:46	10
2-Butanone (MEK)	ND		100	13	ug/L			01/29/16 17:46	10
2-Hexanone	ND		50	12	ug/L			01/29/16 17:46	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			01/29/16 17:46	10
Acetone	ND		100	30	ug/L			01/29/16 17:46	10
Benzene	ND		10	4.1	ug/L			01/29/16 17:46	10
Bromodichloromethane	ND		10	3.9	ug/L			01/29/16 17:46	10
Bromoform	ND		10	2.6	ug/L			01/29/16 17:46	10
Bromomethane	ND		10	6.9	ug/L			01/29/16 17:46	10
Carbon disulfide	ND		10	1.9	ug/L			01/29/16 17:46	10
Carbon tetrachloride	ND		10	2.7	ug/L			01/29/16 17:46	10
Chlorobenzene	ND		10	7.5	ug/L			01/29/16 17:46	10
Chloroethane	ND		10	3.2	ug/L			01/29/16 17:46	10
Chloroform	ND		10	3.4	ug/L			01/29/16 17:46	10
Chloromethane	ND		10	3.5	ug/L			01/29/16 17:46	10
cis-1,2-Dichloroethene	**270**		10	8.1	ug/L			01/29/16 17:46	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			01/29/16 17:46	10
Cyclohexane	ND		10	1.8	ug/L			01/29/16 17:46	10
Dibromochloromethane	ND		10	3.2	ug/L			01/29/16 17:46	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			01/29/16 17:46	10
Ethylbenzene	ND		10	7.4	ug/L			01/29/16 17:46	10
Isopropylbenzene	ND		10	7.9	ug/L			01/29/16 17:46	10
Methyl acetate	ND		25	13	ug/L			01/29/16 17:46	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			01/29/16 17:46	10
Methylcyclohexane	ND		10	1.6	ug/L			01/29/16 17:46	10
Methylene Chloride	ND		10	4.4	ug/L			01/29/16 17:46	10
Styrene	ND		10	7.3	ug/L			01/29/16 17:46	10
Tetrachloroethene	**210**		10	3.6	ug/L			01/29/16 17:46	10
Toluene	ND		10	5.1	ug/L			01/29/16 17:46	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			01/29/16 17:46	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			01/29/16 17:46	10
Trichloroethene	**88**		10	4.6	ug/L			01/29/16 17:46	10
Trichlorofluoromethane	ND		10	8.8	ug/L			01/29/16 17:46	10
Vinyl chloride	ND		10	9.0	ug/L			01/29/16 17:46	10
Xylenes, Total	ND		20	6.6	ug/L			01/29/16 17:46	10

Client Sample ID: MW-23S

Date Collected: 01/27/16 15:50
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-1
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*		*01/29/16 17:46*	*10*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*01/29/16 17:46*	*10*
Toluene-d8 (Surr)	*88*		*71 - 126*		*01/29/16 17:46*	*10*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*01/29/16 17:46*	*10*

Client Sample ID: MW-23D

Date Collected: 01/27/16 15:50
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			01/29/16 18:09	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			01/29/16 18:09	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5	ug/L			01/29/16 18:09	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			01/29/16 18:09	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			01/29/16 18:09	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			01/29/16 18:09	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			01/29/16 18:09	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			01/29/16 18:09	8
1,2-Dibromoethane	ND		8.0	5.8	ug/L			01/29/16 18:09	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			01/29/16 18:09	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			01/29/16 18:09	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			01/29/16 18:09	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			01/29/16 18:09	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			01/29/16 18:09	8
2-Butanone (MEK)	ND		80	11	ug/L			01/29/16 18:09	8
2-Hexanone	ND		40	9.9	ug/L			01/29/16 18:09	8
4-Methyl-2-pentanone (MIBK)	ND		40	17	ug/L			01/29/16 18:09	8
Acetone	ND		80	24	ug/L			01/29/16 18:09	8
Benzene	ND		8.0	3.3	ug/L			01/29/16 18:09	8
Bromodichloromethane	ND		8.0	3.1	ug/L			01/29/16 18:09	8
Bromoform	ND		8.0	2.1	ug/L			01/29/16 18:09	8
Bromomethane	ND		8.0	5.5	ug/L			01/29/16 18:09	8
Carbon disulfide	ND		8.0	1.5	ug/L			01/29/16 18:09	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			01/29/16 18:09	8
Chlorobenzene	ND		8.0	6.0	ug/L			01/29/16 18:09	8
Chloroethane	ND		8.0	2.6	ug/L			01/29/16 18:09	8
Chloroform	ND		8.0	2.7	ug/L			01/29/16 18:09	8
Chloromethane	ND		8.0	2.8	ug/L			01/29/16 18:09	8
cis-1,2-Dichloroethene	**500**		8.0	6.5	ug/L			01/29/16 18:09	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			01/29/16 18:09	8
Cyclohexane	ND		8.0	1.4	ug/L			01/29/16 18:09	8
Dibromochloromethane	ND		8.0	2.6	ug/L			01/29/16 18:09	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			01/29/16 18:09	8
Ethylbenzene	ND		8.0	5.9	ug/L			01/29/16 18:09	8
Isopropylbenzene	ND		8.0	6.3	ug/L			01/29/16 18:09	8
Methyl acetate	ND		20	10	ug/L			01/29/16 18:09	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			01/29/16 18:09	8
Methylcyclohexane	ND		8.0	1.3	ug/L			01/29/16 18:09	8
Methylene Chloride	ND		8.0	3.5	ug/L			01/29/16 18:09	8

Client Sample ID: MW-23D

Date Collected: 01/27/16 15:50
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		8.0	5.8	ug/L			01/29/16 18:09	8
Tetrachloroethene	**560**		8.0	2.9	ug/L			01/29/16 18:09	8
Toluene	ND		8.0	4.1	ug/L			01/29/16 18:09	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			01/29/16 18:09	8
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			01/29/16 18:09	8
Trichloroethene	**220**		8.0	3.7	ug/L			01/29/16 18:09	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			01/29/16 18:09	8
Vinyl chloride	ND		8.0	7.2	ug/L			01/29/16 18:09	8
Xylenes, Total	ND		16	5.3	ug/L			01/29/16 18:09	8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*66 - 137*		*01/29/16 18:09*	*8*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*01/29/16 18:09*	*8*
Toluene-d8 (Surr)	*87*		*71 - 126*		*01/29/16 18:09*	*8*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*01/29/16 18:09*	*8*

Client Sample ID: MW-1DD

Date Collected: 01/28/16 08:25
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/29/16 18:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/29/16 18:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/29/16 18:33	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/29/16 18:33	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/29/16 18:33	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/29/16 18:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/29/16 18:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/29/16 18:33	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/29/16 18:33	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/29/16 18:33	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/29/16 18:33	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/29/16 18:33	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/29/16 18:33	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/29/16 18:33	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/29/16 18:33	1
2-Hexanone	ND		5.0	1.2	ug/L			01/29/16 18:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/29/16 18:33	1
Acetone	ND		10	3.0	ug/L			01/29/16 18:33	1
Benzene	ND		1.0	0.41	ug/L			01/29/16 18:33	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/29/16 18:33	1
Bromoform	ND		1.0	0.26	ug/L			01/29/16 18:33	1
Bromomethane	ND		1.0	0.69	ug/L			01/29/16 18:33	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/29/16 18:33	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/29/16 18:33	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/29/16 18:33	1
Chloroethane	ND		1.0	0.32	ug/L			01/29/16 18:33	1
Chloroform	ND		1.0	0.34	ug/L			01/29/16 18:33	1
Chloromethane	ND		1.0	0.35	ug/L			01/29/16 18:33	1

Client Sample ID: MW-1DD

Lab Sample ID: 480-94483-3

Date Collected: 01/28/16 08:25

Matrix: Water

Date Received: 01/29/16 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**65**		1.0	0.81	ug/L			01/29/16 18:33	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/29/16 18:33	1
Cyclohexane	ND		1.0	0.18	ug/L			01/29/16 18:33	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/29/16 18:33	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/29/16 18:33	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/29/16 18:33	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/29/16 18:33	1
Methyl acetate	ND		2.5	1.3	ug/L			01/29/16 18:33	1
Methyl tert-butyl ether	**0.39**	**J**	1.0	0.16	ug/L			01/29/16 18:33	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/29/16 18:33	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/29/16 18:33	1
Styrene	ND		1.0	0.73	ug/L			01/29/16 18:33	1
Tetrachloroethene	**46**		1.0	0.36	ug/L			01/29/16 18:33	1
Toluene	ND		1.0	0.51	ug/L			01/29/16 18:33	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/29/16 18:33	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/29/16 18:33	1
Trichloroethene	**18**		1.0	0.46	ug/L			01/29/16 18:33	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/29/16 18:33	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/29/16 18:33	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/29/16 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*		*01/29/16 18:33*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*01/29/16 18:33*	*1*
Toluene-d8 (Surr)	*88*		*71 - 126*		*01/29/16 18:33*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*01/29/16 18:33*	*1*

Client Sample ID: GM-9

Lab Sample ID: 480-94483-4

Date Collected: 01/28/16 08:20

Matrix: Water

Date Received: 01/29/16 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			02/02/16 12:48	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			02/02/16 12:48	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			02/02/16 12:48	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			02/02/16 12:48	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			02/02/16 12:48	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			02/02/16 12:48	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			02/02/16 12:48	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			02/02/16 12:48	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			02/02/16 12:48	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			02/02/16 12:48	2
1,2-Dichloroethane	**0.42**	**J**	2.0	0.42	ug/L			02/02/16 12:48	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			02/02/16 12:48	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			02/02/16 12:48	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			02/02/16 12:48	2
2-Butanone (MEK)	ND		20	2.6	ug/L			02/02/16 12:48	2
2-Hexanone	ND		10	2.5	ug/L			02/02/16 12:48	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			02/02/16 12:48	2

Client Sample ID: GM-9

Date Collected: 01/28/16 08:20
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*	20	6.0	ug/L			02/02/16 12:48	2
Benzene	ND		2.0	0.82	ug/L			02/02/16 12:48	2
Bromodichloromethane	ND		2.0	0.78	ug/L			02/02/16 12:48	2
Bromoform	ND		2.0	0.52	ug/L			02/02/16 12:48	2
Bromomethane	ND		2.0	1.4	ug/L			02/02/16 12:48	2
Carbon disulfide	ND		2.0	0.38	ug/L			02/02/16 12:48	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			02/02/16 12:48	2
Chlorobenzene	ND		2.0	1.5	ug/L			02/02/16 12:48	2
Chloroethane	ND		2.0	0.64	ug/L			02/02/16 12:48	2
Chloroform	ND		2.0	0.68	ug/L			02/02/16 12:48	2
Chloromethane	ND		2.0	0.70	ug/L			02/02/16 12:48	2
cis-1,2-Dichloroethene	**89**		2.0	1.6	ug/L			02/02/16 12:48	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			02/02/16 12:48	2
Cyclohexane	ND		2.0	0.36	ug/L			02/02/16 12:48	2
Dibromochloromethane	ND		2.0	0.64	ug/L			02/02/16 12:48	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			02/02/16 12:48	2
Ethylbenzene	ND		2.0	1.5	ug/L			02/02/16 12:48	2
Isopropylbenzene	ND		2.0	1.6	ug/L			02/02/16 12:48	2
Methyl acetate	ND		5.0	2.6	ug/L			02/02/16 12:48	2
Methyl tert-butyl ether	**1.6**	**J**	2.0	0.32	ug/L			02/02/16 12:48	2
Methylcyclohexane	ND		2.0	0.32	ug/L			02/02/16 12:48	2
Methylene Chloride	ND		2.0	0.88	ug/L			02/02/16 12:48	2
Styrene	ND		2.0	1.5	ug/L			02/02/16 12:48	2
Tetrachloroethene	**120**		2.0	0.72	ug/L			02/02/16 12:48	2
Toluene	ND		2.0	1.0	ug/L			02/02/16 12:48	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			02/02/16 12:48	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			02/02/16 12:48	2
Trichloroethene	**26**		2.0	0.92	ug/L			02/02/16 12:48	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			02/02/16 12:48	2
Vinyl chloride	**2.4**		2.0	1.8	ug/L			02/02/16 12:48	2
Xylenes, Total	ND		4.0	1.3	ug/L			02/02/16 12:48	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*66 - 137*		*02/02/16 12:48*	*2*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*02/02/16 12:48*	*2*
Toluene-d8 (Surr)	*85*		*71 - 126*		*02/02/16 12:48*	*2*
Dibromofluoromethane (Surr)	*89*		*60 - 140*		*02/02/16 12:48*	*2*

Client Sample ID: MW-1D

Date Collected: 01/28/16 09:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			01/29/16 19:19	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			01/29/16 19:19	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			01/29/16 19:19	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			01/29/16 19:19	20
1,1-Dichloroethane	ND		20	7.6	ug/L			01/29/16 19:19	20
1,1-Dichloroethene	ND		20	5.8	ug/L			01/29/16 19:19	20

Client Sample ID: MW-1D

Date Collected: 01/28/16 09:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			01/29/16 19:19	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			01/29/16 19:19	20
1,2-Dibromoethane	ND		20	15	ug/L			01/29/16 19:19	20
1,2-Dichlorobenzene	ND		20	16	ug/L			01/29/16 19:19	20
1,2-Dichloroethane	ND		20	4.2	ug/L			01/29/16 19:19	20
1,2-Dichloropropane	ND		20	14	ug/L			01/29/16 19:19	20
1,3-Dichlorobenzene	ND		20	16	ug/L			01/29/16 19:19	20
1,4-Dichlorobenzene	ND		20	17	ug/L			01/29/16 19:19	20
2-Butanone (MEK)	ND		200	26	ug/L			01/29/16 19:19	20
2-Hexanone	ND		100	25	ug/L			01/29/16 19:19	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			01/29/16 19:19	20
Acetone	ND		200	60	ug/L			01/29/16 19:19	20
Benzene	ND		20	8.2	ug/L			01/29/16 19:19	20
Bromodichloromethane	ND		20	7.8	ug/L			01/29/16 19:19	20
Bromoform	ND		20	5.2	ug/L			01/29/16 19:19	20
Bromomethane	ND		20	14	ug/L			01/29/16 19:19	20
Carbon disulfide	ND		20	3.8	ug/L			01/29/16 19:19	20
Carbon tetrachloride	ND		20	5.4	ug/L			01/29/16 19:19	20
Chlorobenzene	ND		20	15	ug/L			01/29/16 19:19	20
Chloroethane	ND		20	6.4	ug/L			01/29/16 19:19	20
Chloroform	ND		20	6.8	ug/L			01/29/16 19:19	20
Chloromethane	ND		20	7.0	ug/L			01/29/16 19:19	20
cis-1,2-Dichloroethene	**1900**		20	16	ug/L			01/29/16 19:19	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			01/29/16 19:19	20
Cyclohexane	ND		20	3.6	ug/L			01/29/16 19:19	20
Dibromochloromethane	ND		20	6.4	ug/L			01/29/16 19:19	20
Dichlorodifluoromethane	ND		20	14	ug/L			01/29/16 19:19	20
Ethylbenzene	ND		20	15	ug/L			01/29/16 19:19	20
Isopropylbenzene	ND		20	16	ug/L			01/29/16 19:19	20
Methyl acetate	ND		50	26	ug/L			01/29/16 19:19	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			01/29/16 19:19	20
Methylcyclohexane	ND		20	3.2	ug/L			01/29/16 19:19	20
Methylene Chloride	ND		20	8.8	ug/L			01/29/16 19:19	20
Styrene	ND		20	15	ug/L			01/29/16 19:19	20
Tetrachloroethene	**1700**		20	7.2	ug/L			01/29/16 19:19	20
Toluene	ND		20	10	ug/L			01/29/16 19:19	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			01/29/16 19:19	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			01/29/16 19:19	20
Trichloroethene	**810**		20	9.2	ug/L			01/29/16 19:19	20
Trichlorofluoromethane	ND		20	18	ug/L			01/29/16 19:19	20
Vinyl chloride	**46**		20	18	ug/L			01/29/16 19:19	20
Xylenes, Total	ND		40	13	ug/L			01/29/16 19:19	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*01/29/16 19:19*	*20*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*01/29/16 19:19*	*20*
Toluene-d8 (Surr)	*88*		*71 - 126*		*01/29/16 19:19*	*20*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*01/29/16 19:19*	*20*

Client Sample ID: MW-13

Date Collected: 01/28/16 09:20
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		500	410	ug/L			01/29/16 19:42	500
1,1,2,2-Tetrachloroethane	ND		500	110	ug/L			01/29/16 19:42	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160	ug/L			01/29/16 19:42	500
1,1,2-Trichloroethane	ND		500	120	ug/L			01/29/16 19:42	500
1,1-Dichloroethane	ND		500	190	ug/L			01/29/16 19:42	500
1,1-Dichloroethene	ND		500	150	ug/L			01/29/16 19:42	500
1,2,4-Trichlorobenzene	ND		500	210	ug/L			01/29/16 19:42	500
1,2-Dibromo-3-Chloropropane	ND		500	200	ug/L			01/29/16 19:42	500
1,2-Dibromoethane	ND		500	370	ug/L			01/29/16 19:42	500
1,2-Dichlorobenzene	ND		500	400	ug/L			01/29/16 19:42	500
1,2-Dichloroethane	ND		500	110	ug/L			01/29/16 19:42	500
1,2-Dichloropropane	ND		500	360	ug/L			01/29/16 19:42	500
1,3-Dichlorobenzene	ND		500	390	ug/L			01/29/16 19:42	500
1,4-Dichlorobenzene	ND		500	420	ug/L			01/29/16 19:42	500
2-Butanone (MEK)	ND		5000	660	ug/L			01/29/16 19:42	500
2-Hexanone	ND		2500	620	ug/L			01/29/16 19:42	500
4-Methyl-2-pentanone (MIBK)	ND		2500	1100	ug/L			01/29/16 19:42	500
Acetone	ND		5000	1500	ug/L			01/29/16 19:42	500
Benzene	ND		500	210	ug/L			01/29/16 19:42	500
Bromodichloromethane	ND		500	200	ug/L			01/29/16 19:42	500
Bromoform	ND		500	130	ug/L			01/29/16 19:42	500
Bromomethane	ND		500	350	ug/L			01/29/16 19:42	500
Carbon disulfide	ND		500	95	ug/L			01/29/16 19:42	500
Carbon tetrachloride	ND		500	140	ug/L			01/29/16 19:42	500
Chlorobenzene	ND		500	380	ug/L			01/29/16 19:42	500
Chloroethane	ND		500	160	ug/L			01/29/16 19:42	500
Chloroform	ND		500	170	ug/L			01/29/16 19:42	500
Chloromethane	ND		500	180	ug/L			01/29/16 19:42	500
cis-1,2-Dichloroethene	**44000**		500	410	ug/L			01/29/16 19:42	500
cis-1,3-Dichloropropene	ND		500	180	ug/L			01/29/16 19:42	500
Cyclohexane	ND		500	90	ug/L			01/29/16 19:42	500
Dibromochloromethane	ND		500	160	ug/L			01/29/16 19:42	500
Dichlorodifluoromethane	ND		500	340	ug/L			01/29/16 19:42	500
Ethylbenzene	ND		500	370	ug/L			01/29/16 19:42	500
Isopropylbenzene	ND		500	400	ug/L			01/29/16 19:42	500
Methyl acetate	ND		1300	650	ug/L			01/29/16 19:42	500
Methyl tert-butyl ether	ND		500	80	ug/L			01/29/16 19:42	500
Methylcyclohexane	ND		500	80	ug/L			01/29/16 19:42	500
Methylene Chloride	ND		500	220	ug/L			01/29/16 19:42	500
Styrene	ND		500	370	ug/L			01/29/16 19:42	500
Tetrachloroethene	**4100**		500	180	ug/L			01/29/16 19:42	500
Toluene	ND		500	260	ug/L			01/29/16 19:42	500
trans-1,2-Dichloroethene	ND		500	450	ug/L			01/29/16 19:42	500
trans-1,3-Dichloropropene	ND		500	190	ug/L			01/29/16 19:42	500
Trichloroethene	**2800**		500	230	ug/L			01/29/16 19:42	500
Trichlorofluoromethane	ND		500	440	ug/L			01/29/16 19:42	500
Vinyl chloride	**1200**		500	450	ug/L			01/29/16 19:42	500
Xylenes, Total	ND		1000	330	ug/L			01/29/16 19:42	500

Client Sample ID: MW-13

Date Collected: 01/28/16 09:20
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-6

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*66 - 137*		*01/29/16 19:42*	*500*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*01/29/16 19:42*	*500*
Toluene-d8 (Surr)	*90*		*71 - 126*		*01/29/16 19:42*	*500*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*01/29/16 19:42*	*500*

Client Sample ID: MW-1

Date Collected: 01/28/16 09:30
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			01/29/16 20:05	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			01/29/16 20:05	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			01/29/16 20:05	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			01/29/16 20:05	20
1,1-Dichloroethane	ND		20	7.6	ug/L			01/29/16 20:05	20
1,1-Dichloroethene	ND		20	5.8	ug/L			01/29/16 20:05	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			01/29/16 20:05	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			01/29/16 20:05	20
1,2-Dibromoethane	ND		20	15	ug/L			01/29/16 20:05	20
1,2-Dichlorobenzene	ND		20	16	ug/L			01/29/16 20:05	20
1,2-Dichloroethane	ND		20	4.2	ug/L			01/29/16 20:05	20
1,2-Dichloropropane	ND		20	14	ug/L			01/29/16 20:05	20
1,3-Dichlorobenzene	ND		20	16	ug/L			01/29/16 20:05	20
1,4-Dichlorobenzene	ND		20	17	ug/L			01/29/16 20:05	20
2-Butanone (MEK)	ND		200	26	ug/L			01/29/16 20:05	20
2-Hexanone	ND		100	25	ug/L			01/29/16 20:05	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			01/29/16 20:05	20
Acetone	ND		200	60	ug/L			01/29/16 20:05	20
Benzene	ND		20	8.2	ug/L			01/29/16 20:05	20
Bromodichloromethane	ND		20	7.8	ug/L			01/29/16 20:05	20
Bromoform	ND		20	5.2	ug/L			01/29/16 20:05	20
Bromomethane	ND		20	14	ug/L			01/29/16 20:05	20
Carbon disulfide	ND		20	3.8	ug/L			01/29/16 20:05	20
Carbon tetrachloride	ND		20	5.4	ug/L			01/29/16 20:05	20
Chlorobenzene	ND		20	15	ug/L			01/29/16 20:05	20
Chloroethane	ND		20	6.4	ug/L			01/29/16 20:05	20
Chloroform	ND		20	6.8	ug/L			01/29/16 20:05	20
Chloromethane	ND		20	7.0	ug/L			01/29/16 20:05	20
cis-1,2-Dichloroethene	**1200**		20	16	ug/L			01/29/16 20:05	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			01/29/16 20:05	20
Cyclohexane	ND		20	3.6	ug/L			01/29/16 20:05	20
Dibromochloromethane	ND		20	6.4	ug/L			01/29/16 20:05	20
Dichlorodifluoromethane	ND		20	14	ug/L			01/29/16 20:05	20
Ethylbenzene	ND		20	15	ug/L			01/29/16 20:05	20
Isopropylbenzene	ND		20	16	ug/L			01/29/16 20:05	20
Methyl acetate	ND		50	26	ug/L			01/29/16 20:05	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			01/29/16 20:05	20
Methylcyclohexane	ND		20	3.2	ug/L			01/29/16 20:05	20
Methylene Chloride	ND		20	8.8	ug/L			01/29/16 20:05	20

Client Sample ID: MW-1

Date Collected: 01/28/16 09:30
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		20	15	ug/L			01/29/16 20:05	20
Tetrachloroethene	**330**		20	7.2	ug/L			01/29/16 20:05	20
Toluene	ND		20	10	ug/L			01/29/16 20:05	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			01/29/16 20:05	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			01/29/16 20:05	20
Trichloroethene	**180**		20	9.2	ug/L			01/29/16 20:05	20
Trichlorofluoromethane	ND		20	18	ug/L			01/29/16 20:05	20
Vinyl chloride	ND		20	18	ug/L			01/29/16 20:05	20
Xylenes, Total	ND		40	13	ug/L			01/29/16 20:05	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*66 - 137*		*01/29/16 20:05*	*20*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*01/29/16 20:05*	*20*
Toluene-d8 (Surr)	*86*		*71 - 126*		*01/29/16 20:05*	*20*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*01/29/16 20:05*	*20*

Client Sample ID: DUP-1_012816

Date Collected: 01/28/16 00:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		500	410	ug/L			01/29/16 20:29	500
1,1,2,2-Tetrachloroethane	ND		500	110	ug/L			01/29/16 20:29	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160	ug/L			01/29/16 20:29	500
1,1,2-Trichloroethane	ND		500	120	ug/L			01/29/16 20:29	500
1,1-Dichloroethane	ND		500	190	ug/L			01/29/16 20:29	500
1,1-Dichloroethene	ND		500	150	ug/L			01/29/16 20:29	500
1,2,4-Trichlorobenzene	ND		500	210	ug/L			01/29/16 20:29	500
1,2-Dibromo-3-Chloropropane	ND		500	200	ug/L			01/29/16 20:29	500
1,2-Dibromoethane	ND		500	370	ug/L			01/29/16 20:29	500
1,2-Dichlorobenzene	ND		500	400	ug/L			01/29/16 20:29	500
1,2-Dichloroethane	ND		500	110	ug/L			01/29/16 20:29	500
1,2-Dichloropropane	ND		500	360	ug/L			01/29/16 20:29	500
1,3-Dichlorobenzene	ND		500	390	ug/L			01/29/16 20:29	500
1,4-Dichlorobenzene	ND		500	420	ug/L			01/29/16 20:29	500
2-Butanone (MEK)	ND		5000	660	ug/L			01/29/16 20:29	500
2-Hexanone	ND		2500	620	ug/L			01/29/16 20:29	500
4-Methyl-2-pentanone (MIBK)	ND		2500	1100	ug/L			01/29/16 20:29	500
Acetone	ND		5000	1500	ug/L			01/29/16 20:29	500
Benzene	ND		500	210	ug/L			01/29/16 20:29	500
Bromodichloromethane	ND		500	200	ug/L			01/29/16 20:29	500
Bromoform	ND		500	130	ug/L			01/29/16 20:29	500
Bromomethane	ND		500	350	ug/L			01/29/16 20:29	500
Carbon disulfide	ND		500	95	ug/L			01/29/16 20:29	500
Carbon tetrachloride	ND		500	140	ug/L			01/29/16 20:29	500
Chlorobenzene	ND		500	380	ug/L			01/29/16 20:29	500
Chloroethane	ND		500	160	ug/L			01/29/16 20:29	500
Chloroform	ND		500	170	ug/L			01/29/16 20:29	500
Chloromethane	ND		500	180	ug/L			01/29/16 20:29	500

Client Sample ID: DUP-1_012816

Date Collected: 01/28/16 00:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**45000**		500	410	ug/L			01/29/16 20:29	500
cis-1,3-Dichloropropene	ND		500	180	ug/L			01/29/16 20:29	500
Cyclohexane	ND		500	90	ug/L			01/29/16 20:29	500
Dibromochloromethane	ND		500	160	ug/L			01/29/16 20:29	500
Dichlorodifluoromethane	ND		500	340	ug/L			01/29/16 20:29	500
Ethylbenzene	ND		500	370	ug/L			01/29/16 20:29	500
Isopropylbenzene	ND		500	400	ug/L			01/29/16 20:29	500
Methyl acetate	ND		1300	650	ug/L			01/29/16 20:29	500
Methyl tert-butyl ether	ND		500	80	ug/L			01/29/16 20:29	500
Methylcyclohexane	ND		500	80	ug/L			01/29/16 20:29	500
Methylene Chloride	ND		500	220	ug/L			01/29/16 20:29	500
Styrene	ND		500	370	ug/L			01/29/16 20:29	500
Tetrachloroethene	**4400**		500	180	ug/L			01/29/16 20:29	500
Toluene	ND		500	260	ug/L			01/29/16 20:29	500
trans-1,2-Dichloroethene	ND		500	450	ug/L			01/29/16 20:29	500
trans-1,3-Dichloropropene	ND		500	190	ug/L			01/29/16 20:29	500
Trichloroethene	**2800**		500	230	ug/L			01/29/16 20:29	500
Trichlorofluoromethane	ND		500	440	ug/L			01/29/16 20:29	500
Vinyl chloride	**1200**		500	450	ug/L			01/29/16 20:29	500
Xylenes, Total	ND		1000	330	ug/L			01/29/16 20:29	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*66 - 137*		*01/29/16 20:29*	*500*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*01/29/16 20:29*	*500*
Toluene-d8 (Surr)	*86*		*71 - 126*		*01/29/16 20:29*	*500*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*01/29/16 20:29*	*500*

Client Sample ID: TRIP BLANK

Date Collected: 01/28/16 00:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/29/16 20:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/29/16 20:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/29/16 20:52	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/29/16 20:52	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/29/16 20:52	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/29/16 20:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/29/16 20:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/29/16 20:52	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/29/16 20:52	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/29/16 20:52	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/29/16 20:52	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/29/16 20:52	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/29/16 20:52	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/29/16 20:52	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/29/16 20:52	1
2-Hexanone	ND		5.0	1.2	ug/L			01/29/16 20:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/29/16 20:52	1

Client Sample ID: TRIP BLANK
Date Collected: 01/28/16 00:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			01/29/16 20:52	1
Benzene	ND		1.0	0.41	ug/L			01/29/16 20:52	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/29/16 20:52	1
Bromoform	ND		1.0	0.26	ug/L			01/29/16 20:52	1
Bromomethane	ND		1.0	0.69	ug/L			01/29/16 20:52	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/29/16 20:52	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/29/16 20:52	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/29/16 20:52	1
Chloroethane	ND		1.0	0.32	ug/L			01/29/16 20:52	1
Chloroform	ND		1.0	0.34	ug/L			01/29/16 20:52	1
Chloromethane	ND		1.0	0.35	ug/L			01/29/16 20:52	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/29/16 20:52	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/29/16 20:52	1
Cyclohexane	ND		1.0	0.18	ug/L			01/29/16 20:52	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/29/16 20:52	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/29/16 20:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/29/16 20:52	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/29/16 20:52	1
Methyl acetate	ND		2.5	1.3	ug/L			01/29/16 20:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/29/16 20:52	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/29/16 20:52	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/29/16 20:52	1
Styrene	ND		1.0	0.73	ug/L			01/29/16 20:52	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/29/16 20:52	1
Toluene	ND		1.0	0.51	ug/L			01/29/16 20:52	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/29/16 20:52	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/29/16 20:52	1
Trichloroethene	ND		1.0	0.46	ug/L			01/29/16 20:52	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/29/16 20:52	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/29/16 20:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/29/16 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*66 - 137*		*01/29/16 20:52*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*01/29/16 20:52*	*1*
Toluene-d8 (Surr)	*88*		*71 - 126*		*01/29/16 20:52*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*01/29/16 20:52*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-94483-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (66-137)	BFB (73-120)	TOL (71-126)	DBFM (60-140)
480-94483-1	MW-23S	91	97	88	92
480-94483-2	MW-23D	88	95	87	93
480-94483-3	MW-1DD	91	98	88	91
480-94483-4	GM-9	86	97	85	89
480-94483-5	MW-1D	87	97	88	93
480-94483-6	MW-13	89	97	90	94
480-94483-7	MW-1	88	96	86	91
480-94483-8	DUP-1_012816	88	98	86	94
480-94483-9	TRIP BLANK	89	97	88	92
LCS 480-285459/52	Lab Control Sample	97	95	88	90
LCS 480-285817/5	Lab Control Sample	87	94	85	88
MB 480-285459/7	Method Blank	93	99	89	95
MB 480-285817/7	Method Blank	85	97	86	89

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-285459/7
Matrix: Water
Analysis Batch: 285459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/29/16 13:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/29/16 13:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/29/16 13:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/29/16 13:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/29/16 13:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/29/16 13:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/29/16 13:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/29/16 13:17	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/29/16 13:17	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/29/16 13:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/29/16 13:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/29/16 13:17	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/29/16 13:17	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/29/16 13:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/29/16 13:17	1
2-Hexanone	ND		5.0	1.2	ug/L			01/29/16 13:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/29/16 13:17	1
Acetone	ND		10	3.0	ug/L			01/29/16 13:17	1
Benzene	ND		1.0	0.41	ug/L			01/29/16 13:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/29/16 13:17	1
Bromoform	ND		1.0	0.26	ug/L			01/29/16 13:17	1
Bromomethane	ND		1.0	0.69	ug/L			01/29/16 13:17	1
Carbon disulfide	0.202	J	1.0	0.19	ug/L			01/29/16 13:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/29/16 13:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/29/16 13:17	1
Chloroethane	ND		1.0	0.32	ug/L			01/29/16 13:17	1
Chloroform	ND		1.0	0.34	ug/L			01/29/16 13:17	1
Chloromethane	ND		1.0	0.35	ug/L			01/29/16 13:17	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/29/16 13:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/29/16 13:17	1
Cyclohexane	ND		1.0	0.18	ug/L			01/29/16 13:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/29/16 13:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/29/16 13:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/29/16 13:17	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/29/16 13:17	1
Methyl acetate	ND		2.5	1.3	ug/L			01/29/16 13:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/29/16 13:17	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/29/16 13:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/29/16 13:17	1
Styrene	ND		1.0	0.73	ug/L			01/29/16 13:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/29/16 13:17	1
Toluene	ND		1.0	0.51	ug/L			01/29/16 13:17	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/29/16 13:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/29/16 13:17	1
Trichloroethene	ND		1.0	0.46	ug/L			01/29/16 13:17	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/29/16 13:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/29/16 13:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/29/16 13:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*93*		*66 - 137*		*01/29/16 13:17*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*01/29/16 13:17*	*1*
Toluene-d8 (Surr)	*89*		*71 - 126*		*01/29/16 13:17*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*01/29/16 13:17*	*1*

Lab Sample ID: LCS 480-285459/52
Matrix: Water
Analysis Batch: 285459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	21.1		ug/L		84	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.4		ug/L		90	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	15.6		ug/L		62	52 - 148
1,1,2-Trichloroethane	25.0	22.4		ug/L		90	76 - 122
1,1-Dichloroethane	25.0	20.8		ug/L		83	71 - 129
1,1-Dichloroethene	25.0	19.7		ug/L		79	58 - 121
1,2,4-Trichlorobenzene	25.0	23.0		ug/L		92	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	25.1		ug/L		101	56 - 134
1,2-Dibromoethane	25.0	23.8		ug/L		95	77 - 120
1,2-Dichlorobenzene	25.0	22.0		ug/L		88	80 - 124
1,2-Dichloroethane	25.0	23.2		ug/L		93	75 - 127
1,2-Dichloropropane	25.0	21.2		ug/L		85	76 - 120
1,3-Dichlorobenzene	25.0	22.4		ug/L		90	77 - 120
1,4-Dichlorobenzene	25.0	21.6		ug/L		86	75 - 120
2-Butanone (MEK)	125	73.0		ug/L		58	57 - 140
2-Hexanone	125	103		ug/L		82	65 - 127
4-Methyl-2-pentanone (MIBK)	125	103		ug/L		83	71 - 125
Acetone	125	107		ug/L		86	56 - 142
Benzene	25.0	20.9		ug/L		83	71 - 124
Bromodichloromethane	25.0	24.4		ug/L		98	80 - 122
Bromoform	25.0	25.4		ug/L		102	52 - 132
Bromomethane	25.0	32.8		ug/L		131	55 - 144
Carbon disulfide	25.0	19.1		ug/L		77	59 - 134
Carbon tetrachloride	25.0	21.4		ug/L		86	72 - 134
Chlorobenzene	25.0	22.0		ug/L		88	72 - 120
Chloroethane	25.0	30.5		ug/L		122	69 - 136
Chloroform	25.0	21.5		ug/L		86	73 - 127
Chloromethane	25.0	20.9		ug/L		84	68 - 124
cis-1,2-Dichloroethene	25.0	21.4		ug/L		86	74 - 124
cis-1,3-Dichloropropene	25.0	25.9		ug/L		104	74 - 124
Cyclohexane	25.0	16.1		ug/L		64	59 - 135
Dibromochloromethane	25.0	25.6		ug/L		102	75 - 125
Dichlorodifluoromethane	25.0	25.3		ug/L		101	59 - 135
Ethylbenzene	25.0	22.2		ug/L		89	77 - 123
Isopropylbenzene	25.0	22.2		ug/L		89	77 - 122
Methyl acetate	125	110		ug/L		88	74 - 133
Methyl tert-butyl ether	25.0	21.7		ug/L		87	64 - 127
Methylcyclohexane	25.0	18.3		ug/L		73	61 - 138
Methylene Chloride	25.0	20.1		ug/L		80	57 - 132
Styrene	25.0	22.6		ug/L		90	70 - 130
Tetrachloroethene	25.0	23.2		ug/L		93	74 - 122
Toluene	25.0	21.5		ug/L		86	80 - 122
trans-1,2-Dichloroethene	25.0	20.8		ug/L		83	73 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-285459/52
Matrix: Water
Analysis Batch: 285459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	25.0	23.9		ug/L		95	72 - 123
Trichloroethene	25.0	21.8		ug/L		87	74 - 123
Trichlorofluoromethane	25.0	27.8		ug/L		111	62 - 152
Vinyl chloride	25.0	23.4		ug/L		94	65 - 133
Xylenes, Total	50.0	43.0		ug/L		86	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*66 - 137*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*
Toluene-d8 (Surr)	*88*		*71 - 126*
Dibromofluoromethane (Surr)	*90*		*60 - 140*

Lab Sample ID: MB 480-285817/7
Matrix: Water
Analysis Batch: 285817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/02/16 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/02/16 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/02/16 12:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/02/16 12:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/02/16 12:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/02/16 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/02/16 12:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/02/16 12:09	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/02/16 12:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/02/16 12:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/02/16 12:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/02/16 12:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/02/16 12:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/02/16 12:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/02/16 12:09	1
2-Hexanone	ND		5.0	1.2	ug/L			02/02/16 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/02/16 12:09	1
Acetone	ND		10	3.0	ug/L			02/02/16 12:09	1
Benzene	ND		1.0	0.41	ug/L			02/02/16 12:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/02/16 12:09	1
Bromoform	ND		1.0	0.26	ug/L			02/02/16 12:09	1
Bromomethane	ND		1.0	0.69	ug/L			02/02/16 12:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/02/16 12:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/02/16 12:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/02/16 12:09	1
Chloroethane	ND		1.0	0.32	ug/L			02/02/16 12:09	1
Chloroform	ND		1.0	0.34	ug/L			02/02/16 12:09	1
Chloromethane	ND		1.0	0.35	ug/L			02/02/16 12:09	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/02/16 12:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/02/16 12:09	1
Cyclohexane	ND		1.0	0.18	ug/L			02/02/16 12:09	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-285817/7
Matrix: Water
Analysis Batch: 285817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0	0.32	ug/L			02/02/16 12:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/02/16 12:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/02/16 12:09	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/02/16 12:09	1
Methyl acetate	ND		2.5	1.3	ug/L			02/02/16 12:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/02/16 12:09	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/02/16 12:09	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/02/16 12:09	1
Styrene	ND		1.0	0.73	ug/L			02/02/16 12:09	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/02/16 12:09	1
Toluene	ND		1.0	0.51	ug/L			02/02/16 12:09	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/02/16 12:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/02/16 12:09	1
Trichloroethene	ND		1.0	0.46	ug/L			02/02/16 12:09	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/02/16 12:09	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/02/16 12:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/02/16 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*66 - 137*		*02/02/16 12:09*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*02/02/16 12:09*	*1*
Toluene-d8 (Surr)	*86*		*71 - 126*		*02/02/16 12:09*	*1*
Dibromofluoromethane (Surr)	*89*		*60 - 140*		*02/02/16 12:09*	*1*

Lab Sample ID: LCS 480-285817/5
Matrix: Water
Analysis Batch: 285817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.1		ug/L		92	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.4		ug/L		90	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.3		ug/L		73	52 - 148
1,1,2-Trichloroethane	25.0	23.0		ug/L		92	76 - 122
1,1-Dichloroethane	25.0	22.1		ug/L		88	71 - 129
1,1-Dichloroethene	25.0	21.6		ug/L		86	58 - 121
1,2,4-Trichlorobenzene	25.0	22.9		ug/L		91	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.8		ug/L		95	56 - 134
1,2-Dibromoethane	25.0	24.9		ug/L		99	77 - 120
1,2-Dichlorobenzene	25.0	22.7		ug/L		91	80 - 124
1,2-Dichloroethane	25.0	24.7		ug/L		99	75 - 127
1,2-Dichloropropane	25.0	22.2		ug/L		89	76 - 120
1,3-Dichlorobenzene	25.0	22.7		ug/L		91	77 - 120
1,4-Dichlorobenzene	25.0	22.5		ug/L		90	75 - 120
2-Butanone (MEK)	125	100		ug/L		80	57 - 140
2-Hexanone	125	103		ug/L		83	65 - 127
4-Methyl-2-pentanone (MIBK)	125	104		ug/L		83	71 - 125
Acetone	125	53.9	*	ug/L		43	56 - 142

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-285817/5
Matrix: Water
Analysis Batch: 285817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	22.5		ug/L		90	71 - 124
Bromodichloromethane	25.0	25.8		ug/L		103	80 - 122
Bromoform	25.0	25.3		ug/L		101	52 - 132
Bromomethane	25.0	30.4		ug/L		122	55 - 144
Carbon disulfide	25.0	21.6		ug/L		86	59 - 134
Carbon tetrachloride	25.0	23.8		ug/L		95	72 - 134
Chlorobenzene	25.0	23.1		ug/L		93	72 - 120
Chloroethane	25.0	26.7		ug/L		107	69 - 136
Chloroform	25.0	23.5		ug/L		94	73 - 127
Chloromethane	25.0	20.9		ug/L		84	68 - 124
cis-1,2-Dichloroethene	25.0	22.9		ug/L		92	74 - 124
cis-1,3-Dichloropropene	25.0	26.7		ug/L		107	74 - 124
Cyclohexane	25.0	18.5		ug/L		74	59 - 135
Dibromochloromethane	25.0	25.5		ug/L		102	75 - 125
Dichlorodifluoromethane	25.0	29.1		ug/L		116	59 - 135
Ethylbenzene	25.0	23.2		ug/L		93	77 - 123
Isopropylbenzene	25.0	23.0		ug/L		92	77 - 122
Methyl acetate	125	97.6		ug/L		78	74 - 133
Methyl tert-butyl ether	25.0	22.8		ug/L		91	64 - 127
Methylcyclohexane	25.0	20.2		ug/L		81	61 - 138
Methylene Chloride	25.0	20.4		ug/L		82	57 - 132
Styrene	25.0	23.6		ug/L		95	70 - 130
Tetrachloroethene	25.0	22.9		ug/L		91	74 - 122
Toluene	25.0	22.7		ug/L		91	80 - 122
trans-1,2-Dichloroethene	25.0	22.8		ug/L		91	73 - 127
trans-1,3-Dichloropropene	25.0	24.4		ug/L		97	72 - 123
Trichloroethene	25.0	23.4		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	25.3		ug/L		101	62 - 152
Vinyl chloride	25.0	23.1		ug/L		93	65 - 133
Xylenes, Total	50.0	45.0		ug/L		90	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*
Toluene-d8 (Surr)	*85*		*71 - 126*
Dibromofluoromethane (Surr)	*88*		*60 - 140*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-94483-1

GC/MS VOA

Analysis Batch: 285459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94483-1	MW-23S	Total/NA	Water	8260C	
480-94483-2	MW-23D	Total/NA	Water	8260C	
480-94483-3	MW-1DD	Total/NA	Water	8260C	
480-94483-5	MW-1D	Total/NA	Water	8260C	
480-94483-6	MW-13	Total/NA	Water	8260C	
480-94483-7	MW-1	Total/NA	Water	8260C	
480-94483-8	DUP-1_012816	Total/NA	Water	8260C	
480-94483-9	TRIP BLANK	Total/NA	Water	8260C	
LCS 480-285459/52	Lab Control Sample	Total/NA	Water	8260C	
MB 480-285459/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 285817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94483-4	GM-9	Total/NA	Water	8260C	
LCS 480-285817/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-285817/7	Method Blank	Total/NA	Water	8260C	

Client Sample ID: MW-23S
Date Collected: 01/27/16 15:50
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	285459	01/29/16 17:46	RRS	TAL BUF

Client Sample ID: MW-23D
Date Collected: 01/27/16 15:50
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	285459	01/29/16 18:09	RRS	TAL BUF

Client Sample ID: MW-1DD
Date Collected: 01/28/16 08:25
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	285459	01/29/16 18:33	RRS	TAL BUF

Client Sample ID: GM-9
Date Collected: 01/28/16 08:20
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	285817	02/02/16 12:48	RRS	TAL BUF

Client Sample ID: MW-1D
Date Collected: 01/28/16 09:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	285459	01/29/16 19:19	RRS	TAL BUF

Client Sample ID: MW-13
Date Collected: 01/28/16 09:20
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	285459	01/29/16 19:42	RRS	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-94483-1

Client Sample ID: MW-1
Date Collected: 01/28/16 09:30
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	285459	01/29/16 20:05	RRS	TAL BUF

Client Sample ID: DUP-1_012816
Date Collected: 01/28/16 00:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	285459	01/29/16 20:29	RRS	TAL BUF

Client Sample ID: TRIP BLANK
Date Collected: 01/28/16 00:00
Date Received: 01/29/16 01:00

Lab Sample ID: 480-94483-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	285459	01/29/16 20:52	RRS	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-94483-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ZB-624 (60) ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MW-23S	480-94483-1	92	91	88	97
MW-23D	480-94483-2	93	88	87	95
MW-1DD	480-94483-3	91	91	88	98
GM-9	480-94483-4	89	86	85	97
MW-1D	480-94483-5	93	87	88	97
MW-13	480-94483-6	94	89	90	97
MW-1	480-94483-7	91	88	86	96
DUP-1_012816	480-94483-8	94	88	86	98
TRIP BLANK	480-94483-9	92	89	88	97
	MB 480-285459/7	95	93	89	99
	MB 480-285817/7	89	85	86	97
	LCS 480-285459/52	90	97	88	95
	LCS 480-285817/5	88	87	85	94

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	60-140
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
TOL = Toluene-d8 (Surr)	71-126
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Q8807.D

Lab ID: LCS 480-285459/52 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	21.1	84	73-126	
1,1,2,2-Tetrachloroethane	25.0	22.4	90	70-126	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	15.6	62	52-148	
1,1,2-Trichloroethane	25.0	22.4	90	76-122	
1,1-Dichloroethane	25.0	20.8	83	71-129	
1,1-Dichloroethene	25.0	19.7	79	58-121	
1,2,4-Trichlorobenzene	25.0	23.0	92	70-122	
1,2-Dibromo-3-Chloropropane	25.0	25.1	101	56-134	
1,2-Dibromoethane	25.0	23.8	95	77-120	
1,2-Dichlorobenzene	25.0	22.0	88	80-124	
1,2-Dichloroethane	25.0	23.2	93	75-127	
1,2-Dichloropropane	25.0	21.2	85	76-120	
1,3-Dichlorobenzene	25.0	22.4	90	77-120	
1,4-Dichlorobenzene	25.0	21.6	86	75-120	
2-Butanone (MEK)	125	73.0	58	57-140	
2-Hexanone	125	103	82	65-127	
4-Methyl-2-pentanone (MIBK)	125	103	83	71-125	
Acetone	125	107	86	56-142	
Benzene	25.0	20.9	83	71-124	
Bromodichloromethane	25.0	24.4	98	80-122	
Bromoform	25.0	25.4	102	52-132	
Bromomethane	25.0	32.8	131	55-144	
Carbon disulfide	25.0	19.1	77	59-134	
Carbon tetrachloride	25.0	21.4	86	72-134	
Chlorobenzene	25.0	22.0	88	72-120	
Chloroethane	25.0	30.5	122	69-136	
Chloroform	25.0	21.5	86	73-127	
Chloromethane	25.0	20.9	84	68-124	
cis-1,2-Dichloroethene	25.0	21.4	86	74-124	
cis-1,3-Dichloropropene	25.0	25.9	104	74-124	
Cyclohexane	25.0	16.1	64	59-135	
Dibromochloromethane	25.0	25.6	102	75-125	
Dichlorodifluoromethane	25.0	25.3	101	59-135	
Ethylbenzene	25.0	22.2	89	77-123	
Isopropylbenzene	25.0	22.2	89	77-122	
Methyl acetate	125	110	88	74-133	
Methyl tert-butyl ether	25.0	21.7	87	64-127	
Methylcyclohexane	25.0	18.3	73	61-138	
Methylene Chloride	25.0	20.1	80	57-132	
Styrene	25.0	22.6	90	70-130	
Tetrachloroethene	25.0	23.2	93	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Q8807.D

Lab ID: LCS 480-285459/52 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	25.0	21.5	86	80-122	
trans-1,2-Dichloroethene	25.0	20.8	83	73-127	
trans-1,3-Dichloropropene	25.0	23.9	95	72-123	
Trichloroethene	25.0	21.8	87	74-123	
Trichlorofluoromethane	25.0	27.8	111	62-152	
Vinyl chloride	25.0	23.4	94	65-133	
Xylenes, Total	50.0	43.0	86	76-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Q8868.D

Lab ID: LCS 480-285817/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	23.1	92	73-126	
1,1,2,2-Tetrachloroethane	25.0	22.4	90	70-126	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.3	73	52-148	
1,1,2-Trichloroethane	25.0	23.0	92	76-122	
1,1-Dichloroethane	25.0	22.1	88	71-129	
1,1-Dichloroethene	25.0	21.6	86	58-121	
1,2,4-Trichlorobenzene	25.0	22.9	91	70-122	
1,2-Dibromo-3-Chloropropane	25.0	23.8	95	56-134	
1,2-Dibromoethane	25.0	24.9	99	77-120	
1,2-Dichlorobenzene	25.0	22.7	91	80-124	
1,2-Dichloroethane	25.0	24.7	99	75-127	
1,2-Dichloropropane	25.0	22.2	89	76-120	
1,3-Dichlorobenzene	25.0	22.7	91	77-120	
1,4-Dichlorobenzene	25.0	22.5	90	75-120	
2-Butanone (MEK)	125	100	80	57-140	
2-Hexanone	125	103	83	65-127	
4-Methyl-2-pentanone (MIBK)	125	104	83	71-125	
Acetone	125	53.9	43	56-142	*
Benzene	25.0	22.5	90	71-124	
Bromodichloromethane	25.0	25.8	103	80-122	
Bromoform	25.0	25.3	101	52-132	
Bromomethane	25.0	30.4	122	55-144	
Carbon disulfide	25.0	21.6	86	59-134	
Carbon tetrachloride	25.0	23.8	95	72-134	
Chlorobenzene	25.0	23.1	93	72-120	
Chloroethane	25.0	26.7	107	69-136	
Chloroform	25.0	23.5	94	73-127	
Chloromethane	25.0	20.9	84	68-124	
cis-1,2-Dichloroethene	25.0	22.9	92	74-124	
cis-1,3-Dichloropropene	25.0	26.7	107	74-124	
Cyclohexane	25.0	18.5	74	59-135	
Dibromochloromethane	25.0	25.5	102	75-125	
Dichlorodifluoromethane	25.0	29.1	116	59-135	
Ethylbenzene	25.0	23.2	93	77-123	
Isopropylbenzene	25.0	23.0	92	77-122	
Methyl acetate	125	97.6	78	74-133	
Methyl tert-butyl ether	25.0	22.8	91	64-127	
Methylcyclohexane	25.0	20.2	81	61-138	
Methylene Chloride	25.0	20.4	82	57-132	
Styrene	25.0	23.6	95	70-130	
Tetrachloroethene	25.0	22.9	91	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Q8868.D

Lab ID: LCS 480-285817/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	25.0	22.7	91	80-122	
trans-1,2-Dichloroethene	25.0	22.8	91	73-127	
trans-1,3-Dichloropropene	25.0	24.4	97	72-123	
Trichloroethene	25.0	23.4	94	74-123	
Trichlorofluoromethane	25.0	25.3	101	62-152	
Vinyl chloride	25.0	23.1	93	65-133	
Xylenes, Total	50.0	45.0	90	76-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab File ID: Q8809.D Lab Sample ID: MB 480-285459/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: HP5973Q Date Analyzed: 01/29/2016 13:17

GC Column: ZB-624 (60) ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-285459/52	Q8807.D	01/29/2016 12:16
MW-23S	480-94483-1	Q8820.D	01/29/2016 17:46
MW-23D	480-94483-2	Q8821.D	01/29/2016 18:09
MW-1DD	480-94483-3	Q8822.D	01/29/2016 18:33
MW-1D	480-94483-5	Q8824.D	01/29/2016 19:19
MW-13	480-94483-6	Q8825.D	01/29/2016 19:42
MW-1	480-94483-7	Q8826.D	01/29/2016 20:05
DUP-1_012816	480-94483-8	Q8827.D	01/29/2016 20:29
TRIP BLANK	480-94483-9	Q8828.D	01/29/2016 20:52

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab File ID: Q8870.D Lab Sample ID: MB 480-285817/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: HP5973Q Date Analyzed: 02/02/2016 12:09

GC Column: ZB-624 (60) ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-285817/5	Q8868.D	02/02/2016 11:08
GM-9	480-94483-4	Q8871.D	02/02/2016 12:48

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab File ID: Q8374.D BFB Injection Date: 01/11/2016

Instrument ID: HP5973Q BFB Injection Time: 15:13

Analysis Batch No.: 283036

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	88.6	
175	5.0 - 9.0 % of mass 174	7.3	(8.2) 1
176	95.0 - 101.0 % of mass 174	86.1	(97.2) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 480-283036/5	Q8376.D	01/11/2016	16:06
	IC 480-283036/6	Q8377.D	01/11/2016	16:29
	IC 480-283036/7	Q8378.D	01/11/2016	16:53
	IC 480-283036/8	Q8379.D	01/11/2016	17:17
	IC 480-283036/9	Q8380.D	01/11/2016	17:40
	ICIS 480-283036/10	Q8381.D	01/11/2016	18:03
	IC 480-283036/11	Q8382.D	01/11/2016	18:26
	IC 480-283036/12	Q8383.D	01/11/2016	18:50

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab File ID: Q8803.D BFB Injection Date: 01/29/2016

Instrument ID: HP5973Q BFB Injection Time: 09:36

Analysis Batch No.: 285459

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	47.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	88.2	
175	5.0 - 9.0 % of mass 174	7.0	(7.9) 1
176	95.0 - 101.0 % of mass 174	84.9	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-285459/3	Q8804.D	01/29/2016	10:02
	LCS 480-285459/52	Q8807.D	01/29/2016	12:16
	MB 480-285459/7	Q8809.D	01/29/2016	13:17
MW-23S	480-94483-1	Q8820.D	01/29/2016	17:46
MW-23D	480-94483-2	Q8821.D	01/29/2016	18:09
MW-1DD	480-94483-3	Q8822.D	01/29/2016	18:33
MW-1D	480-94483-5	Q8824.D	01/29/2016	19:19
MW-13	480-94483-6	Q8825.D	01/29/2016	19:42
MW-1	480-94483-7	Q8826.D	01/29/2016	20:05
DUP-1_012816	480-94483-8	Q8827.D	01/29/2016	20:29
TRIP BLANK	480-94483-9	Q8828.D	01/29/2016	20:52

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab File ID: Q8865.D BFB Injection Date: 02/02/2016

Instrument ID: HP5973Q BFB Injection Time: 09:21

Analysis Batch No.: 285817

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.7	
75	30.0 - 60.0 % of mass 95	45.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	85.3	
175	5.0 - 9.0 % of mass 174	6.6	(7.8) 1
176	95.0 - 101.0 % of mass 174	85.0	(99.6) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-285817/3	Q8866.D	02/02/2016	09:44
	LCS 480-285817/5	Q8868.D	02/02/2016	11:08
	MB 480-285817/7	Q8870.D	02/02/2016	12:09
GM-9	480-94483-4	Q8871.D	02/02/2016	12:48

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Sample No.: ICIS 480-283036/10 Date Analyzed: 01/11/2016 18:03

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm)

Lab File ID (Standard): Q8381.D Heated Purge: (Y/N) N

Calibration ID: 26041

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		114840	5.12	215084	7.41	232248	9.28
UPPER LIMIT		229680	5.62	430168	7.91	464496	9.78
LOWER LIMIT		57420	4.62	107542	6.91	116124	8.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 480-285459/3		94908	5.12	187150	7.41	199422	9.28
CCVIS 480-285817/3		90847	5.12	174627	7.41	183771	9.28

FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Sample No.: CCVIS 480-285459/3 Date Analyzed: 01/29/2016 10:02

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm)

Lab File ID (Standard): Q8804.D Heated Purge: (Y/N) N

Calibration ID: 26042

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		94908	5.12	187150	7.41	199422	9.28
UPPER LIMIT		189816	5.62	374300	7.91	398844	9.78
LOWER LIMIT		47454	4.62	93575	6.91	99711	8.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 480-285459/52		94743	5.12	182421	7.41	194784	9.28
MB 480-285459/7		86474	5.12	158646	7.41	188079	9.28
480-94483-1	MW-23S	85312	5.12	162413	7.41	187126	9.28
480-94483-2	MW-23D	85553	5.12	164718	7.41	185909	9.28
480-94483-3	MW-1DD	85113	5.12	162433	7.41	183986	9.28
480-94483-5	MW-1D	84161	5.12	161875	7.41	183285	9.28
480-94483-6	MW-13	82786	5.12	150012	7.41	173541	9.28
480-94483-7	MW-1	81785	5.12	157976	7.41	180907	9.28
480-94483-8	DUP-1_012816	83436	5.12	156038	7.41	177493	9.28
480-94483-9	TRIP BLANK	80453	5.12	151407	7.41	170348	9.28

FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Sample No.: CCVIS 480-285817/3 Date Analyzed: 02/02/2016 09:44

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm)

Lab File ID (Standard): Q8866.D Heated Purge: (Y/N) N

Calibration ID: 26042

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		90847	5.12	174627	7.41	183771	9.28
UPPER LIMIT		181694	5.62	349254	7.91	367542	9.78
LOWER LIMIT		45424	4.62	87314	6.91	91886	8.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 480-285817/5		94854	5.12	182045	7.41	196598	9.28
MB 480-285817/7		86528	5.12	166349	7.41	189354	9.28
480-94483-4	GM-9	86553	5.12	170601	7.41	186189	9.28

FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-23S | Lab Sample ID: 480-94483-1

Matrix: Water | Lab File ID: Q8820.D

Analysis Method: 8260C | Date Collected: 01/27/2016 15:50

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 17:46

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		10	8.2
79-34-5	1,1,2,2-Tetrachloroethane	ND		10	2.1
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1
79-00-5	1,1,2-Trichloroethane	ND		10	2.3
75-34-3	1,1-Dichloroethane	ND		10	3.8
75-35-4	1,1-Dichloroethene	ND		10	2.9
120-82-1	1,2,4-Trichlorobenzene	ND		10	4.1
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	3.9
106-93-4	1,2-Dibromoethane	ND		10	7.3
95-50-1	1,2-Dichlorobenzene	ND		10	7.9
107-06-2	1,2-Dichloroethane	ND		10	2.1
78-87-5	1,2-Dichloropropane	ND		10	7.2
541-73-1	1,3-Dichlorobenzene	ND		10	7.8
106-46-7	1,4-Dichlorobenzene	ND		10	8.4
78-93-3	2-Butanone (MEK)	ND		100	13
591-78-6	2-Hexanone	ND		50	12
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	21
67-64-1	Acetone	ND		100	30
71-43-2	Benzene	ND		10	4.1
75-27-4	Bromodichloromethane	ND		10	3.9
75-25-2	Bromoform	ND		10	2.6
74-83-9	Bromomethane	ND		10	6.9
75-15-0	Carbon disulfide	ND		10	1.9
56-23-5	Carbon tetrachloride	ND		10	2.7
108-90-7	Chlorobenzene	ND		10	7.5
75-00-3	Chloroethane	ND		10	3.2
67-66-3	Chloroform	ND		10	3.4
74-87-3	Chloromethane	ND		10	3.5
156-59-2	cis-1,2-Dichloroethene	270		10	8.1
10061-01-5	cis-1,3-Dichloropropene	ND		10	3.6
110-82-7	Cyclohexane	ND		10	1.8
124-48-1	Dibromochloromethane	ND		10	3.2
75-71-8	Dichlorodifluoromethane	ND		10	6.8
100-41-4	Ethylbenzene	ND		10	7.4
98-82-8	Isopropylbenzene	ND		10	7.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-23S | Lab Sample ID: 480-94483-1

Matrix: Water | Lab File ID: Q8820.D

Analysis Method: 8260C | Date Collected: 01/27/2016 15:50

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 17:46

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		25	13
1634-04-4	Methyl tert-butyl ether	ND		10	1.6
108-87-2	Methylcyclohexane	ND		10	1.6
75-09-2	Methylene Chloride	ND		10	4.4
100-42-5	Styrene	ND		10	7.3
127-18-4	Tetrachloroethene	210		10	3.6
108-88-3	Toluene	ND		10	5.1
156-60-5	trans-1,2-Dichloroethene	ND		10	9.0
10061-02-6	trans-1,3-Dichloropropene	ND		10	3.7
79-01-6	Trichloroethene	88		10	4.6
75-69-4	Trichlorofluoromethane	ND		10	8.8
75-01-4	Vinyl chloride	ND		10	9.0
1330-20-7	Xylenes, Total	ND		20	6.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		66-137
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
2037-26-5	Toluene-d8 (Surr)	88		71-126
1868-53-7	Dibromofluoromethane (Surr)	92		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8820.D
Lims ID: 480-94483-A-1 Lab Sample ID: 480-94483-1
Client ID: MW-23S
Sample Type: Client
Inject. Date: 29-Jan-2016 17:46:30 ALS Bottle#: 19 Worklist Smp#: 32
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 480-94483-A-1
Misc. Info.: 480-0050272-032
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:44:15 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 20:00:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.119	5.119	0.000	99	85312	25.0	
* 2 Chlorobenzene-d5	82	7.405	7.406	-0.001	84	162413	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.279	9.279	0.000	95	187126	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.645	4.639	0.006	94	103231	23.0	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.894	4.888	0.006	0	59609	22.8	
$ 5 Toluene-d8 (Surr)	98	6.287	6.287	-0.001	92	337069	22.0	
$ 6 4-Bromofluorobenzene (Surr	174	8.336	8.336	0.000	92	114373	24.3	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.712				ND	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84		3.250				ND	
32 Methyl tert-butyl ether	73		3.451				ND	
34 trans-1,2-Dichloroethene	96	3.459	3.459	-0.004	23	555	0.0931	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.268	4.272	-0.004	78	178714	27.4	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95	5.393	5.391	0.002	96	52223	8.78	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166	6.755	6.753	0.002	96	122482	21.3	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

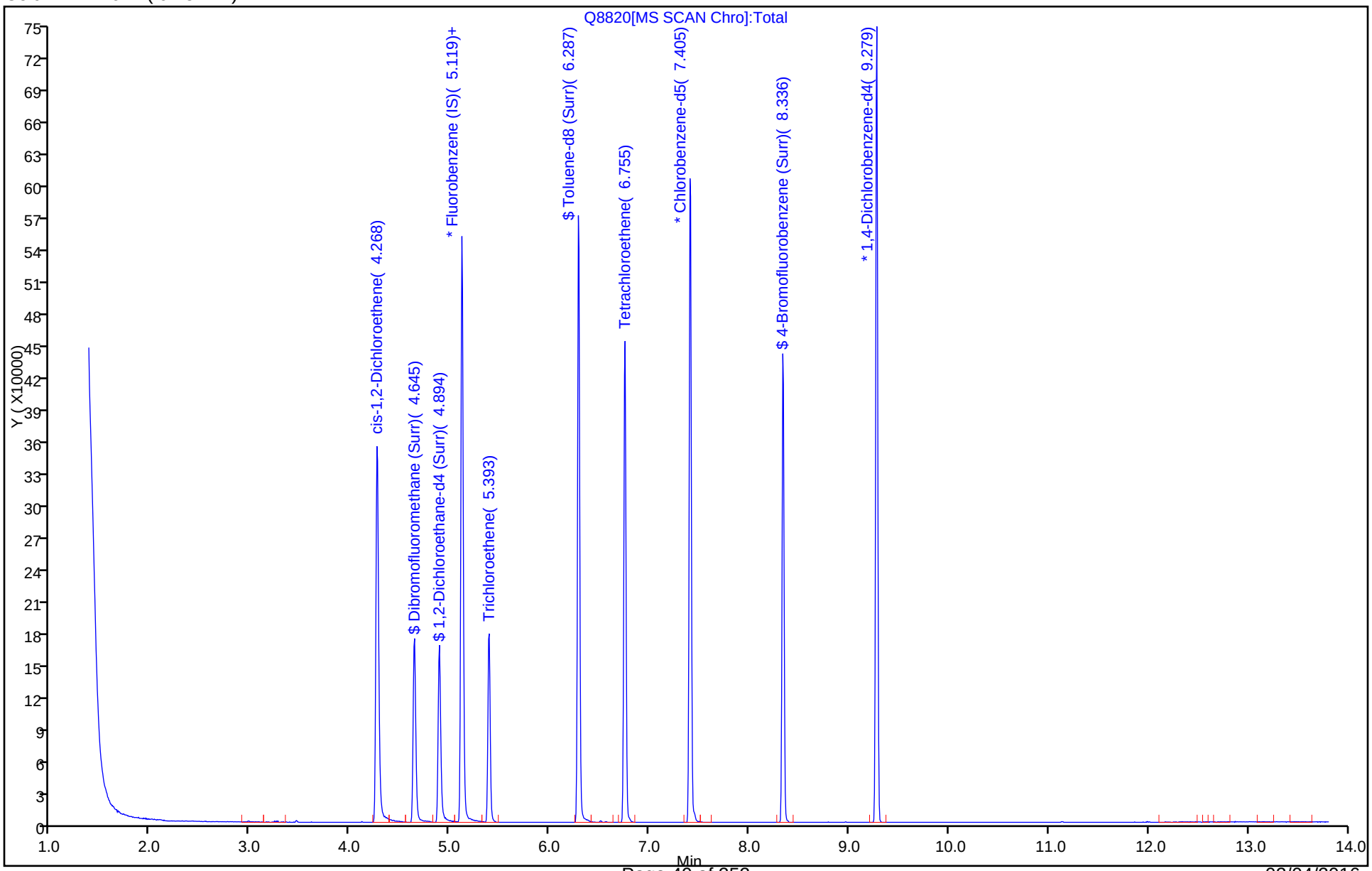
Report Date: 01-Feb-2016 08:44:16 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8820.D

Injection Date:	29-Jan-2016 17:46:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-1	Lab Sample ID:	480-94483-1	Worklist Smp#:	32
Client ID:	MW-23S				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	19
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)

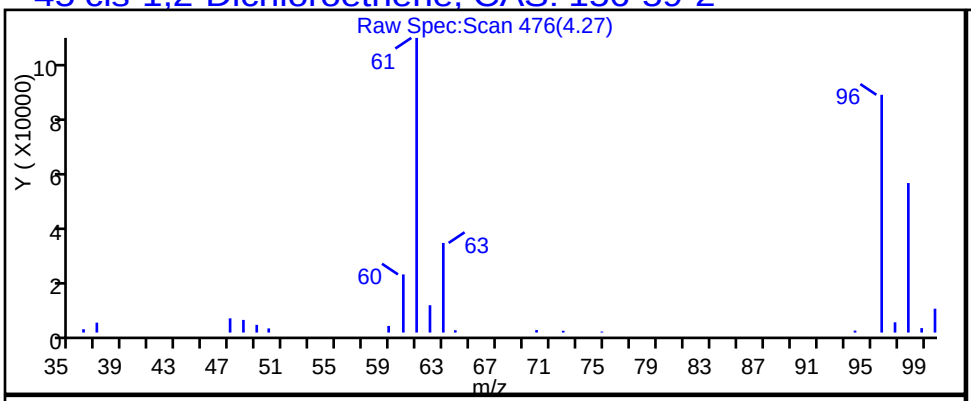


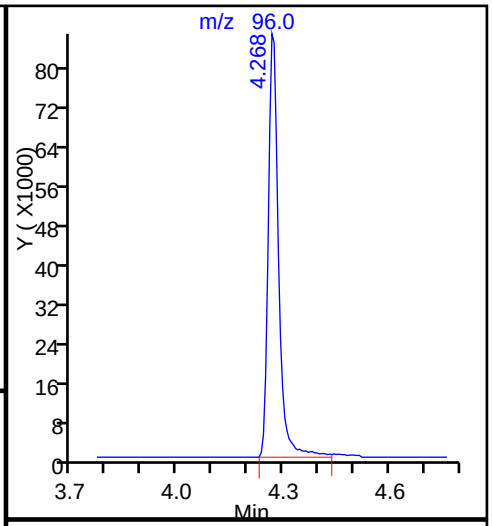
TestAmerica Buffalo

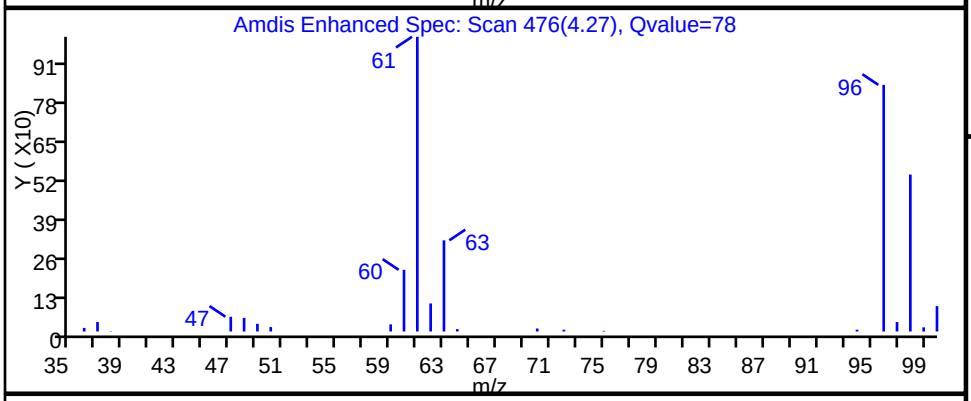
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8820.D

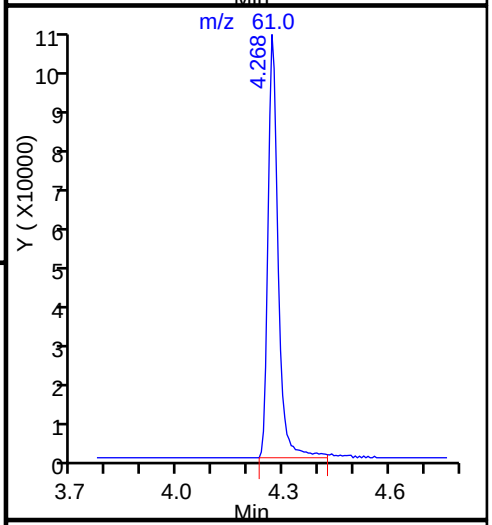
Injection Date:	29-Jan-2016 17:46:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-1	Lab Sample ID:	480-94483-1		
Client ID:	MW-23S				
Operator ID:	RR	ALS Bottle#:	19	Worklist Smp#:	32
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

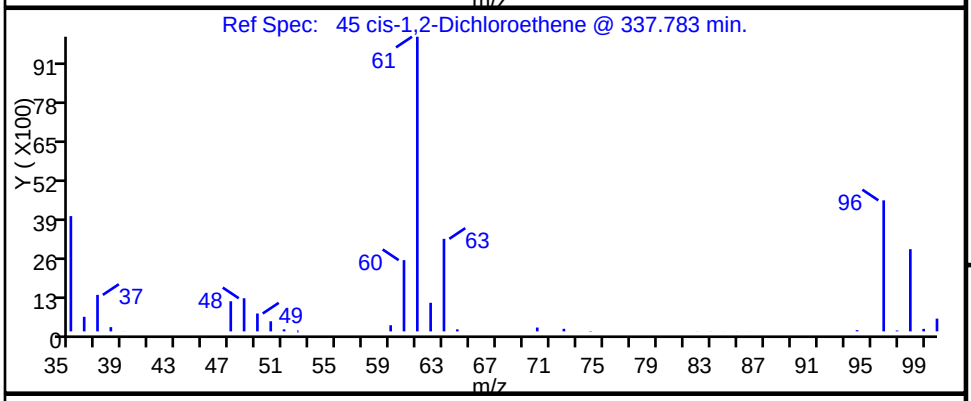
45 cis-1,2-Dichloroethene, CAS: 156-59-2

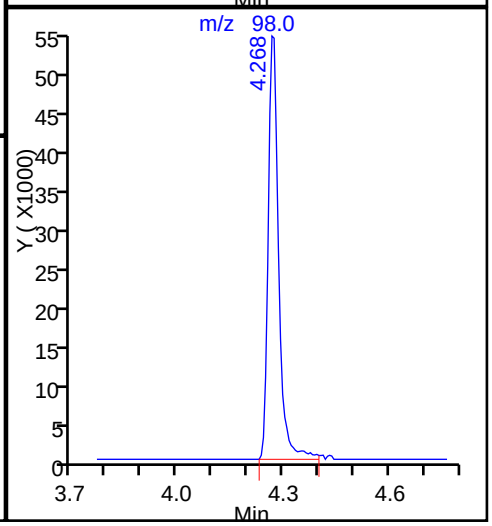


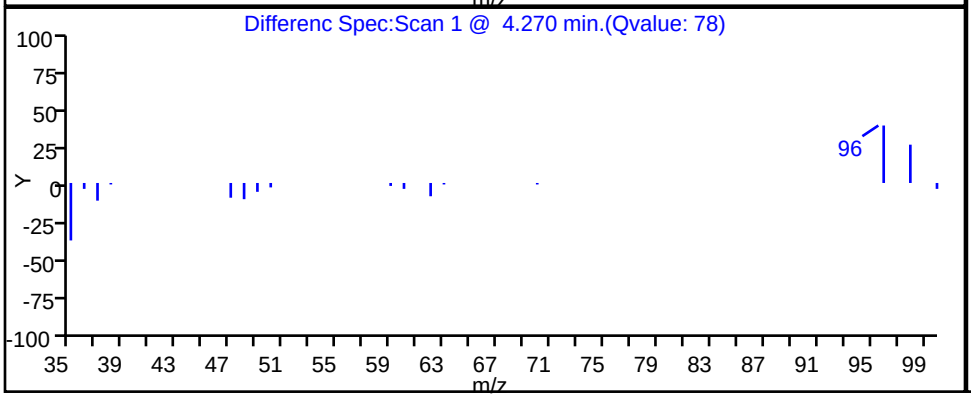










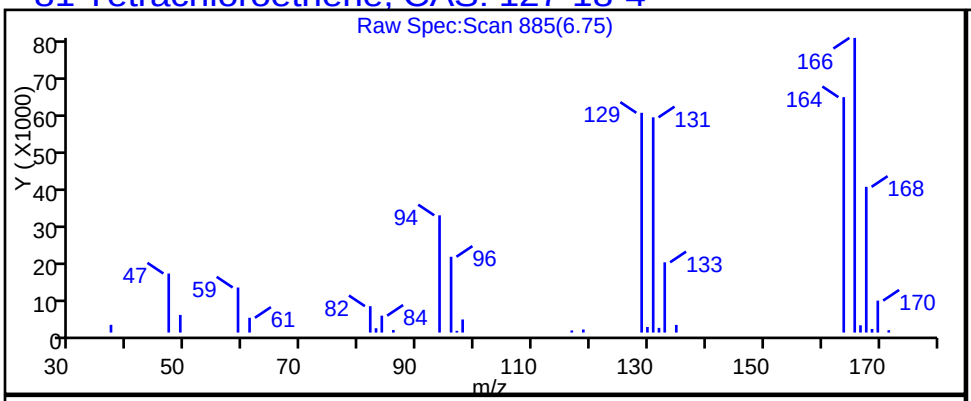


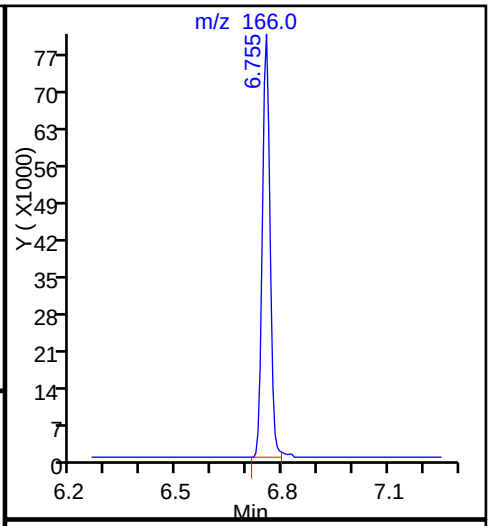
TestAmerica Buffalo

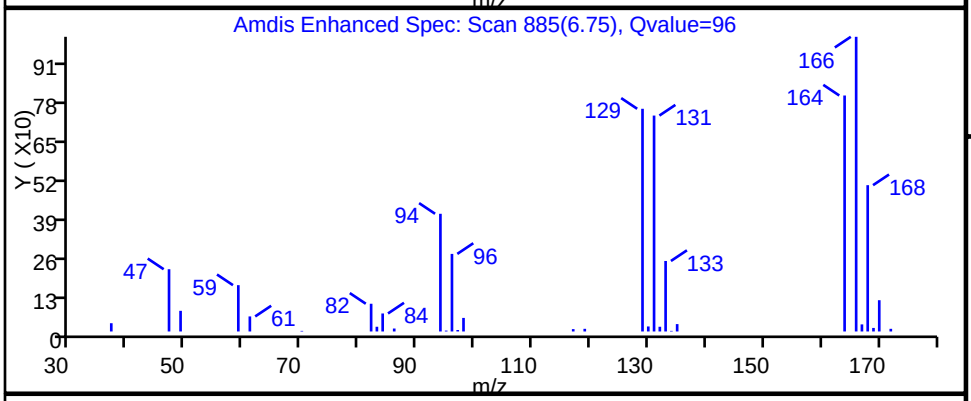
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8820.D

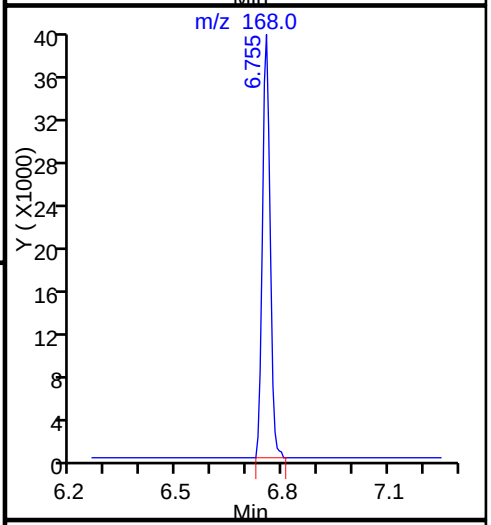
Injection Date:	29-Jan-2016 17:46:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-1	Lab Sample ID:	480-94483-1		
Client ID:	MW-23S				
Operator ID:	RR	ALS Bottle#:	19	Worklist Smp#:	32
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

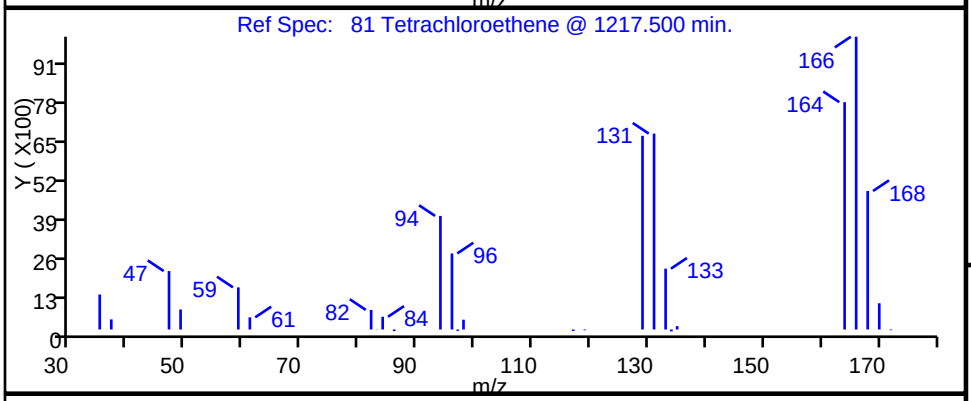
81 Tetrachloroethene, CAS: 127-18-4

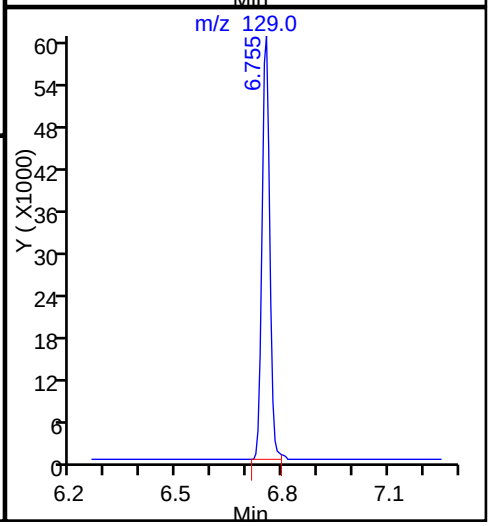


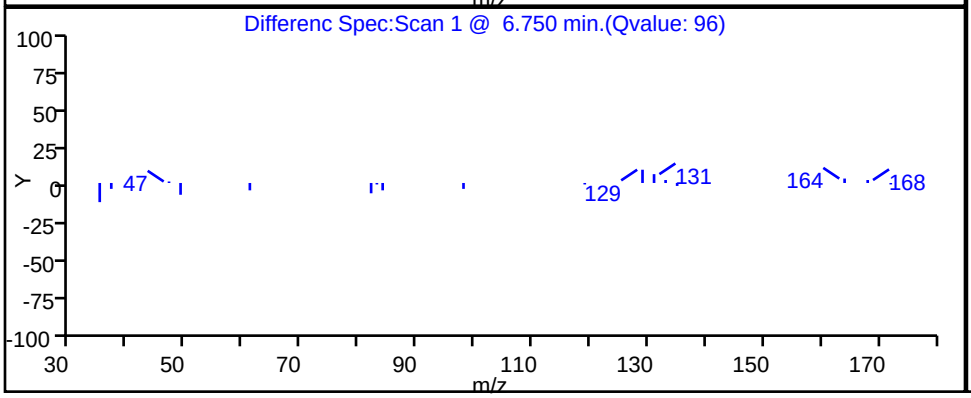












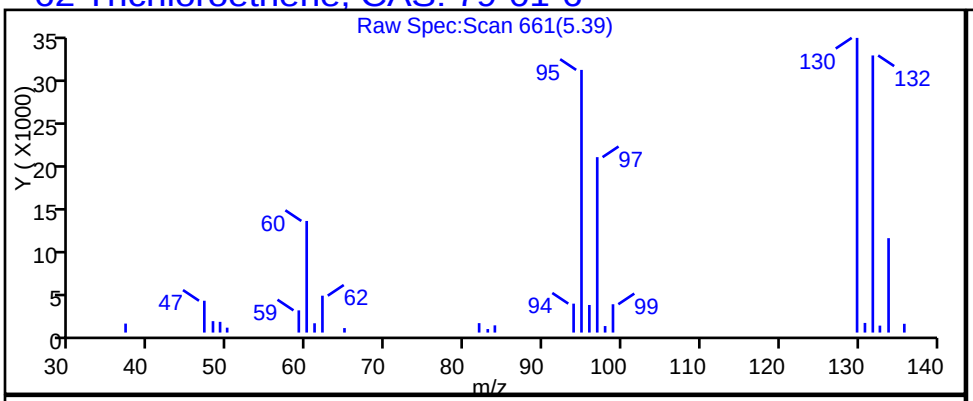
Report Date: 01-Feb-2016 08:44:16 Chrom Revision: 2.2 02-Dec-2015 11:51:48

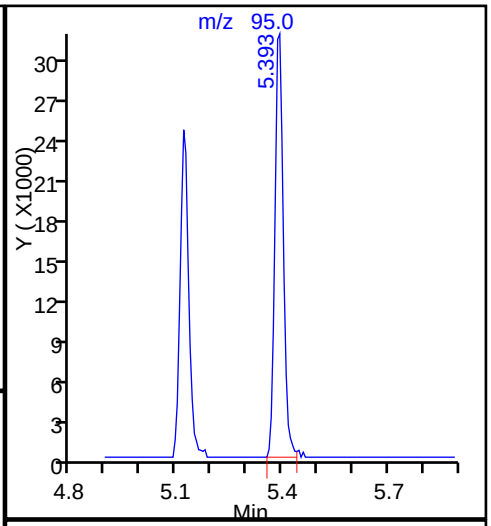
TestAmerica Buffalo

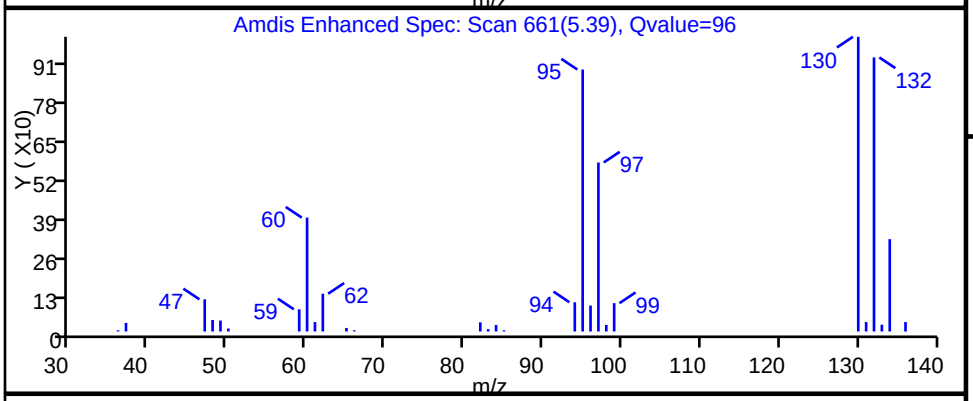
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8820.D

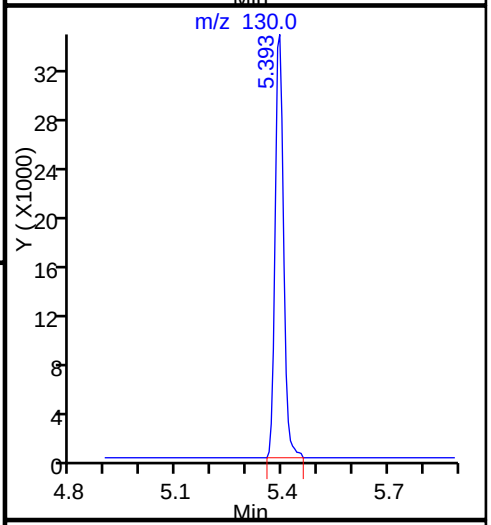
Injection Date:	29-Jan-2016 17:46:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-1	Lab Sample ID:	480-94483-1		
Client ID:	MW-23S				
Operator ID:	RR	ALS Bottle#:	19	Worklist Smp#:	32
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

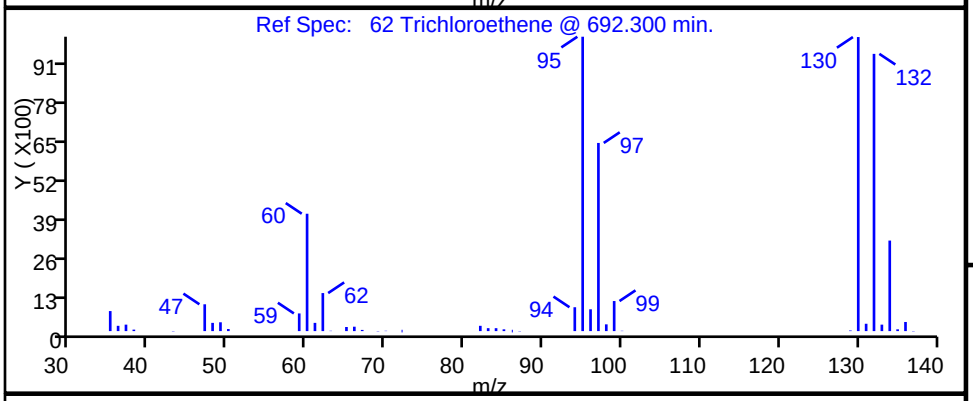
62 Trichloroethene, CAS: 79-01-6

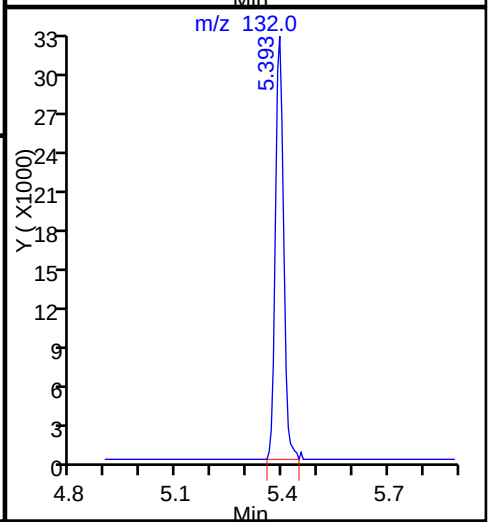


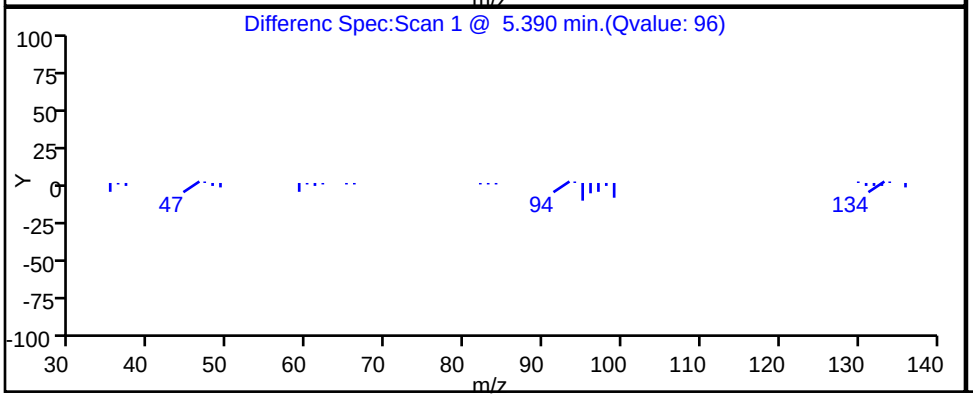












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-23D | Lab Sample ID: 480-94483-2

Matrix: Water | Lab File ID: Q8821.D

Analysis Method: 8260C | Date Collected: 01/27/2016 15:50

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 18:09

Soil Aliquot Vol: | Dilution Factor: 8

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		8.0	6.6
79-34-5	1,1,2,2-Tetrachloroethane	ND		8.0	1.7
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5
79-00-5	1,1,2-Trichloroethane	ND		8.0	1.8
75-34-3	1,1-Dichloroethane	ND		8.0	3.0
75-35-4	1,1-Dichloroethene	ND		8.0	2.3
120-82-1	1,2,4-Trichlorobenzene	ND		8.0	3.3
96-12-8	1,2-Dibromo-3-Chloropropane	ND		8.0	3.1
106-93-4	1,2-Dibromoethane	ND		8.0	5.8
95-50-1	1,2-Dichlorobenzene	ND		8.0	6.3
107-06-2	1,2-Dichloroethane	ND		8.0	1.7
78-87-5	1,2-Dichloropropane	ND		8.0	5.8
541-73-1	1,3-Dichlorobenzene	ND		8.0	6.2
106-46-7	1,4-Dichlorobenzene	ND		8.0	6.7
78-93-3	2-Butanone (MEK)	ND		80	11
591-78-6	2-Hexanone	ND		40	9.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		40	17
67-64-1	Acetone	ND		80	24
71-43-2	Benzene	ND		8.0	3.3
75-27-4	Bromodichloromethane	ND		8.0	3.1
75-25-2	Bromoform	ND		8.0	2.1
74-83-9	Bromomethane	ND		8.0	5.5
75-15-0	Carbon disulfide	ND		8.0	1.5
56-23-5	Carbon tetrachloride	ND		8.0	2.2
108-90-7	Chlorobenzene	ND		8.0	6.0
75-00-3	Chloroethane	ND		8.0	2.6
67-66-3	Chloroform	ND		8.0	2.7
74-87-3	Chloromethane	ND		8.0	2.8
156-59-2	cis-1,2-Dichloroethene	500		8.0	6.5
10061-01-5	cis-1,3-Dichloropropene	ND		8.0	2.9
110-82-7	Cyclohexane	ND		8.0	1.4
124-48-1	Dibromochloromethane	ND		8.0	2.6
75-71-8	Dichlorodifluoromethane	ND		8.0	5.4
100-41-4	Ethylbenzene	ND		8.0	5.9
98-82-8	Isopropylbenzene	ND		8.0	6.3

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-23D | Lab Sample ID: 480-94483-2

Matrix: Water | Lab File ID: Q8821.D

Analysis Method: 8260C | Date Collected: 01/27/2016 15:50

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 18:09

Soil Aliquot Vol: | Dilution Factor: 8

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		20	10
1634-04-4	Methyl tert-butyl ether	ND		8.0	1.3
108-87-2	Methylcyclohexane	ND		8.0	1.3
75-09-2	Methylene Chloride	ND		8.0	3.5
100-42-5	Styrene	ND		8.0	5.8
127-18-4	Tetrachloroethene	560		8.0	2.9
108-88-3	Toluene	ND		8.0	4.1
156-60-5	trans-1,2-Dichloroethene	ND		8.0	7.2
10061-02-6	trans-1,3-Dichloropropene	ND		8.0	3.0
79-01-6	Trichloroethene	220		8.0	3.7
75-69-4	Trichlorofluoromethane	ND		8.0	7.0
75-01-4	Vinyl chloride	ND		8.0	7.2
1330-20-7	Xylenes, Total	ND		16	5.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		66-137
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
2037-26-5	Toluene-d8 (Surr)	87		71-126
1868-53-7	Dibromofluoromethane (Surr)	93		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8821.D
Lims ID: 480-94483-A-2 Lab Sample ID: 480-94483-2
Client ID: MW-23D
Sample Type: Client
Inject. Date: 29-Jan-2016 18:09:30 ALS Bottle#: 20 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 8.0000
Sample Info: 480-94483-A-2
Misc. Info.: 480-0050272-033
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:44:15 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 20:04:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.119	-0.002	99	85553	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.406	0.004	84	164718	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.279	-0.002	96	185909	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.639	0.004	93	104561	23.2	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.888	0.004	0	58101	22.1	
$ 5 Toluene-d8 (Surr)	98	6.291	6.287	0.004	92	336379	21.7	
$ 6 4-Bromofluorobenzene (Surr	174	8.340	8.336	0.004	93	113819	23.8	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.712				ND	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84		3.250				ND	
32 Methyl tert-butyl ether	73		3.451				ND	
34 trans-1,2-Dichloroethene	96	3.463	3.463	0.000	94	2141	0.3580	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.272	4.272	0.000	78	411493	62.8	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95	5.391	5.391	0.000	96	163083	27.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166	6.753	6.753	0.000	97	410948	70.3	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

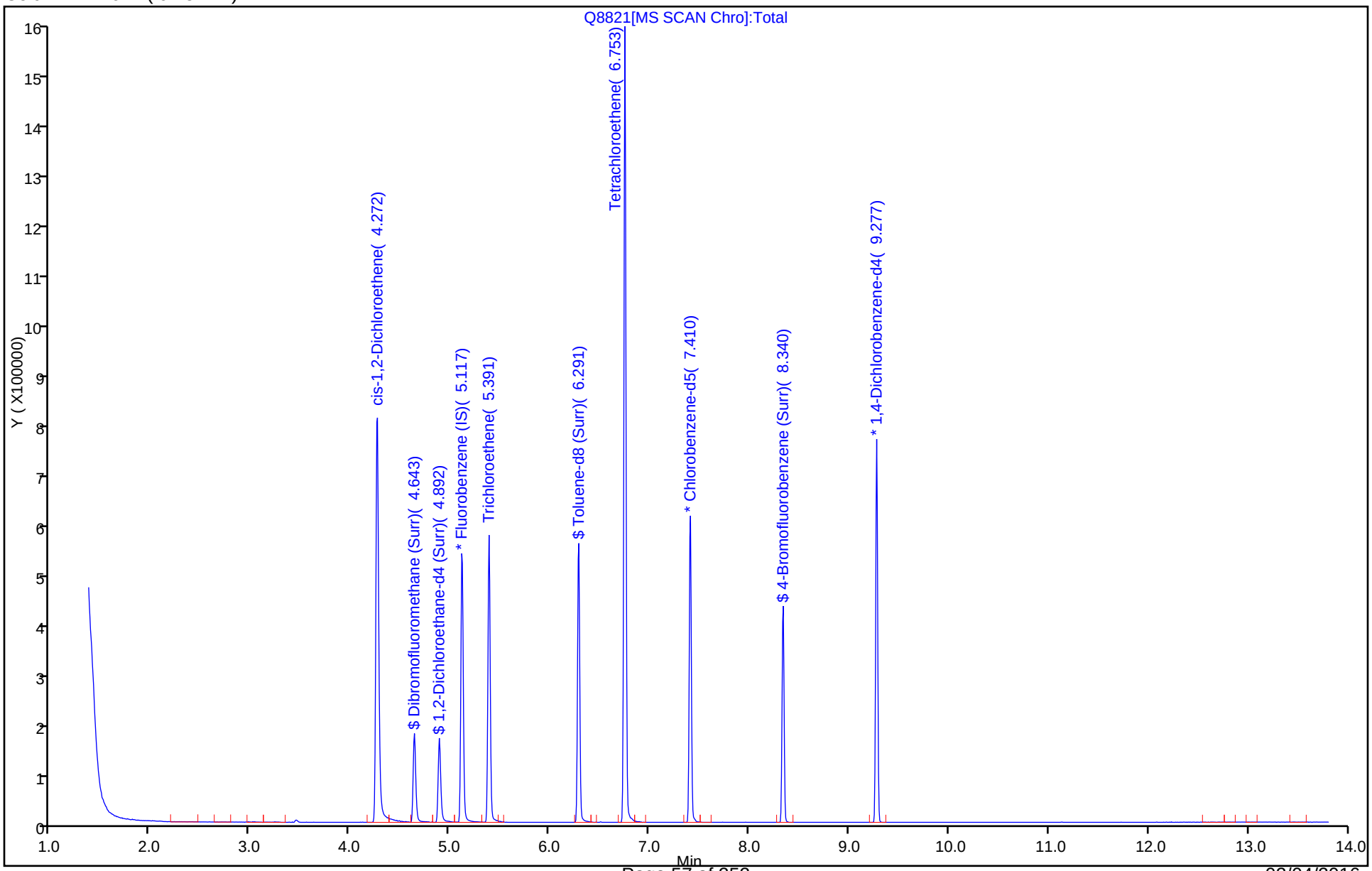
Report Date: 01-Feb-2016 08:50:14 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8821.D

Injection Date:	29-Jan-2016 18:09:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-2	Lab Sample ID:	480-94483-2	Worklist Smp#:	33
Client ID:	MW-23D				
Purge Vol:	5.000 mL	Dil. Factor:	8.0000	ALS Bottle#:	20
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



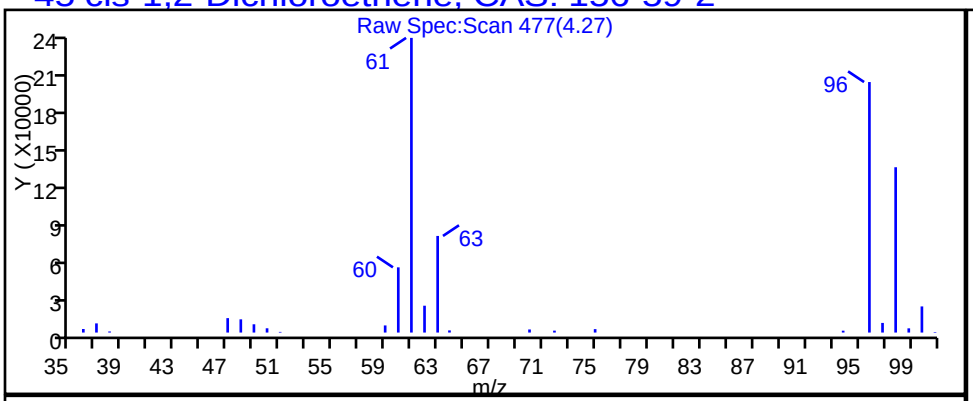
Report Date: 01-Feb-2016 08:50:14 Chrom Revision: 2.2 02-Dec-2015 11:51:48

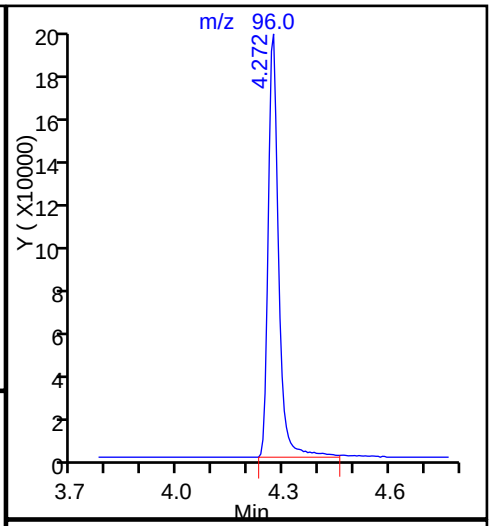
TestAmerica Buffalo

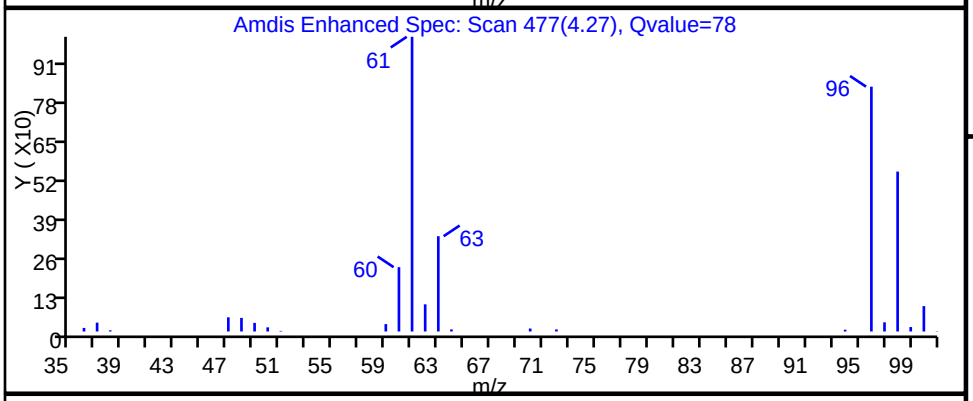
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8821.D

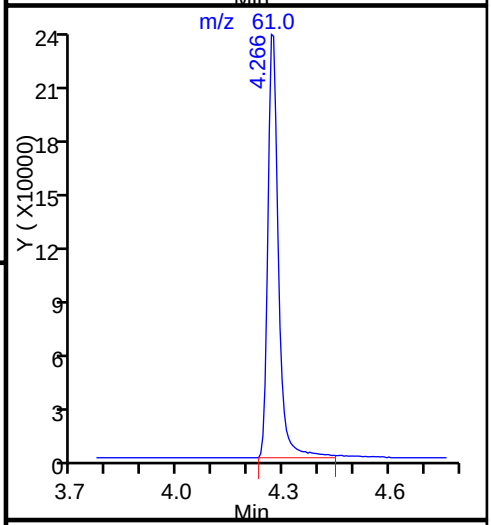
Injection Date:	29-Jan-2016 18:09:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-2	Lab Sample ID:	480-94483-2		
Client ID:	MW-23D				
Operator ID:	RR	ALS Bottle#:	20	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	8.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

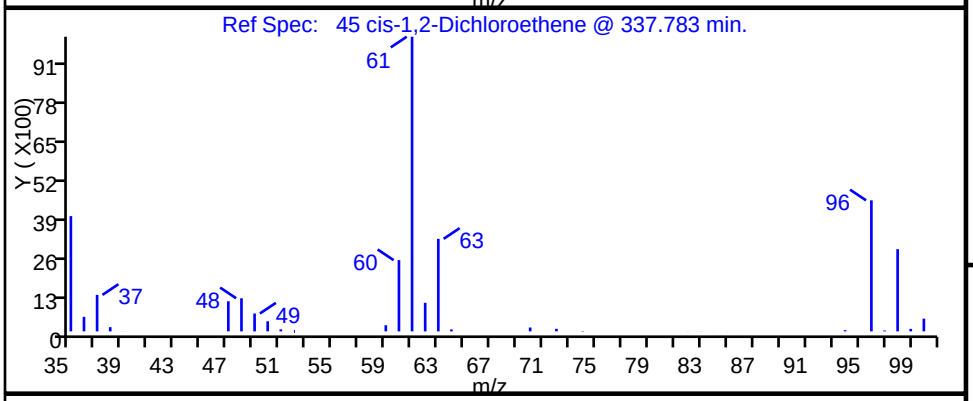
45 cis-1,2-Dichloroethene, CAS: 156-59-2

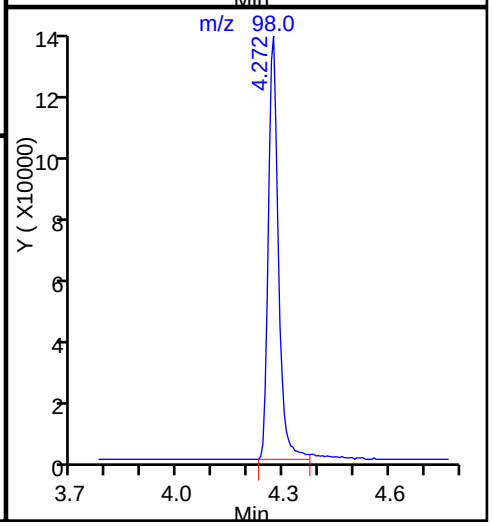


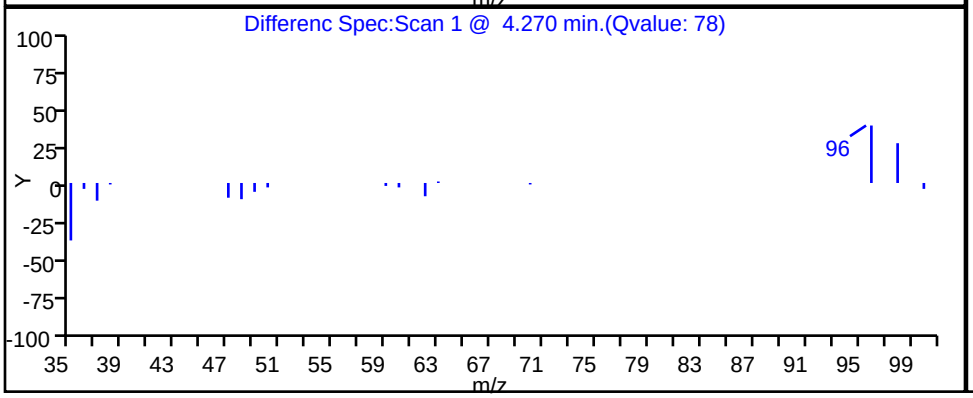










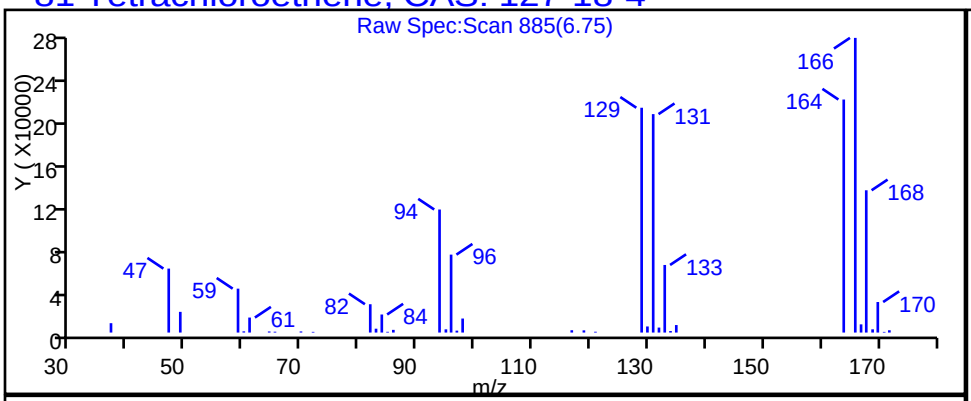


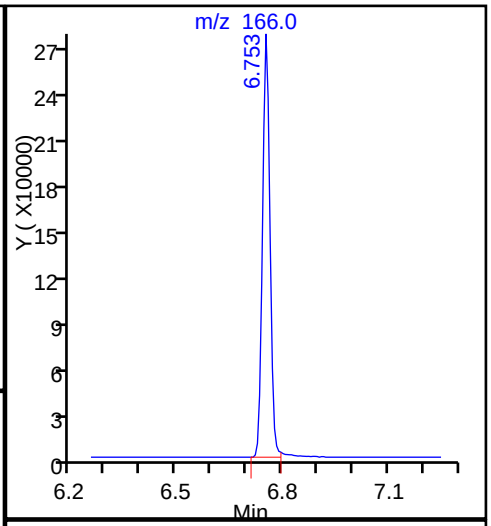
TestAmerica Buffalo

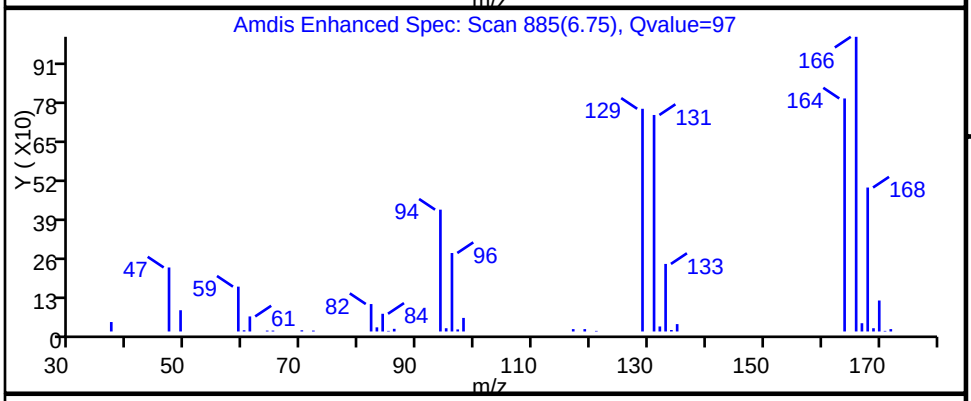
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8821.D

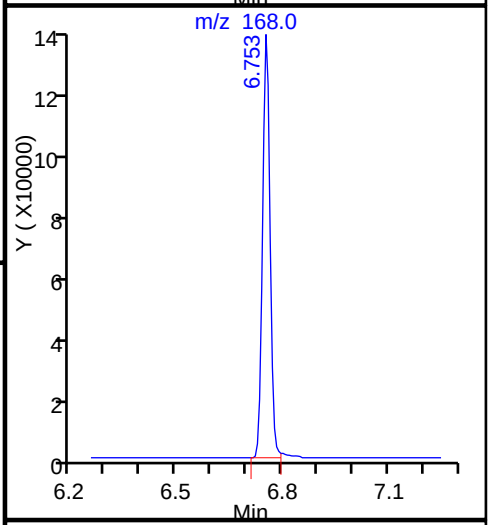
Injection Date:	29-Jan-2016 18:09:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-2	Lab Sample ID:	480-94483-2		
Client ID:	MW-23D				
Operator ID:	RR	ALS Bottle#:	20	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	8.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

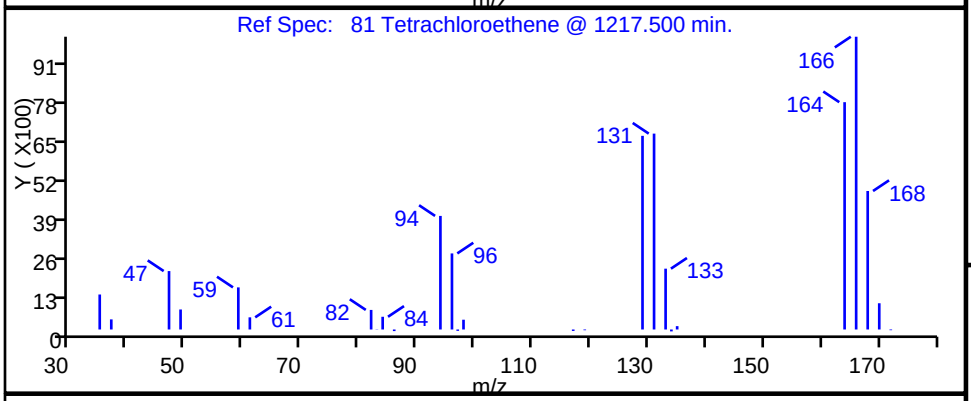
81 Tetrachloroethene, CAS: 127-18-4

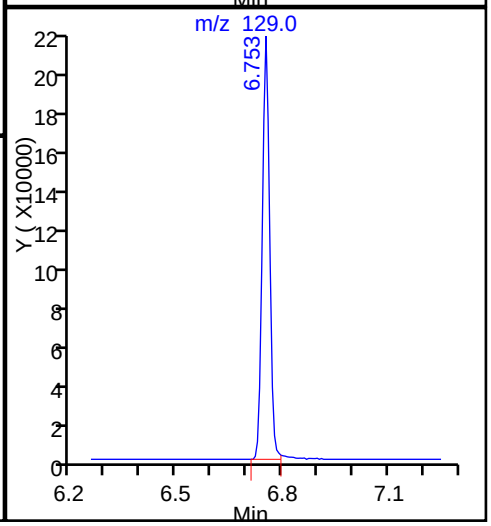


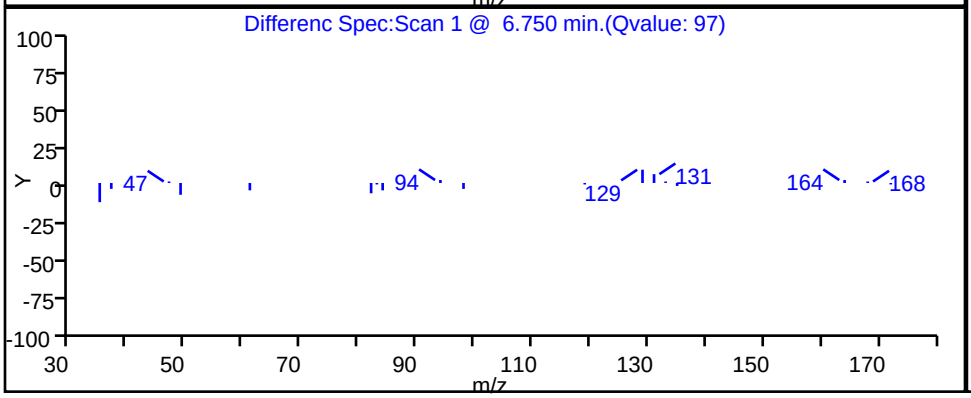










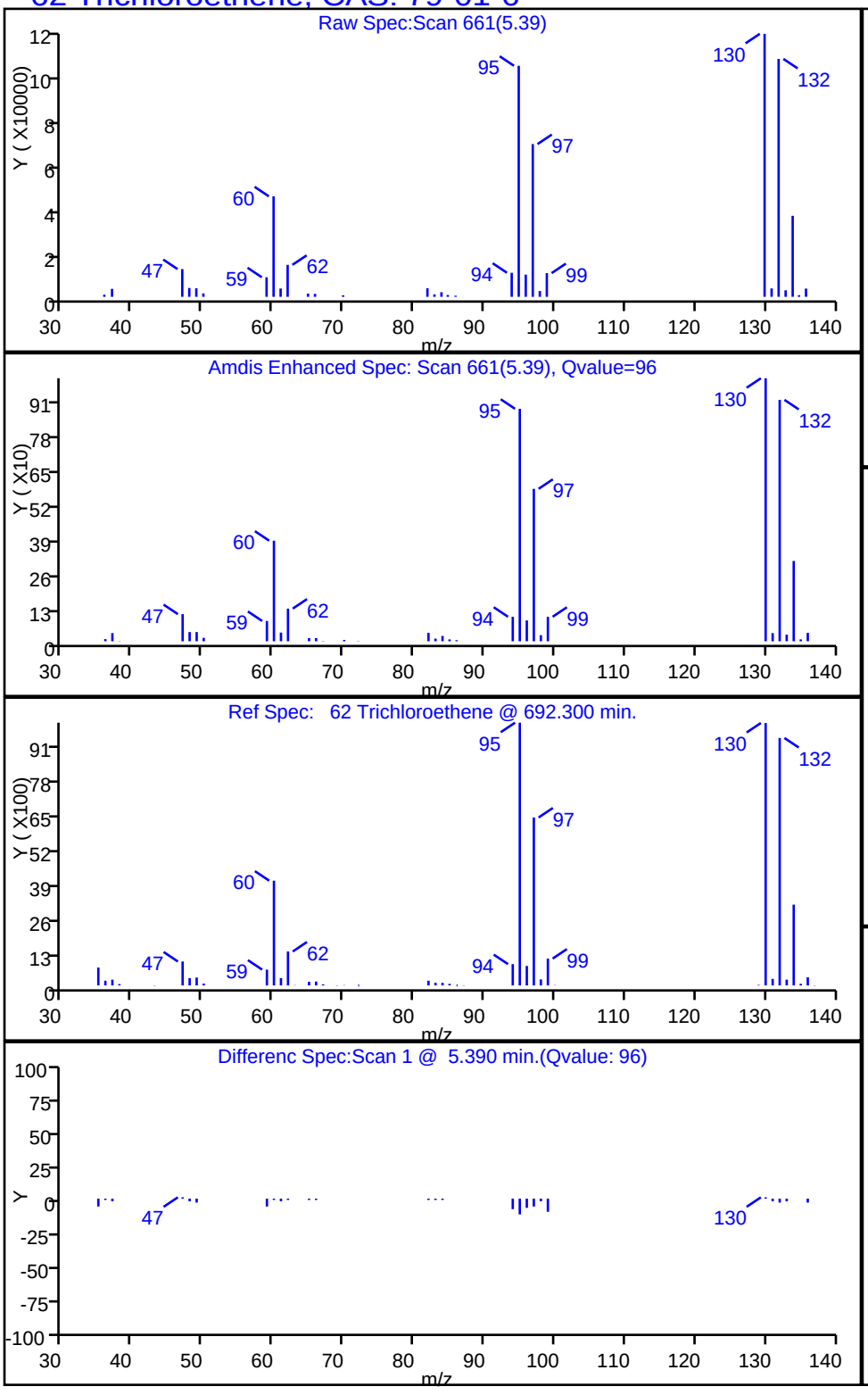


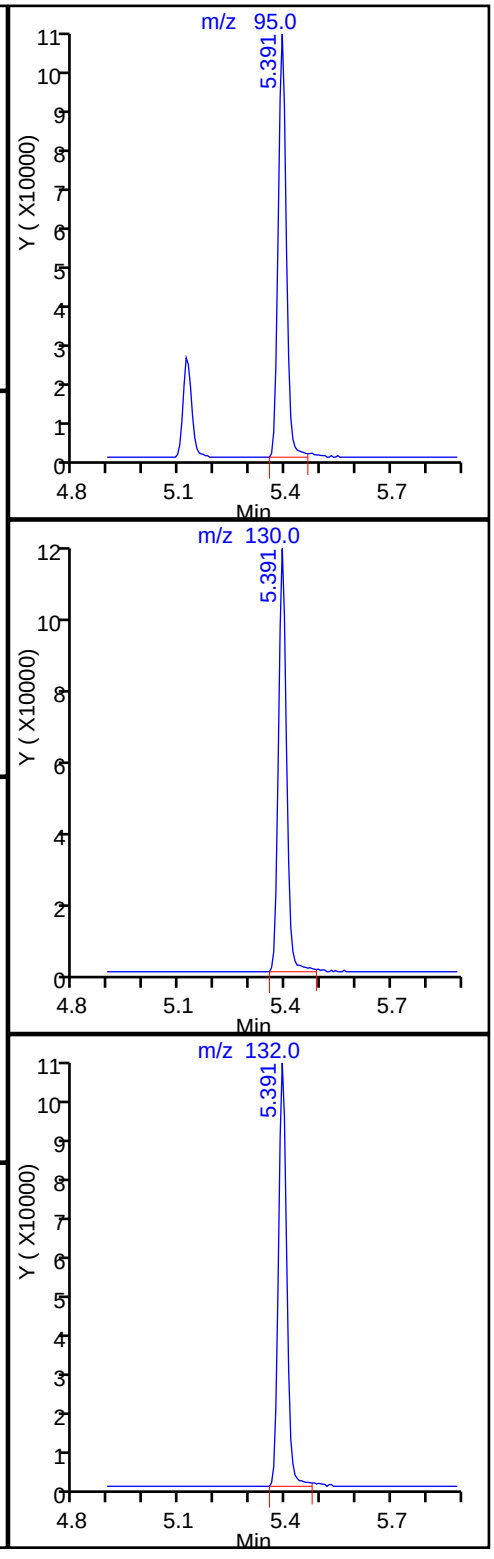
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8821.D

Injection Date:	29-Jan-2016 18:09:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-2	Lab Sample ID:	480-94483-2		
Client ID:	MW-23D				
Operator ID:	RR	ALS Bottle#:	20	Worklist Smp#:	33
Purge Vol:	5.000 mL	Dil. Factor:	8.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-1DD | Lab Sample ID: 480-94483-3

Matrix: Water | Lab File ID: Q8822.D

Analysis Method: 8260C | Date Collected: 01/28/2016 08:25

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 18:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
78-93-3	2-Butanone (MEK)	ND		10	1.3
591-78-6	2-Hexanone	ND		5.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	65		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-1DD | Lab Sample ID: 480-94483-3

Matrix: Water | Lab File ID: Q8822.D

Analysis Method: 8260C | Date Collected: 01/28/2016 08:25

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 18:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	0.39	J	1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	46		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	18		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		66-137
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
2037-26-5	Toluene-d8 (Surr)	88		71-126
1868-53-7	Dibromofluoromethane (Surr)	91		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8822.D
Lims ID: 480-94483-A-3 Lab Sample ID: 480-94483-3
Client ID: MW-1DD
Sample Type: Client
Inject. Date: 29-Jan-2016 18:33:30 ALS Bottle#: 21 Worklist Smp#: 34
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-94483-A-3
Misc. Info.: 480-0050272-034
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:44:15 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 20:07:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.119	-0.002	99	85113	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.406	0.004	84	162433	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.279	-0.002	95	183986	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.639	0.004	93	102502	22.8	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.888	0.004	0	59460	22.8	
$ 5 Toluene-d8 (Surr)	98	6.291	6.287	0.004	93	338000	22.1	
$ 6 4-Bromofluorobenzene (Surr	174	8.341	8.336	0.005	94	115356	24.5	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.712				ND	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84		3.250				ND	
32 Methyl tert-butyl ether	73	3.457	3.451	0.006	94	7494	0.3928	
34 trans-1,2-Dichloroethene	96	3.463	3.463	0.000	50	1033	0.1736	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.266	4.272	-0.006	78	422872	64.9	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95	5.391	5.391	0.000	96	107180	18.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166	6.753	6.753	0.000	97	265459	46.1	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

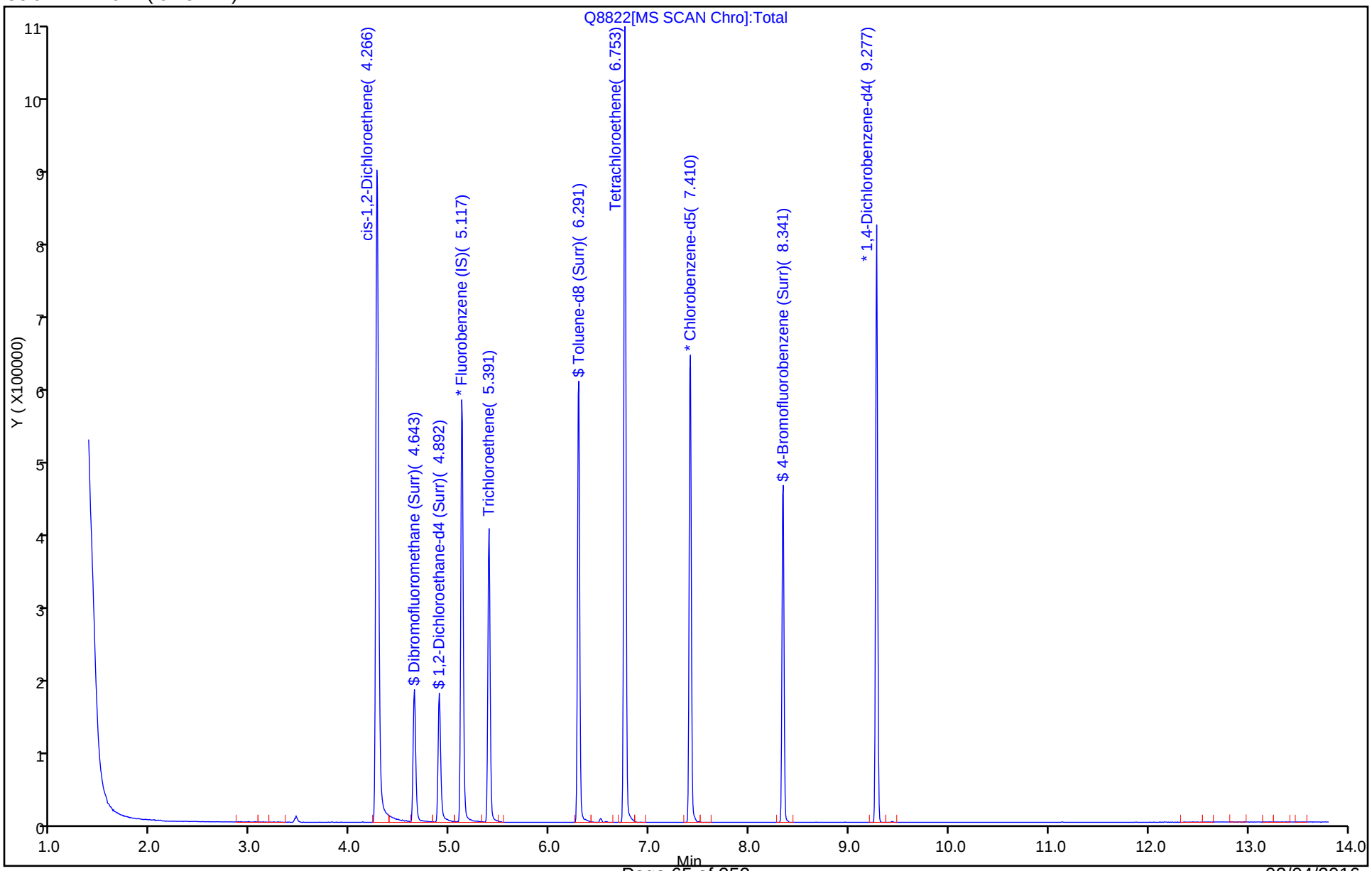
Report Date: 01-Feb-2016 08:50:50 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8822.D

Injection Date:	29-Jan-2016 18:33:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-3	Lab Sample ID:	480-94483-3	Worklist Smp#:	34
Client ID:	MW-1DD				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)

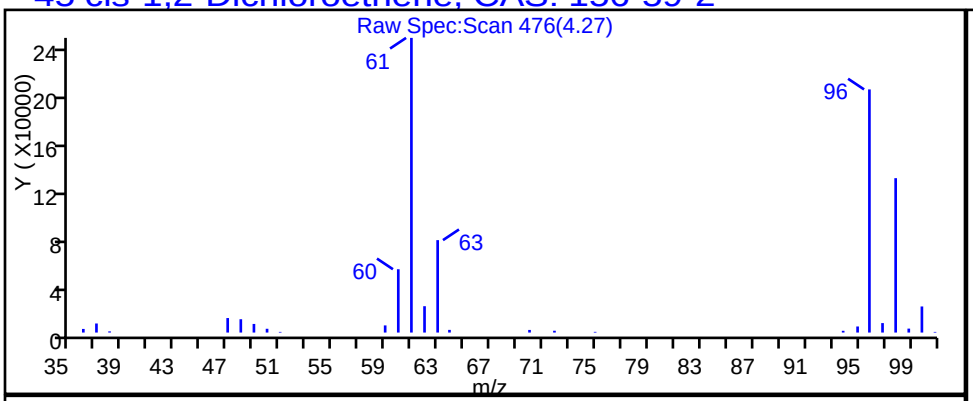


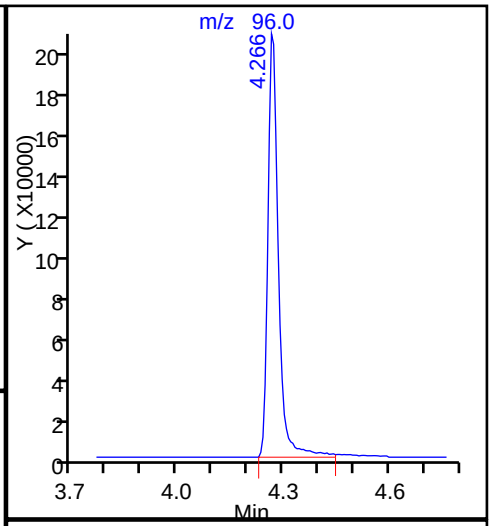
TestAmerica Buffalo

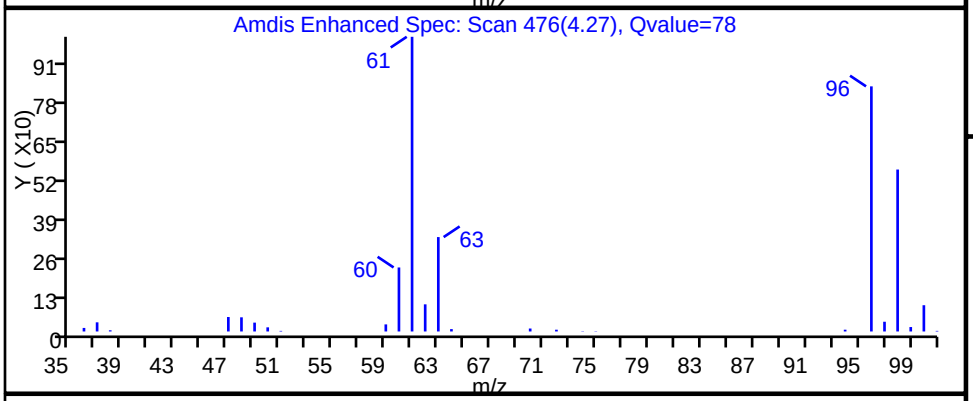
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8822.D

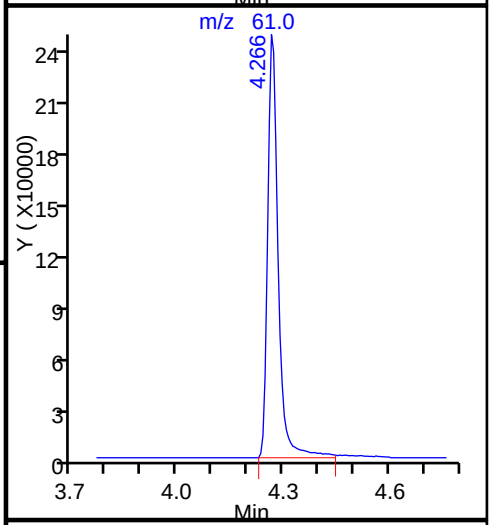
Injection Date:	29-Jan-2016 18:33:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-3	Lab Sample ID:	480-94483-3		
Client ID:	MW-1DD				
Operator ID:	RR	ALS Bottle#:	21	Worklist Smp#:	34
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

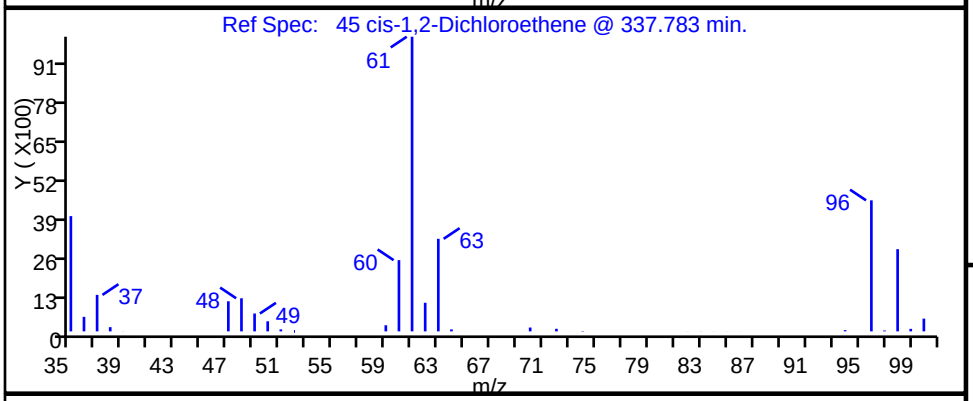
45 cis-1,2-Dichloroethene, CAS: 156-59-2

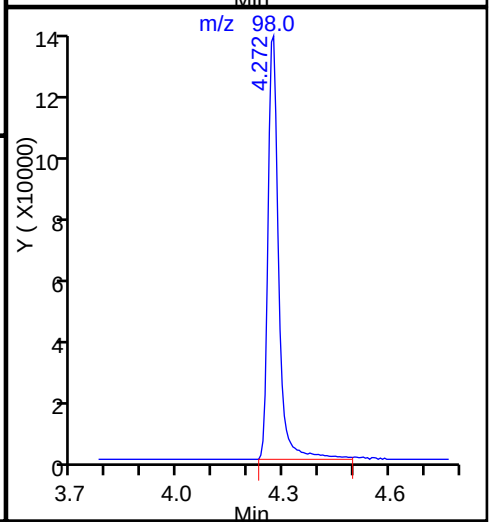


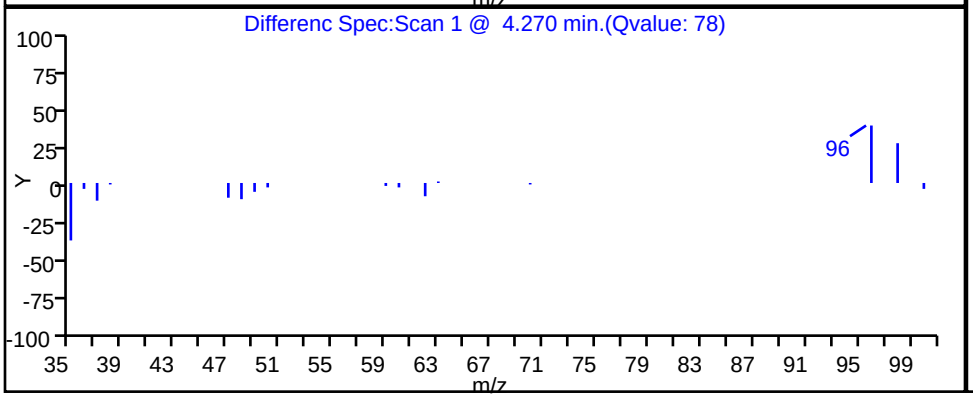










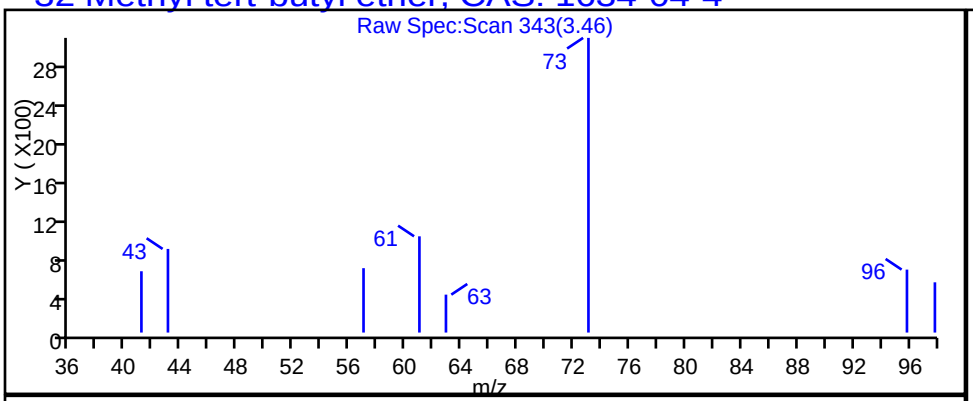


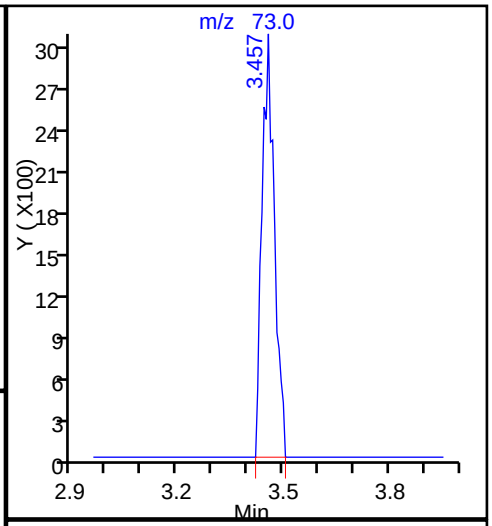
TestAmerica Buffalo

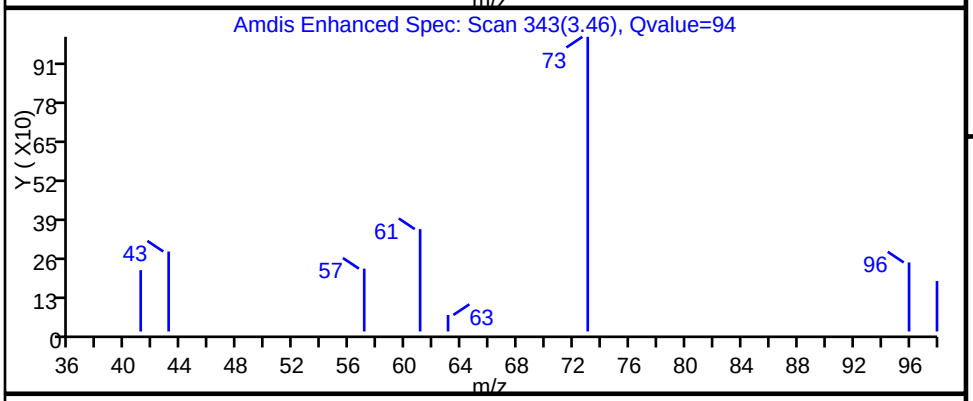
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8822.D

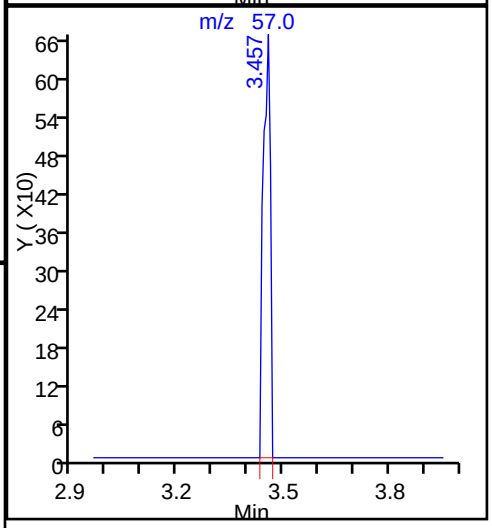
Injection Date:	29-Jan-2016 18:33:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-3	Lab Sample ID:	480-94483-3		
Client ID:	MW-1DD				
Operator ID:	RR	ALS Bottle#:	21	Worklist Smp#:	34
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

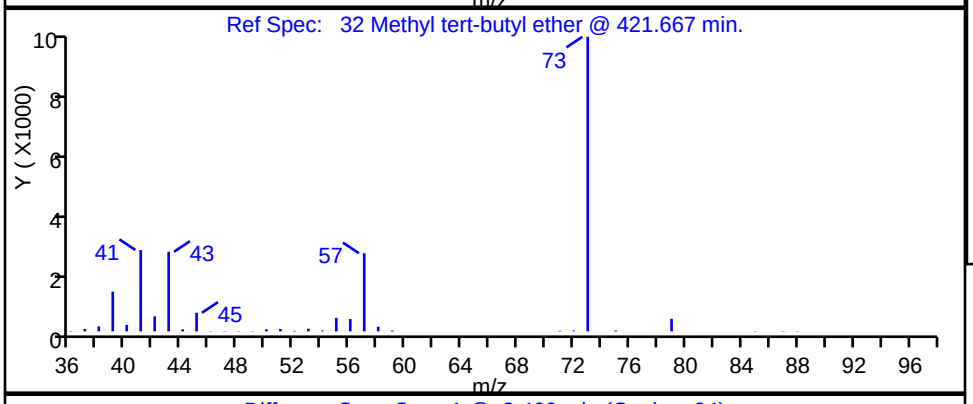
32 Methyl tert-butyl ether, CAS: 1634-04-4

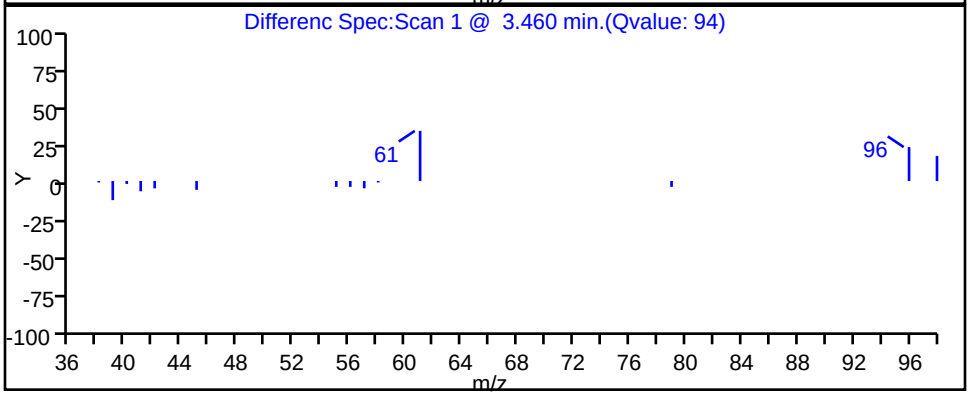










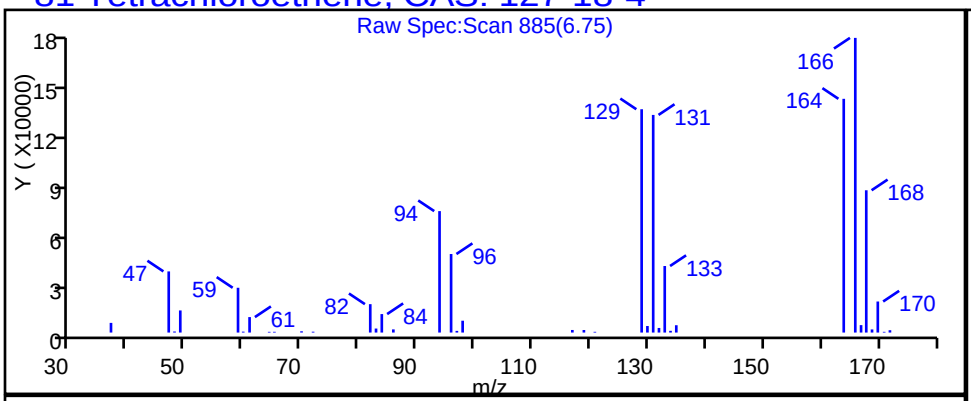


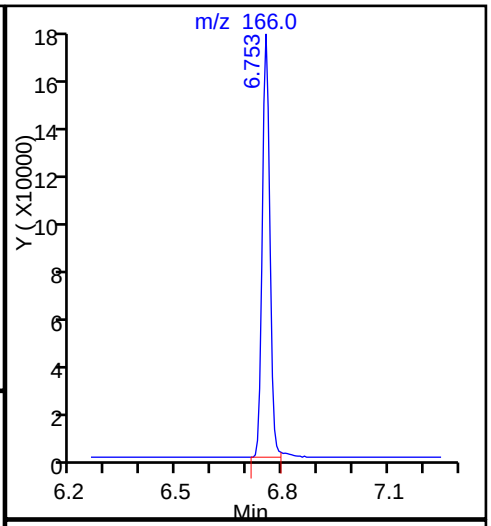
TestAmerica Buffalo

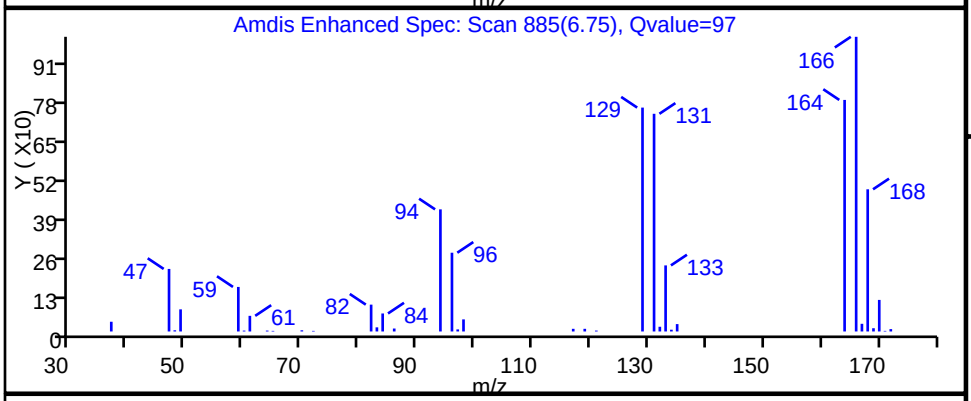
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8822.D

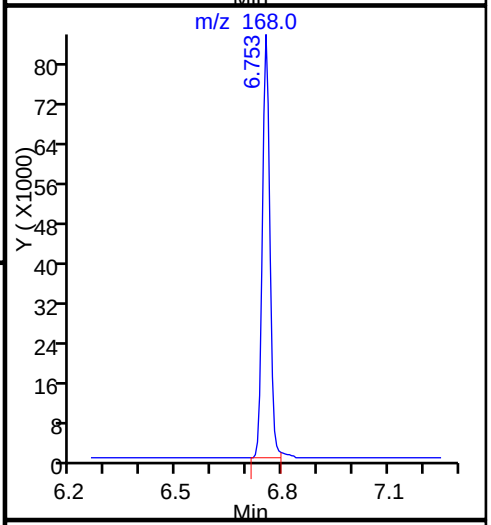
Injection Date:	29-Jan-2016 18:33:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-3	Lab Sample ID:	480-94483-3		
Client ID:	MW-1DD				
Operator ID:	RR	ALS Bottle#:	21	Worklist Smp#:	34
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

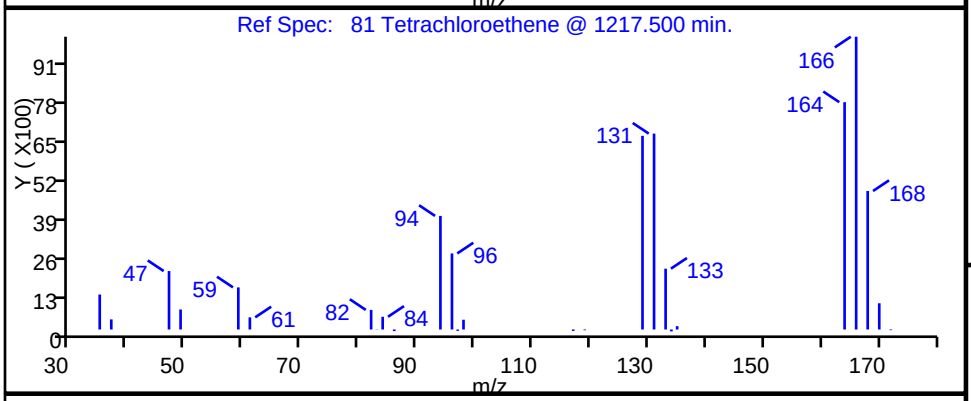
81 Tetrachloroethene, CAS: 127-18-4

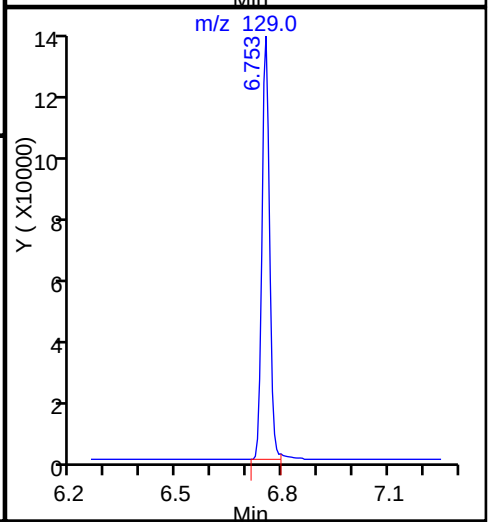


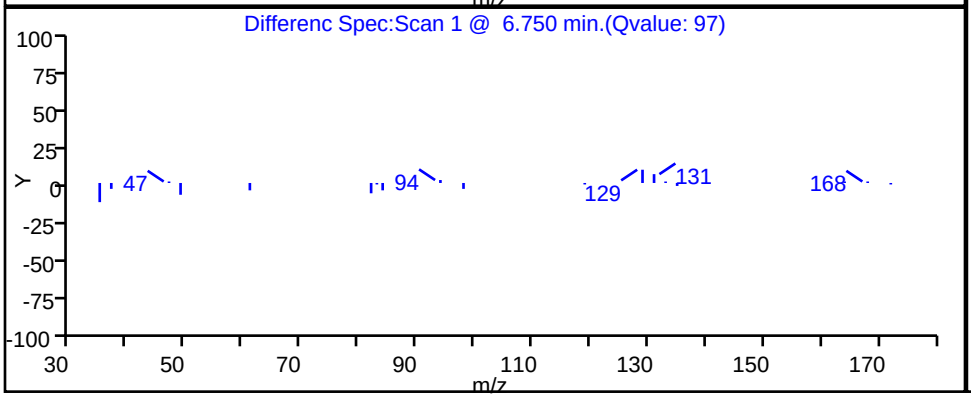










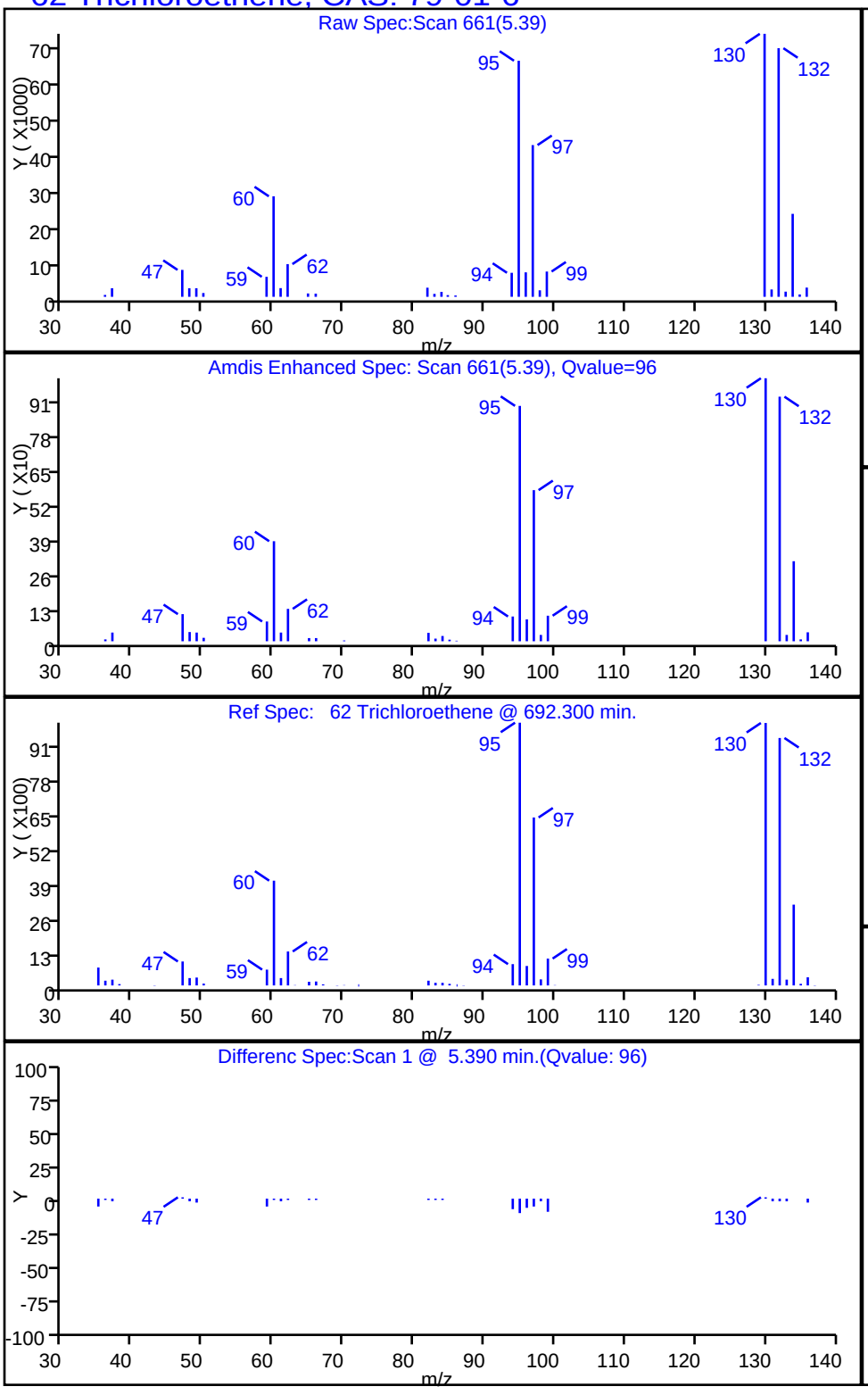


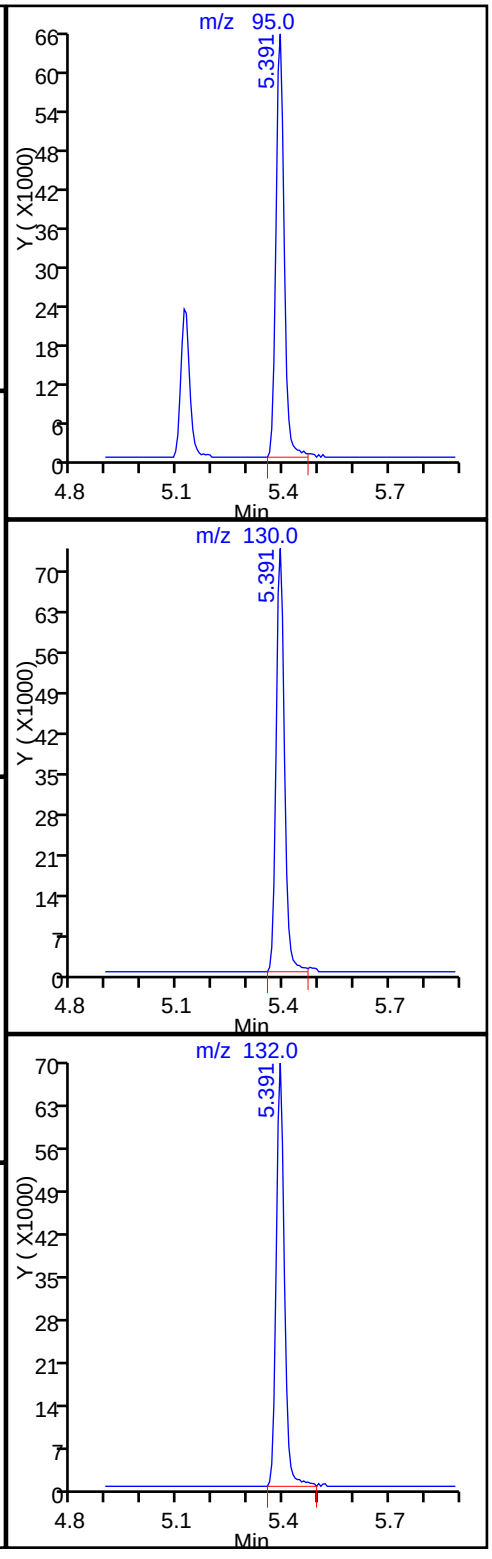
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8822.D

Injection Date:	29-Jan-2016 18:33:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-3	Lab Sample ID:	480-94483-3		
Client ID:	MW-1DD				
Operator ID:	RR	ALS Bottle#:	21	Worklist Smp#:	34
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: GM-9 | Lab Sample ID: 480-94483-4

Matrix: Water | Lab File ID: Q8871.D

Analysis Method: 8260C | Date Collected: 01/28/2016 08:20

Sample wt/vol: 1(uL) | Date Analyzed: 02/02/2016 12:48

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285817 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		2.0	1.6
79-34-5	1,1,2,2-Tetrachloroethane	ND		2.0	0.42
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62
79-00-5	1,1,2-Trichloroethane	ND		2.0	0.46
75-34-3	1,1-Dichloroethane	ND		2.0	0.76
75-35-4	1,1-Dichloroethene	ND		2.0	0.58
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.82
96-12-8	1,2-Dibromo-3-Chloropropane	ND		2.0	0.78
106-93-4	1,2-Dibromoethane	ND		2.0	1.5
95-50-1	1,2-Dichlorobenzene	ND		2.0	1.6
107-06-2	1,2-Dichloroethane	0.42	J	2.0	0.42
78-87-5	1,2-Dichloropropane	ND		2.0	1.4
541-73-1	1,3-Dichlorobenzene	ND		2.0	1.6
106-46-7	1,4-Dichlorobenzene	ND		2.0	1.7
78-93-3	2-Butanone (MEK)	ND		20	2.6
591-78-6	2-Hexanone	ND		10	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10	4.2
67-64-1	Acetone	ND	*	20	6.0
71-43-2	Benzene	ND		2.0	0.82
75-27-4	Bromodichloromethane	ND		2.0	0.78
75-25-2	Bromoform	ND		2.0	0.52
74-83-9	Bromomethane	ND		2.0	1.4
75-15-0	Carbon disulfide	ND		2.0	0.38
56-23-5	Carbon tetrachloride	ND		2.0	0.54
108-90-7	Chlorobenzene	ND		2.0	1.5
75-00-3	Chloroethane	ND		2.0	0.64
67-66-3	Chloroform	ND		2.0	0.68
74-87-3	Chloromethane	ND		2.0	0.70
156-59-2	cis-1,2-Dichloroethene	89		2.0	1.6
10061-01-5	cis-1,3-Dichloropropene	ND		2.0	0.72
110-82-7	Cyclohexane	ND		2.0	0.36
124-48-1	Dibromochloromethane	ND		2.0	0.64
75-71-8	Dichlorodifluoromethane	ND		2.0	1.4
100-41-4	Ethylbenzene	ND		2.0	1.5
98-82-8	Isopropylbenzene	ND		2.0	1.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: GM-9 | Lab Sample ID: 480-94483-4

Matrix: Water | Lab File ID: Q8871.D

Analysis Method: 8260C | Date Collected: 01/28/2016 08:20

Sample wt/vol: 1(uL) | Date Analyzed: 02/02/2016 12:48

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285817 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		5.0	2.6
1634-04-4	Methyl tert-butyl ether	1.6	J	2.0	0.32
108-87-2	Methylcyclohexane	ND		2.0	0.32
75-09-2	Methylene Chloride	ND		2.0	0.88
100-42-5	Styrene	ND		2.0	1.5
127-18-4	Tetrachloroethene	120		2.0	0.72
108-88-3	Toluene	ND		2.0	1.0
156-60-5	trans-1,2-Dichloroethene	ND		2.0	1.8
10061-02-6	trans-1,3-Dichloropropene	ND		2.0	0.74
79-01-6	Trichloroethene	26		2.0	0.92
75-69-4	Trichlorofluoromethane	ND		2.0	1.8
75-01-4	Vinyl chloride	2.4		2.0	1.8
1330-20-7	Xylenes, Total	ND		4.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		66-137
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
2037-26-5	Toluene-d8 (Surr)	85		71-126
1868-53-7	Dibromofluoromethane (Surr)	89		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D
Lims ID: 480-94483-B-4 Lab Sample ID: 480-94483-4
Client ID: GM-9
Sample Type: Client
Inject. Date: 02-Feb-2016 12:48:30 ALS Bottle#: 7 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 480-94483-B-4
Misc. Info.: 480-0050332-019
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 03-Feb-2016 08:26:27 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: reiler Date: 03-Feb-2016 08:26:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.119	5.118	0.001	99	86553	25.0	
* 2 Chlorobenzene-d5	82	7.405	7.411	-0.006	84	170601	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.278	9.278	0.000	95	186189	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.644	4.638	0.006	94	101647	22.3	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.894	4.893	0.001	0	56817	21.4	
$ 5 Toluene-d8 (Surr)	98	6.286	6.286	0.000	93	340368	21.2	
$ 6 4-Bromofluorobenzene (Surr	174	8.342	8.341	0.001	92	119719	24.2	
10 Dichlorodifluoromethane	85		1.433				ND	
12 Chloromethane	50		1.609				ND	
13 Vinyl chloride	62	1.713	1.707	0.006	93	6799	1.20	
14 Bromomethane	94		2.023				ND	
15 Chloroethane	64		2.126				ND	
17 Trichlorofluoromethane	101		2.303				ND	
22 1,1-Dichloroethene	96		2.789				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.807				ND	
23 Acetone	43		2.886				ND	
26 Carbon disulfide	76		2.978				ND	
27 Methyl acetate	43		3.160				ND	
30 Methylene Chloride	84		3.245				ND	
32 Methyl tert-butyl ether	73	3.452	3.446	0.006	95	15698	0.8091	
34 trans-1,2-Dichloroethene	96	3.459	3.458	0.000	42	2004	0.3312	
39 1,1-Dichloroethane	63		3.811				ND	
45 cis-1,2-Dichloroethene	96	4.267	4.267	0.000	78	294612	44.5	
43 2-Butanone (MEK)	43		4.279				ND	
50 Chloroform	83		4.516				ND	
51 1,1,1-Trichloroethane	97		4.632				ND	
52 Cyclohexane	56		4.650				ND	
55 Carbon tetrachloride	117		4.747				ND	
57 Benzene	78	4.912	4.912	0.000	91	5127	0.2339	
58 1,2-Dichloroethane	62	4.948	4.948	0.000	88	1682	0.2084	
62 Trichloroethene	95	5.392	5.392	0.000	94	78481	13.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.501				ND	
65 1,2-Dichloropropane	63	5.569	5.568	0.001	86	3101	0.5935	
68 Dichlorobromomethane	83		5.781				ND	
77 trans-1,3-Dichloropropene	75		6.103				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.201				ND	
74 Toluene	92		6.341				ND	
72 cis-1,3-Dichloropropene	75		6.529				ND	
79 1,1,2-Trichloroethane	83		6.675				ND	
81 Tetrachloroethene	166	6.755	6.754	0.001	97	358305	59.2	
80 2-Hexanone	43		6.833				ND	
83 Chlorodibromomethane	129		6.985				ND	
84 Ethylene Dibromide	107		7.070				ND	
87 Chlorobenzene	112		7.429				ND	
88 Ethylbenzene	91		7.496				ND	
90 m-Xylene & p-Xylene	106		7.587				ND	
91 o-Xylene	106		7.904				ND	
92 Styrene	104		7.922				ND	
95 Bromoform	173		8.110				ND	
94 Isopropylbenzene	105		8.189				ND	
97 1,1,2,2-Tetrachloroethane	83		8.469				ND	
111 1,3-Dichlorobenzene	146		9.223				ND	
113 1,4-Dichlorobenzene	146		9.296				ND	
116 1,2-Dichlorobenzene	146		9.612				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.269				ND	
119 1,2,4-Trichlorobenzene	180		10.932				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

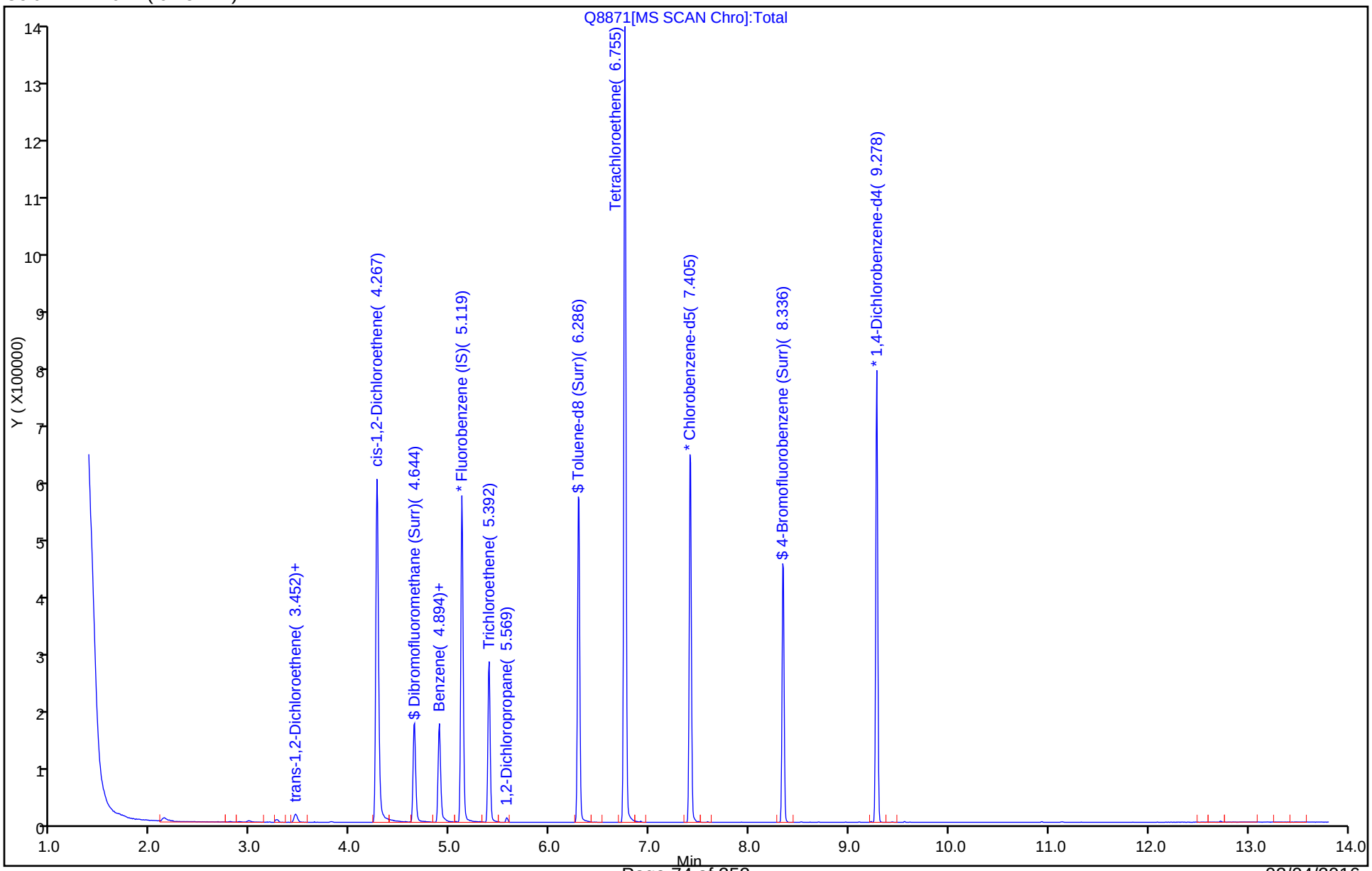
Report Date: 03-Feb-2016 08:26:28 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D

Injection Date:	02-Feb-2016 12:48:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-B-4	Lab Sample ID:	480-94483-4	Worklist Smp#:	19
Client ID:	GM-9				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	7
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)

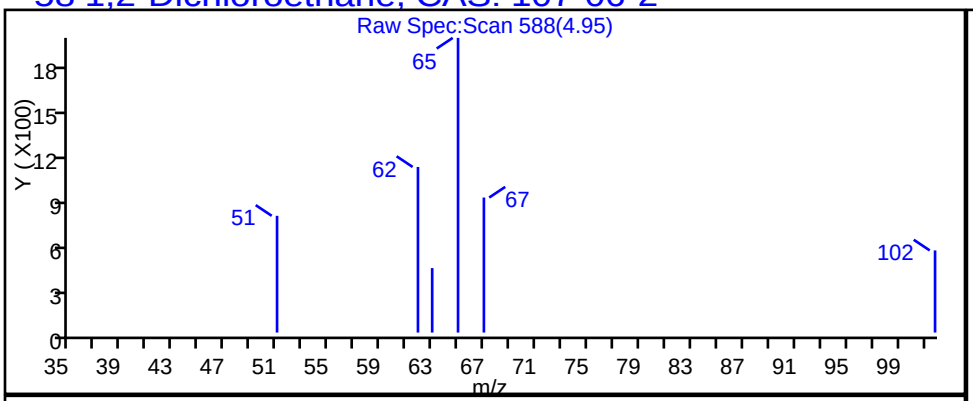


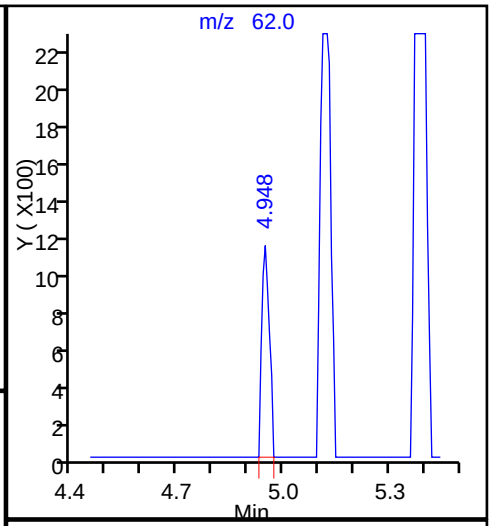
TestAmerica Buffalo

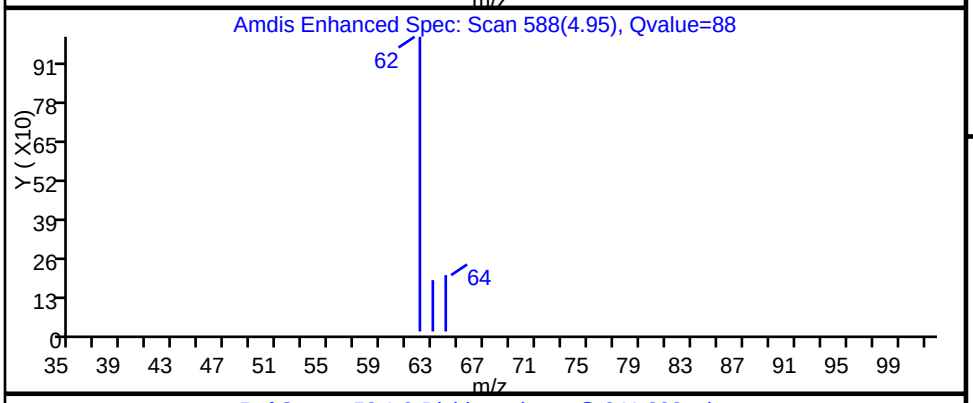
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D

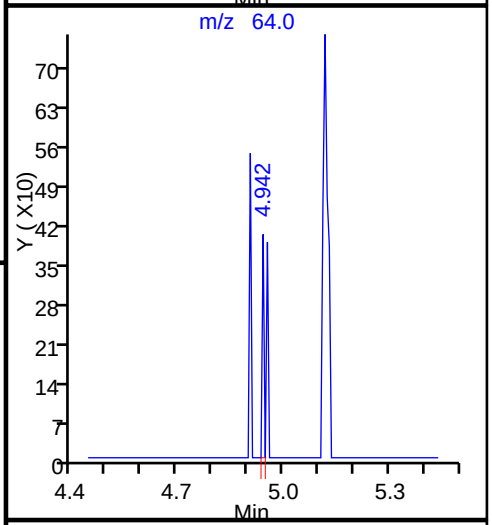
Injection Date:	02-Feb-2016 12:48:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-B-4	Lab Sample ID:	480-94483-4		
Client ID:	GM-9				
Operator ID:	RR	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

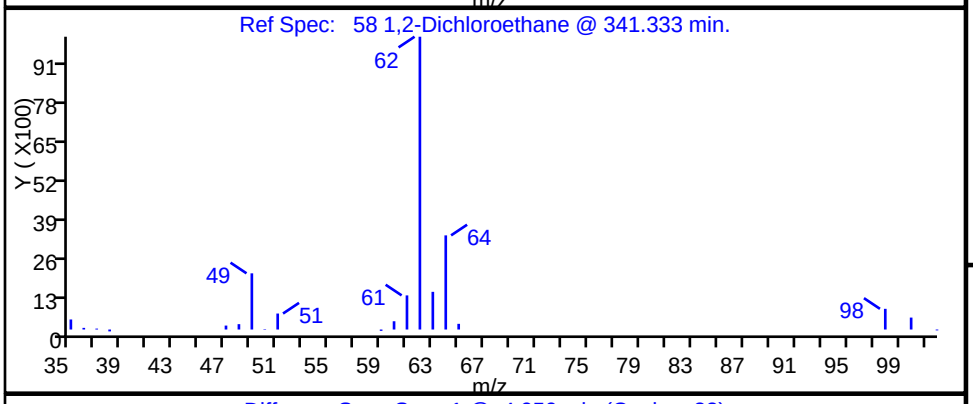
58 1,2-Dichloroethane, CAS: 107-06-2

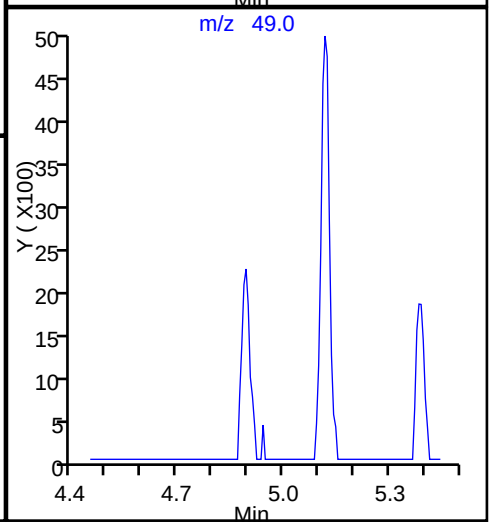


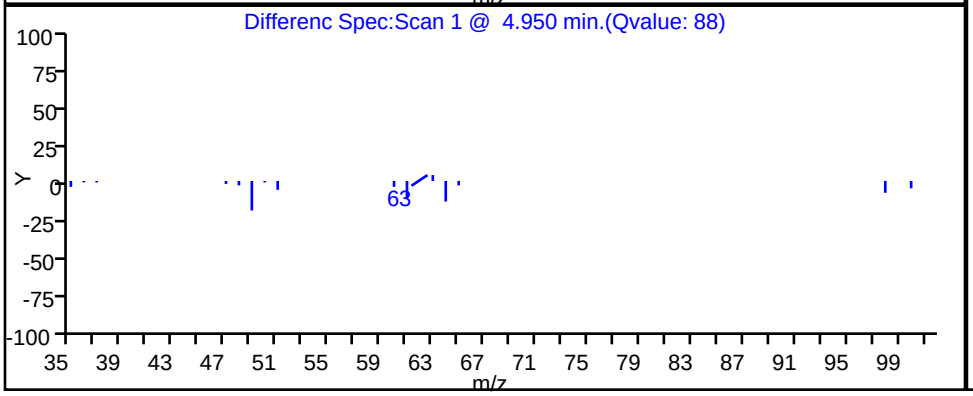












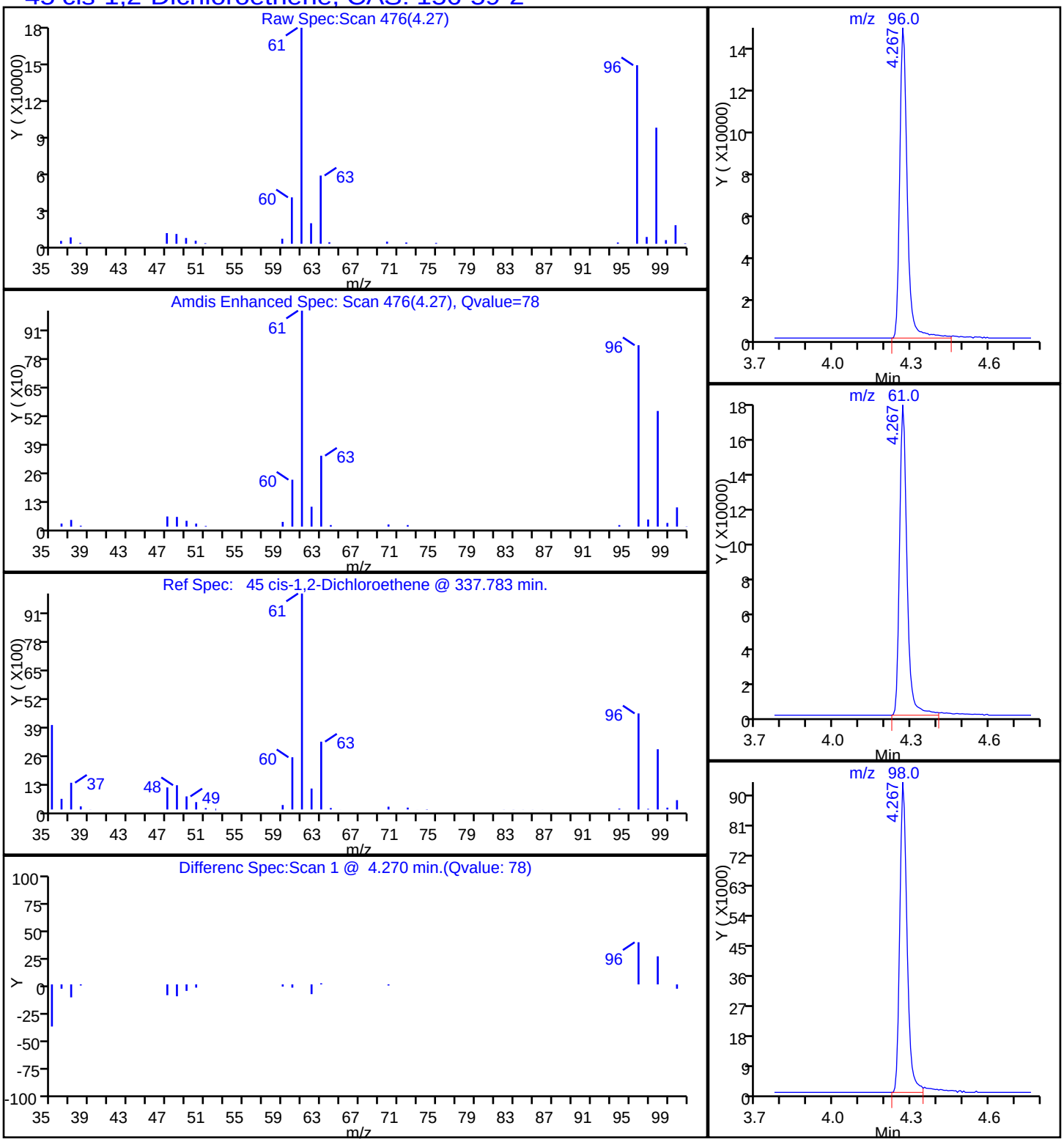
Report Date: 03-Feb-2016 08:26:28 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D

Injection Date:	02-Feb-2016 12:48:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-B-4	Lab Sample ID:	480-94483-4		
Client ID:	GM-9				
Operator ID:	RR	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

45 cis-1,2-Dichloroethene, CAS: 156-59-2

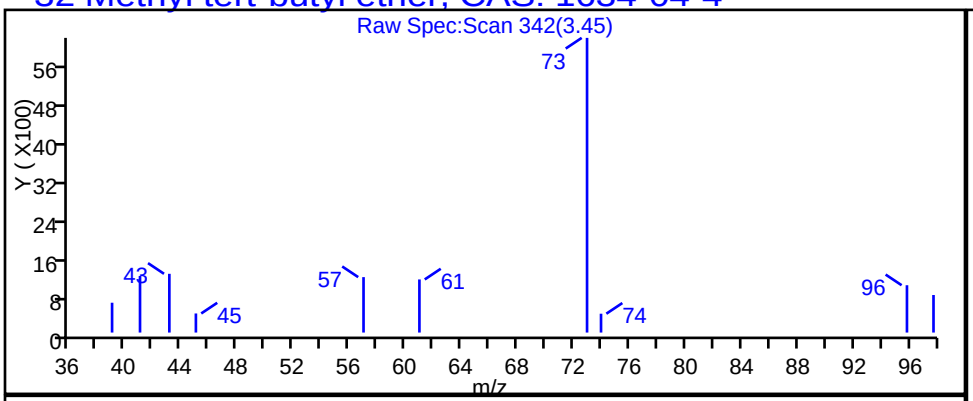


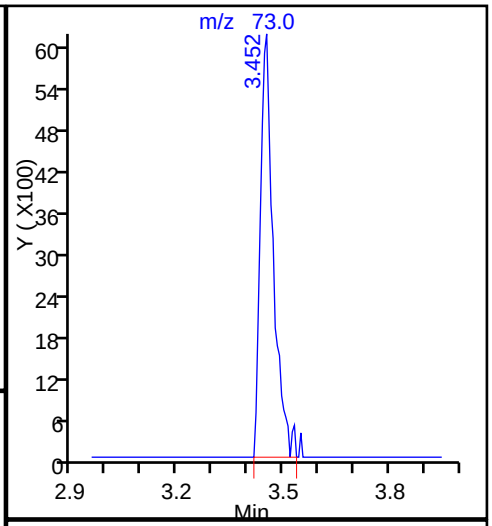
TestAmerica Buffalo

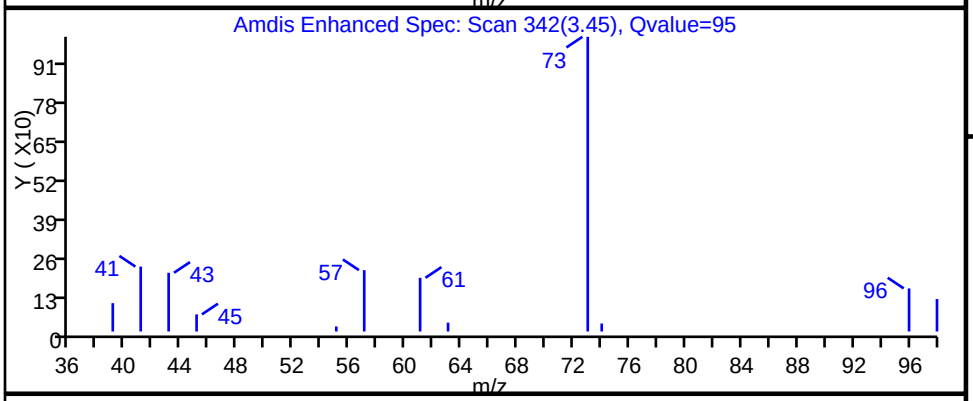
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D

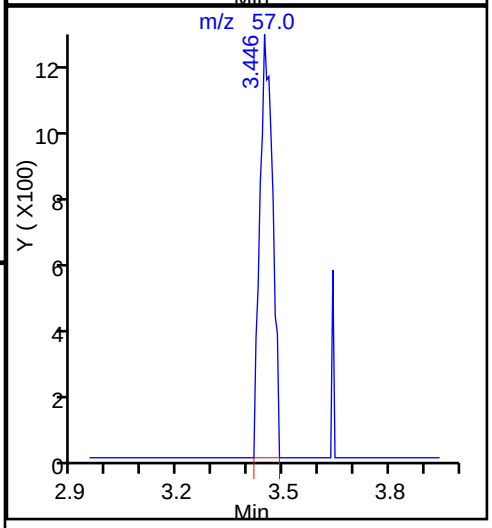
Injection Date:	02-Feb-2016 12:48:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-B-4	Lab Sample ID:	480-94483-4		
Client ID:	GM-9				
Operator ID:	RR	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

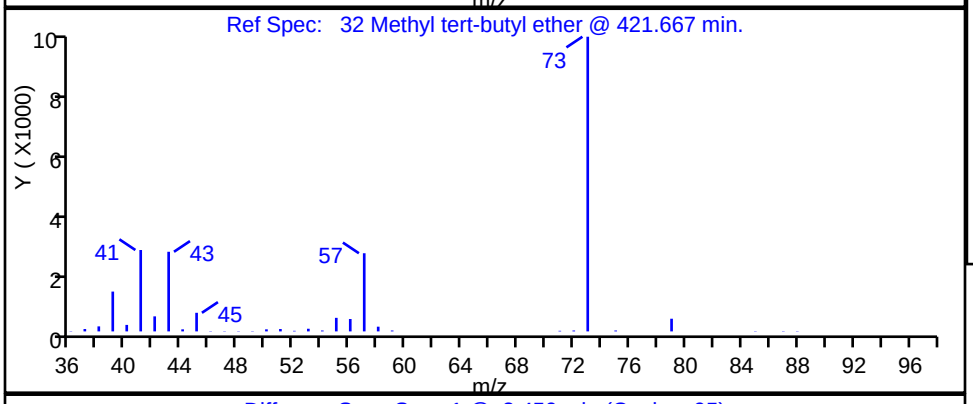
32 Methyl tert-butyl ether, CAS: 1634-04-4

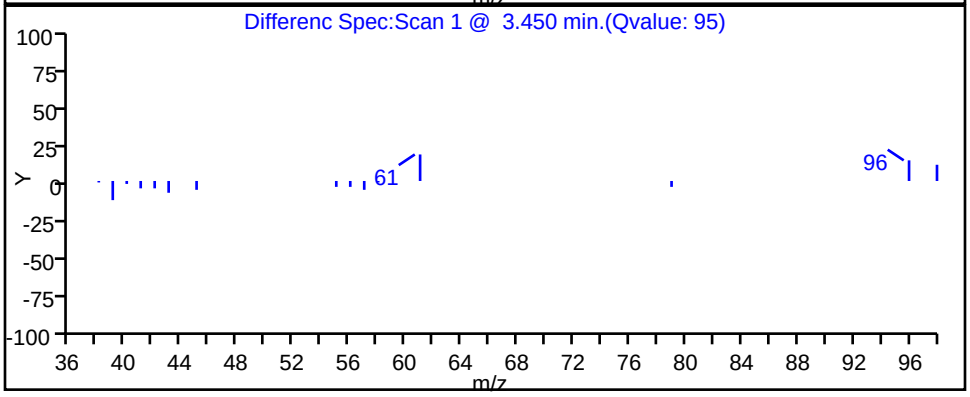












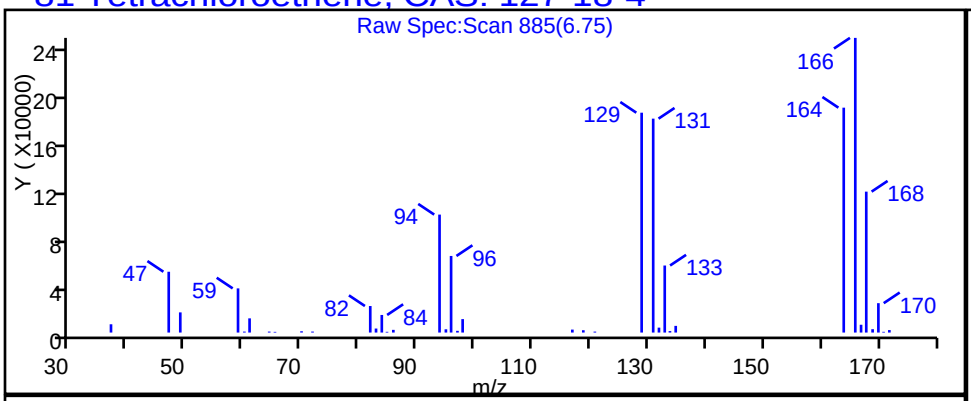
Report Date: 03-Feb-2016 08:26:28 Chrom Revision: 2.2 02-Dec-2015 11:51:48

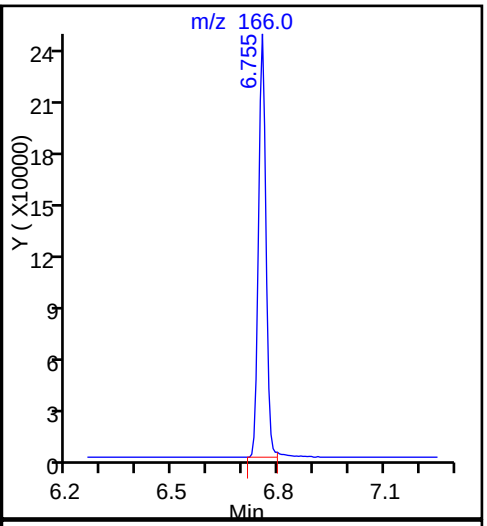
TestAmerica Buffalo

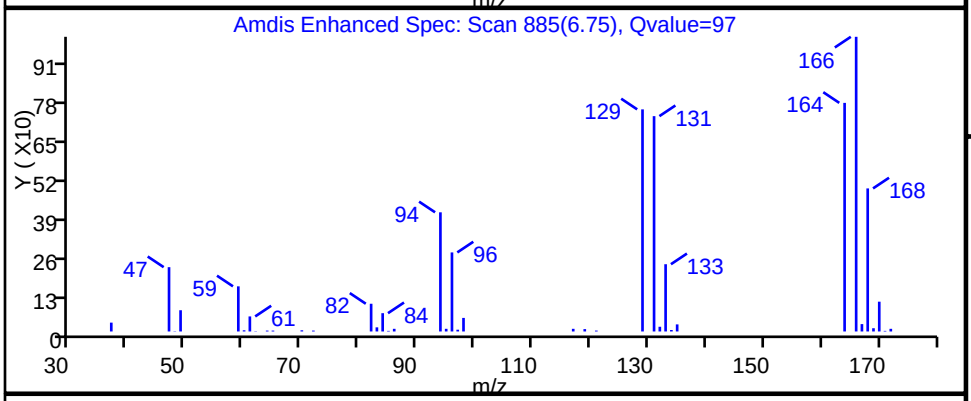
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D

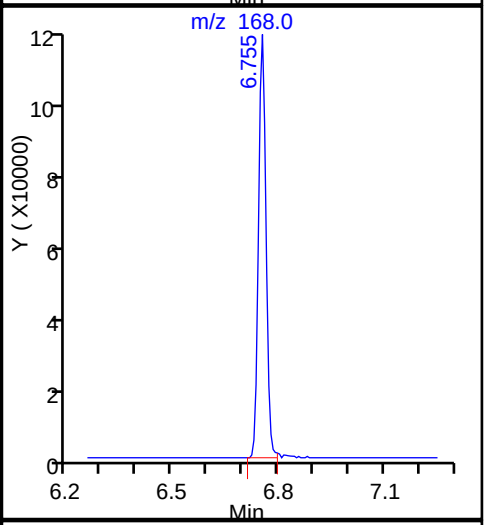
Injection Date:	02-Feb-2016 12:48:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-B-4	Lab Sample ID:	480-94483-4		
Client ID:	GM-9				
Operator ID:	RR	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

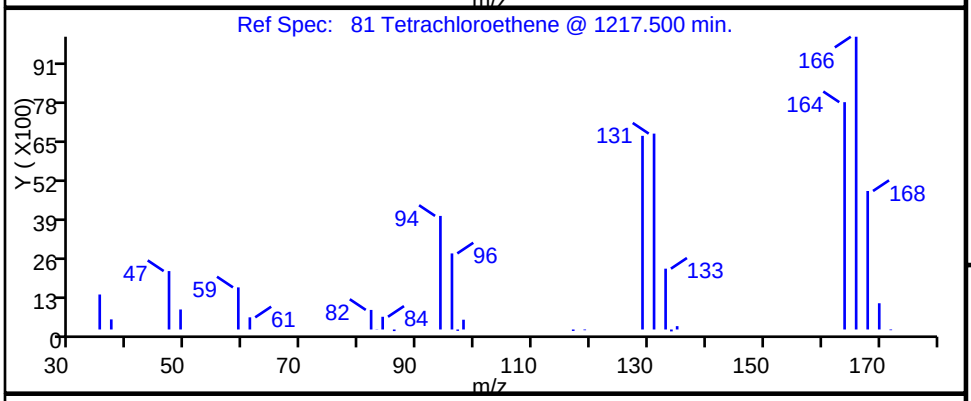
81 Tetrachloroethene, CAS: 127-18-4

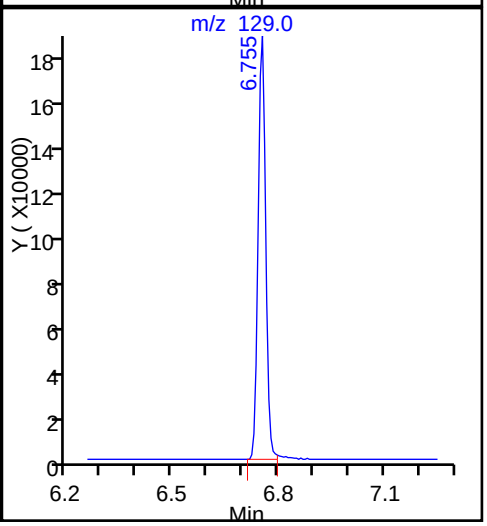


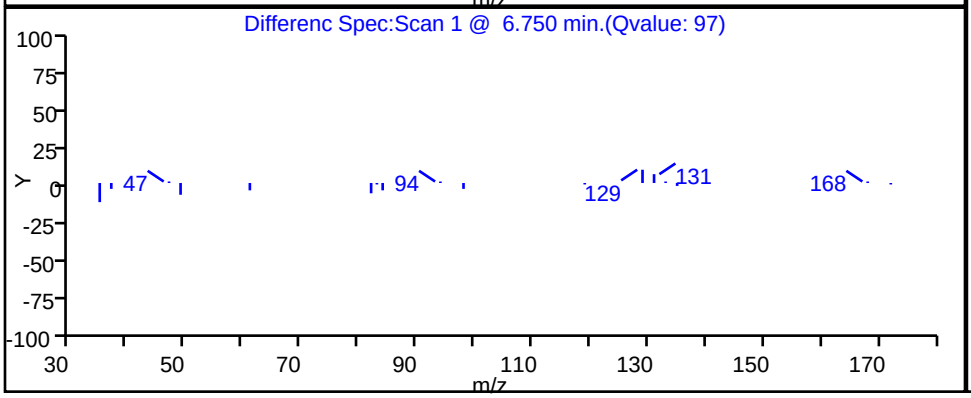












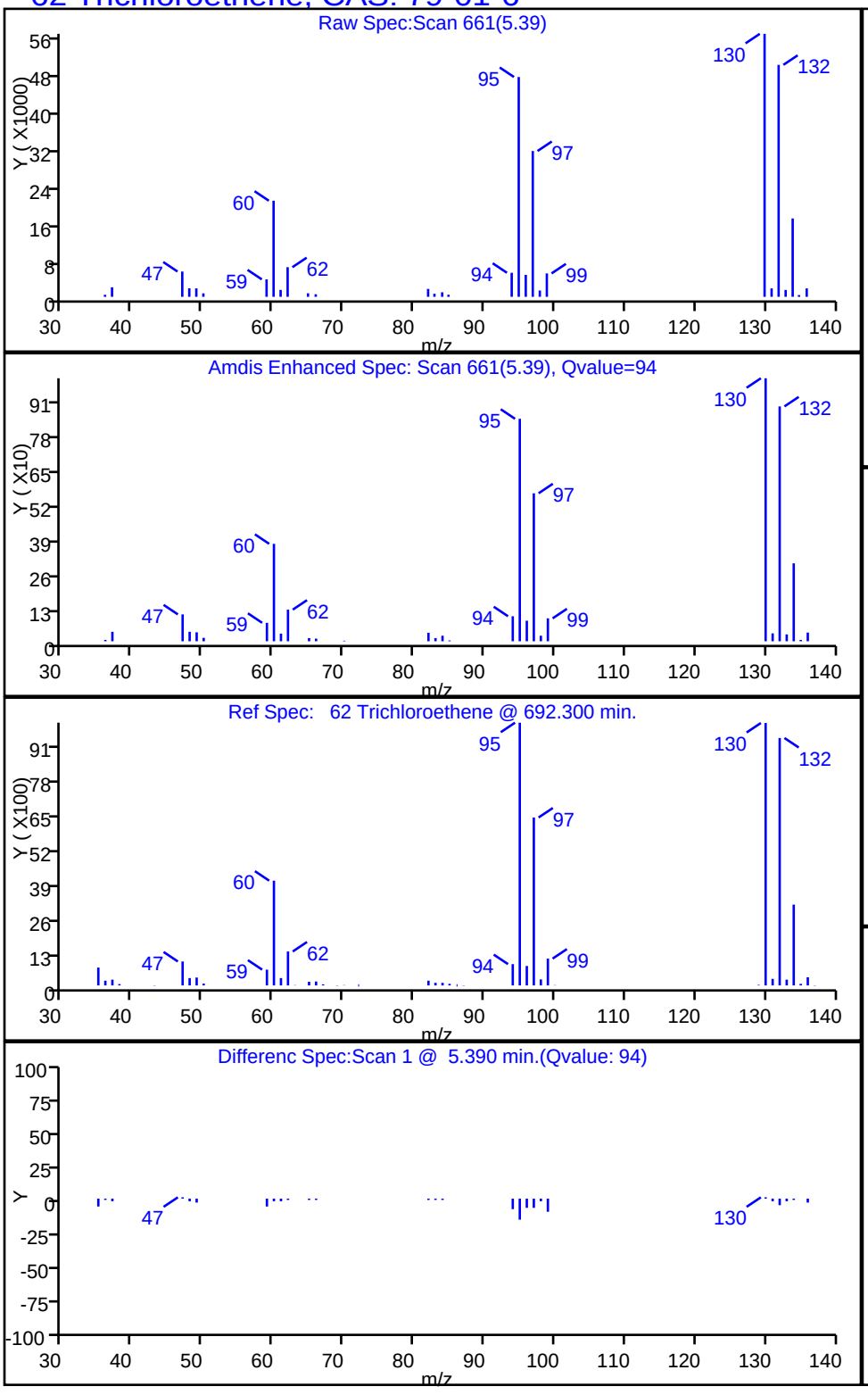
Report Date: 03-Feb-2016 08:26:28 Chrom Revision: 2.2 02-Dec-2015 11:51:48

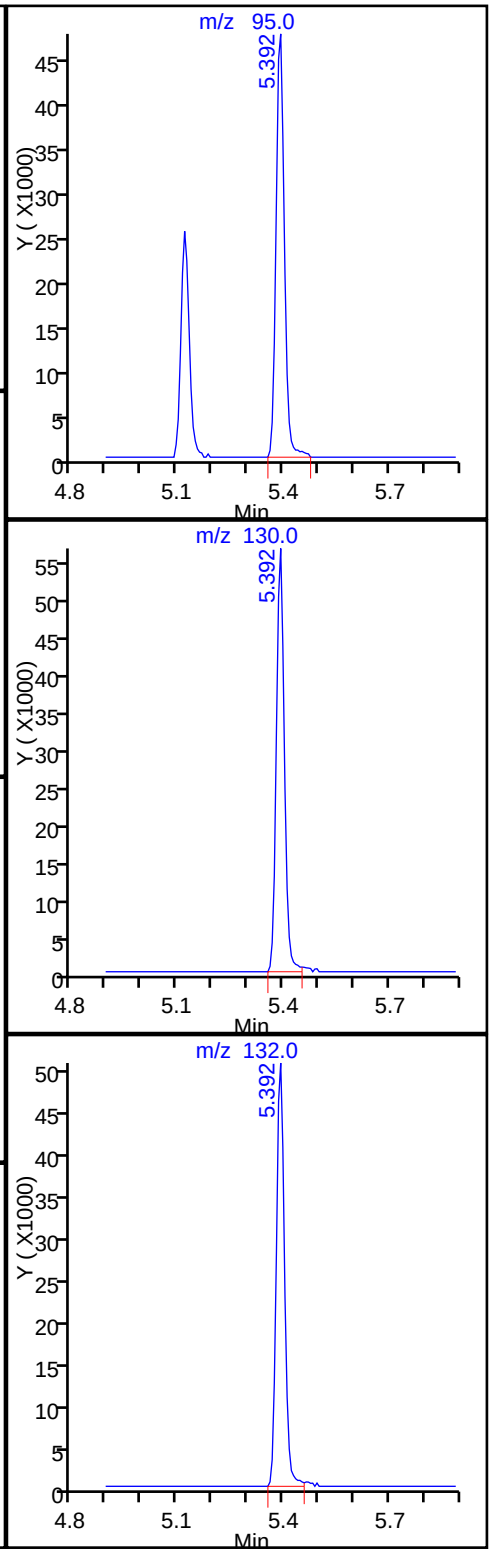
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D

Injection Date:	02-Feb-2016 12:48:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-B-4	Lab Sample ID:	480-94483-4		
Client ID:	GM-9				
Operator ID:	RR	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



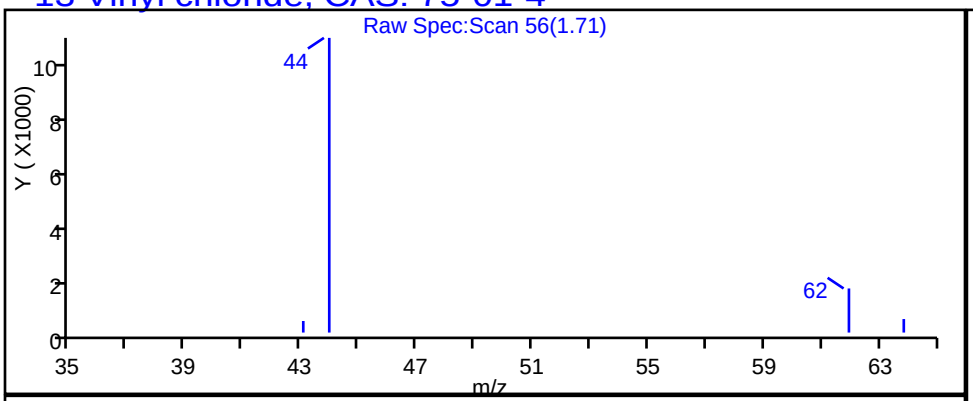


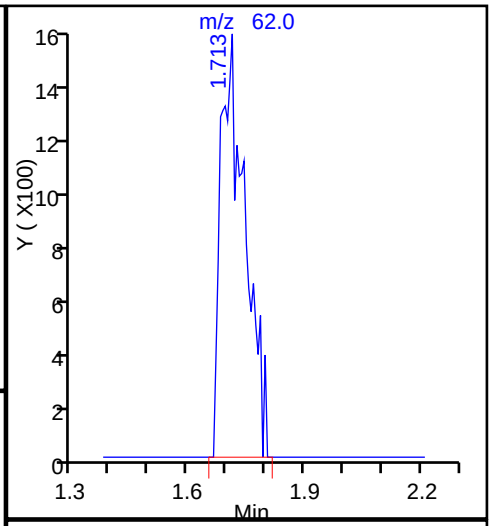
TestAmerica Buffalo

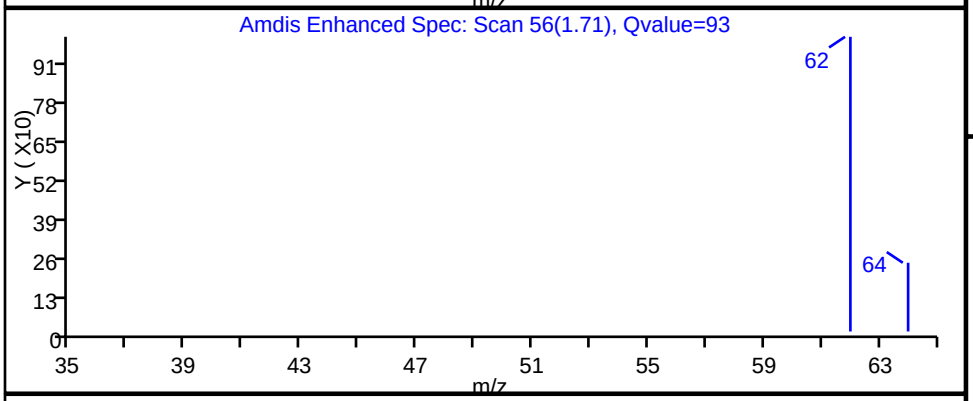
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8871.D

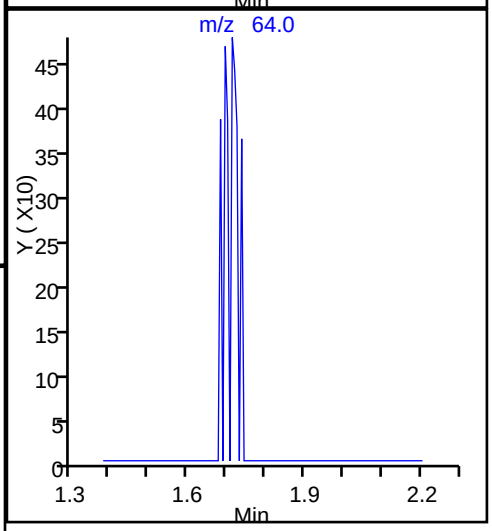
Injection Date:	02-Feb-2016 12:48:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-B-4	Lab Sample ID:	480-94483-4		
Client ID:	GM-9				
Operator ID:	RR	ALS Bottle#:	7	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

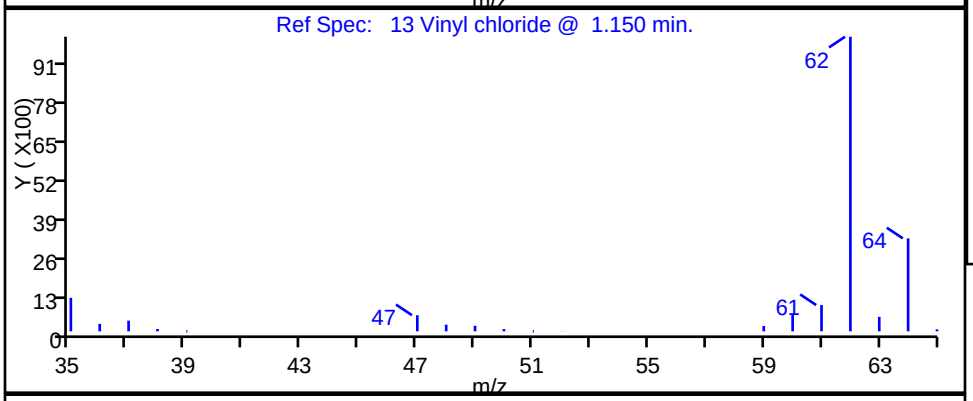
13 Vinyl chloride, CAS: 75-01-4

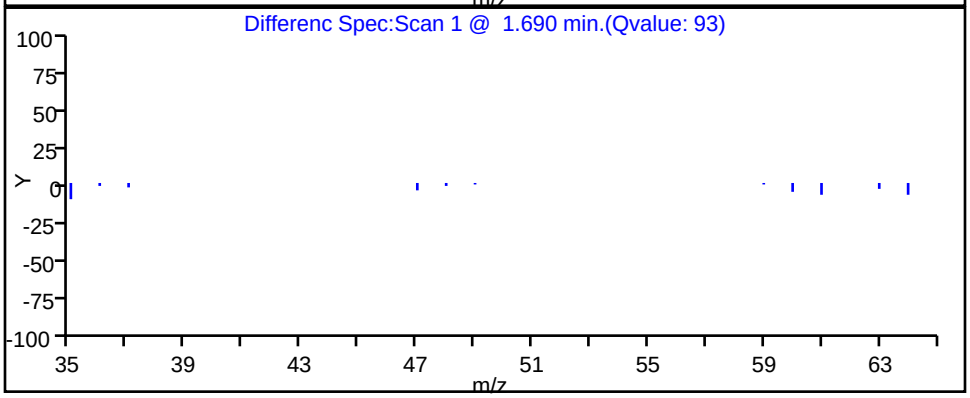












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-1D | Lab Sample ID: 480-94483-5

Matrix: Water | Lab File ID: Q8824.D

Analysis Method: 8260C | Date Collected: 01/28/2016 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 19:19

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		20	16
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	4.2
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2
79-00-5	1,1,2-Trichloroethane	ND		20	4.6
75-34-3	1,1-Dichloroethane	ND		20	7.6
75-35-4	1,1-Dichloroethene	ND		20	5.8
120-82-1	1,2,4-Trichlorobenzene	ND		20	8.2
96-12-8	1,2-Dibromo-3-Chloropropane	ND		20	7.8
106-93-4	1,2-Dibromoethane	ND		20	15
95-50-1	1,2-Dichlorobenzene	ND		20	16
107-06-2	1,2-Dichloroethane	ND		20	4.2
78-87-5	1,2-Dichloropropane	ND		20	14
541-73-1	1,3-Dichlorobenzene	ND		20	16
106-46-7	1,4-Dichlorobenzene	ND		20	17
78-93-3	2-Butanone (MEK)	ND		200	26
591-78-6	2-Hexanone	ND		100	25
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		100	42
67-64-1	Acetone	ND		200	60
71-43-2	Benzene	ND		20	8.2
75-27-4	Bromodichloromethane	ND		20	7.8
75-25-2	Bromoform	ND		20	5.2
74-83-9	Bromomethane	ND		20	14
75-15-0	Carbon disulfide	ND		20	3.8
56-23-5	Carbon tetrachloride	ND		20	5.4
108-90-7	Chlorobenzene	ND		20	15
75-00-3	Chloroethane	ND		20	6.4
67-66-3	Chloroform	ND		20	6.8
74-87-3	Chloromethane	ND		20	7.0
156-59-2	cis-1,2-Dichloroethene	1900		20	16
10061-01-5	cis-1,3-Dichloropropene	ND		20	7.2
110-82-7	Cyclohexane	ND		20	3.6
124-48-1	Dibromochloromethane	ND		20	6.4
75-71-8	Dichlorodifluoromethane	ND		20	14
100-41-4	Ethylbenzene	ND		20	15
98-82-8	Isopropylbenzene	ND		20	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-1D | Lab Sample ID: 480-94483-5

Matrix: Water | Lab File ID: Q8824.D

Analysis Method: 8260C | Date Collected: 01/28/2016 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 19:19

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		50	26
1634-04-4	Methyl tert-butyl ether	ND		20	3.2
108-87-2	Methylcyclohexane	ND		20	3.2
75-09-2	Methylene Chloride	ND		20	8.8
100-42-5	Styrene	ND		20	15
127-18-4	Tetrachloroethene	1700		20	7.2
108-88-3	Toluene	ND		20	10
156-60-5	trans-1,2-Dichloroethene	ND		20	18
10061-02-6	trans-1,3-Dichloropropene	ND		20	7.4
79-01-6	Trichloroethene	810		20	9.2
75-69-4	Trichlorofluoromethane	ND		20	18
75-01-4	Vinyl chloride	46		20	18
1330-20-7	Xylenes, Total	ND		40	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		66-137
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
2037-26-5	Toluene-d8 (Surr)	88		71-126
1868-53-7	Dibromofluoromethane (Surr)	93		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8824.D
Lims ID: 480-94483-A-5 Lab Sample ID: 480-94483-5
Client ID: MW-1D
Sample Type: Client
Inject. Date: 29-Jan-2016 19:19:30 ALS Bottle#: 23 Worklist Smp#: 36
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 480-94483-A-5
Misc. Info.: 480-0050272-036
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:54:04 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 20:14:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.118	5.119	-0.001	99	84161	25.0	
* 2 Chlorobenzene-d5	82	7.405	7.406	-0.001	84	161875	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.278	9.279	-0.001	95	183285	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.644	4.639	0.005	93	103075	23.2	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.893	4.888	0.005	0	55937	21.6	
$ 5 Toluene-d8 (Surr)	98	6.286	6.287	-0.001	92	334882	22.0	
$ 6 4-Bromofluorobenzene (Surr	174	8.342	8.336	0.006	94	113333	24.1	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62	1.695	1.712	-0.017	95	12631	2.30	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84		3.250				ND	
32 Methyl tert-butyl ether	73		3.451				ND	
34 trans-1,2-Dichloroethene	96	3.464	3.463	0.001	92	3717	0.6318	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.267	4.272	-0.005	78	598636	92.9	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95	5.392	5.391	0.001	96	238863	40.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166	6.754	6.753	0.001	97	499643	87.0	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

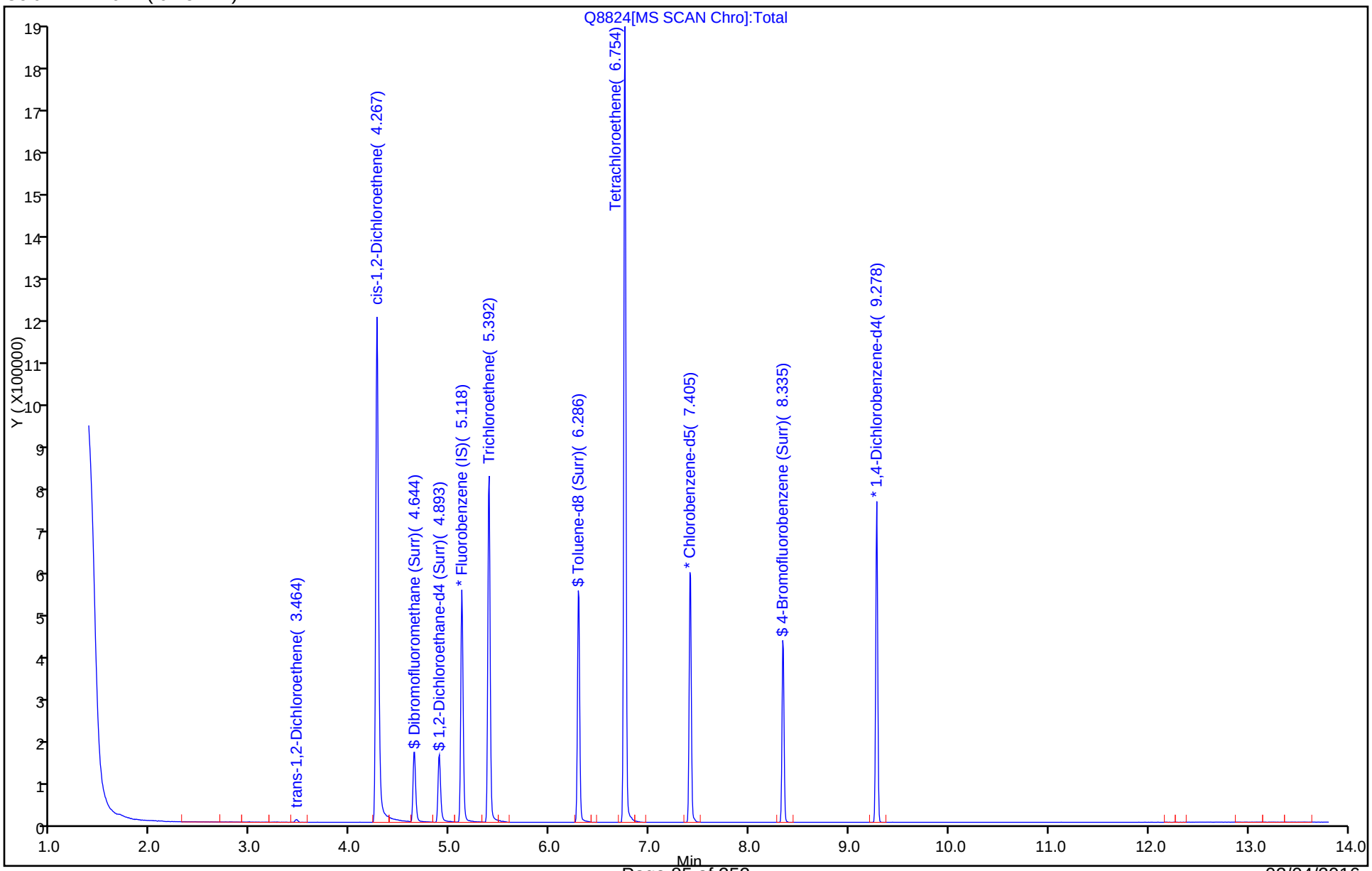
Report Date: 01-Feb-2016 08:54:41 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8824.D

Injection Date:	29-Jan-2016 19:19:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-5	Lab Sample ID:	480-94483-5	Worklist Smp#:	36
Client ID:	MW-1D				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	23
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



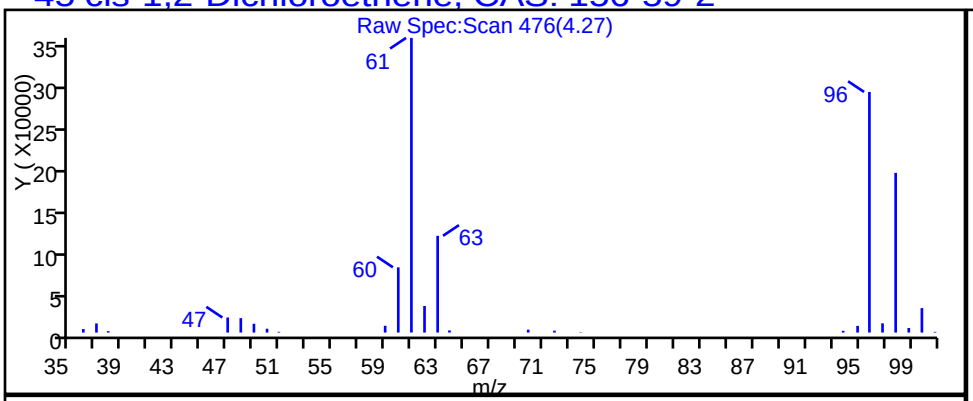
Report Date: 01-Feb-2016 08:54:42 Chrom Revision: 2.2 02-Dec-2015 11:51:48

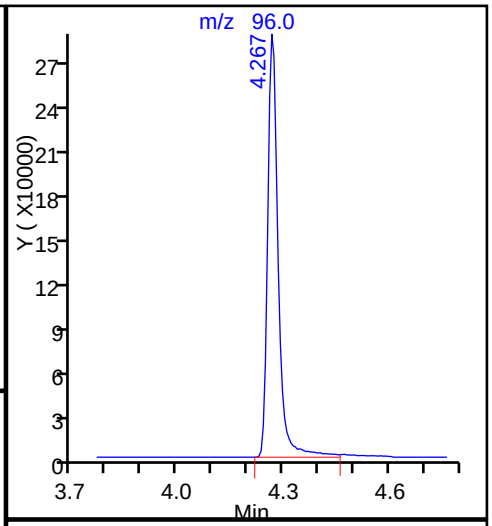
TestAmerica Buffalo

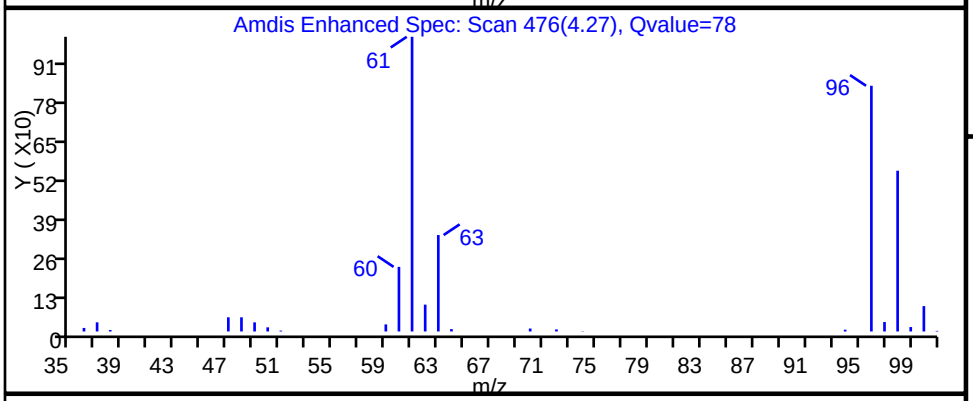
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8824.D

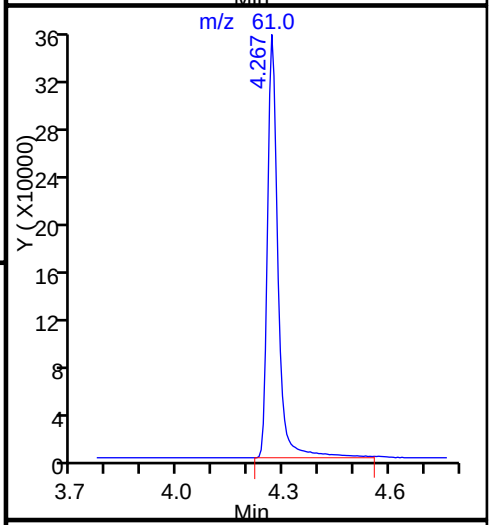
Injection Date:	29-Jan-2016 19:19:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-5	Lab Sample ID:	480-94483-5		
Client ID:	MW-1D				
Operator ID:	RR	ALS Bottle#:	23	Worklist Smp#:	36
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

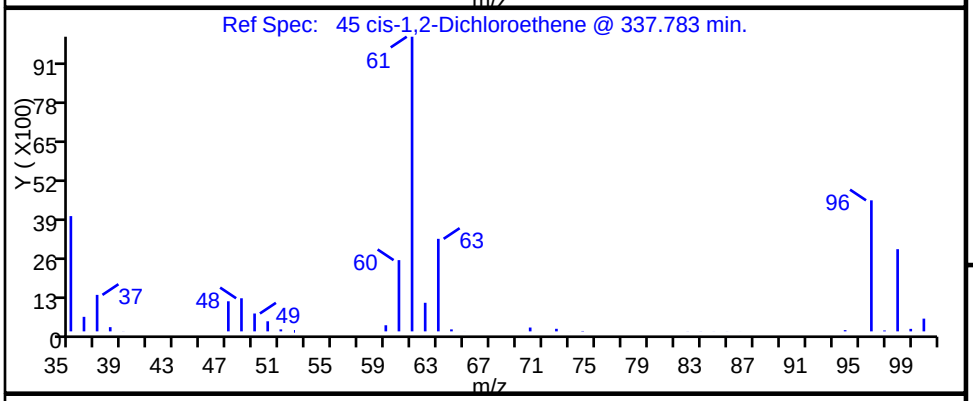
45 cis-1,2-Dichloroethene, CAS: 156-59-2

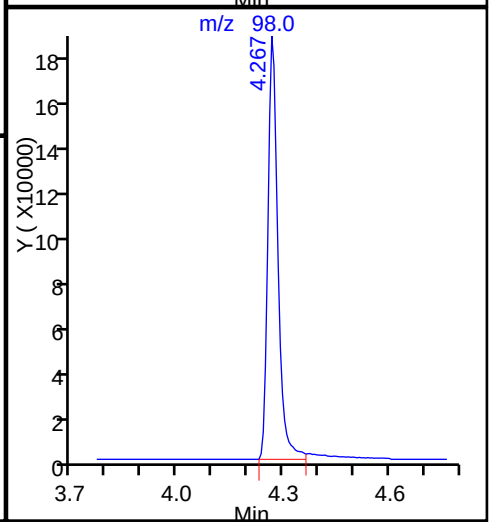


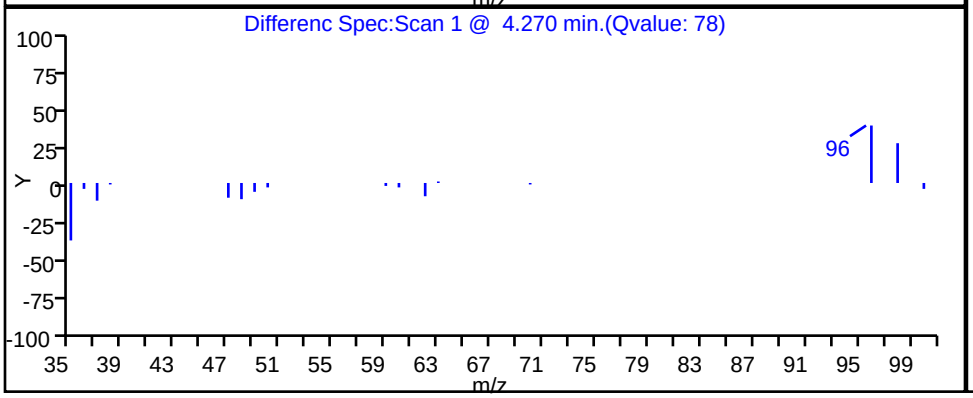












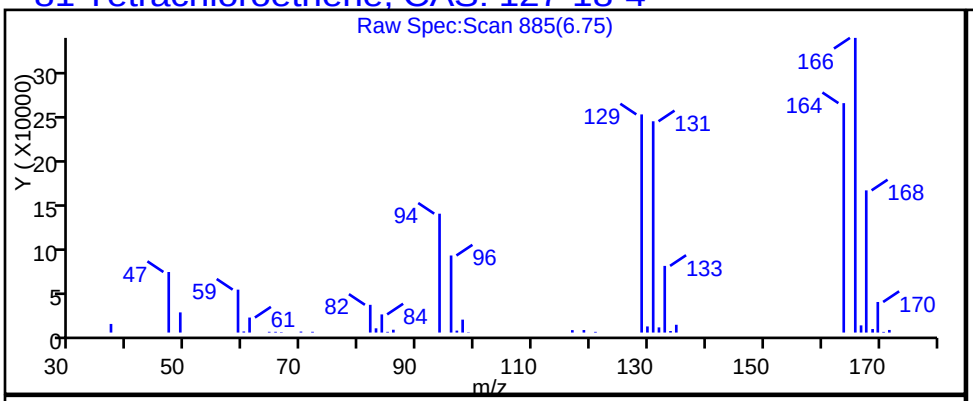
Report Date: 01-Feb-2016 08:54:42 Chrom Revision: 2.2 02-Dec-2015 11:51:48

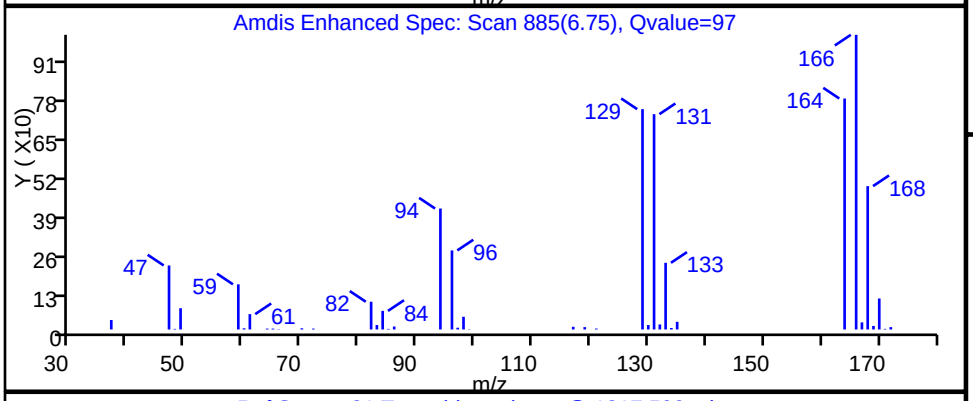
TestAmerica Buffalo

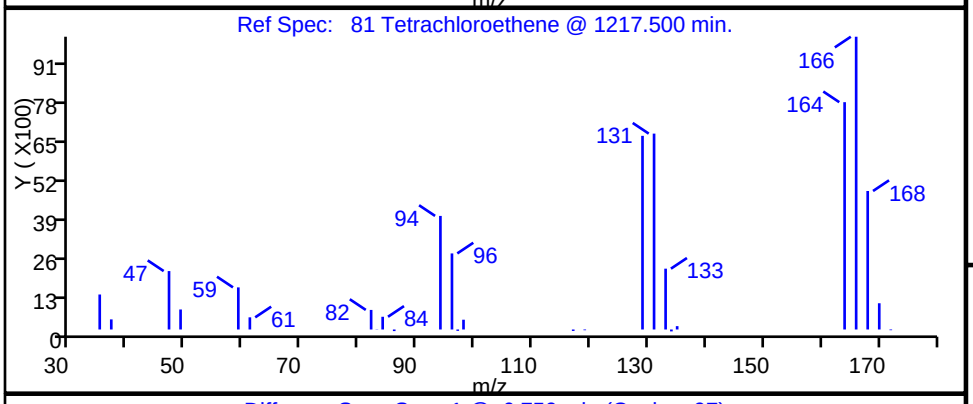
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8824.D

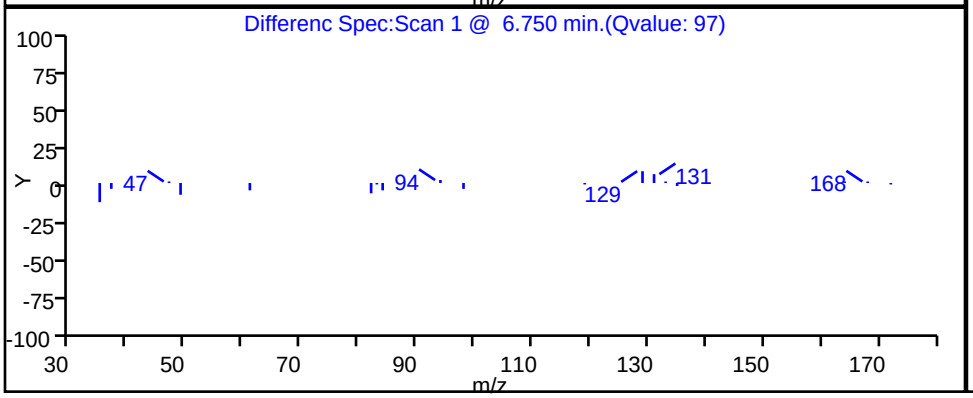
Injection Date:	29-Jan-2016 19:19:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-5	Lab Sample ID:	480-94483-5		
Client ID:	MW-1D				
Operator ID:	RR	ALS Bottle#:	23	Worklist Smp#:	36
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

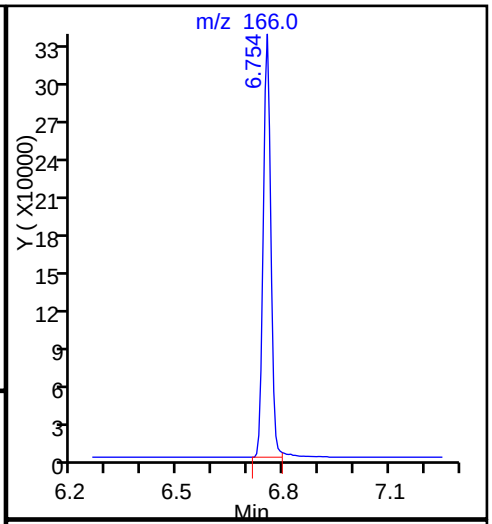
81 Tetrachloroethene, CAS: 127-18-4

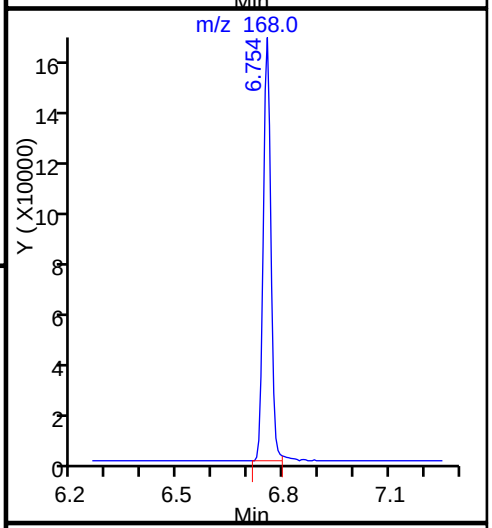


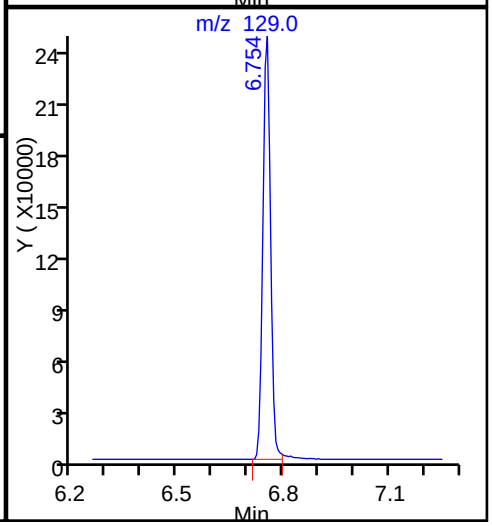










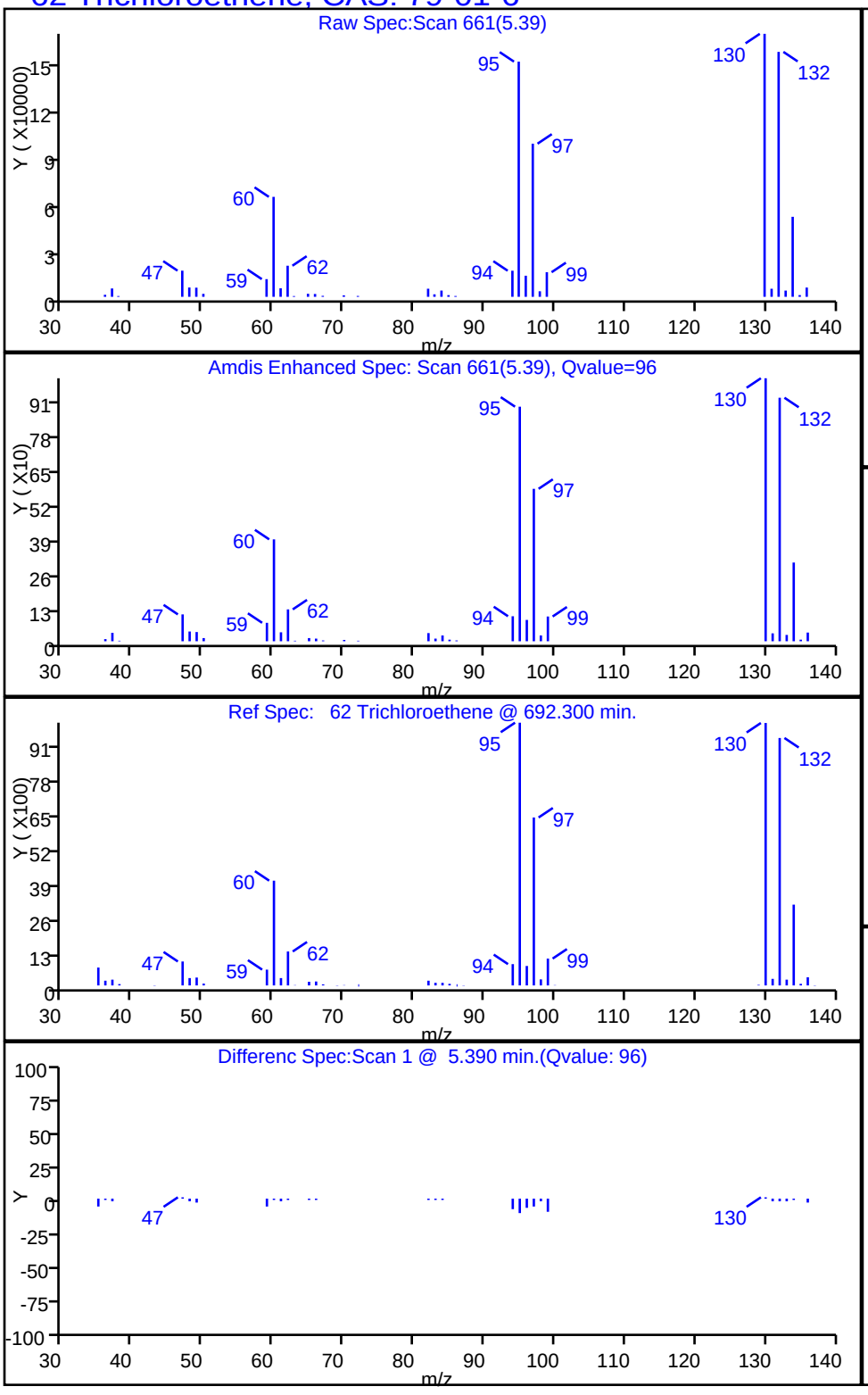


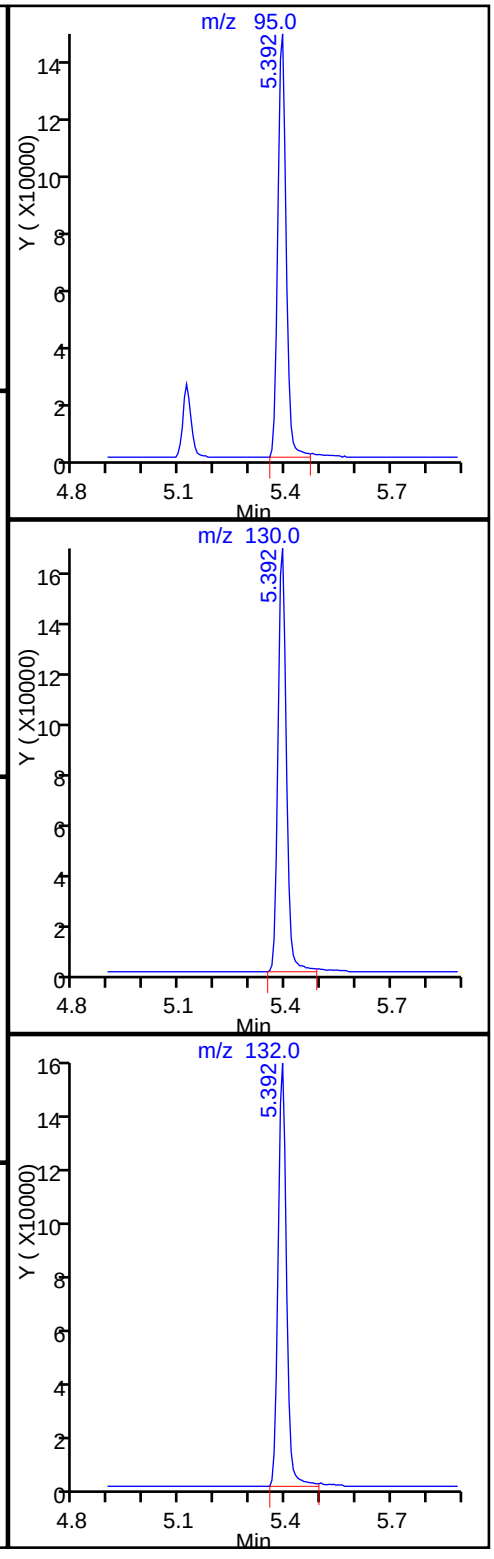
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8824.D

Injection Date:	29-Jan-2016 19:19:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-5	Lab Sample ID:	480-94483-5		
Client ID:	MW-1D				
Operator ID:	RR	ALS Bottle#:	23	Worklist Smp#:	36
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



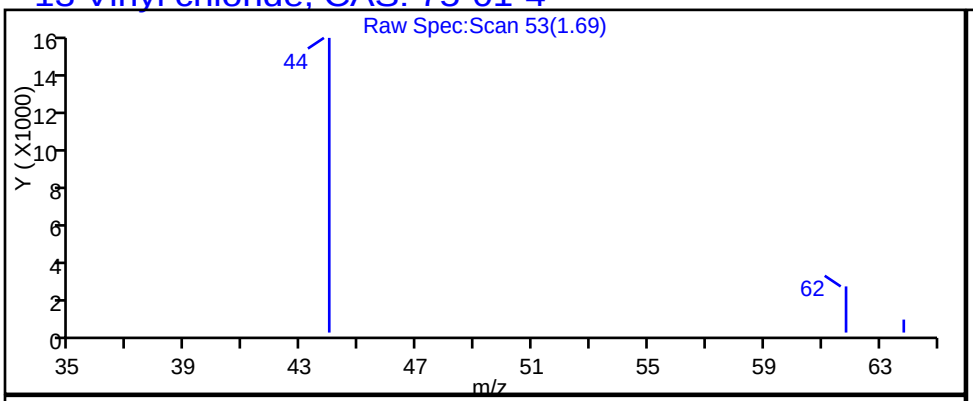


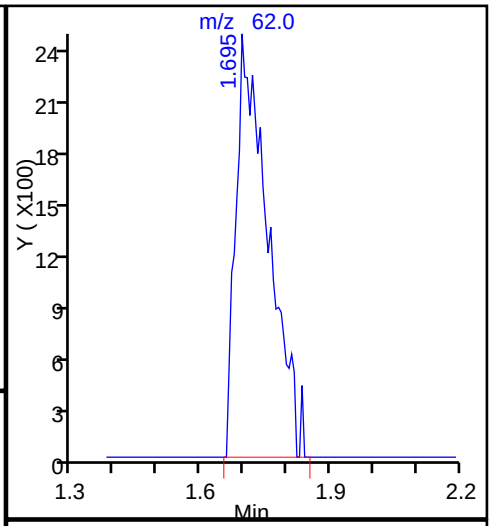
TestAmerica Buffalo

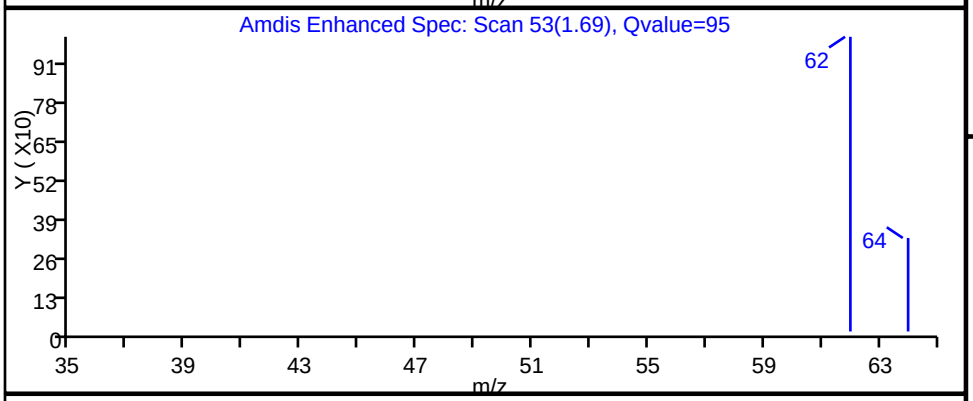
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8824.D

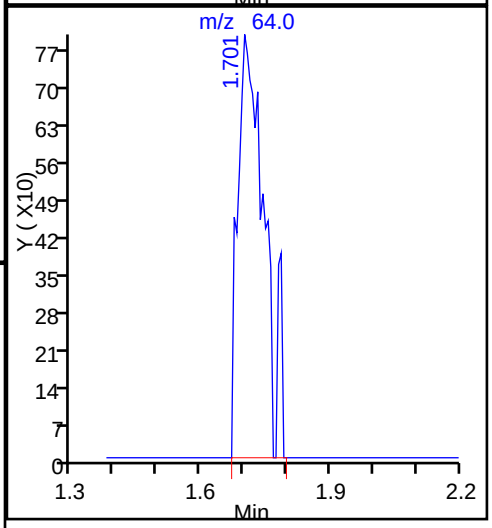
Injection Date:	29-Jan-2016 19:19:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-5	Lab Sample ID:	480-94483-5		
Client ID:	MW-1D				
Operator ID:	RR	ALS Bottle#:	23	Worklist Smp#:	36
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

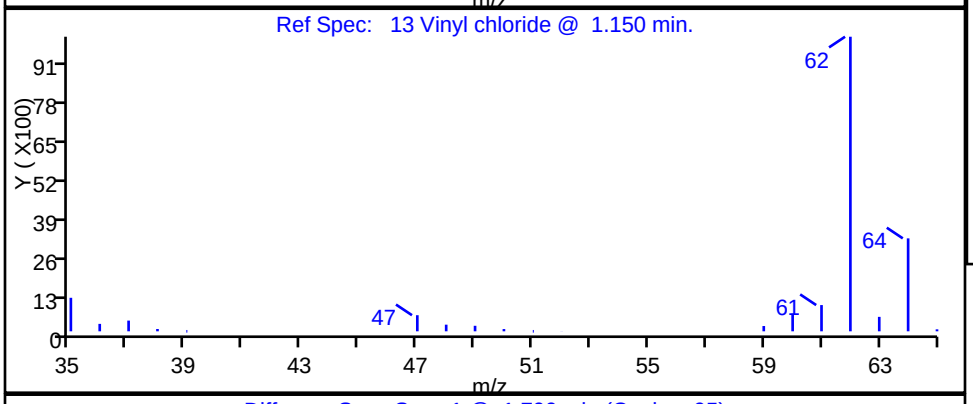
13 Vinyl chloride, CAS: 75-01-4

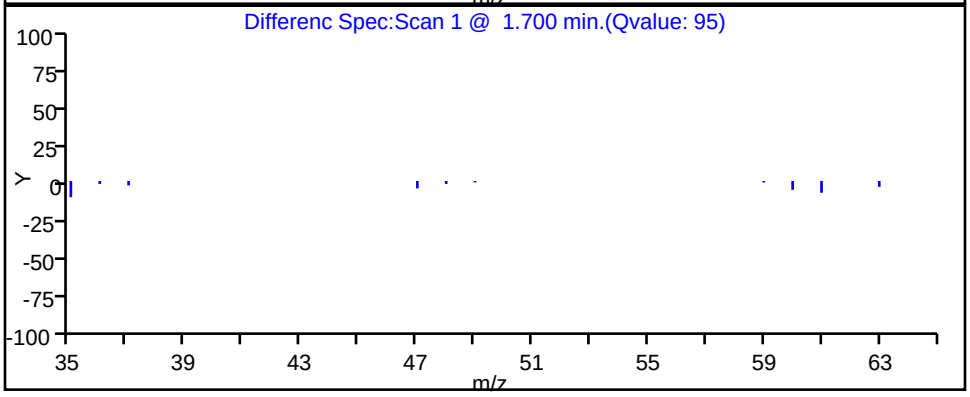












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-13 | Lab Sample ID: 480-94483-6

Matrix: Water | Lab File ID: Q8825.D

Analysis Method: 8260C | Date Collected: 01/28/2016 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 19:42

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		500	410
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	110
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160
79-00-5	1,1,2-Trichloroethane	ND		500	120
75-34-3	1,1-Dichloroethane	ND		500	190
75-35-4	1,1-Dichloroethene	ND		500	150
120-82-1	1,2,4-Trichlorobenzene	ND		500	210
96-12-8	1,2-Dibromo-3-Chloropropane	ND		500	200
106-93-4	1,2-Dibromoethane	ND		500	370
95-50-1	1,2-Dichlorobenzene	ND		500	400
107-06-2	1,2-Dichloroethane	ND		500	110
78-87-5	1,2-Dichloropropane	ND		500	360
541-73-1	1,3-Dichlorobenzene	ND		500	390
106-46-7	1,4-Dichlorobenzene	ND		500	420
78-93-3	2-Butanone (MEK)	ND		5000	660
591-78-6	2-Hexanone	ND		2500	620
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		2500	1100
67-64-1	Acetone	ND		5000	1500
71-43-2	Benzene	ND		500	210
75-27-4	Bromodichloromethane	ND		500	200
75-25-2	Bromoform	ND		500	130
74-83-9	Bromomethane	ND		500	350
75-15-0	Carbon disulfide	ND		500	95
56-23-5	Carbon tetrachloride	ND		500	140
108-90-7	Chlorobenzene	ND		500	380
75-00-3	Chloroethane	ND		500	160
67-66-3	Chloroform	ND		500	170
74-87-3	Chloromethane	ND		500	180
156-59-2	cis-1,2-Dichloroethene	44000		500	410
10061-01-5	cis-1,3-Dichloropropene	ND		500	180
110-82-7	Cyclohexane	ND		500	90
124-48-1	Dibromochloromethane	ND		500	160
75-71-8	Dichlorodifluoromethane	ND		500	340
100-41-4	Ethylbenzene	ND		500	370
98-82-8	Isopropylbenzene	ND		500	400

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-13 | Lab Sample ID: 480-94483-6

Matrix: Water | Lab File ID: Q8825.D

Analysis Method: 8260C | Date Collected: 01/28/2016 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 19:42

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		1300	650
1634-04-4	Methyl tert-butyl ether	ND		500	80
108-87-2	Methylcyclohexane	ND		500	80
75-09-2	Methylene Chloride	ND		500	220
100-42-5	Styrene	ND		500	370
127-18-4	Tetrachloroethene	4100		500	180
108-88-3	Toluene	ND		500	260
156-60-5	trans-1,2-Dichloroethene	ND		500	450
10061-02-6	trans-1,3-Dichloropropene	ND		500	190
79-01-6	Trichloroethene	2800		500	230
75-69-4	Trichlorofluoromethane	ND		500	440
75-01-4	Vinyl chloride	1200		500	450
1330-20-7	Xylenes, Total	ND		1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		66-137
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
2037-26-5	Toluene-d8 (Surr)	90		71-126
1868-53-7	Dibromofluoromethane (Surr)	94		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8825.D
Lims ID: 480-94483-A-6 Lab Sample ID: 480-94483-6
Client ID: MW-13
Sample Type: Client
Inject. Date: 29-Jan-2016 19:42:30 ALS Bottle#: 24 Worklist Smp#: 37
Purge Vol: 5.000 mL Dil. Factor: 500.0000
Sample Info: 480-94483-A-6
Misc. Info.: 480-0050272-037
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:54:04 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 20:15:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.119	-0.002	99	82786	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.406	0.004	84	150012	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.279	-0.002	94	173541	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.639	0.004	94	102337	23.5	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.888	0.004	0	56811	22.4	
$ 5 Toluene-d8 (Surr)	98	6.291	6.287	0.004	92	318949	22.6	
$ 6 4-Bromofluorobenzene (Surr	174	8.340	8.336	0.004	92	106034	24.4	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62	1.699	1.712	-0.013	95	13117	2.42	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84		3.250				ND	
32 Methyl tert-butyl ether	73		3.451				ND	
34 trans-1,2-Dichloroethene	96	3.457	3.463	-0.006	93	1764	0.3048	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.272	4.272	0.000	78	559948	88.3	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95	5.391	5.391	0.000	96	32592	5.65	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166	6.753	6.753	0.000	97	43699	8.21	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

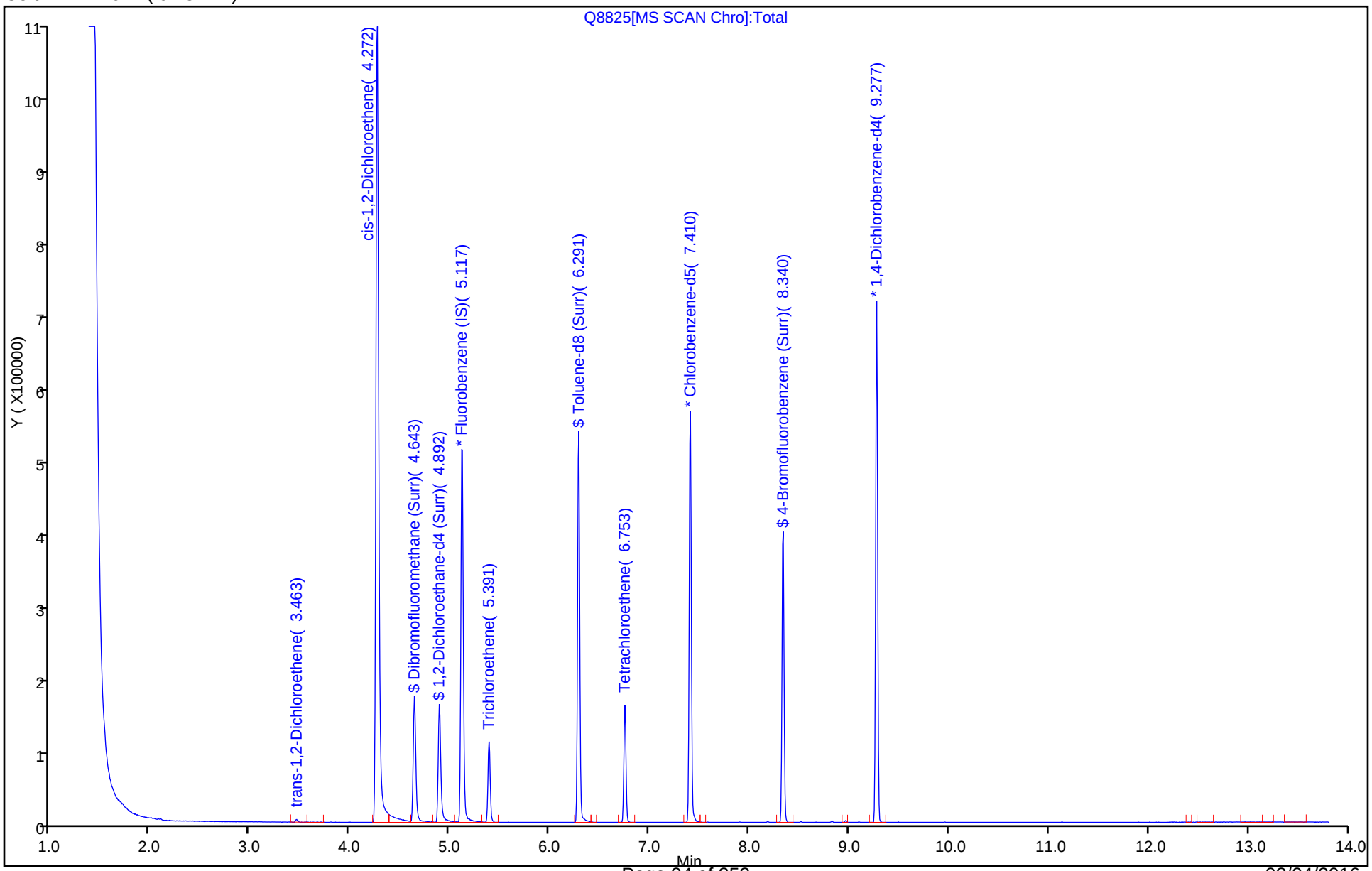
Report Date: 01-Feb-2016 08:55:16 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8825.D

Injection Date:	29-Jan-2016 19:42:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-6	Lab Sample ID:	480-94483-6	Worklist Smp#:	37
Client ID:	MW-13				
Purge Vol:	5.000 mL	Dil. Factor:	500.0000	ALS Bottle#:	24
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



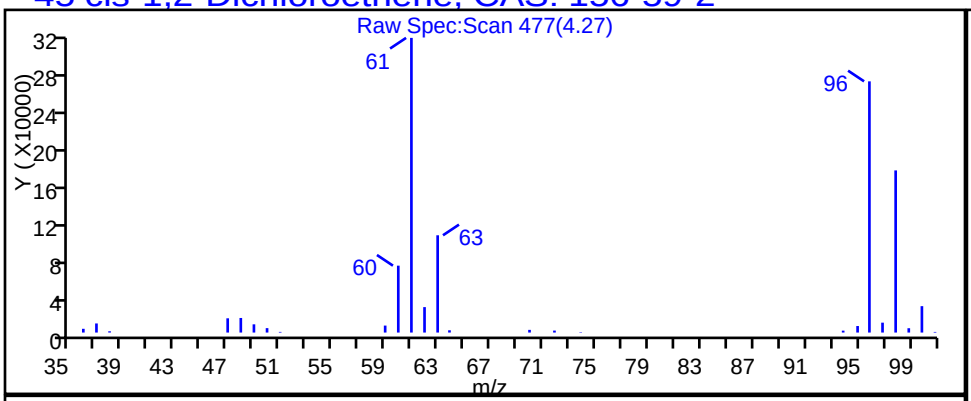
Report Date: 01-Feb-2016 08:55:16 Chrom Revision: 2.2 02-Dec-2015 11:51:48

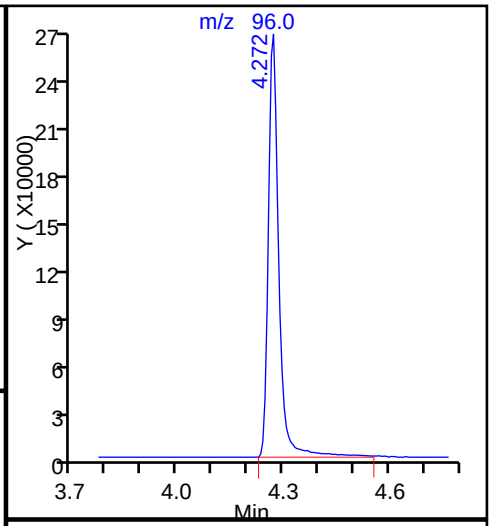
TestAmerica Buffalo

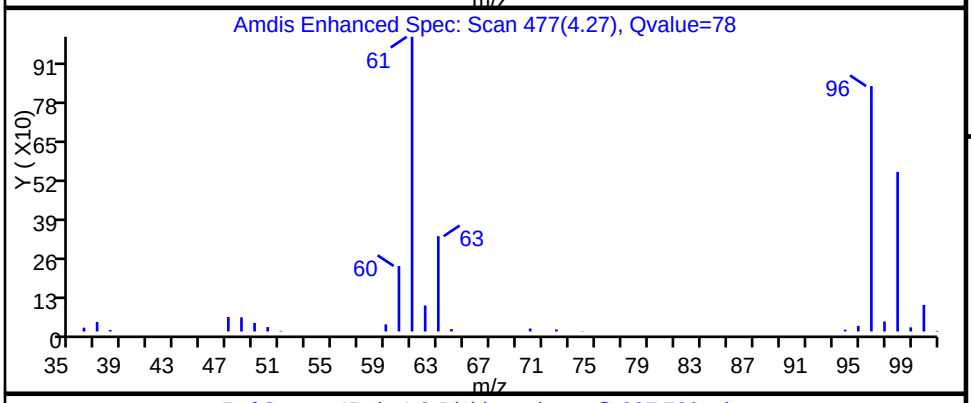
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8825.D

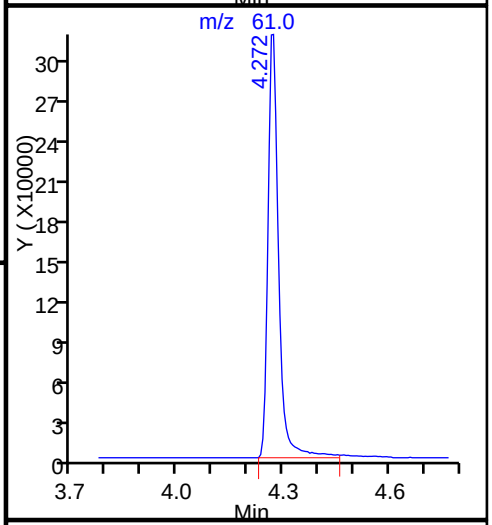
Injection Date:	29-Jan-2016 19:42:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-6	Lab Sample ID:	480-94483-6		
Client ID:	MW-13				
Operator ID:	RR	ALS Bottle#:	24	Worklist Smp#:	37
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

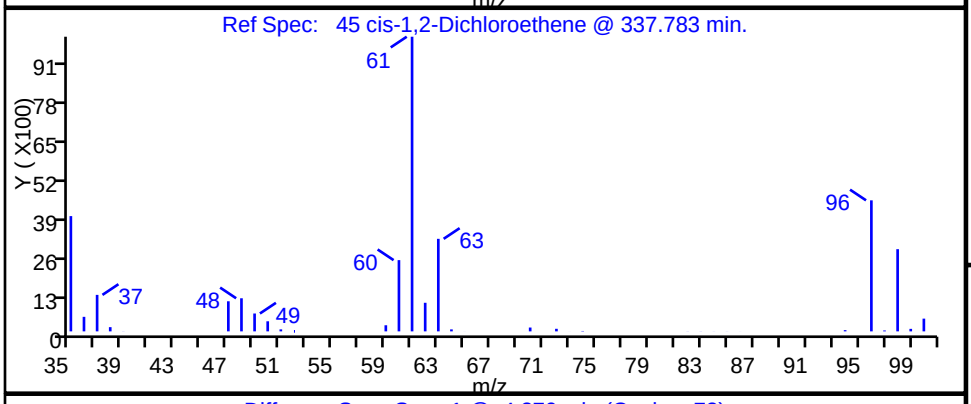
45 cis-1,2-Dichloroethene, CAS: 156-59-2

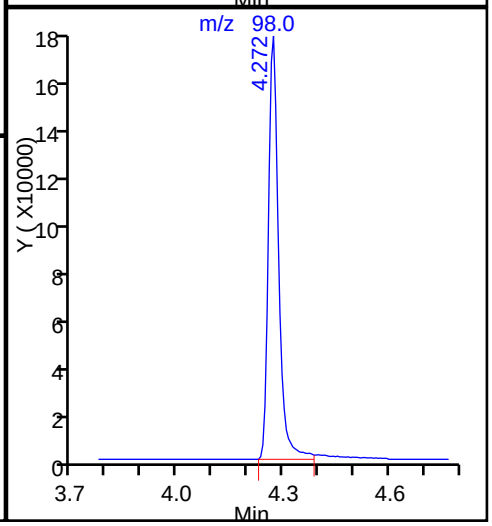


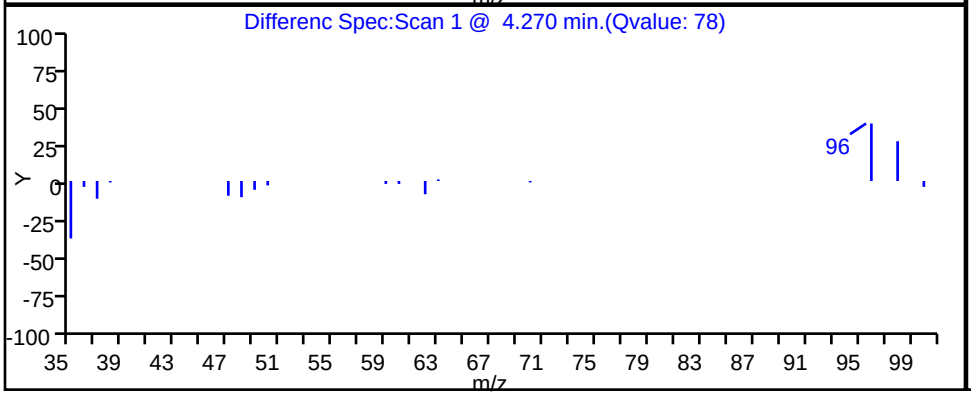










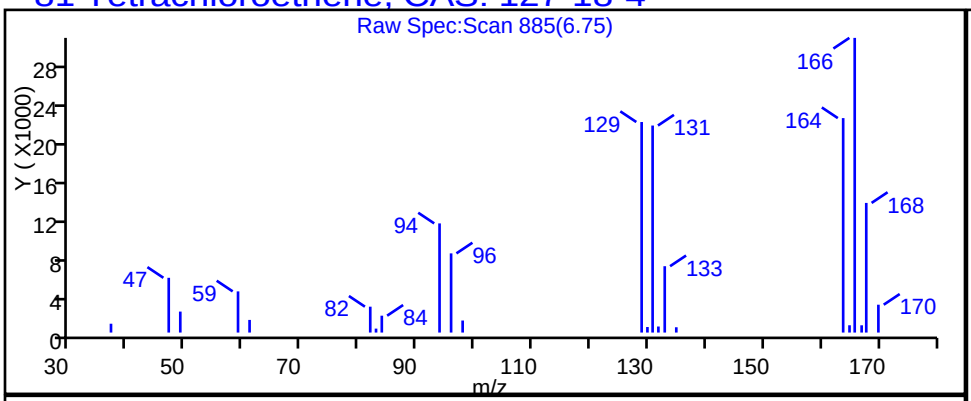


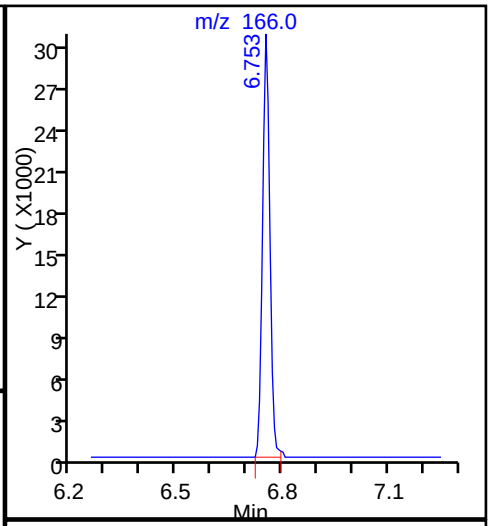
TestAmerica Buffalo

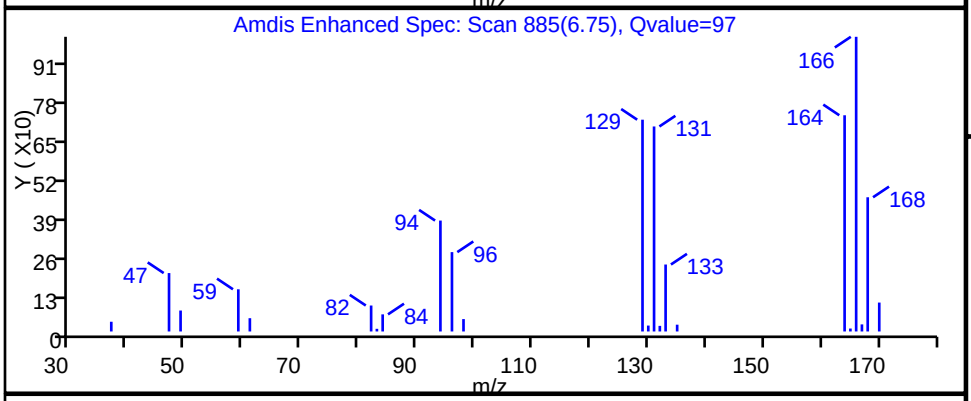
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8825.D

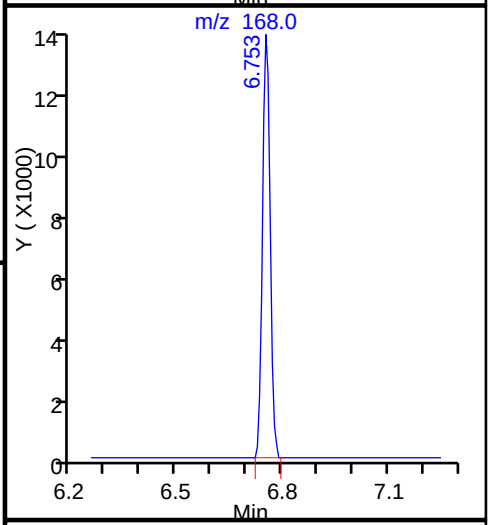
Injection Date:	29-Jan-2016 19:42:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-6	Lab Sample ID:	480-94483-6		
Client ID:	MW-13				
Operator ID:	RR	ALS Bottle#:	24	Worklist Smp#:	37
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

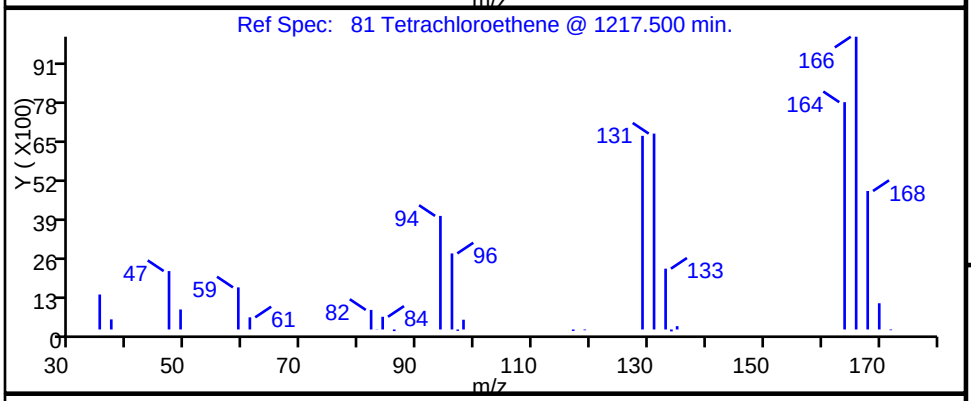
81 Tetrachloroethene, CAS: 127-18-4

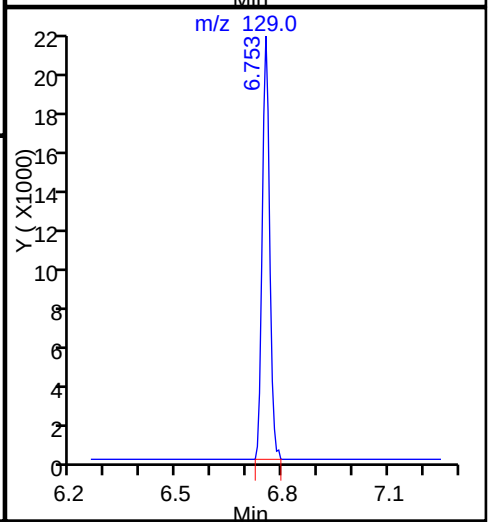


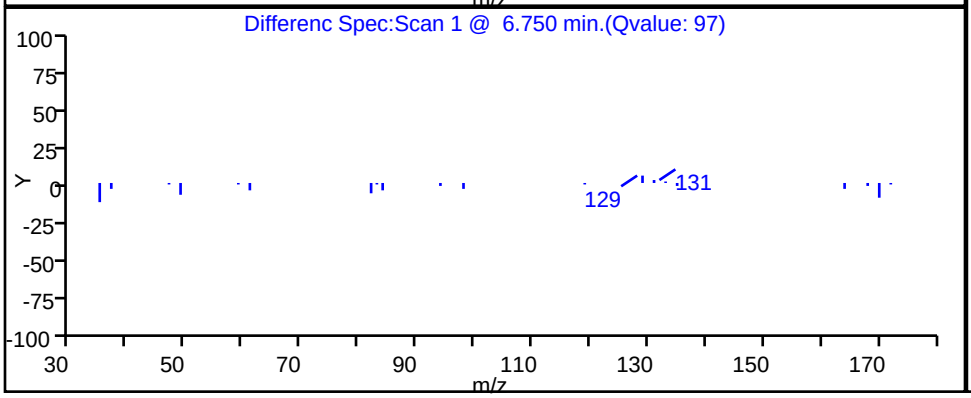












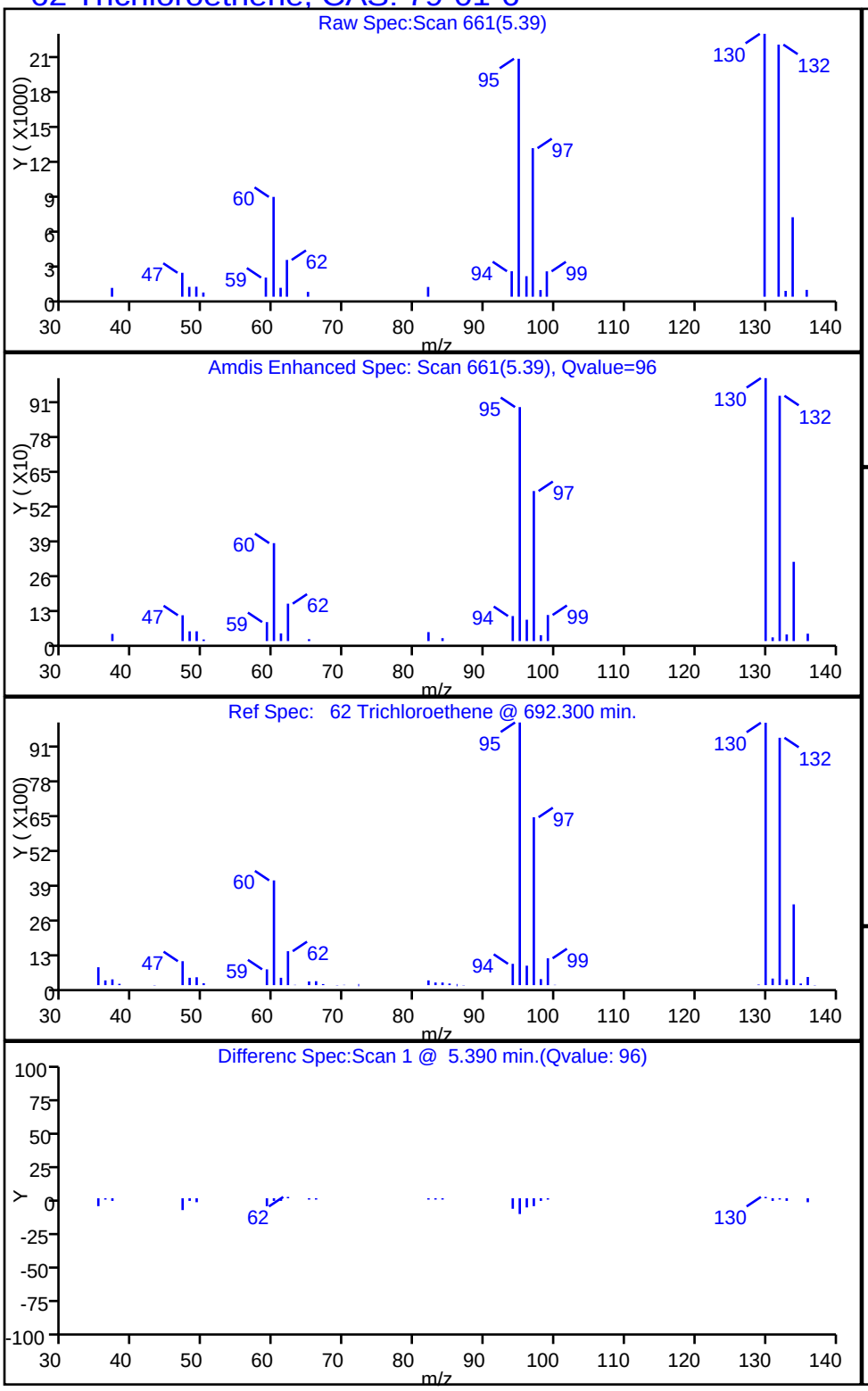
Report Date: 01-Feb-2016 08:55:16 Chrom Revision: 2.2 02-Dec-2015 11:51:48

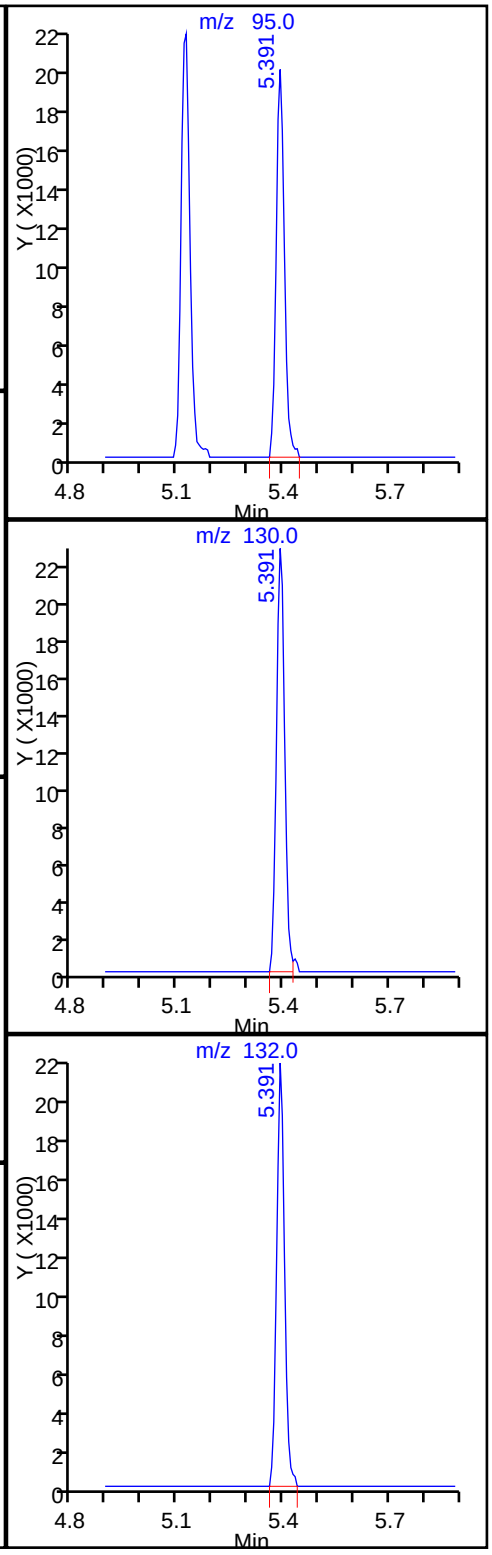
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8825.D

Injection Date:	29-Jan-2016 19:42:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-6	Lab Sample ID:	480-94483-6		
Client ID:	MW-13				
Operator ID:	RR	ALS Bottle#:	24	Worklist Smp#:	37
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



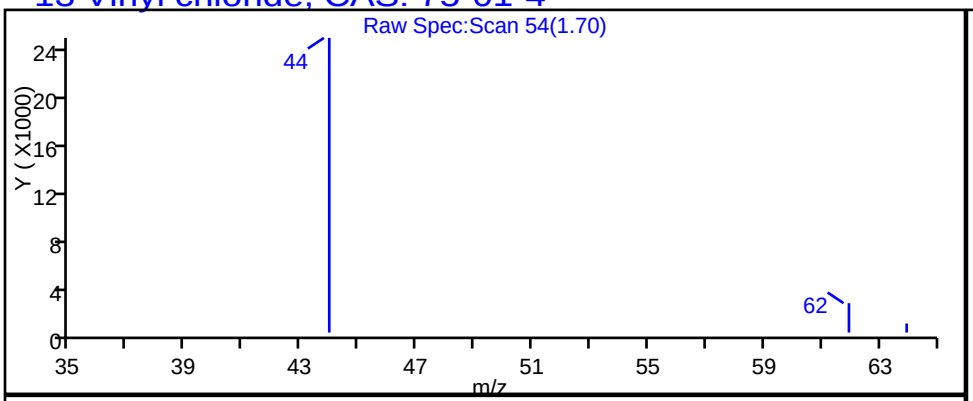


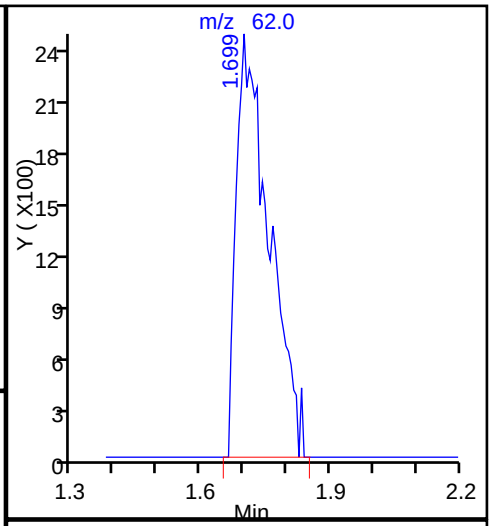
TestAmerica Buffalo

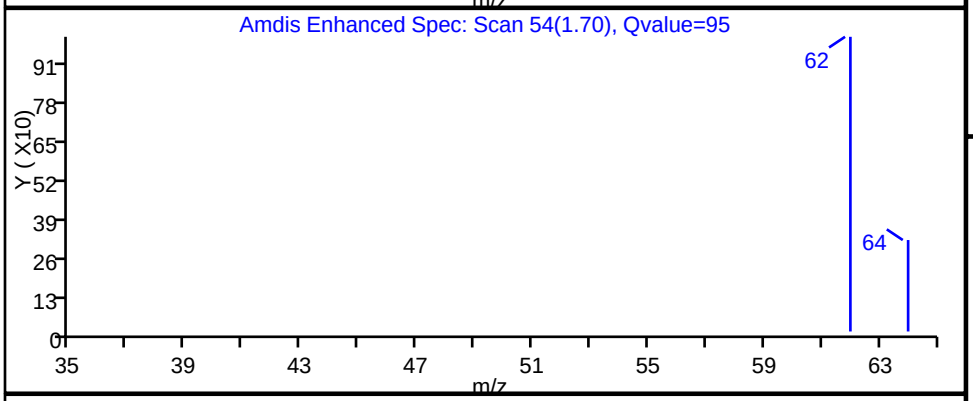
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8825.D

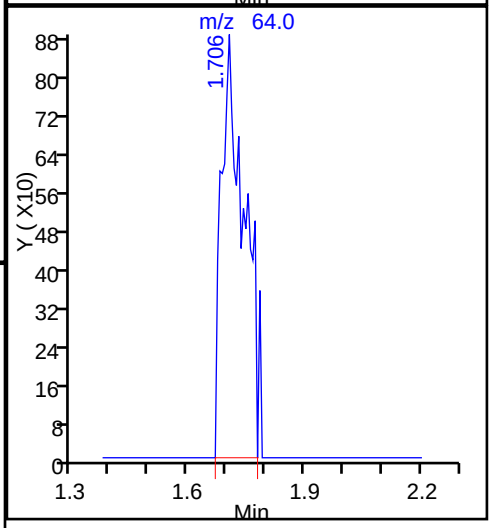
Injection Date:	29-Jan-2016 19:42:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-6	Lab Sample ID:	480-94483-6		
Client ID:	MW-13				
Operator ID:	RR	ALS Bottle#:	24	Worklist Smp#:	37
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

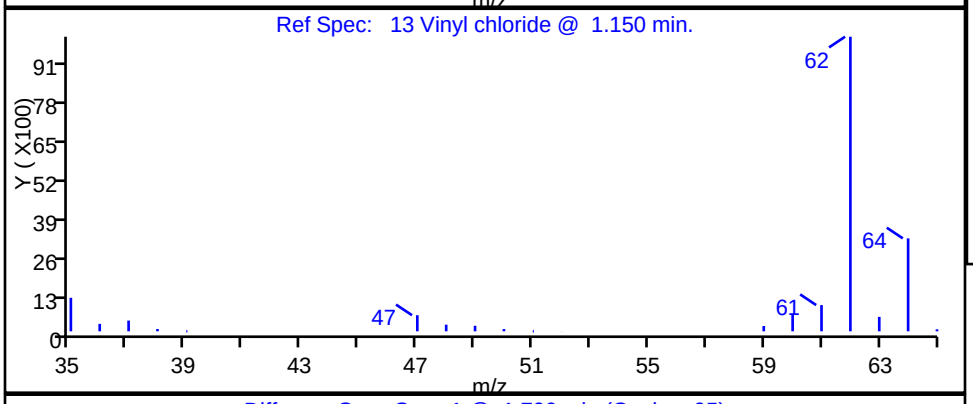
13 Vinyl chloride, CAS: 75-01-4

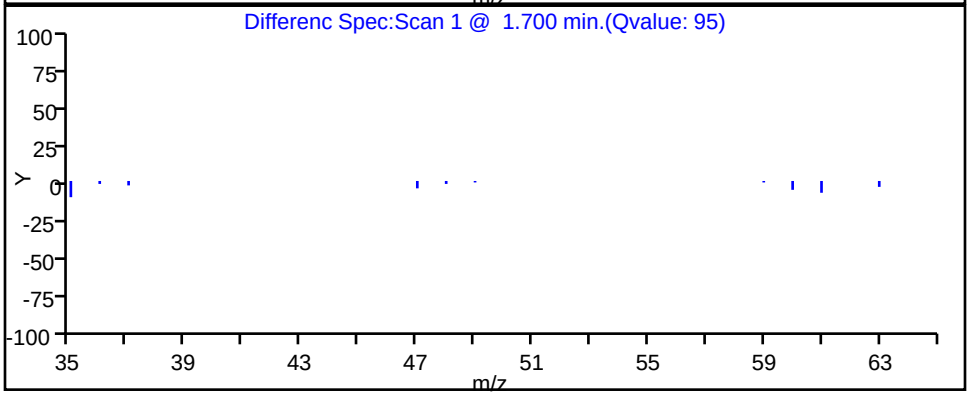












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-1 | Lab Sample ID: 480-94483-7

Matrix: Water | Lab File ID: Q8826.D

Analysis Method: 8260C | Date Collected: 01/28/2016 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 20:05

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		20	16
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	4.2
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2
79-00-5	1,1,2-Trichloroethane	ND		20	4.6
75-34-3	1,1-Dichloroethane	ND		20	7.6
75-35-4	1,1-Dichloroethene	ND		20	5.8
120-82-1	1,2,4-Trichlorobenzene	ND		20	8.2
96-12-8	1,2-Dibromo-3-Chloropropane	ND		20	7.8
106-93-4	1,2-Dibromoethane	ND		20	15
95-50-1	1,2-Dichlorobenzene	ND		20	16
107-06-2	1,2-Dichloroethane	ND		20	4.2
78-87-5	1,2-Dichloropropane	ND		20	14
541-73-1	1,3-Dichlorobenzene	ND		20	16
106-46-7	1,4-Dichlorobenzene	ND		20	17
78-93-3	2-Butanone (MEK)	ND		200	26
591-78-6	2-Hexanone	ND		100	25
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		100	42
67-64-1	Acetone	ND		200	60
71-43-2	Benzene	ND		20	8.2
75-27-4	Bromodichloromethane	ND		20	7.8
75-25-2	Bromoform	ND		20	5.2
74-83-9	Bromomethane	ND		20	14
75-15-0	Carbon disulfide	ND		20	3.8
56-23-5	Carbon tetrachloride	ND		20	5.4
108-90-7	Chlorobenzene	ND		20	15
75-00-3	Chloroethane	ND		20	6.4
67-66-3	Chloroform	ND		20	6.8
74-87-3	Chloromethane	ND		20	7.0
156-59-2	cis-1,2-Dichloroethene	1200		20	16
10061-01-5	cis-1,3-Dichloropropene	ND		20	7.2
110-82-7	Cyclohexane	ND		20	3.6
124-48-1	Dibromochloromethane	ND		20	6.4
75-71-8	Dichlorodifluoromethane	ND		20	14
100-41-4	Ethylbenzene	ND		20	15
98-82-8	Isopropylbenzene	ND		20	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: MW-1 | Lab Sample ID: 480-94483-7

Matrix: Water | Lab File ID: Q8826.D

Analysis Method: 8260C | Date Collected: 01/28/2016 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 20:05

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		50	26
1634-04-4	Methyl tert-butyl ether	ND		20	3.2
108-87-2	Methylcyclohexane	ND		20	3.2
75-09-2	Methylene Chloride	ND		20	8.8
100-42-5	Styrene	ND		20	15
127-18-4	Tetrachloroethene	330		20	7.2
108-88-3	Toluene	ND		20	10
156-60-5	trans-1,2-Dichloroethene	ND		20	18
10061-02-6	trans-1,3-Dichloropropene	ND		20	7.4
79-01-6	Trichloroethene	180		20	9.2
75-69-4	Trichlorofluoromethane	ND		20	18
75-01-4	Vinyl chloride	ND		20	18
1330-20-7	Xylenes, Total	ND		40	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		66-137
460-00-4	4-Bromofluorobenzene (Surr)	96		73-120
2037-26-5	Toluene-d8 (Surr)	86		71-126
1868-53-7	Dibromofluoromethane (Surr)	91		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8826.D
Lims ID: 480-94483-A-7 Lab Sample ID: 480-94483-7
Client ID: MW-1
Sample Type: Client
Inject. Date: 29-Jan-2016 20:05:30 ALS Bottle#: 25 Worklist Smp#: 38
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 480-94483-A-7
Misc. Info.: 480-0050272-038
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:54:04 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 20:21:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.119	-0.002	99	81785	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.406	0.004	84	157976	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.279	-0.002	95	180907	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.639	0.004	94	97927	22.7	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.888	0.004	0	55295	22.0	
$ 5 Toluene-d8 (Surr)	98	6.291	6.287	0.004	93	321428	21.6	
$ 6 4-Bromofluorobenzene (Surr	174	8.341	8.336	0.005	94	109586	23.9	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.712				ND	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84		3.250				ND	
32 Methyl tert-butyl ether	73		3.451				ND	
34 trans-1,2-Dichloroethene	96	3.457	3.463	-0.006	92	2398	0.4194	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.266	4.272	-0.006	78	374635	59.8	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95	5.391	5.391	0.000	97	50355	8.84	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166	6.753	6.753	0.000	97	92267	16.5	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

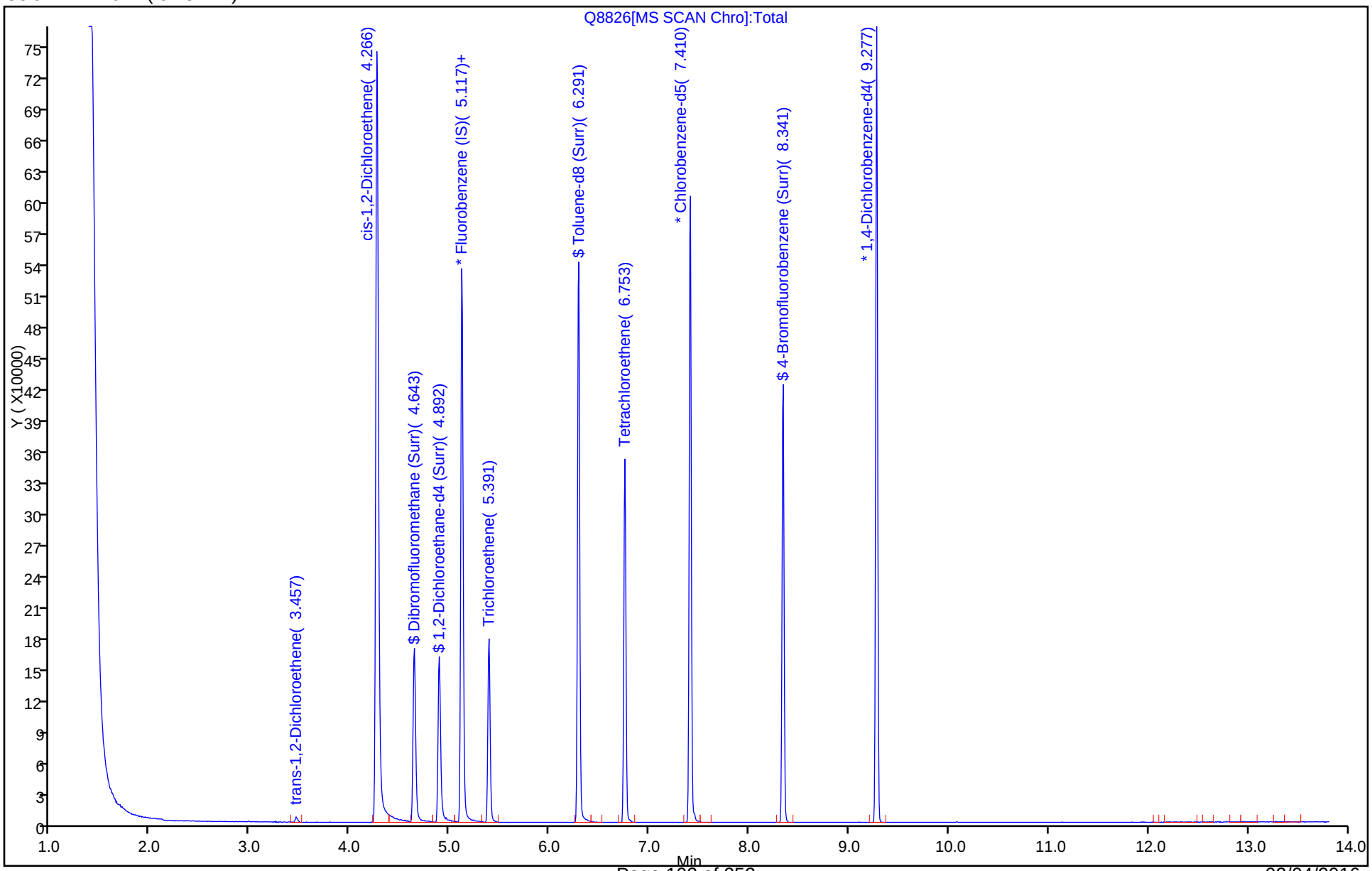
Report Date: 01-Feb-2016 08:56:11 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8826.D

Injection Date:	29-Jan-2016 20:05:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-7	Lab Sample ID:	480-94483-7	Worklist Smp#:	38
Client ID:	MW-1				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	25
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

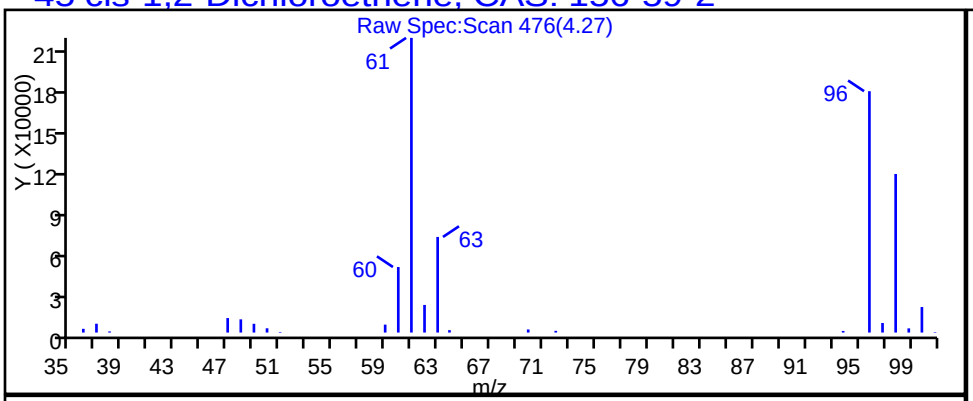
Column: ZB-624 (0.25 mm)

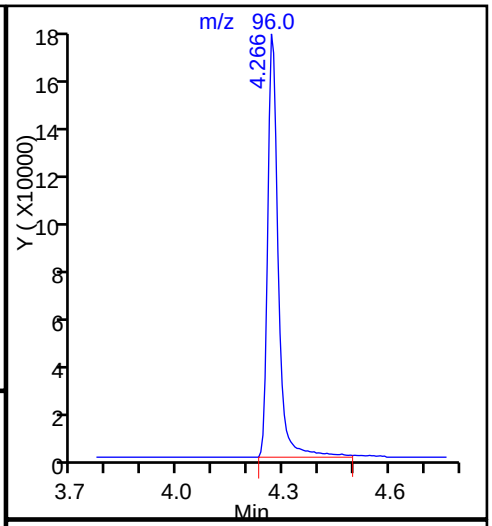


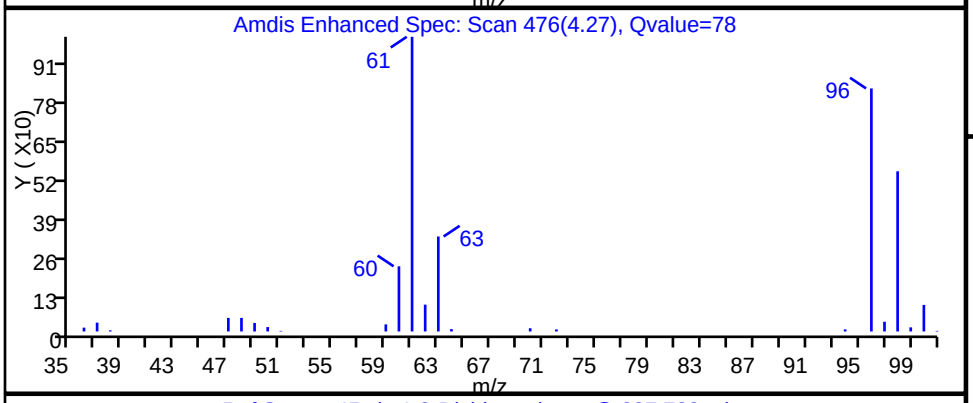
TestAmerica Buffalo

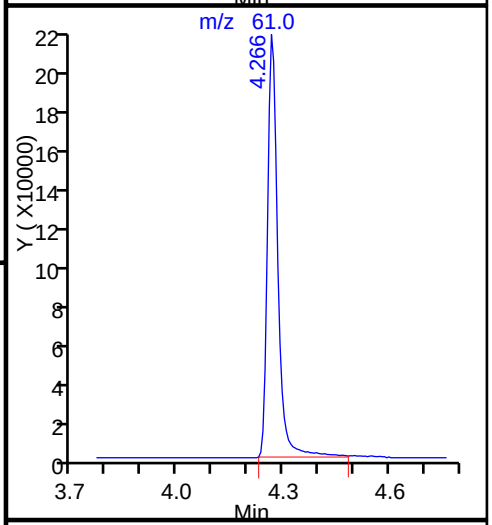
Data File:	\\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8826.D				
Injection Date:	29-Jan-2016 20:05:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-7	Lab Sample ID:	480-94483-7		
Client ID:	MW-1				
Operator ID:	RR	ALS Bottle#:	25	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

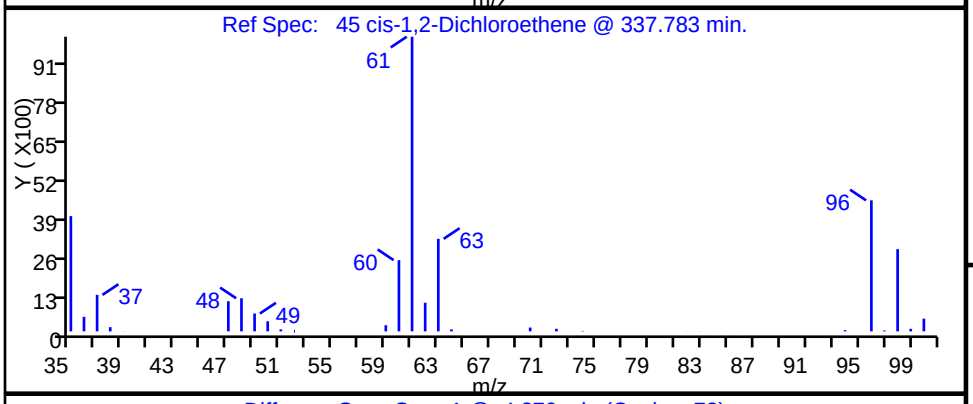
45 cis-1,2-Dichloroethene, CAS: 156-59-2

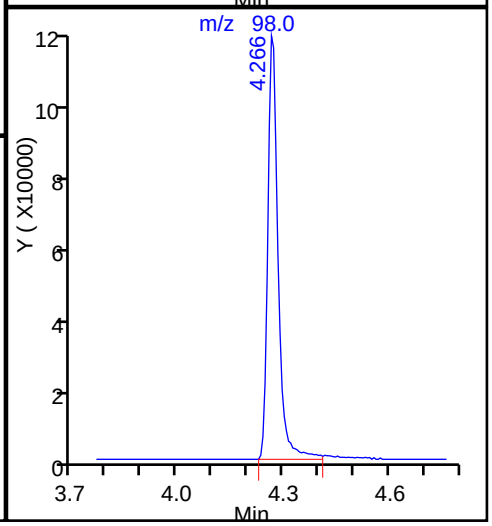


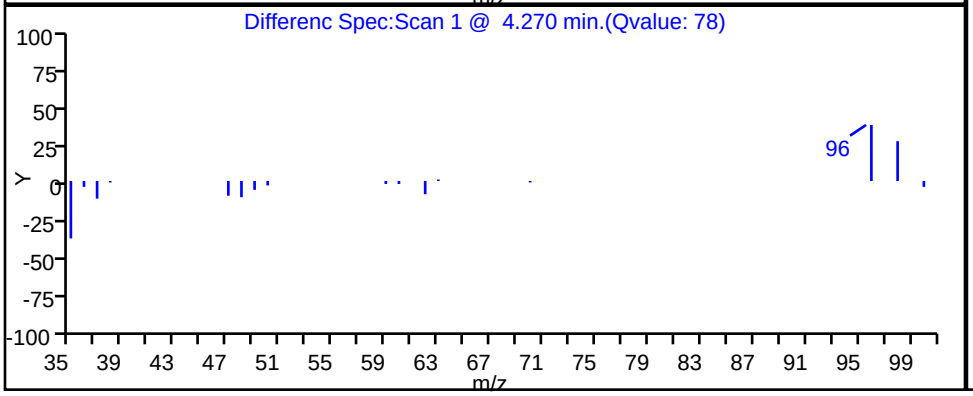










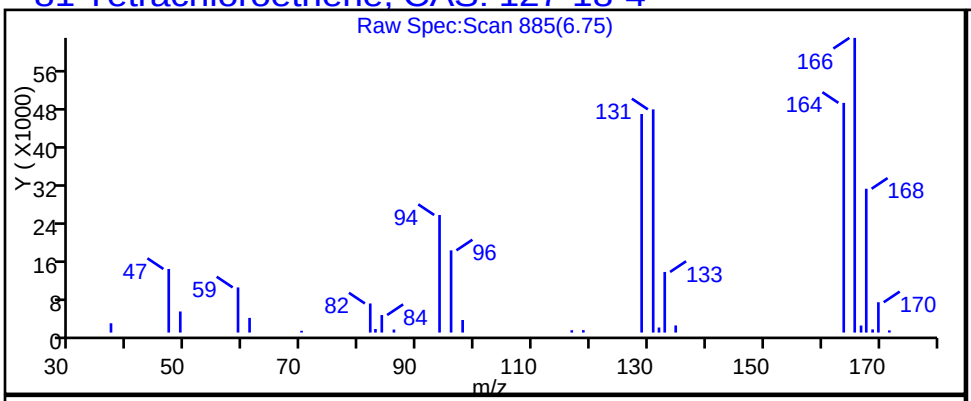


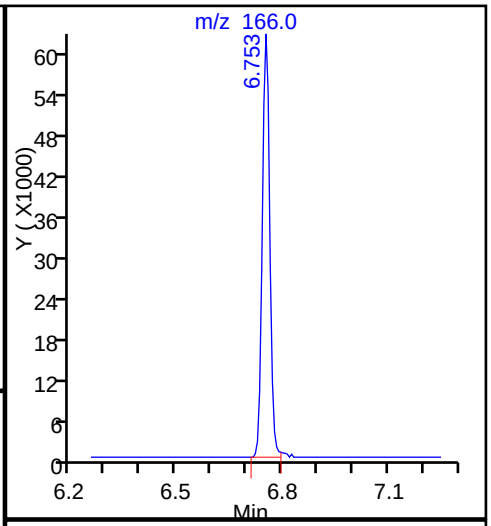
TestAmerica Buffalo

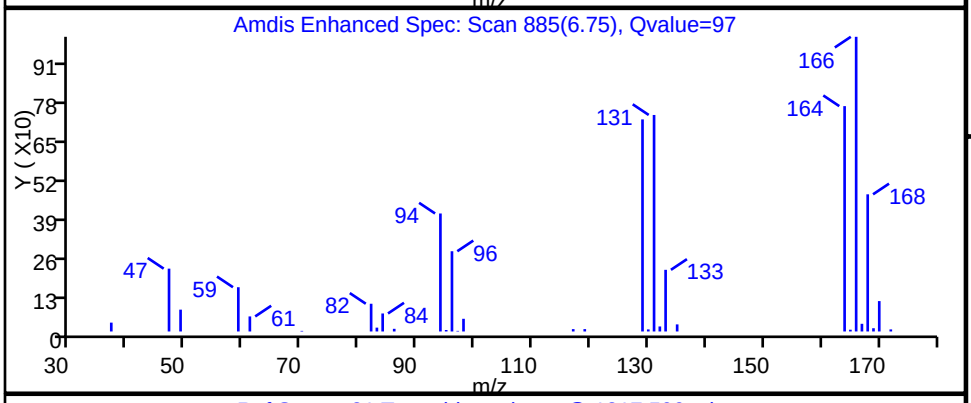
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8826.D

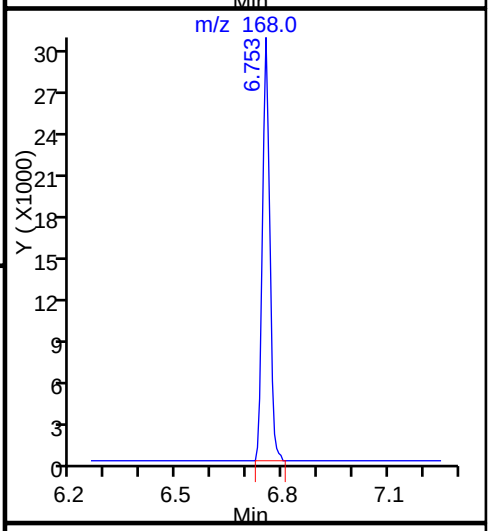
Injection Date:	29-Jan-2016 20:05:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-7	Lab Sample ID:	480-94483-7		
Client ID:	MW-1				
Operator ID:	RR	ALS Bottle#:	25	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

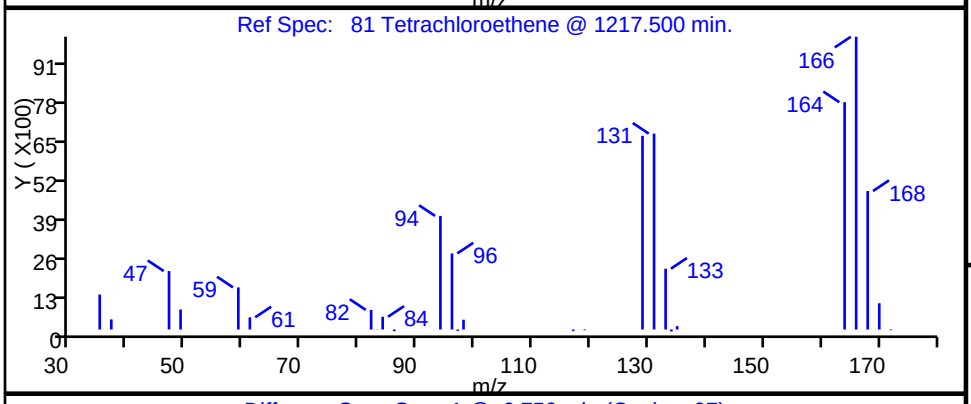
81 Tetrachloroethene, CAS: 127-18-4

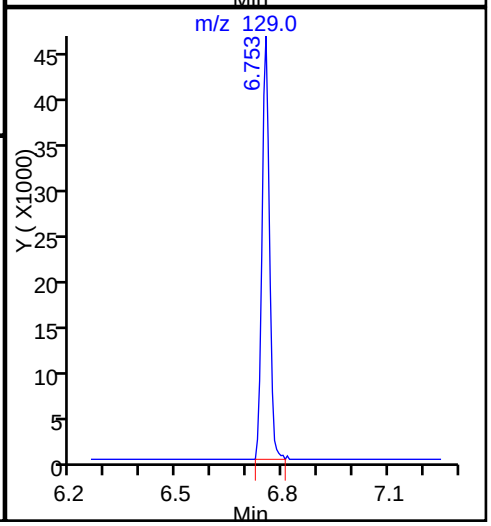


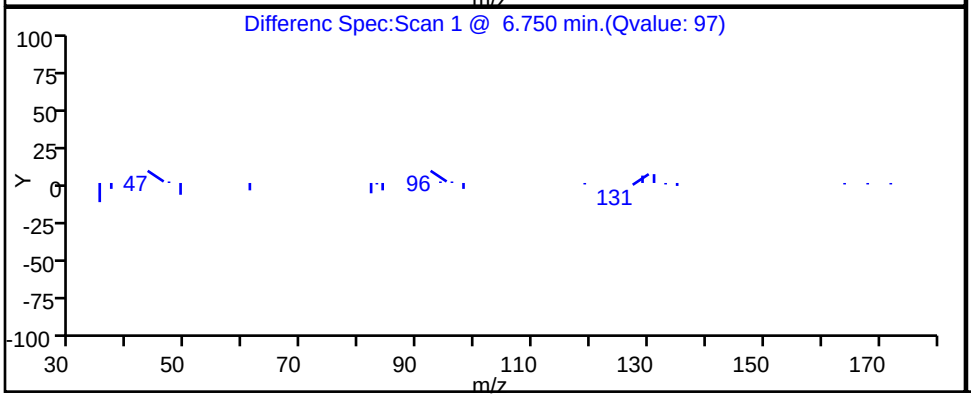










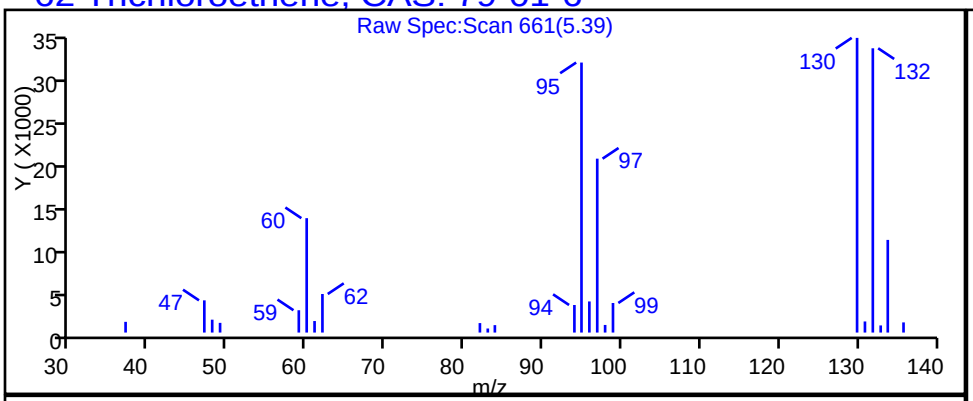


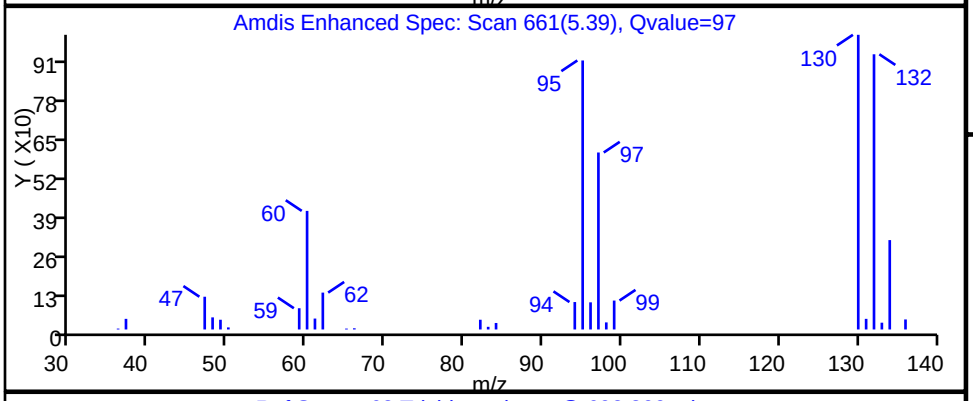
TestAmerica Buffalo

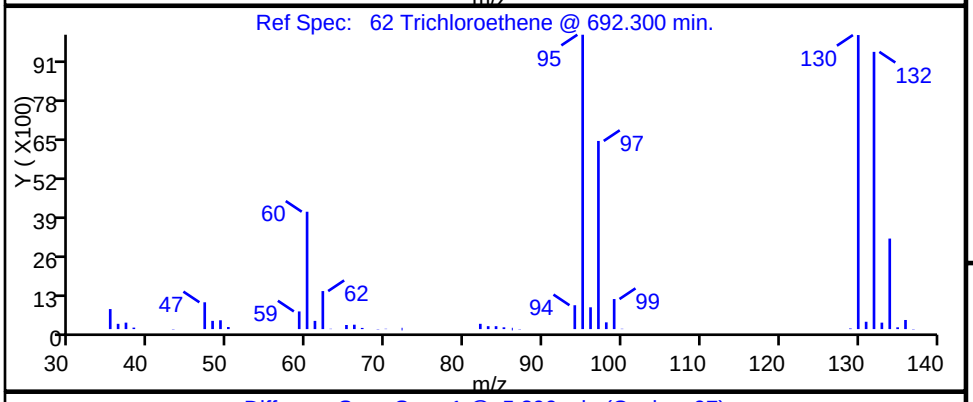
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8826.D

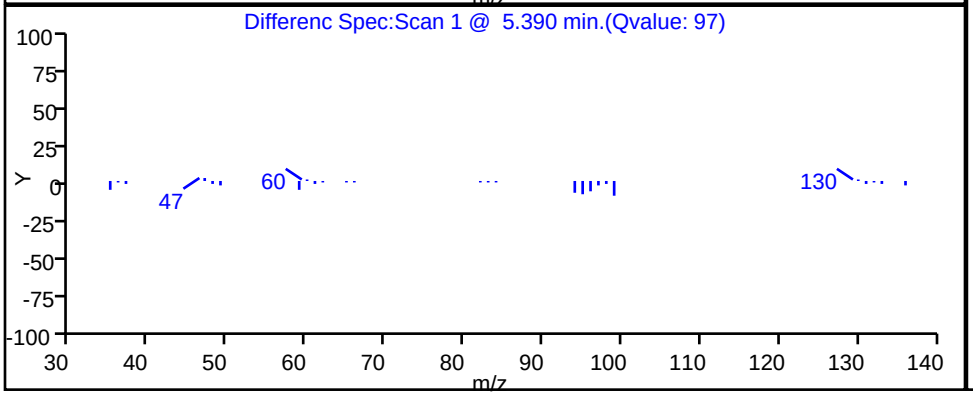
Injection Date:	29-Jan-2016 20:05:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-7	Lab Sample ID:	480-94483-7		
Client ID:	MW-1				
Operator ID:	RR	ALS Bottle#:	25	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	20.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

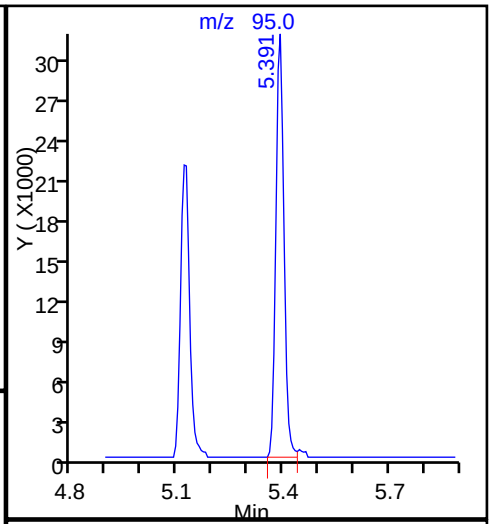
62 Trichloroethene, CAS: 79-01-6

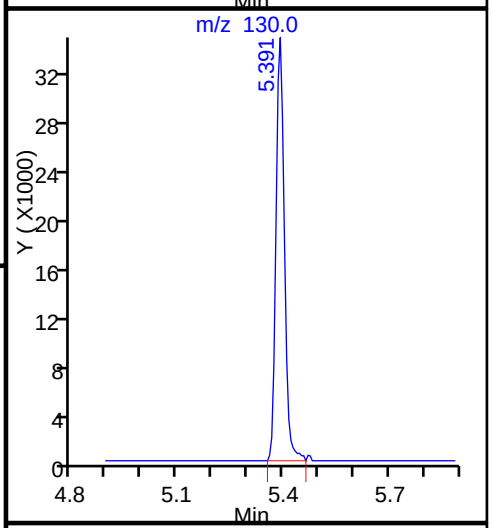


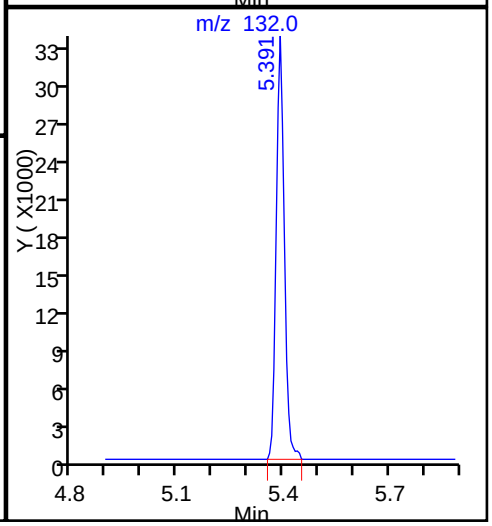












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: DUP-1_012816 | Lab Sample ID: 480-94483-8

Matrix: Water | Lab File ID: Q8827.D

Analysis Method: 8260C | Date Collected: 01/28/2016 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 20:29

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		500	410
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	110
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160
79-00-5	1,1,2-Trichloroethane	ND		500	120
75-34-3	1,1-Dichloroethane	ND		500	190
75-35-4	1,1-Dichloroethene	ND		500	150
120-82-1	1,2,4-Trichlorobenzene	ND		500	210
96-12-8	1,2-Dibromo-3-Chloropropane	ND		500	200
106-93-4	1,2-Dibromoethane	ND		500	370
95-50-1	1,2-Dichlorobenzene	ND		500	400
107-06-2	1,2-Dichloroethane	ND		500	110
78-87-5	1,2-Dichloropropane	ND		500	360
541-73-1	1,3-Dichlorobenzene	ND		500	390
106-46-7	1,4-Dichlorobenzene	ND		500	420
78-93-3	2-Butanone (MEK)	ND		5000	660
591-78-6	2-Hexanone	ND		2500	620
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		2500	1100
67-64-1	Acetone	ND		5000	1500
71-43-2	Benzene	ND		500	210
75-27-4	Bromodichloromethane	ND		500	200
75-25-2	Bromoform	ND		500	130
74-83-9	Bromomethane	ND		500	350
75-15-0	Carbon disulfide	ND		500	95
56-23-5	Carbon tetrachloride	ND		500	140
108-90-7	Chlorobenzene	ND		500	380
75-00-3	Chloroethane	ND		500	160
67-66-3	Chloroform	ND		500	170
74-87-3	Chloromethane	ND		500	180
156-59-2	cis-1,2-Dichloroethene	45000		500	410
10061-01-5	cis-1,3-Dichloropropene	ND		500	180
110-82-7	Cyclohexane	ND		500	90
124-48-1	Dibromochloromethane	ND		500	160
75-71-8	Dichlorodifluoromethane	ND		500	340
100-41-4	Ethylbenzene	ND		500	370
98-82-8	Isopropylbenzene	ND		500	400

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: DUP-1_012816 | Lab Sample ID: 480-94483-8

Matrix: Water | Lab File ID: Q8827.D

Analysis Method: 8260C | Date Collected: 01/28/2016 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 20:29

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		1300	650
1634-04-4	Methyl tert-butyl ether	ND		500	80
108-87-2	Methylcyclohexane	ND		500	80
75-09-2	Methylene Chloride	ND		500	220
100-42-5	Styrene	ND		500	370
127-18-4	Tetrachloroethene	4400		500	180
108-88-3	Toluene	ND		500	260
156-60-5	trans-1,2-Dichloroethene	ND		500	450
10061-02-6	trans-1,3-Dichloropropene	ND		500	190
79-01-6	Trichloroethene	2800		500	230
75-69-4	Trichlorofluoromethane	ND		500	440
75-01-4	Vinyl chloride	1200		500	450
1330-20-7	Xylenes, Total	ND		1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		66-137
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
2037-26-5	Toluene-d8 (Surr)	86		71-126
1868-53-7	Dibromofluoromethane (Surr)	94		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8827.D
Lims ID: 480-94483-A-8 Lab Sample ID: 480-94483-8
Client ID: DUP-1_012816
Sample Type: Client
Inject. Date: 29-Jan-2016 20:29:30 ALS Bottle#: 26 Worklist Smp#: 39
Purge Vol: 5.000 mL Dil. Factor: 500.0000
Sample Info: 480-94483-A-8
Misc. Info.: 480-0050272-039
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:57:12 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 20:59:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.120	5.119	0.001	99	83436	25.0	
* 2 Chlorobenzene-d5	82	7.406	7.406	0.000	85	156038	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.279	9.279	0.000	95	177493	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.646	4.639	0.007	94	103354	23.5	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.889	4.888	0.001	0	56231	22.0	
$ 5 Toluene-d8 (Surr)	98	6.287	6.287	0.000	93	317344	21.6	
$ 6 4-Bromofluorobenzene (Surr	174	8.337	8.336	0.001	92	110412	24.4	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62	1.702	1.712	-0.010	95	12630	2.32	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84	3.253	3.253	0.003	1	671	0.1090	
32 Methyl tert-butyl ether	73		3.451				ND	
34 trans-1,2-Dichloroethene	96	3.460	3.463	-0.003	91	1742	0.2987	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.268	4.272	-0.004	78	570782	89.4	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95	5.394	5.391	0.003	96	32521	5.59	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166	6.756	6.753	0.003	97	48726	8.80	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

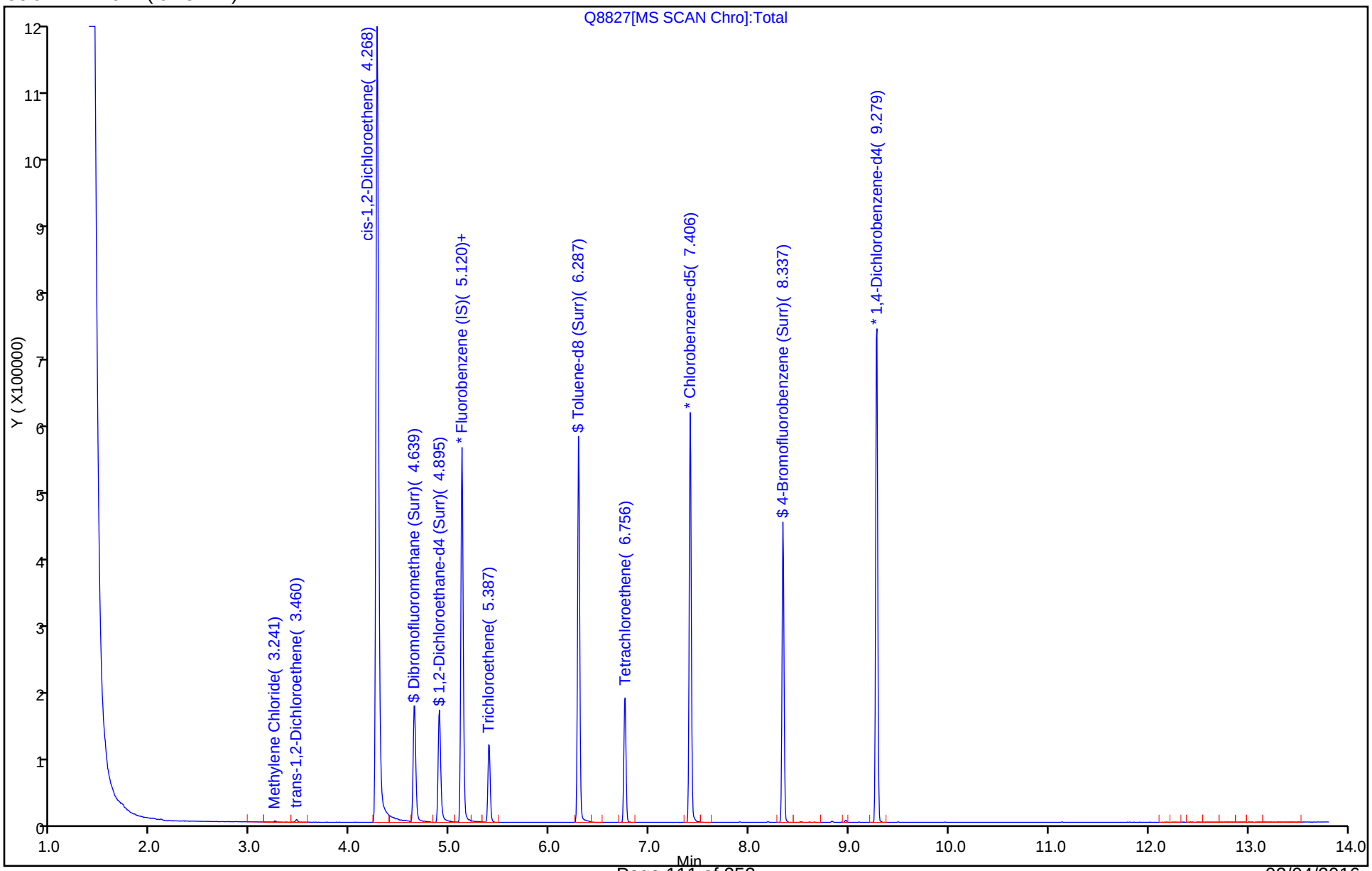
Report Date: 01-Feb-2016 08:57:12 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8827.D

Injection Date:	29-Jan-2016 20:29:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-8	Lab Sample ID:	480-94483-8	Worklist Smp#:	39
Client ID:	DUP-1_012816				
Purge Vol:	5.000 mL	Dil. Factor:	500.0000	ALS Bottle#:	26
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

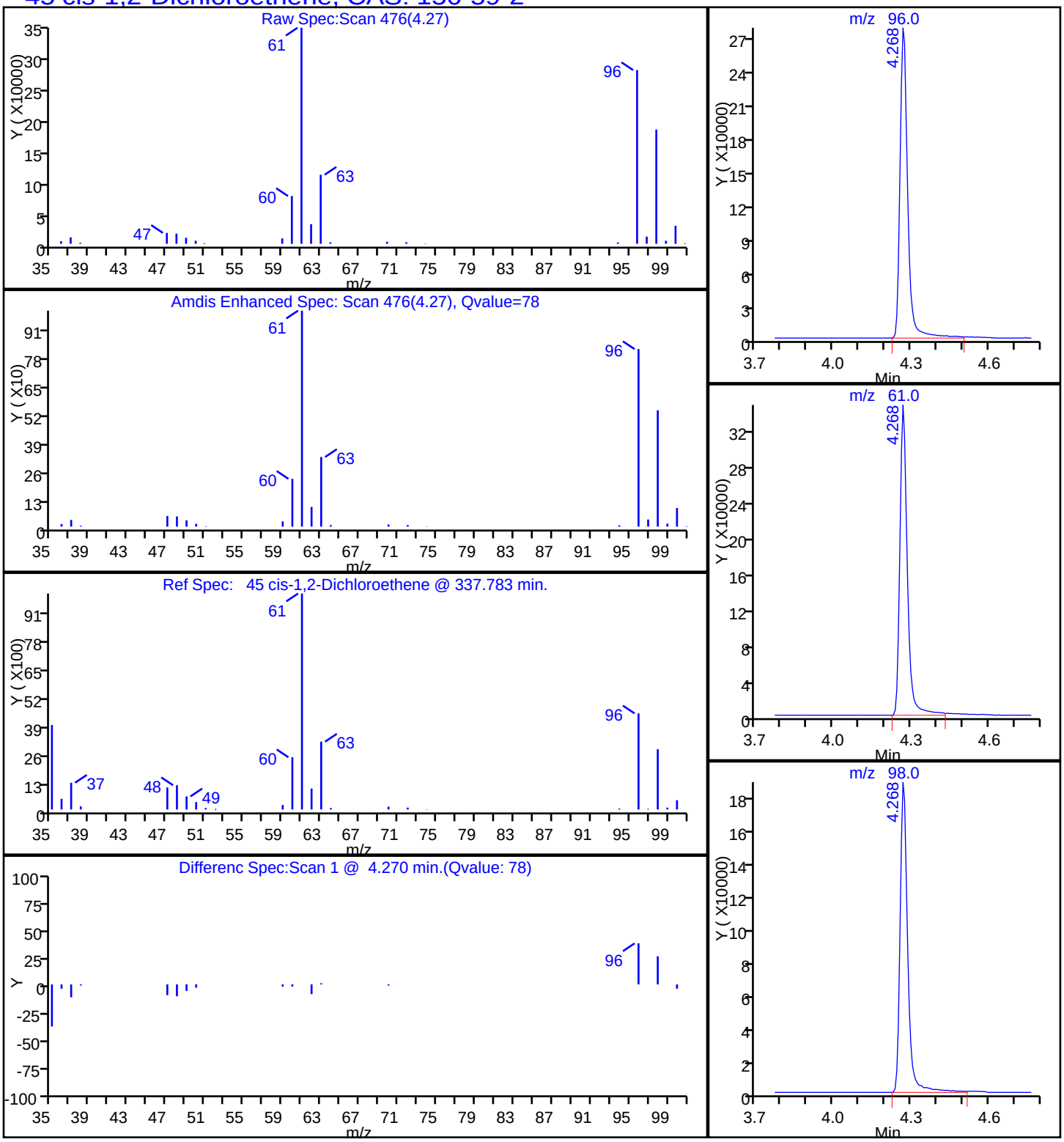
Column: ZB-624 (0.25 mm)



TestAmerica Buffalo

Data File:	\\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8827.D				
Injection Date:	29-Jan-2016 20:29:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-8	Lab Sample ID:	480-94483-8		
Client ID:	DUP-1_012816				
Operator ID:	RR	ALS Bottle#:	26	Worklist Smp#:	39
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

45 cis-1,2-Dichloroethene, CAS: 156-59-2

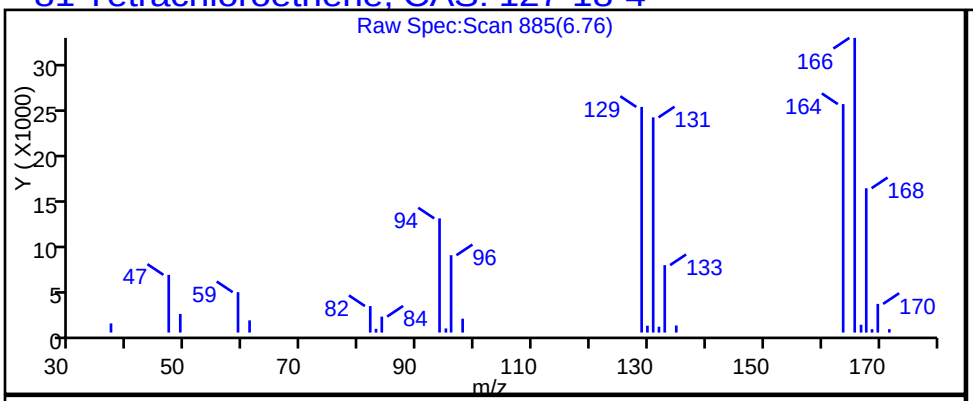


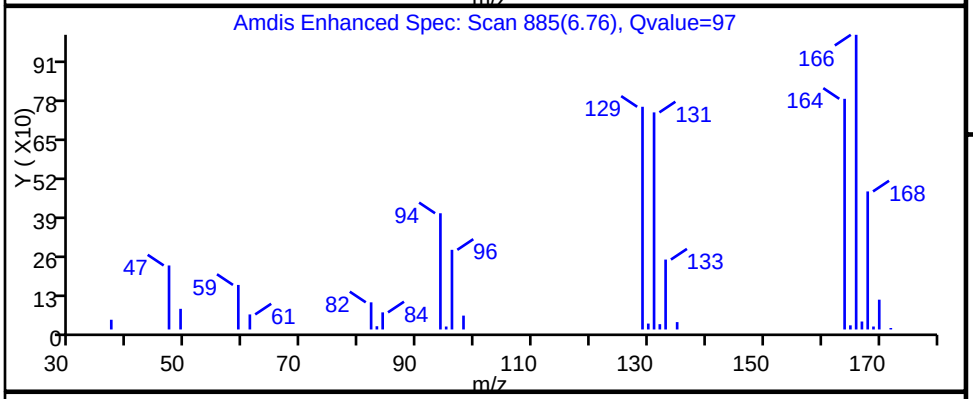
TestAmerica Buffalo

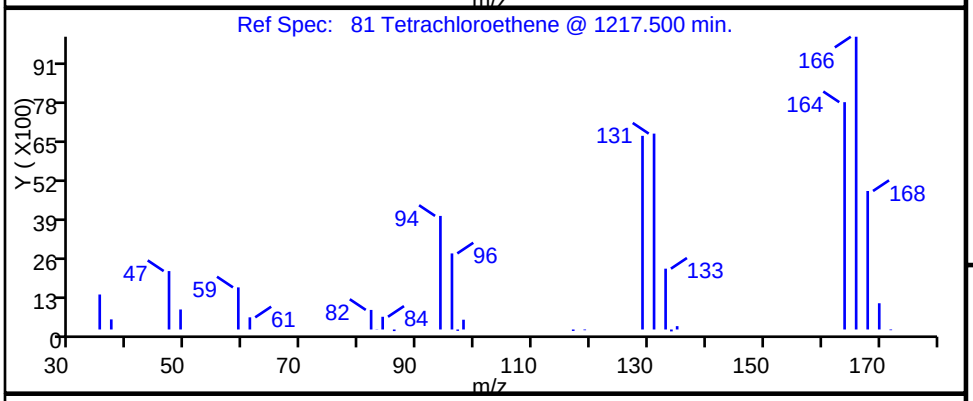
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8827.D

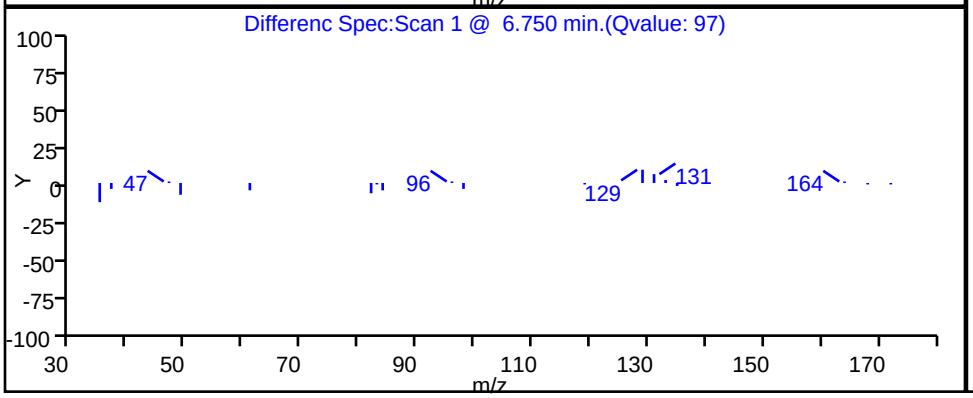
Injection Date:	29-Jan-2016 20:29:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-8	Lab Sample ID:	480-94483-8		
Client ID:	DUP-1_012816				
Operator ID:	RR	ALS Bottle#:	26	Worklist Smp#:	39
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

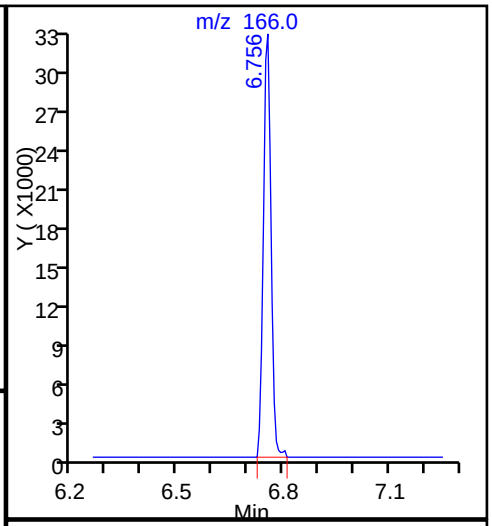
81 Tetrachloroethene, CAS: 127-18-4

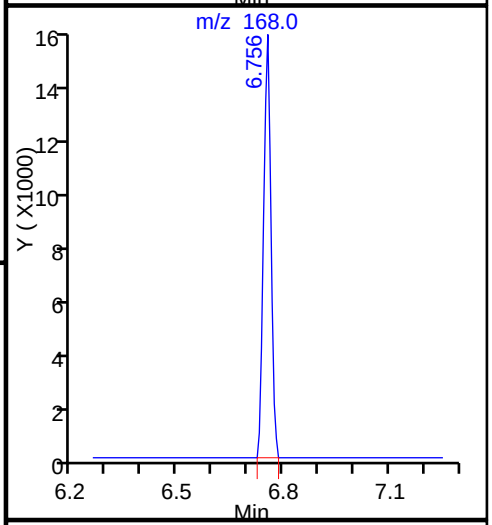


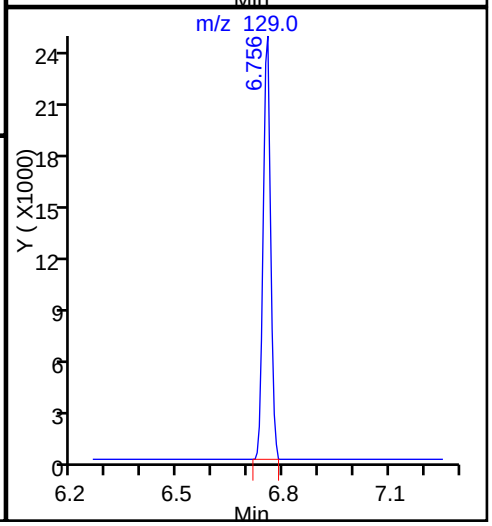










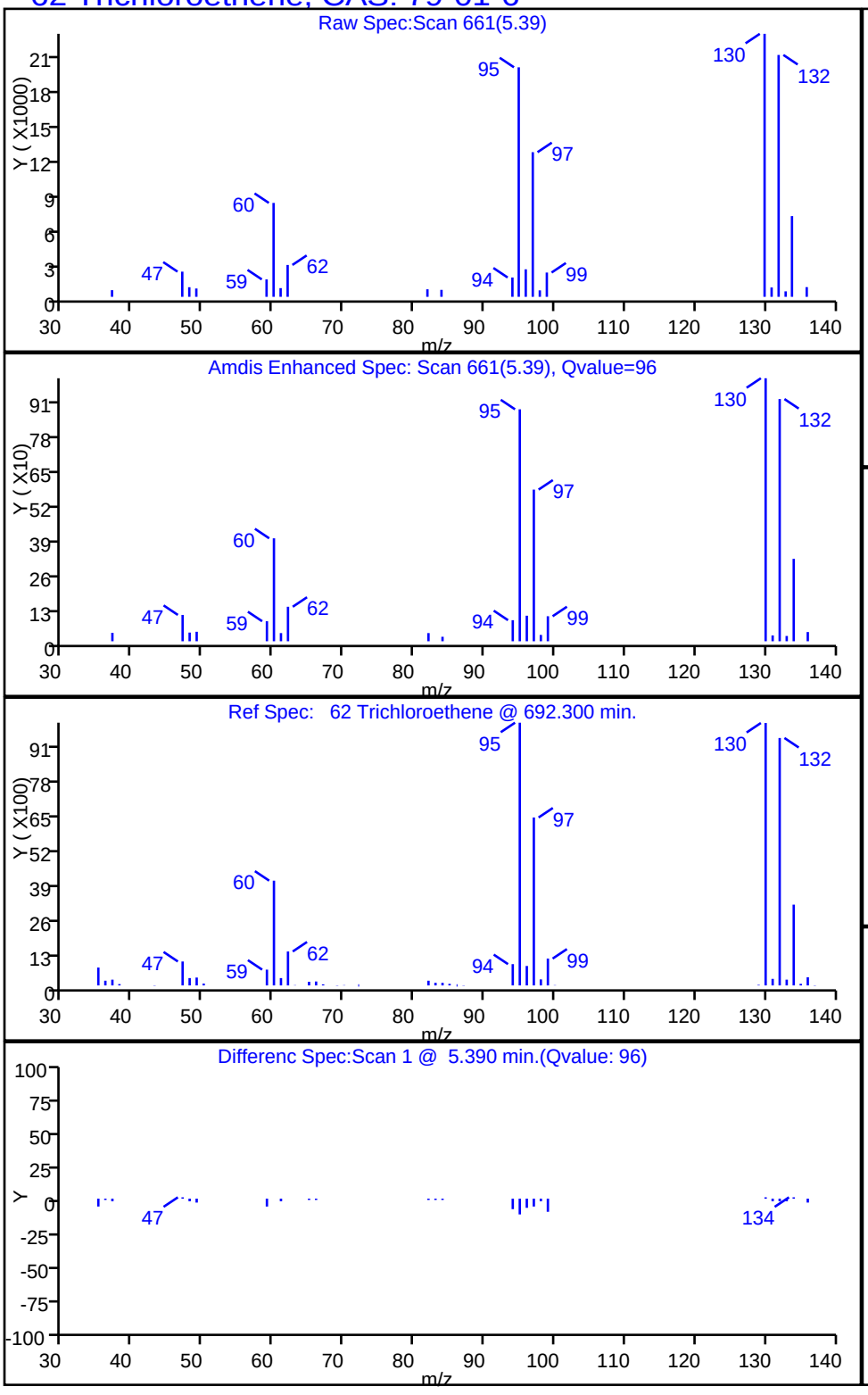


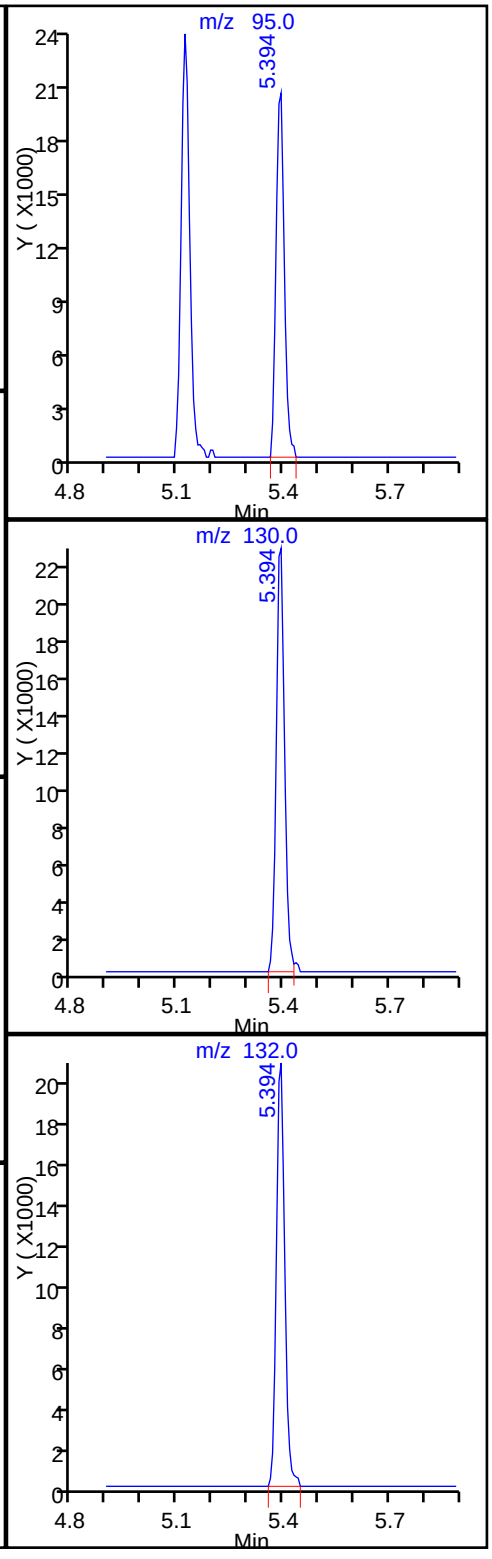
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8827.D

Injection Date:	29-Jan-2016 20:29:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-8	Lab Sample ID:	480-94483-8		
Client ID:	DUP-1_012816				
Operator ID:	RR	ALS Bottle#:	26	Worklist Smp#:	39
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



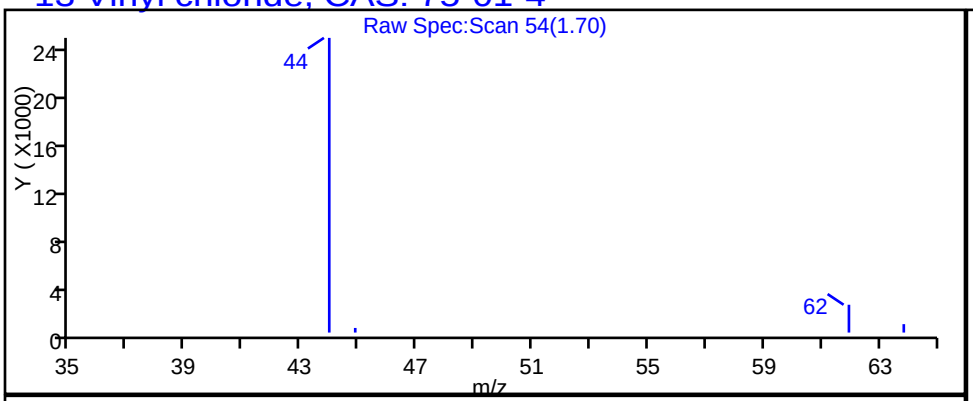


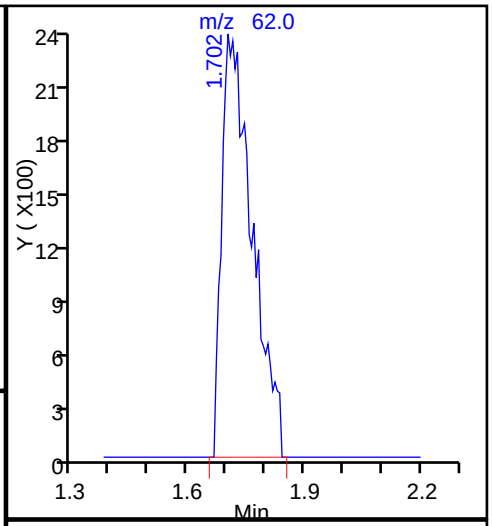
TestAmerica Buffalo

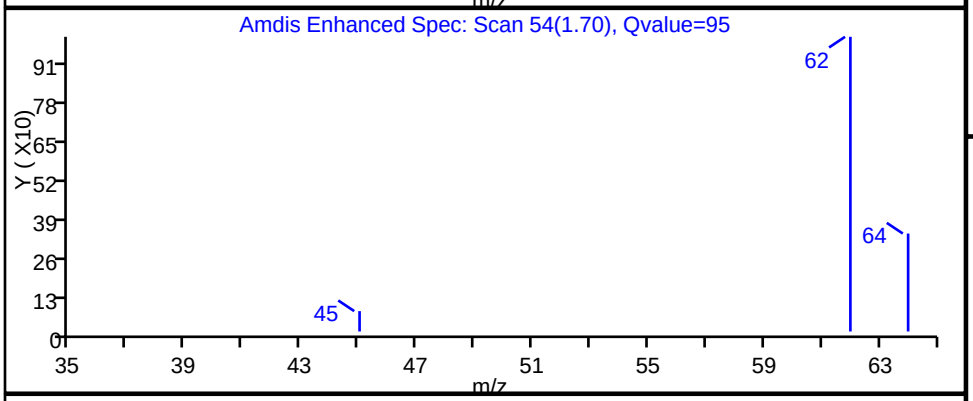
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8827.D

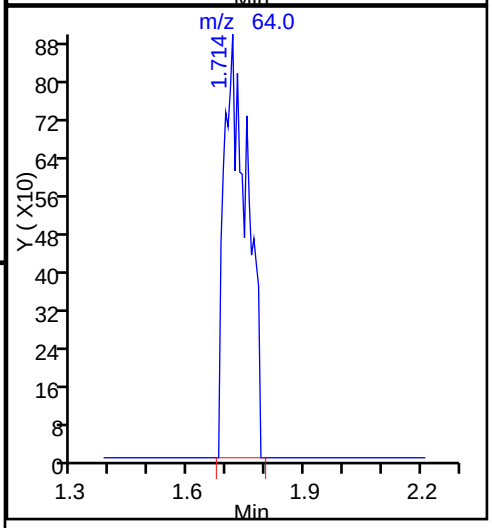
Injection Date:	29-Jan-2016 20:29:30	Instrument ID:	HP5973Q		
Lims ID:	480-94483-A-8	Lab Sample ID:	480-94483-8		
Client ID:	DUP-1_012816				
Operator ID:	RR	ALS Bottle#:	26	Worklist Smp#:	39
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.25 mm)	Detector	MS SCAN		

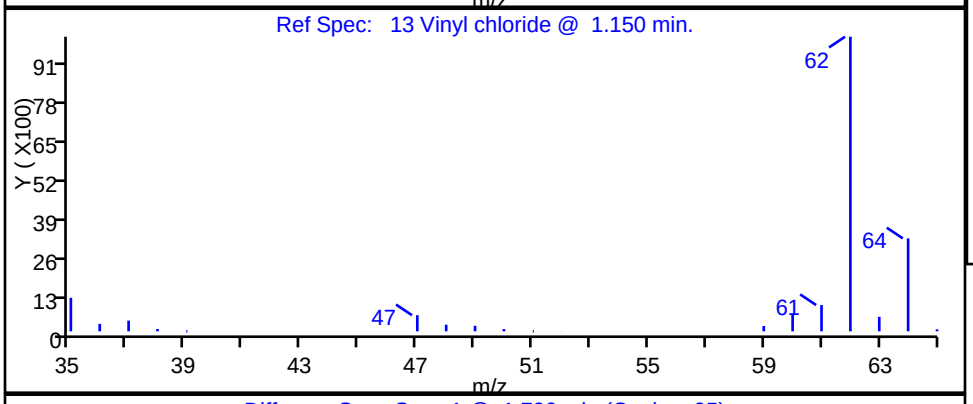
13 Vinyl chloride, CAS: 75-01-4

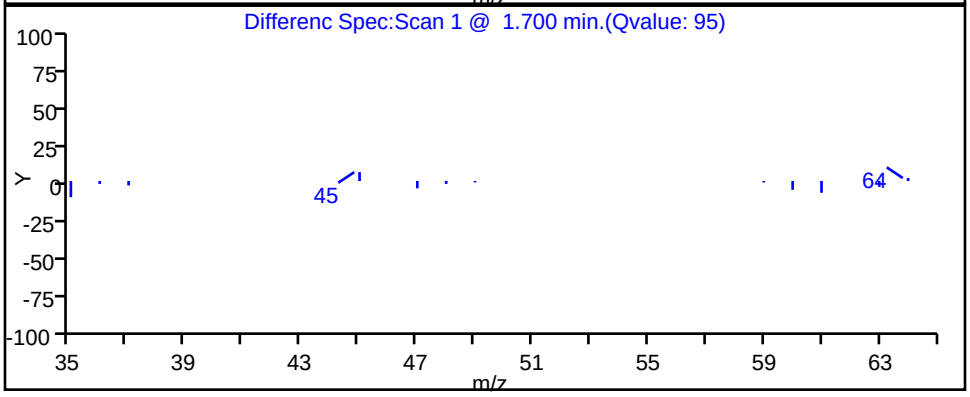












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: TRIP BLANK | Lab Sample ID: 480-94483-9

Matrix: Water | Lab File ID: Q8828.D

Analysis Method: 8260C | Date Collected: 01/28/2016 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 20:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
78-93-3	2-Butanone (MEK)	ND		10	1.3
591-78-6	2-Hexanone	ND		5.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: TRIP BLANK | Lab Sample ID: 480-94483-9

Matrix: Water | Lab File ID: Q8828.D

Analysis Method: 8260C | Date Collected: 01/28/2016 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 20:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		66-137
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
2037-26-5	Toluene-d8 (Surr)	88		71-126
1868-53-7	Dibromofluoromethane (Surr)	92		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8828.D
Lims ID: 480-94483-A-9 Lab Sample ID: 480-94483-9
Client ID: TRIP BLANK
Sample Type: Client
Inject. Date: 29-Jan-2016 20:52:30 ALS Bottle#: 27 Worklist Smp#: 40
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-94483-A-9
Misc. Info.: 480-0050272-040
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 01-Feb-2016 08:57:12 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: fortaing Date: 29-Jan-2016 21:10:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.119	-0.002	99	80453	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.406	0.004	84	151407	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.276	9.279	-0.003	95	170348	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.639	0.004	93	97459	23.0	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.888	0.004	0	54998	22.3	
$ 5 Toluene-d8 (Surr)	98	6.291	6.287	0.004	93	312139	21.9	
$ 6 4-Bromofluorobenzene (Surr	174	8.340	8.336	0.004	92	106075	24.2	
10 Dichlorodifluoromethane	85		1.432				ND	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.712				ND	
14 Bromomethane	94		2.028				ND	
15 Chloroethane	64		2.119				ND	
17 Trichlorofluoromethane	101		2.320				ND	
22 1,1-Dichloroethene	96		2.800				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806				ND	
23 Acetone	43		2.891				ND	
26 Carbon disulfide	76		2.983				ND	
27 Methyl acetate	43		3.159				ND	
30 Methylene Chloride	84		3.250				ND	
32 Methyl tert-butyl ether	73		3.451				ND	
34 trans-1,2-Dichloroethene	96		3.463				ND	
39 1,1-Dichloroethane	63		3.810				ND	
45 cis-1,2-Dichloroethene	96	4.272	4.272	0.000	73	2181	0.3541	
43 2-Butanone (MEK)	43		4.284				ND	
50 Chloroform	83		4.521				ND	
51 1,1,1-Trichloroethane	97		4.631				ND	
52 Cyclohexane	56		4.655				ND	
55 Carbon tetrachloride	117		4.752				ND	
57 Benzene	78		4.910				ND	
58 1,2-Dichloroethane	62		4.953				ND	
62 Trichloroethene	95		5.391				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.506				ND	
65 1,2-Dichloropropane	63		5.567				ND	
68 Dichlorobromomethane	83		5.786				ND	
77 trans-1,3-Dichloropropene	75		6.108				ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200				ND	
74 Toluene	92		6.339				ND	
72 cis-1,3-Dichloropropene	75		6.528				ND	
79 1,1,2-Trichloroethane	83		6.674				ND	
81 Tetrachloroethene	166		6.753				ND	
80 2-Hexanone	43		6.832				ND	
83 Chlorodibromomethane	129		6.984				ND	
84 Ethylene Dibromide	107		7.069				ND	
87 Chlorobenzene	112		7.434				ND	
88 Ethylbenzene	91		7.495				ND	
90 m-Xylene & p-Xylene	106		7.586				ND	
91 o-Xylene	106		7.908				ND	
92 Styrene	104		7.921				ND	
95 Bromoform	173		8.109				ND	
94 Isopropylbenzene	105		8.188				ND	
97 1,1,2,2-Tetrachloroethane	83		8.468				ND	
111 1,3-Dichlorobenzene	146		9.222				ND	
113 1,4-Dichlorobenzene	146		9.301				ND	
116 1,2-Dichlorobenzene	146		9.611				ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268				ND	
119 1,2,4-Trichlorobenzene	180		10.931				ND	
S 124 Xylenes, Total	1		30.000				ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

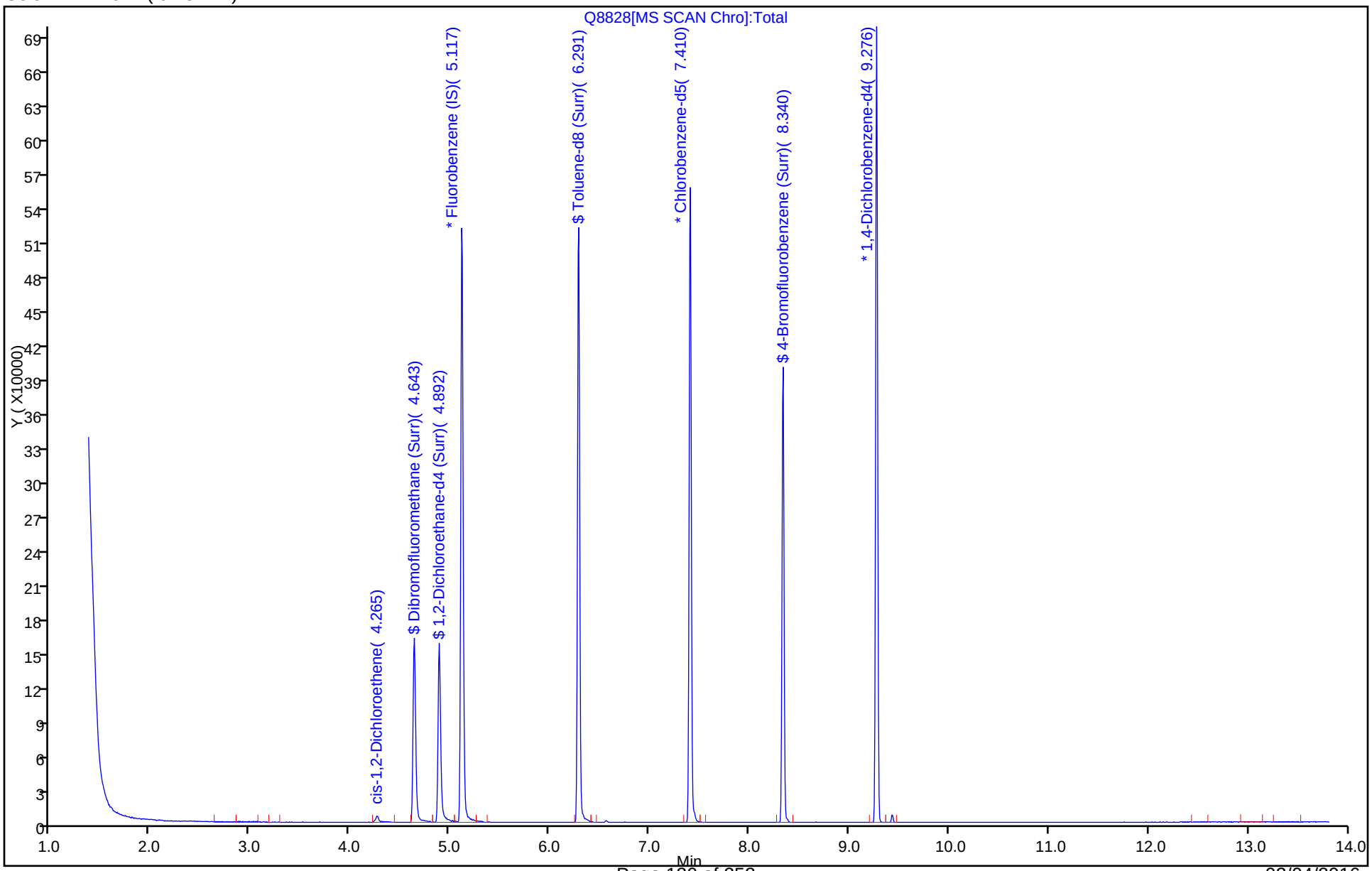
Report Date: 01-Feb-2016 08:57:26 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8828.D

Injection Date:	29-Jan-2016 20:52:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	480-94483-A-9	Lab Sample ID:	480-94483-9	Worklist Smp#:	40
Client ID:	TRIP BLANK				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-283036/5	Q8376.D
Level 2	IC 480-283036/6	Q8377.D
Level 3	IC 480-283036/7	Q8378.D
Level 4	IC 480-283036/8	Q8379.D
Level 5	IC 480-283036/9	Q8380.D
Level 6	ICIS 480-283036/10	Q8381.D
Level 7	IC 480-283036/11	Q8382.D
Level 8	IC 480-283036/12	Q8383.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 1.3877	1.4552 1.3367	1.3715 1.2731	1.1932	1.2132	Ave		1.3186			0.1000	7.3		20.0			
Chloromethane	1.8342 1.7685	2.1033 1.5749	2.0400 1.4181	1.7795	1.8438	Ave		1.7953			0.1000	12.5		20.0			
Vinyl chloride	+++++ 1.7277	1.6600 1.5726	1.7795 1.4376	1.5923	1.6720	Ave		1.6345			0.1000	6.9		20.0			
Butadiene	+++++ 1.5239	1.3936 1.3785	1.6146 1.2284	1.4859	1.5017	Ave		1.4466				8.6		20.0			
Bromomethane	+++++ 0.9252	0.5808 0.9262	0.7687 0.7357	0.6935	0.6973	Ave		0.7611			0.1000	16.6		20.0			
Chloroethane	+++++ 0.8126	0.5986 0.8495	0.7110 0.6472	0.6426	0.7153	Ave		0.7110			0.1000	13.0		20.0			
Trichlorofluoromethane	+++++ 2.2768	1.9303 2.0845	2.1304 1.8987	1.9685	2.1504	Ave		2.0628			0.1000	6.6		20.0			
Dichlorofluoromethane	+++++ 2.4798	2.1361 2.2944	2.4507 2.1860	2.2273	2.4172	Ave		2.3131				5.9		20.0			
Ethyl ether	+++++ 1.4958	1.6215 1.2917	1.3958 1.2392	1.3997	1.5725	Ave		1.4309				9.8		20.0			
Acrolein	+++++ 0.3863	0.3871 0.3567	0.3823 0.3419	0.3668	0.4012	Ave		0.3746				5.5		20.0			
1,1-Dichloroethene	+++++ 1.6543	1.8726 1.4499	1.5170 1.3468	1.6030	1.6533	Ave		1.5853			0.1000	10.7		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 1.4894	1.7078 1.2871	1.4162 1.1186	1.5499	1.5978	Ave		1.4524			0.1000	13.7		20.0			
Acetone	+++++ 0.8330	1.0584 0.7128	0.9965 0.7414	0.9210	0.9812	Ave		0.8920			0.1000	14.9		20.0			
Iodomethane	+++++ 3.1471	3.4595 2.7629	2.9262 2.5590	3.0108	3.1832	Ave		3.0070				9.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	+++++ 5.3497	5.9589 4.7484	5.0261 4.2165	5.0985	5.2854	Ave		5.0976			0.1000	10.6		20.0			
Allyl chloride	+++++ 2.6613	3.0857 2.2647	2.7346 1.9738	2.6022	2.7471	Ave		2.5813				14.0		20.0			
Methyl acetate	1.7268 2.1151	2.4816 1.9054	2.3054 1.6693	2.1099	2.2158	Ave		2.0662			0.1000	13.6		20.0			
Methylene Chloride	1.9259 1.8221	2.3457 1.5984	1.8621 1.4850	1.8352	1.8828	Ave		1.8447			0.1000	13.7		20.0			
2-Methyl-2-propanol	+++++ 0.4303	0.5829 0.3425	0.5551 0.4436	0.5244	0.5703	Ave		0.4927				18.1		20.0			
Methyl tert-butyl ether	+++++ 5.7724	6.5199 5.1081	5.6846 4.5952	5.5980	5.9524	Ave		5.6044			0.1000	10.9		20.0			
trans-1,2-Dichloroethene	+++++ 1.8241	2.0747 1.5999	1.7265 1.4084	1.7759	1.8237	Ave		1.7476			0.1000	11.8		20.0			
Acrylonitrile	0.7946 1.0598	1.2143 0.9624	1.1221 0.8329	1.0393	1.1069	Ave		1.0165				14.2		20.0			
Hexane	+++++ 2.3972	2.7491 2.2143	2.4103 1.9752	2.4358	2.3494	Ave		2.3616				9.9		20.0			
1,1-Dichloroethane	+++++ 3.0927	3.4574 2.6995	2.9707 2.5604	3.0242	3.1870	Ave		2.9989			0.2000	10.0		20.0			
Vinyl acetate	+++++ 4.1413	4.5381 3.7679	4.1356 3.3836	4.1346	4.3270	Ave		4.0612				9.3		20.0			
2,2-Dichloropropane	+++++ 2.2831	2.6062 1.8956	2.1602 1.6402	2.2264	2.2352	Ave		2.1495				14.3		20.0			
cis-1,2-Dichloroethene	+++++ 1.9937	2.2096 1.7413	1.8893 1.6039	1.9317	2.0285	Ave		1.9140			0.1000	10.3		20.0			
2-Butanone (MEK)	+++++ 1.3242	1.5847 1.2317	1.4293 1.1678	1.3429	1.4310	Ave		1.3588			0.1000	10.2		20.0			
Chlorobromomethane	+++++ 1.0361	1.1172 0.9377	0.9587 0.8784	1.0131	1.0726	Ave		1.0020				8.2		20.0			
Tetrahydrofuran	+++++ 0.9834	1.1252 0.9030	1.0340 0.8669	0.9996	1.0195	Ave		0.9902				8.6		20.0			
Chloroform	+++++ 2.9830	3.4812 2.6151	2.8533 2.4328	2.9011	2.9510	Ave		2.8882			0.2000	11.4		20.0			
1,1,1-Trichloroethane	+++++ 2.5569	2.7057 2.2829	2.3334 2.0842	2.4253	2.5158	Ave		2.4149			0.1000	8.4		20.0			
Cyclohexane	+++++ 3.0603	3.4321 2.6376	2.9400 2.2610	3.0100	3.0270	Ave		2.9097			0.1000	12.7		20.0			
Carbon tetrachloride	+++++ 2.2666	2.2255 2.1209	1.9072 1.9697	2.0415	2.1211	Ave		2.0932			0.1000	6.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloropropene	+++++ 2.3301	2.6342 2.1298	2.2140 1.9884	2.2932	2.2770	Ave		2.2667				8.8		20.0			
Isobutyl alcohol	+++++ 0.1688	0.2214 0.1311	0.2057 0.1671	0.1940	0.2176	Ave		0.1865				17.5		20.0			
Benzene	+++++ 6.4135	7.5685 5.7600	6.3218 5.2437	6.4807	6.5322	Ave		6.3315			0.5000	11.4		20.0			
1,2-Dichloroethane	2.1785 2.4032	2.7403 2.1535	2.3495 2.0256	2.3746	2.4241	Ave		2.3311			0.1000	9.3		20.0			
n-Heptane	+++++ 2.1896	2.5019 2.2094	1.8620 1.7819	2.0693	1.9250	Ave		2.0770				11.9		20.0			
Trichloroethene	+++++ 1.7893	2.0448 1.6234	1.7037 1.5524	1.7320	1.7493	Ave		1.7421			0.2000	8.9		20.0			
Methylcyclohexane	+++++ 2.8874	3.1939 2.6427	2.7976 2.4211	2.7987	2.8480	Ave		2.7985			0.1000	8.4		20.0			
1,2-Dichloropropane	+++++ 1.5540	1.7540 1.4368	1.4204 1.3967	1.4943	1.5086	Ave		1.5093			0.1000	8.0		20.0			
Dibromomethane	+++++ 1.1451	1.2346 1.0555	1.0588 1.0164	1.0641	1.1433	Ave		1.1025			0.1000	6.8		20.0			
1,4-Dioxane	+++++ 0.0131	0.0137 0.0120	0.0158 0.0121	0.0173	0.0170	Ave		0.0144				15.5		20.0			
Bromodichloromethane	+++++ 2.0969	2.0356 1.9597	1.7336 1.9394	1.8911	1.9997	Ave		1.9508			0.2000	6.0		20.0			
2-Chloroethyl vinyl ether	+++++ 1.0097	1.0365 1.0504	0.8528 1.0958	0.9289	0.9531	Ave		0.9896				8.4		20.0			
trans-1,3-Dichloropropene	+++++ 1.2860	1.2671 1.2868	1.1404 1.2731	1.1617	1.2777	Ave		1.2418			0.1000	5.0		20.0			
4-Methyl-2-pentanone (MIBK)	+++++ 1.3032	1.5575 1.1778	1.4059 0.9008	1.3614	1.4280	Ave		1.3049			0.1000	16.3		20.0			
Toluene	+++++ 1.9914	2.4289 1.9246	2.0413 1.8118	1.9662	2.0687	Ave		2.0333			0.4000	9.5		20.0			
cis-1,3-Dichloropropene	+++++ 2.0527	2.1277 2.0853	1.6047 2.1475	1.8233	1.9171	Ave		1.9655			0.2000	10.1		20.0			
Ethyl methacrylate	+++++ 1.1333	1.1394 1.1314	0.9931 1.0792	1.0969	1.1434	Ave		1.1024				4.9		20.0			
1,1,2-Trichloroethane	+++++ 0.5982	0.7208 0.5977	0.5743 0.5798	0.5694	0.6200	Ave		0.6086			0.1000	8.6		20.0			
Tetrachloroethene	+++++ 0.8728	1.0444 0.8411	0.8720 0.8096	0.8756	0.8909	Ave		0.8866			0.2000	8.4		20.0			
1,3-Dichloropropane	+++++ 1.2184	1.3592 1.2348	1.1870 1.1973	1.1972	1.2621	Ave		1.2366				4.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	+++++ 0.8717	1.1424 0.8273	1.0058 0.6742	0.9721	0.9686	Ave		0.9232			0.1000	16.1		20.0			
Dibromochloromethane	+++++ 0.8752	0.7997 0.8987	0.7135 0.8930	0.7601	0.8463	Ave		0.8266			0.1000	8.6		20.0			
1,2-Dibromoethane	+++++ 0.8105	0.8859 0.8209	0.7598 0.8158	0.7824	0.8166	Ave		0.8131				4.8		20.0			
Chlorobenzene	+++++ 2.2141	2.6702 2.1677	2.2389 2.0464	2.2293	2.2789	Ave		2.2636			0.5000	8.6		20.0			
Ethylbenzene	+++++ 3.6603	4.3788 3.4480	3.7443 2.9868	3.7125	3.8019	Ave		3.6761			0.1000	11.3		20.0			
1,1,1,2-Tetrachloroethane	+++++ 0.8965	0.8949 0.8562	0.7822 0.7945	0.8241	0.8902	Ave		0.8484				5.7		20.0			
m,p-Xylene	+++++ 1.5156	1.7904 1.4615	1.5376 1.3684	1.4918	1.5464	Ave		1.5303			0.1000	8.5		20.0			
o-Xylene	+++++ 1.5604	1.7991 1.4621	1.5622 1.3374	1.5187	1.6275	Ave		1.5525			0.3000	9.2		20.0			
Styrene	+++++ 2.4074	2.6931 2.2890	2.2639 2.0846	2.3511	2.4362	Ave		2.3607			0.3000	7.9		20.0			
Bromoform	+++++ 0.5426	0.4709 0.5796	0.4337 0.5809	0.4448	0.5134	Ave		0.5094			0.1000	12.0		20.0			
Isopropylbenzene	+++++ 3.6749	4.0541 3.4840	3.4837 3.1561	3.4950	3.7591	Ave		3.5867			0.1000	7.8		20.0			
Bromobenzene	+++++ 0.9154	1.0782 0.8919	0.9094 0.8698	0.8944	0.9472	Ave		0.9295				7.5		20.0			
1,1,2,2-Tetrachloroethane	+++++ 1.1089	1.2031 1.0963	1.0682 1.0321	1.0525	1.1885	Ave		1.1071			0.3000	6.0		20.0			
1,2,3-Trichloropropane	+++++ 0.3815	0.4717 0.3792	0.3849 0.3577	0.3590	0.3931	Ave		0.3896				9.9		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2876	0.2938 0.3127	0.2554 0.3039	0.2637	0.2915	Ave		0.2869				7.2		20.0			
N-Propylbenzene	+++++ 4.0625	4.6208 3.8309	4.0593 3.3253	3.8808	4.1727	Ave		3.9932				9.8		20.0			
2-Chlorotoluene	+++++ 0.8999	0.9702 0.8749	0.8582 0.8407	0.8631	0.9112	Ave		0.8883				4.9		20.0			
1,3,5-Trimethylbenzene	+++++ 3.1485	3.3923 2.9718	2.9337 2.6839	2.9176	3.1675	Ave		3.0308				7.5		20.0			
4-Chlorotoluene	+++++ 0.8887	1.0474 0.8718	0.8553 0.8448	0.8666	0.9045	Ave		0.8970				7.7		20.0			
tert-Butylbenzene	+++++ 0.7129	0.7225 0.6906	0.6266 0.6509	0.6410	0.6998	Ave		0.6778				5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	+++++ 3.1783	3.4875 3.0211	3.1174 2.7336	3.0493	3.2822	Ave		3.1242				7.5		20.0			
sec-Butylbenzene	+++++ 3.8430	4.1245 3.6477	3.6164 3.1999	3.6091	3.8940	Ave		3.7049				7.8		20.0			
4-Isopropyltoluene	+++++ 3.4970	3.7461 3.2609	3.2901 2.8268	3.2890	3.5457	Ave		3.3508				8.7		20.0			
1,3-Dichlorobenzene	+++++ 1.7304	2.0540 1.6491	1.7998 1.5104	1.7098	1.8325	Ave		1.7551			0.6000	9.6		20.0			
1,4-Dichlorobenzene	+++++ 1.7656	2.1359 1.7155	1.8490 1.6119	1.7265	1.8670	Ave		1.8102			0.5000	9.2		20.0			
n-Butylbenzene	+++++ 2.8821	3.0743 2.7085	2.7878 2.4223	2.7319	2.8964	Ave		2.7862				7.3		20.0			
1,2-Dichlorobenzene	+++++ 1.7891	2.0605 1.6880	1.8437 1.5974	1.7318	1.8758	Ave		1.7981			0.4000	8.3		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2979	0.2380 0.2986	0.2389 0.2978	0.2442	0.2833	Ave		0.2712			0.0500	10.8		20.0			
1,2,4-Trichlorobenzene	+++++ 1.3840	1.4034 1.2691	1.3495 1.1896	1.2921	1.4298	Ave		1.3311			0.2000	6.4		20.0			
Hexachlorobutadiene	+++++ 0.4689	0.4795 0.4413	0.4575 0.4104	0.4367	0.4657	Ave		0.4514				5.2		20.0			
Naphthalene	+++++ 4.7645	4.6279 4.3095	4.4979 3.6857	4.3792	5.0295	Ave		4.4706				9.5		20.0			
1,2,3-Trichlorobenzene	+++++ 1.3109	1.3531 1.2082	1.3034 1.1420	1.2360	1.3799	Ave		1.2762				6.6		20.0			
Dibromofluoromethane (Surr)	1.2888 1.3860	1.3293 1.2483	1.3396 1.1959	1.3840	1.3703	Ave		1.3178				5.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.7728 0.7871	0.7755 0.7248	0.7928 0.6802	0.8059	0.8015	Ave		0.7676				5.7		20.0			
Toluene-d8 (Surr)	2.3459 2.3529	2.3443 2.3041	2.3809 2.2975	2.4050	2.4147	Ave		2.3557				1.8		20.0			
4-Bromofluorobenzene (Surr)	0.7380 0.7143	0.7428 0.7069	0.7404 0.7044	0.7353	0.7178	Ave		0.7250				2.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-283036/5	Q8376.D
Level 2	IC 480-283036/6	Q8377.D
Level 3	IC 480-283036/7	Q8378.D
Level 4	IC 480-283036/8	Q8379.D
Level 5	IC 480-283036/9	Q8380.D
Level 6	ICIS 480-283036/10	Q8381.D
Level 7	IC 480-283036/11	Q8382.D
Level 8	IC 480-283036/12	Q8383.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 159358	6965 346203	12643 697024	27077	55315	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Chloromethane	FB	Ave	4423 203095	10067 407881	18806 776434	40383	84065	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Vinyl chloride	FB	Ave	+++++ 198406	7945 407299	16405 787118	36134	76231	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Butadiene	FB	Ave	+++++ 174999	6670 357011	14884 672566	33721	68467	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Bromomethane	FB	Ave	+++++ 106250	2780 239883	7086 402794	15738	31794	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Chloroethane	FB	Ave	+++++ 93322	2865 220015	6554 354342	14583	32612	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Trichlorofluoromethane	FB	Ave	+++++ 261464	9239 539874	19639 1039569	44673	98042	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Dichlorofluoromethane	FB	Ave	+++++ 284775	10224 594237	22592 1196838	50544	110206	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Ethyl ether	FB	Ave	+++++ 171777	7761 334552	12867 678470	31764	71696	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Acrolein	FB	Ave	+++++ 221788	9263 461921	17623 935860	41616	91461	+++++ 125	5.00 250	10.0 500	25.0	50.0
1,1-Dichloroethene	FB	Ave	+++++ 189982	8963 375506	13985 737400	36377	75380	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 171045	8174 333357	13055 612441	35172	72850	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Acetone	FB	Ave	+++++ 478283	25329 923075	45934 2029627	104504	223675	+++++ 125	5.00 250	10.0 500	25.0	50.0
Iodomethane	FB	Ave	+++++ 361411	16558 715581	26976 1401071	68326	145131	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Carbon disulfide	FB	Ave	+++++ 614363	28521 1229803	46334 2308570	115703	240974	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Allyl chloride	FB	Ave	+++++ 305620	14769 586547	25209 1080683	59053	125247	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Methyl acetate	FB	Ave	20820 1214469	59389 2467365	106262 4569841	239400	505129	2.50 125	5.00 250	10.0 500	25.0	50.0
Methylene Chloride	FB	Ave	4644 209251	11227 413984	17166 813042	41648	85844	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Methyl-2-propanol	FB	Ave	+++++ 494122	27900 886988	51175 2428953	119013	260024	+++++ 250	10.0 500	20.0 1000	50.0	100
Methyl tert-butyl ether	FB	Ave	+++++ 662906	31206 1322958	52404 2515922	127037	271387	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	+++++ 209477	9930 414350	15916 771100	40301	83149	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Acrylonitrile	FB	Ave	19160 1217047	58120 2492507	103441 4560123	235846	504663	5.00 250	10.0 500	20.0 1000	50.0	100
Hexane	FB	Ave	+++++ 275296	13158 573476	22220 1081421	55276	107118	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1-Dichloroethane	FB	Ave	+++++ 355170	16548 699156	27386 1401849	68630	145303	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Vinyl acetate	FB	Ave	+++++ 951184	43441 1951689	76250 3705149	187655	394564	+++++ 50.0	2.00 100	4.00 200	10.0	20.0
2,2-Dichloropropane	FB	Ave	+++++ 262192	12474 490943	19914 898003	50524	101910	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
cis-1,2-Dichloroethene	FB	Ave	+++++ 228955	10576 450972	17417 878152	43836	92487	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Butanone (MEK)	FB	Ave	+++++ 760327	37924 1595059	65880 3196810	152373	326218	+++++ 125	5.00 250	10.0 500	25.0	50.0
Chlorobromomethane	FB	Ave	+++++ 118991	5347 242854	8838 480953	22990	48901	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 225877	10771 467734	19064 949291	45370	92962	+++++ 50.0	2.00 100	4.00 200	10.0	20.0
Chloroform	FB	Ave	+++++ 342571	16662 677287	26304 1331996	65836	134543	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	+++++ 293638	12950 591249	21511 1141127	55039	114702	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Cyclohexane	FB	Ave	+++++ 351442	16427 683107	27103 1237910	68308	138008	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Carbon tetrachloride	FB	Ave	+++++ 260294	10652 549299	17582 1078436	46329	96708	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1-Dichloropropene	FB	Ave	+++++ 267594	12608 551594	20410 1088672	52040	103814	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Isobutyl alcohol	FB	Ave	+++++ 484760	26488 848954	47404 2287637	110063	248028	+++++ 625	25.0 1250	50.0 2500	125	250

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzene	FB	Ave	+++++ 736530	36225 1491783	58278 2870992	147069	297821	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dichloroethane	FB	Ave	5253 275981	13116 557728	21659 1109065	53887	110520	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
n-Heptane	FB	Ave	+++++ 251448	11975 572216	17165 975600	46960	87767	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Trichloroethene	FB	Ave	+++++ 205482	9787 420436	15706 849956	39305	79757	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Methylcyclohexane	FB	Ave	+++++ 331592	15287 684451	25790 1325594	63511	129849	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dichloropropane	FB	Ave	+++++ 178465	8395 372122	13094 764722	33910	68783	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Dibromomethane	FB	Ave	+++++ 131499	5909 273366	9761 556467	24147	52125	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,4-Dioxane	CBZ	Ave	+++++ 56278	2460 114875	5132 250181	14480	27827	+++++ 500	20.0 1000	40.0 2000	100	200
Bromodichloromethane	FB	Ave	+++++ 240811	9743 507540	15981 1061820	42916	91171	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 115953	4961 272039	7862 599962	21081	43454	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
trans-1,3-Dichloropropene	CBZ	Ave	+++++ 276595	11352 614015	18568 1311120	48485	104405	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	+++++ 1401461	69771 2810072	114454 4638328	284108	583409	+++++ 125	5.00 250	10.0 500	25.0	50.0
Toluene	CBZ	Ave	+++++ 428308	21761 918365	33237 1865893	82062	169036	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
cis-1,3-Dichloropropene	FB	Ave	+++++ 235737	10184 540072	14793 1175767	41377	87408	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Ethyl methacrylate	CBZ	Ave	+++++ 243758	10208 539870	16170 1111358	45779	93433	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,2-Trichloroethane	CBZ	Ave	+++++ 128668	6458 285217	9351 597054	23766	50660	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Tetrachloroethene	CBZ	Ave	+++++ 187726	9357 401345	14199 833798	36543	72794	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,3-Dichloropropane	CBZ	Ave	+++++ 262055	12177 589219	19328 1233020	49968	103129	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Hexanone	CBZ	Ave	+++++ 937475	51174 1973761	81886 3471747	202862	395725	+++++ 125	5.00 250	10.0 500	25.0	50.0
Dibromochloromethane	CBZ	Ave	+++++ 188238	7165 428843	11617 919677	31724	69153	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dibromoethane	CBZ	Ave	+++++ 174324	7937 391710	12371 840193	32656	66727	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	+++++ 476216	23923 1034383	36454 2107490	93041	186213	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Ethylbenzene	CBZ	Ave	+++++ 787270	39231 1645318	60967 3075886	154948	310657	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	+++++ 192818	8018 408549	12736 818219	34397	72738	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
m,p-Xylene	CBZ	Ave	+++++ 325984	16041 697389	25036 1409233	62264	126357	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
o-Xylene	CBZ	Ave	+++++ 335616	16119 697659	25436 1377281	63387	132985	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Styrene	CBZ	Ave	+++++ 517793	24128 1092267	36861 2146754	98125	199069	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Bromoform	CBZ	Ave	+++++ 116697	4219 276585	7061 598241	18565	41947	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Isopropylbenzene	DCB	Ave	+++++ 853489	40340 1773995	64064 3362022	165202	335807	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Bromobenzene	DCB	Ave	+++++ 212599	10728 454157	16723 926548	42278	84618	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,2,2-Tetrachloroethane	DCB	Ave	+++++ 257546	11971 558227	19643 1099429	49750	106169	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	+++++ 88611	4694 193103	7078 381052	16968	35113	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 66788	2923 159223	4696 323715	12466	26036	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
N-Propylbenzene	DCB	Ave	+++++ 943503	45978 1950654	74648 3542243	183439	372755	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Chlorotoluene	DCB	Ave	+++++ 208996	9654 445468	15781 895544	40799	81398	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	+++++ 731238	33754 1513226	53949 2858995	137908	282960	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
4-Chlorotoluene	DCB	Ave	+++++ 206393	10422 443936	15729 899942	40962	80799	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
tert-Butylbenzene	DCB	Ave	+++++ 165579	7189 351629	11523 693355	30301	62518	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	+++++ 738163	34702 1538297	57327 2911986	144135	293206	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
sec-Butylbenzene	DCB	Ave	+++++ 892524	41040 1857374	66503 3408636	170597	347856	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
4-Isopropyltoluene	DCB	Ave	+++++ 812172	37275 1660394	60503 3011218	155464	316742	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	+++++ 401883	20438 839681	33098 1608953	80818	163697	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1 Analy Batch No.: 283036

SDG No.:

Instrument ID: HP5973Q GC Column: ZB-624 (60) ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/11/2016 16:06 Calibration End Date: 01/11/2016 18:50 Calibration ID: 26041

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,4-Dichlorobenzene	DCB	Ave	+++++ 410053	21253 873513	34002 1717054	81607	166778	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
n-Butylbenzene	DCB	Ave	+++++ 669372	30590 1379137	51267 2580321	129131	258736	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	+++++ 415515	20503 859498	33905 1701652	81861	167566	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 69176	2368 152027	4393 317178	11543	25311	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	+++++ 321440	13964 646208	24816 1267241	61074	127730	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Hexachlorobutadiene	DCB	Ave	+++++ 108892	4771 224684	8413 437135	20644	41606	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Naphthalene	DCB	Ave	+++++ 1106557	46049 2194372	82714 3926183	206994	449295	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	+++++ 304465	13464 615215	23969 1216472	58422	123271	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Dibromofluoromethane (Surr)	FB	Ave	155388 159167	159066 161646	154363 163699	157043	156189	25.0 25.0	25.0 25.0	25.0 25.0	25.0	25.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	93179 90396	92792 93857	91359 93102	91448	91352	25.0 25.0	25.0 25.0	25.0 25.0	25.0	25.0
Toluene-d8 (Surr)	CBZ	Ave	535601 506068	525073 549724	484594 591513	501883	493281	25.0 25.0	25.0 25.0	25.0 25.0	25.0	25.0
4-Bromofluorobenzene (Surr)	CBZ	Ave	168505 153624	166379 168647	150687 181343	153434	146634	25.0 25.0	25.0 25.0	25.0 25.0	25.0	25.0

Curve Type Legend:
Ave = Average ISTD

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8376.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Jan-2016 16:06:30 ALS Bottle#: 36 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 480-0049854-005
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:47 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: HillL Date: 12-Jan-2016 12:53:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.118	5.118	0.000	99	120567	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.405	7.411	-0.006	85	228313	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.278	9.278	0.000	95	248654	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.638	4.643	-0.005	93	155388	25.0	24.5	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.887	4.892	-0.005	0	93179	25.0	25.2	
$ 5 Toluene-d8 (Surr)	98	6.286	6.291	-0.005	92	535601	25.0	24.9	
$ 6 4-Bromofluorobenzene (Surr	174	8.341	8.340	0.001	93	168505	25.0	25.5	
10 Dichlorodifluoromethane	85		1.432				ND	ND	
12 Chloromethane	50	1.585	1.608	-0.023	37	4423	0.5000	0.5108	
13 Vinyl chloride	62	1.707	1.706	0.001	48	2919	0.5000	0.3703	
144 Butadiene	54	1.713	1.730	-0.017	77	2904	0.5000	0.4162	
14 Bromomethane	94		2.022				ND	ND	
15 Chloroethane	64		2.113				ND	ND	
17 Trichlorofluoromethane	101	2.309	2.308	0.001	70	3090	0.5000	0.3106	
16 Dichlorofluoromethane	67	2.327	2.332	-0.005	89	3169	0.5000	0.2841	
18 Ethyl ether	59	2.588	2.593	-0.005	89	2512	0.5000	0.3640	
20 Acrolein	56	2.734	2.745	-0.011	1	3407	2.50	1.89	M
22 1,1-Dichloroethene	96	2.783	2.788	-0.005	93	2243	0.5000	0.2934	
21 1,1,2-Trichloro-1,2,2-trif	101	2.801	2.812	-0.011	67	1852	0.5000	0.2644	
23 Acetone	43	2.886	2.885	0.001	98	8701	2.50	2.02	
25 Iodomethane	142	2.923	2.934	-0.011	95	5334	0.5000	0.3678	
26 Carbon disulfide	76	2.971	2.977	-0.006	99	9971	0.5000	0.4056	
28 3-Chloro-1-propene	41	3.123	3.122	0.001	92	5008	0.5000	0.4023	
27 Methyl acetate	43	3.154	3.159	-0.005	98	20820	2.50	2.09	
30 Methylene Chloride	84	3.239	3.244	-0.005	88	4644	0.5000	0.5220	
31 2-Methyl-2-propanol	59	3.379	3.439	-0.060	99	10138	5.00	4.27	
32 Methyl tert-butyl ether	73	3.440	3.445	-0.005	94	10815	0.5000	0.4001	
34 trans-1,2-Dichloroethene	96	3.452	3.457	-0.005	59	3182	0.5000	0.3775	
33 Acrylonitrile	53	3.476	3.475	0.001	97	19160	5.00	3.91	
35 Hexane	57	3.634	3.639	-0.005	93	3974	0.5000	0.3489	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.805	3.810	-0.005	1	5296	0.5000	0.3662	
37 Vinyl acetate	43	3.847	3.846	0.001	97	15302	1.00	0.7813	
44 2,2-Dichloropropane	77	4.242	4.248	-0.006	25	3730	0.5000	0.3598	
45 cis-1,2-Dichloroethene	96	4.261	4.266	-0.005	74	3387	0.5000	0.3669	
43 2-Butanone (MEK)	43	4.285	4.278	0.007	100	13609	2.50	2.08	
48 Chlorobromomethane	128	4.455	4.460	-0.005	83	1760	0.5000	0.3642	
49 Tetrahydrofuran	42	4.486	4.479	0.007	87	4060	1.00	0.8502	
50 Chloroform	83	4.516	4.515	0.001	94	5665	0.5000	0.4067	
51 1,1,1-Trichloroethane	97	4.632	4.631	0.001	35	4007	0.5000	0.3441	
52 Cyclohexane	56	4.650	4.649	0.001	91	5094	0.5000	0.3630	
55 Carbon tetrachloride	117	4.747	4.746	0.001	82	3100	0.5000	0.3071	
54 1,1-Dichloropropene	75	4.747	4.752	-0.005	91	3984	0.5000	0.3645	
53 Isobutyl alcohol	43	4.875	4.874	0.001	30	8726	12.5	9.70	
57 Benzene	78	4.911	4.910	0.001	90	12808	0.5000	0.4195	
58 1,2-Dichloroethane	62	4.948	4.947	0.001	96	5253	0.5000	0.4672	
59 n-Heptane	43	5.057	5.056	0.001	93	4105	0.5000	0.4098	
62 Trichloroethene	95	5.392	5.391	0.001	88	3212	0.5000	0.3823	
64 Methylcyclohexane	83	5.501	5.500	0.001	59	4440	0.5000	0.3290	
65 1,2-Dichloropropane	63	5.568	5.567	0.001	88	2864	0.5000	0.3935	
67 Dibromomethane	93	5.672	5.671	0.001	95	1940	0.5000	0.3649	
66 1,4-Dioxane	88		5.671				ND	ND	
68 Dichlorobromomethane	83	5.781	5.786	-0.005	93	3169	0.5000	0.3368	
69 2-Chloroethyl vinyl ether	63	5.982	5.987	-0.005	11	1779	0.5000	0.3728	
77 trans-1,3-Dichloropropene	75	6.103	6.102	0.001	89	4056	0.5000	0.3576	
73 4-Methyl-2-pentanone (MIBK	43	6.207	6.200	0.007	96	24908	2.50	2.09	
74 Toluene	92	6.341	6.339	0.001	98	7783	0.5000	0.4191	
72 cis-1,3-Dichloropropene	75	6.523	6.528	-0.005	95	3251	0.5000	0.3430	
75 Ethyl methacrylate	69	6.559	6.552	0.007	86	3571	0.5000	0.3547	
79 1,1,2-Trichloroethane	83	6.675	6.674	0.001	87	2145	0.5000	0.3859	
81 Tetrachloroethene	166	6.754	6.753	0.001	92	2700	0.5000	0.3335	
82 1,3-Dichloropropane	76	6.797	6.802	-0.005	88	4501	0.5000	0.3986	
80 2-Hexanone	43	6.833	6.832	0.001	97	18401	2.50	2.18	
83 Chlorodibromomethane	129	6.979	6.984	-0.005	82	2249	0.5000	0.2979	
84 Ethylene Dibromide	107	7.070	7.069	0.001	92	2857	0.5000	0.3847	
87 Chlorobenzene	112	7.435	7.434	0.001	95	8461	0.5000	0.4093	
89 1,1,1,2-Tetrachloroethane	131	7.496	7.495	0.001	43	2604	0.5000	0.3361	
88 Ethylbenzene	91	7.496	7.495	0.001	97	13446	0.5000	0.4005	
90 m-Xylene & p-Xylene	106	7.587	7.586	0.001	0	5827	0.5000	0.4170	
91 o-Xylene	106	7.903	7.902	0.001	94	5245	0.5000	0.3699	
92 Styrene	104	7.922	7.921	0.001	92	7690	0.5000	0.3567	
95 Bromoform	173	8.110	8.109	0.001	88	1510	0.5000	0.3246	
94 Isopropylbenzene	105	8.189	8.188	0.001	94	12999	0.5000	0.3644	
101 Bromobenzene	156	8.469	8.468	0.001	87	3548	0.5000	0.3838	
97 1,1,2,2-Tetrachloroethane	83	8.469	8.468	0.001	81	3876	0.5000	0.3520	
98 trans-1,4-Dichloro-2-buten	53	8.512	8.504	0.008	68	876	0.5000	0.3070	
100 1,2,3-Trichloropropane	110	8.505	8.504	0.001	86	1285	0.5000	0.3316	
99 N-Propylbenzene	91	8.518	8.517	0.001	98	15678	0.5000	0.3947	
103 2-Chlorotoluene	126	8.609	8.608	0.001	96	3280	0.5000	0.3712	
102 1,3,5-Trimethylbenzene	105	8.658	8.656	0.002	95	10876	0.5000	0.3608	
105 4-Chlorotoluene	126	8.700	8.699	0.001	95	3515	0.5000	0.3940	
106 tert-Butylbenzene	134	8.925	8.924	0.001	91	2161	0.5000	0.3206	
107 1,2,4-Trimethylbenzene	105	8.968	8.967	0.001	96	11344	0.5000	0.3651	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.101	9.100	0.001	92	13179	0.5000	0.3576	
110 4-Isopropyltoluene	119	9.217	9.216	0.001	96	11373	0.5000	0.3413	
111 1,3-Dichlorobenzene	146	9.223	9.222	0.001	95	7261	0.5000	0.4159	
113 1,4-Dichlorobenzene	146	9.296	9.295	0.001	94	7536	0.5000	0.4186	
115 n-Butylbenzene	91	9.558	9.557	0.001	97	10126	0.5000	0.3654	
116 1,2-Dichlorobenzene	146	9.606	9.611	-0.005	95	7179	0.5000	0.4014	
117 1,2-Dibromo-3-Chloropropan	75	10.269	10.268	0.001	73	867	0.5000	0.3214	
119 1,2,4-Trichlorobenzene	180	10.932	10.931	0.001	89	5069	0.5000	0.3829	
120 Hexachlorobutadiene	225	11.047	11.046	0.001	82	1287	0.5000	0.2866	
121 Naphthalene	128	11.139	11.138	0.001	95	15413	0.5000	0.3466	
122 1,2,3-Trichlorobenzene	180	11.327	11.326	0.001	92	4334	0.5000	0.3414	
S 123 Total BTEX	1				0			2.03	
S 124 Xylenes, Total	1				0			0.7869	
S 125 1,2-Dichloroethene, Total	1				0			0.7445	
S 126 1,3-Dichloropropene, Total	1				0			0.7006	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added:	0.50	Units: uL	
GAS CORP mix_00130	Amount Added:	0.50	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00106	Amount Added:	1.25	Units: uL	Run Reagent

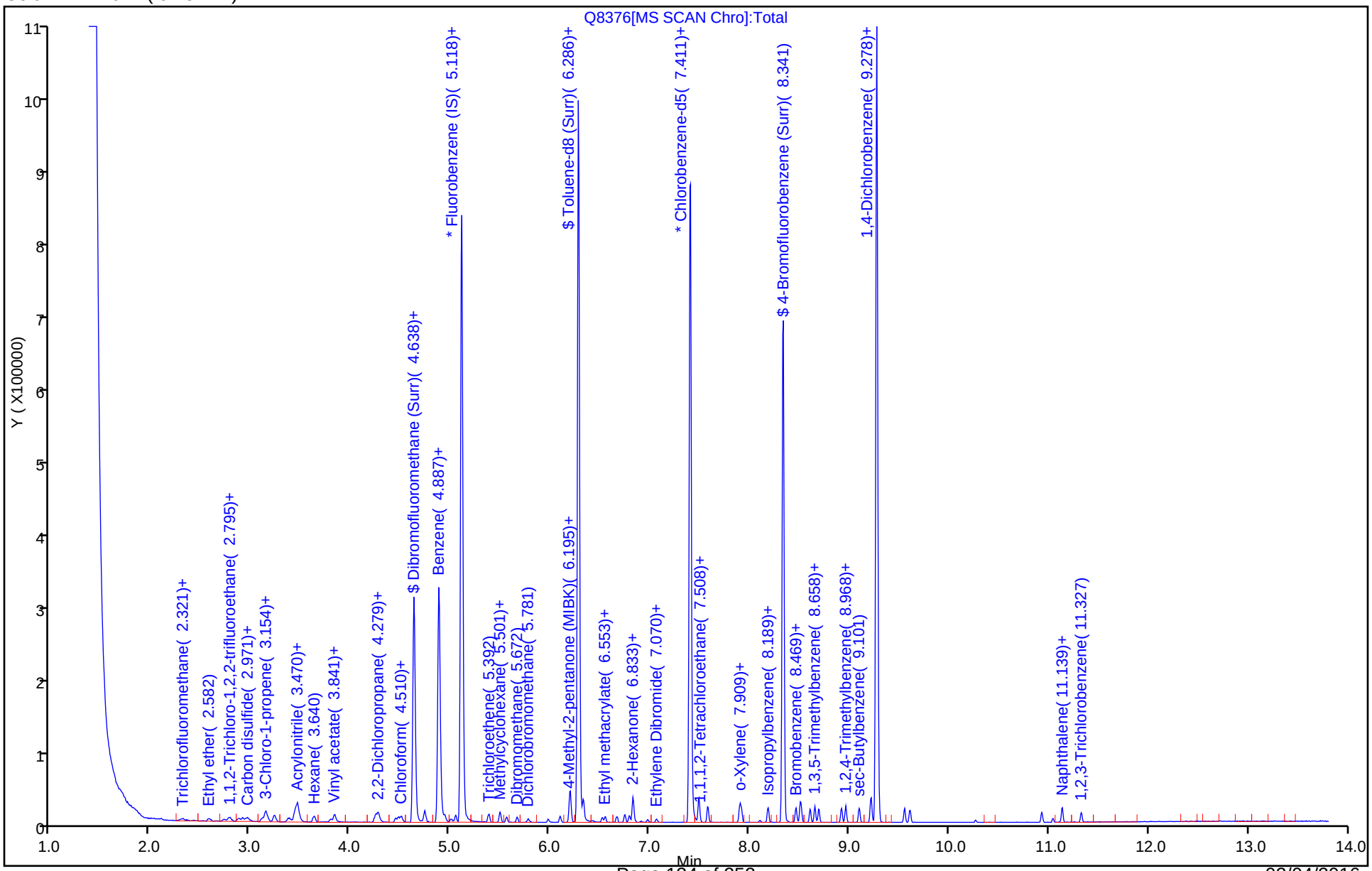
Report Date: 12-Jan-2016 14:25:48 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8376.D

Injection Date:	11-Jan-2016 16:06:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



Manual Integration/User Assign Peak Report

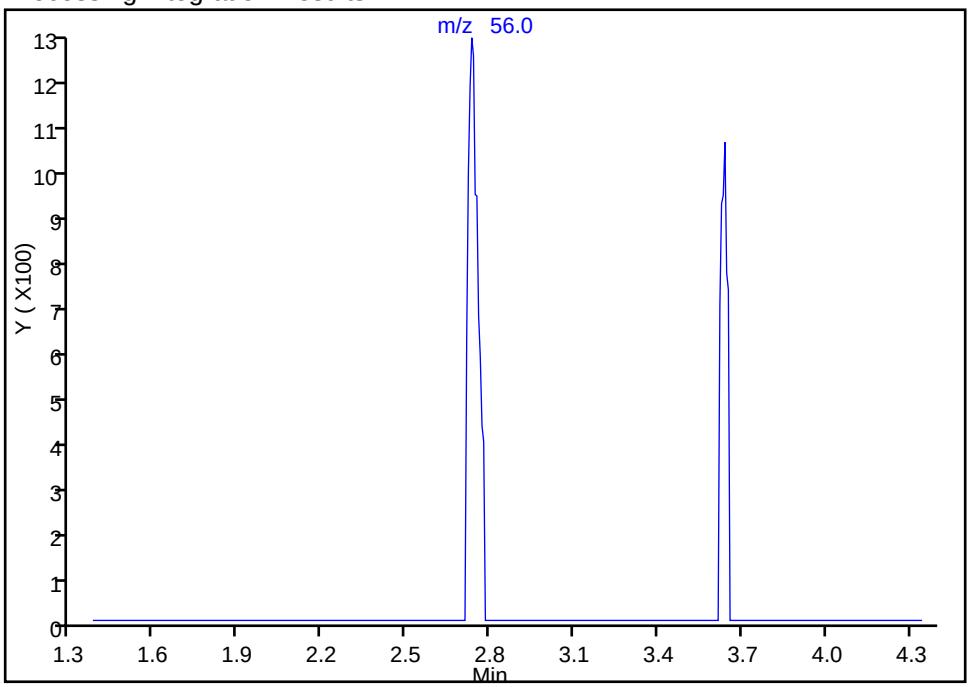
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8376.D
Injection Date: 11-Jan-2016 16:06:30 Instrument ID: HP5973Q
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 36 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

20 Acrolein, CAS: 107-02-8

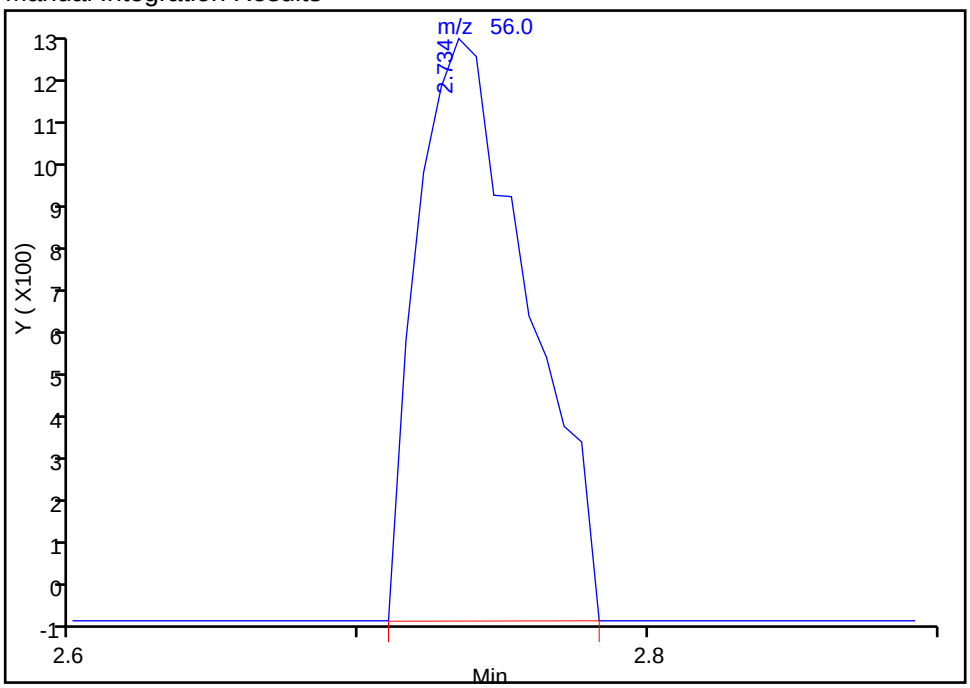
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.73
Area: 3407
Amount: 1.885891
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 12:53:46
Audit Action: Manually Integrated
Audit Reason: Missed Peak

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8377.D
Lims ID: IC 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Jan-2016 16:29:30 ALS Bottle#: 37 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 2
Misc. Info.: 480-0049854-006
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:48 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: reiler Date: 12-Jan-2016 09:33:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.113	5.118	-0.005	99	119657	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.406	7.411	-0.005	85	223981	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.279	9.278	0.001	94	248758	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.639	4.643	-0.004	94	159066	25.0	25.2	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.888	4.892	-0.004	0	92792	25.0	25.3	
$ 5 Toluene-d8 (Surr)	98	6.287	6.291	-0.004	92	525073	25.0	24.9	
$ 6 4-Bromofluorobenzene (Surr	174	8.342	8.340	0.002	93	166379	25.0	25.6	
10 Dichlorodifluoromethane	85	1.434	1.432	0.002	28	6965	1.00	1.10	M
12 Chloromethane	50	1.592	1.608	-0.016	96	10067	1.00	1.17	
13 Vinyl chloride	62	1.696	1.706	-0.010	95	7945	1.00	1.02	
144 Butadiene	54	1.714	1.730	-0.016	90	6670	1.00	0.9633	
14 Bromomethane	94	1.993	2.022	-0.029	6	2780	1.00	0.7632	M
15 Chloroethane	64	2.103	2.113	-0.010	6	2865	1.00	0.8419	
17 Trichlorofluoromethane	101	2.285	2.308	-0.023	94	9239	1.00	0.9358	
16 Dichlorofluoromethane	67	2.334	2.332	0.002	93	10224	1.00	0.9235	
18 Ethyl ether	59	2.583	2.593	-0.010	89	7761	1.00	1.13	
20 Acrolein	56	2.735	2.745	-0.010	97	9263	5.00	5.17	
22 1,1-Dichloroethene	96	2.784	2.788	-0.004	98	8963	1.00	1.18	
21 1,1,2-Trichloro-1,2,2-trif	101	2.790	2.812	-0.022	48	8174	1.00	1.18	
23 Acetone	43	2.881	2.885	-0.004	99	25329	5.00	5.93	
25 Iodomethane	142	2.930	2.934	-0.004	99	16558	1.00	1.15	
26 Carbon disulfide	76	2.973	2.977	-0.004	99	28521	1.00	1.17	
28 3-Chloro-1-propene	41	3.125	3.122	0.003	90	14769	1.00	1.20	
27 Methyl acetate	43	3.155	3.159	-0.004	98	59389	5.00	6.01	
30 Methylene Chloride	84	3.240	3.244	-0.004	94	11227	1.00	1.27	
31 2-Methyl-2-propanol	59	3.380	3.439	-0.059	100	27900	10.0	11.8	M
32 Methyl tert-butyl ether	73	3.441	3.445	-0.004	94	31206	1.00	1.16	
34 trans-1,2-Dichloroethene	96	3.447	3.457	-0.010	60	9930	1.00	1.19	
33 Acrylonitrile	53	3.471	3.475	-0.004	99	58120	10.0	11.9	
35 Hexane	57	3.635	3.639	-0.004	92	13158	1.00	1.16	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.806	3.810	-0.004	95	16548	1.00	1.15	
37 Vinyl acetate	43	3.842	3.846	-0.004	97	43441	2.00	2.23	
44 2,2-Dichloropropane	77	4.244	4.248	-0.004	88	12474	1.00	1.21	
45 cis-1,2-Dichloroethene	96	4.262	4.266	-0.004	80	10576	1.00	1.15	
43 2-Butanone (MEK)	43	4.280	4.278	0.002	99	37924	5.00	5.83	
48 Chlorobromomethane	128	4.456	4.460	-0.004	90	5347	1.00	1.11	
49 Tetrahydrofuran	42	4.481	4.479	0.002	85	10771	2.00	2.27	
50 Chloroform	83	4.511	4.515	-0.004	93	16662	1.00	1.21	
51 1,1,1-Trichloroethane	97	4.627	4.631	-0.004	36	12950	1.00	1.12	
52 Cyclohexane	56	4.651	4.649	0.002	91	16427	1.00	1.18	
55 Carbon tetrachloride	117	4.742	4.746	-0.004	80	10652	1.00	1.06	
54 1,1-Dichloropropene	75	4.748	4.752	-0.004	92	12608	1.00	1.16	
53 Isobutyl alcohol	43	4.876	4.874	0.002	95	26488	25.0	29.7	
57 Benzene	78	4.913	4.910	0.003	95	36225	1.00	1.20	
58 1,2-Dichloroethane	62	4.949	4.947	0.002	96	13116	1.00	1.18	
59 n-Heptane	43	5.052	5.056	-0.004	92	11975	1.00	1.20	
62 Trichloroethene	95	5.387	5.391	-0.004	96	9787	1.00	1.17	
64 Methylcyclohexane	83	5.502	5.500	0.002	91	15287	1.00	1.14	
65 1,2-Dichloropropane	63	5.563	5.567	-0.004	93	8395	1.00	1.16	
67 Dibromomethane	93	5.667	5.671	-0.004	92	5909	1.00	1.12	
66 1,4-Dioxane	88	5.673	5.671	0.002	1	2460	20.0	19.0	M
68 Dichlorobromomethane	83	5.782	5.786	-0.004	97	9743	1.00	1.04	
69 2-Chloroethyl vinyl ether	63	5.983	5.987	-0.004	90	4961	1.00	1.05	
77 trans-1,3-Dichloropropene	75	6.104	6.102	0.002	94	11352	1.00	1.02	
73 4-Methyl-2-pentanone (MIBK	43	6.202	6.200	0.002	97	69771	5.00	5.97	
74 Toluene	92	6.342	6.339	0.003	99	21761	1.00	1.19	
72 cis-1,3-Dichloropropene	75	6.524	6.528	-0.004	98	10184	1.00	1.08	
75 Ethyl methacrylate	69	6.554	6.552	0.002	92	10208	1.00	1.03	
79 1,1,2-Trichloroethane	83	6.670	6.674	-0.004	88	6458	1.00	1.18	
81 Tetrachloroethene	166	6.749	6.753	-0.004	95	9357	1.00	1.18	
82 1,3-Dichloropropane	76	6.798	6.802	-0.004	91	12177	1.00	1.10	
80 2-Hexanone	43	6.834	6.832	0.002	97	51174	5.00	6.19	
83 Chlorodibromomethane	129	6.980	6.984	-0.004	88	7165	1.00	0.9674	
84 Ethylene Dibromide	107	7.071	7.069	0.002	97	7937	1.00	1.09	
87 Chlorobenzene	112	7.430	7.434	-0.004	95	23923	1.00	1.18	
89 1,1,1,2-Tetrachloroethane	131	7.497	7.495	0.002	45	8018	1.00	1.05	
88 Ethylbenzene	91	7.497	7.495	0.002	98	39231	1.00	1.19	
90 m-Xylene & p-Xylene	106	7.582	7.586	-0.004	0	16041	1.00	1.17	
91 o-Xylene	106	7.905	7.902	0.003	95	16119	1.00	1.16	
92 Styrene	104	7.923	7.921	0.002	94	24128	1.00	1.14	
95 Bromoform	173	8.105	8.109	-0.004	93	4219	1.00	0.9244	
94 Isopropylbenzene	105	8.190	8.188	0.002	95	40340	1.00	1.13	
101 Bromobenzene	156	8.470	8.468	0.002	93	10728	1.00	1.16	
97 1,1,2,2-Tetrachloroethane	83	8.470	8.468	0.002	93	11971	1.00	1.09	
98 trans-1,4-Dichloro-2-buten	53	8.507	8.504	0.003	68	2923	1.00	1.02	
100 1,2,3-Trichloropropane	110	8.513	8.504	0.009	86	4694	1.00	1.21	
99 N-Propylbenzene	91	8.519	8.517	0.002	99	45978	1.00	1.16	
103 2-Chlorotoluene	126	8.610	8.608	0.002	97	9654	1.00	1.09	
102 1,3,5-Trimethylbenzene	105	8.659	8.656	0.003	96	33754	1.00	1.12	
105 4-Chlorotoluene	126	8.695	8.699	-0.004	96	10422	1.00	1.17	
106 tert-Butylbenzene	134	8.926	8.924	0.002	92	7189	1.00	1.07	
107 1,2,4-Trimethylbenzene	105	8.969	8.967	0.002	96	34702	1.00	1.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.103	9.100	0.003	94	41040	1.00	1.11	
110 4-Isopropyltoluene	119	9.218	9.216	0.002	97	37275	1.00	1.12	
111 1,3-Dichlorobenzene	146	9.224	9.222	0.002	97	20438	1.00	1.17	
113 1,4-Dichlorobenzene	146	9.297	9.295	0.002	95	21253	1.00	1.18	
115 n-Butylbenzene	91	9.559	9.557	0.002	98	30590	1.00	1.10	
116 1,2-Dichlorobenzene	146	9.613	9.611	0.002	97	20503	1.00	1.15	
117 1,2-Dibromo-3-Chloropropan	75	10.270	10.268	0.002	81	2368	1.00	0.8774	
119 1,2,4-Trichlorobenzene	180	10.933	10.931	0.002	94	13964	1.00	1.05	
120 Hexachlorobutadiene	225	11.049	11.046	0.003	93	4771	1.00	1.06	
121 Naphthalene	128	11.140	11.138	0.002	96	46049	1.00	1.04	
122 1,2,3-Trichlorobenzene	180	11.328	11.326	0.002	96	13464	1.00	1.06	
S 123 Total BTEX	1				0			5.91	
S 124 Xylenes, Total	1				0			2.33	
S 125 1,2-Dichloroethene, Total	1				0			2.34	
S 126 1,3-Dichloropropene, Total	1				0			2.10	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

GAS CORP mix_00130	Amount Added:	1.00	Units: uL	
8260 CORP mix_00063	Amount Added:	1.00	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00106	Amount Added:	1.25	Units: uL	Run Reagent

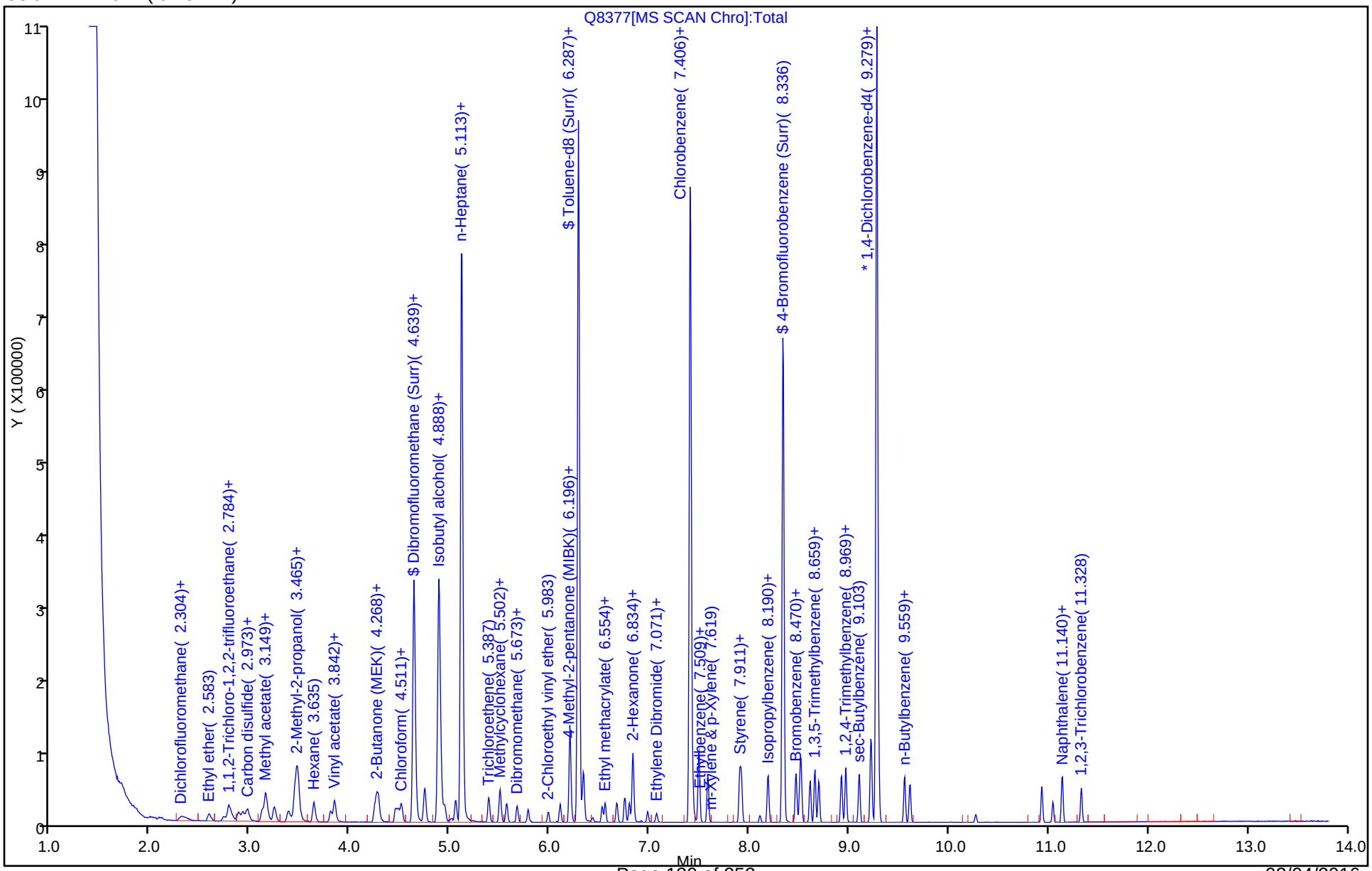
Report Date: 12-Jan-2016 14:25:49 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8377.D

Injection Date:	11-Jan-2016 16:29:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	IC 2			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



Manual Integration/User Assign Peak Report

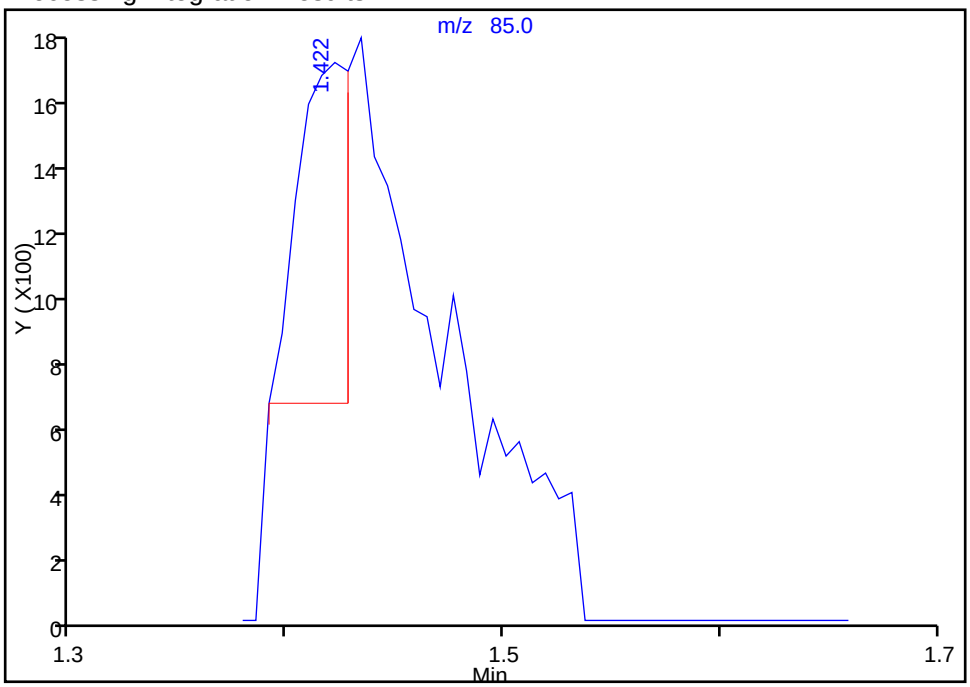
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8377.D
Injection Date: 11-Jan-2016 16:29:30 Instrument ID: HP5973Q
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 37 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

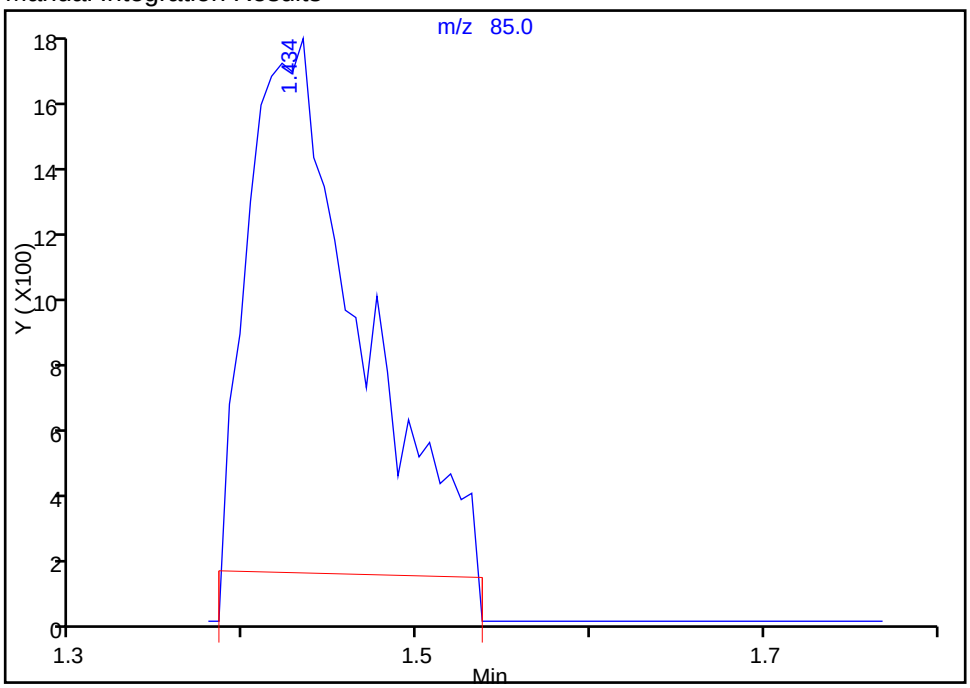
Processing Integration Results

RT: 1.42
Area: 1717
Amount: 0.405411
Amount Units: ug/L



Manual Integration Results

RT: 1.43
Area: 6965
Amount: 1.103556
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 12:57:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

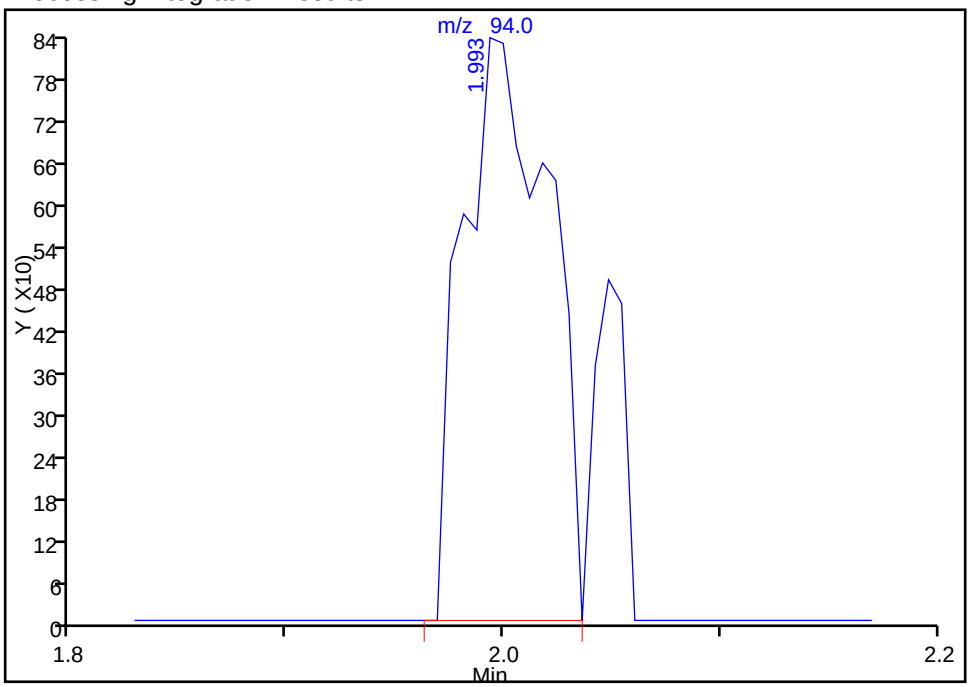
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8377.D
Injection Date: 11-Jan-2016 16:29:30 Instrument ID: HP5973Q
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 37 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

14 Bromomethane, CAS: 74-83-9

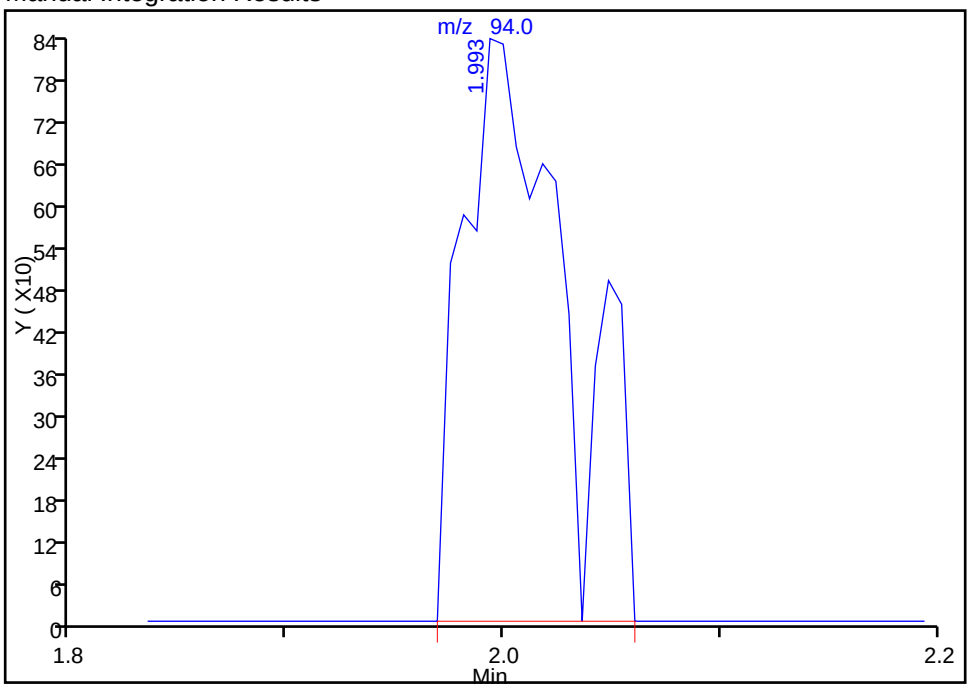
Processing Integration Results

RT: 1.99
Area: 2303
Amount: 0.688392
Amount Units: ug/L



Manual Integration Results

RT: 1.99
Area: 2780
Amount: 0.763179
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 12:57:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

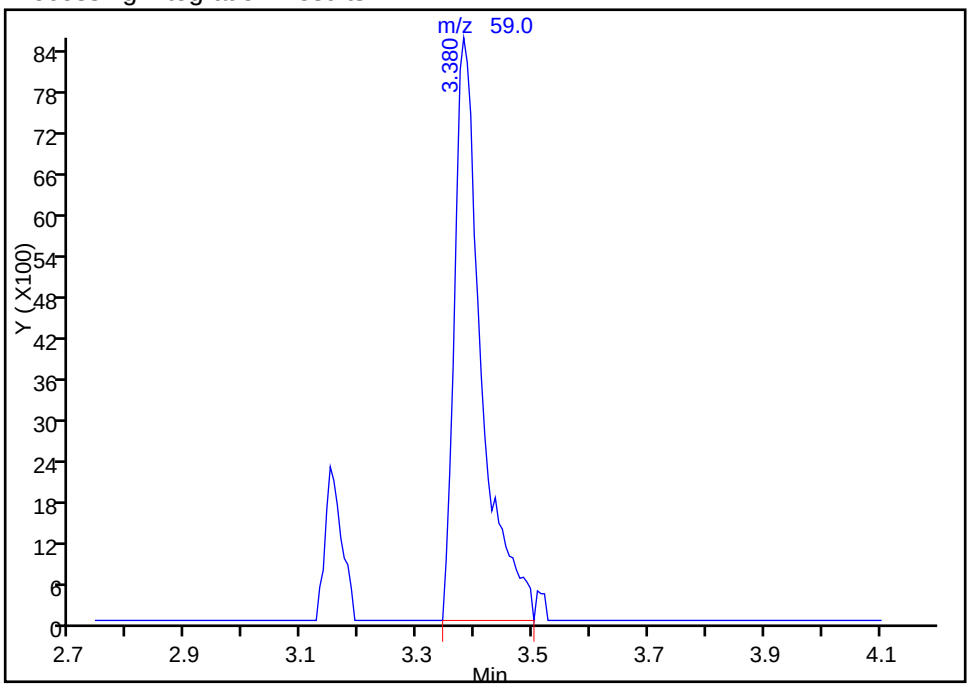
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8377.D
Injection Date: 11-Jan-2016 16:29:30 Instrument ID: HP5973Q
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 37 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

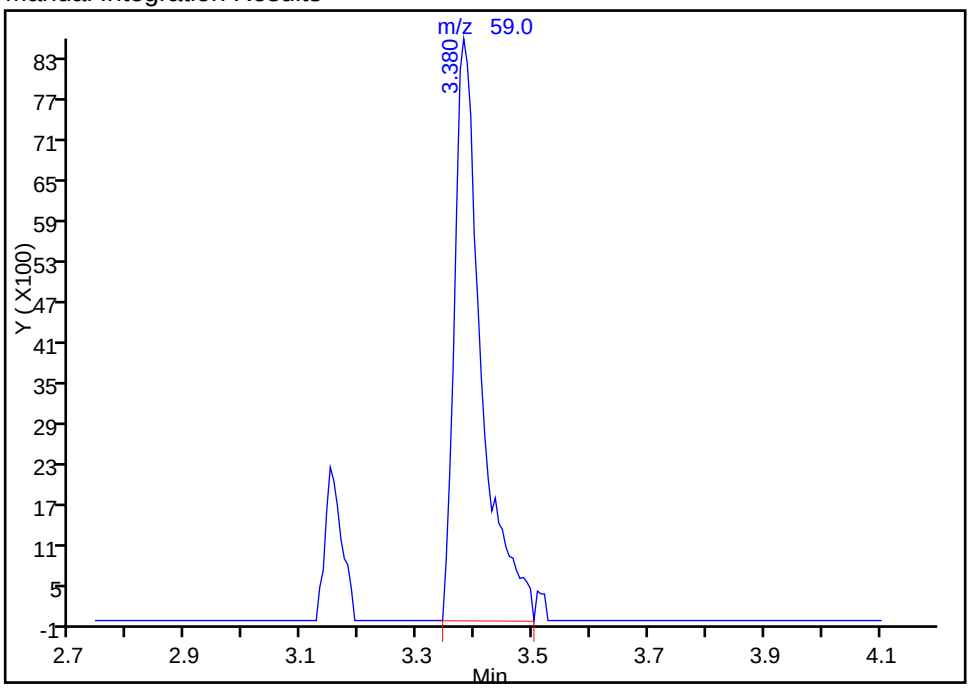
Processing Integration Results

RT: 3.38
Area: 27836
Amount: 13.104583
Amount Units: ug/L



Manual Integration Results

RT: 3.38
Area: 27900
Amount: 11.830096
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 14:05:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

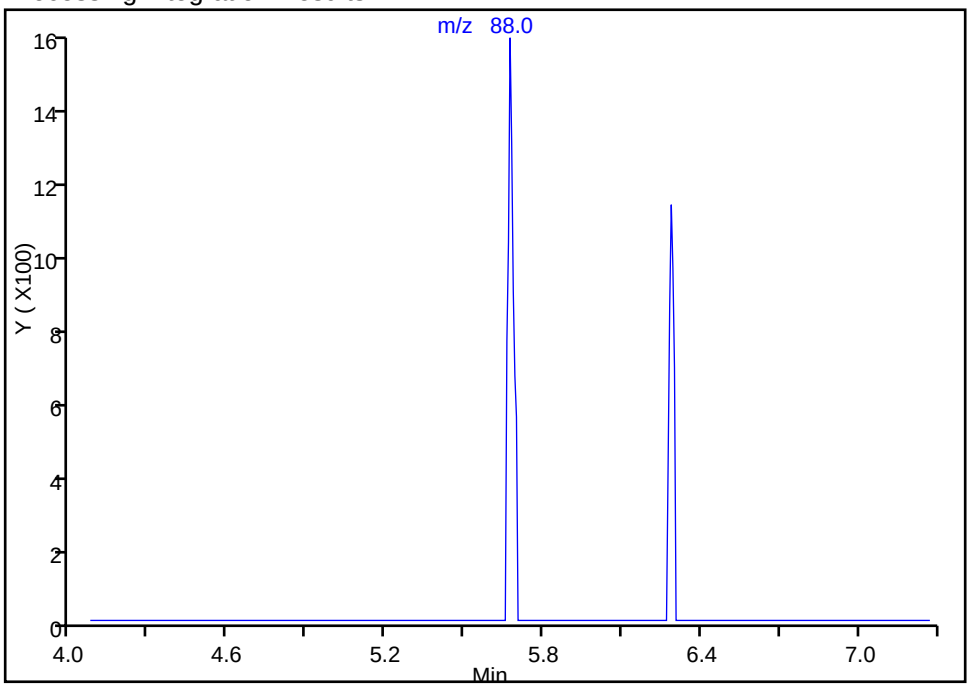
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8377.D
Injection Date: 11-Jan-2016 16:29:30 Instrument ID: HP5973Q
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 37 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

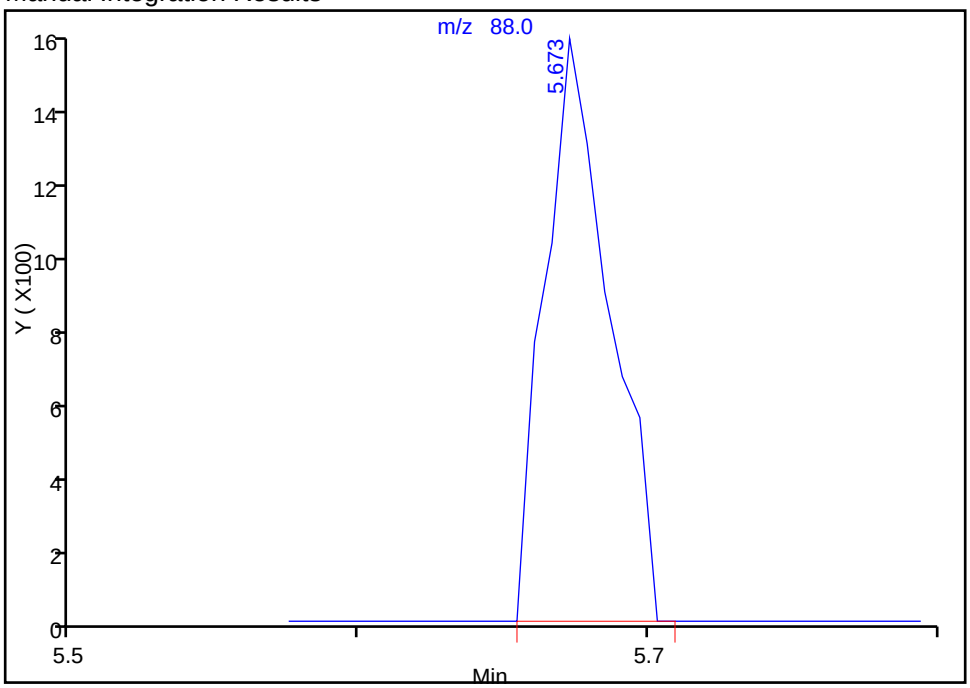
Not Detected
Expected RT: 5.67

Processing Integration Results



Manual Integration Results

RT: 5.67
Area: 2460
Amount: 19.005799
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:02:12
Audit Action: Manually Integrated
Audit Reason: Missed Peak

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8378.D
Lims ID: IC 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 11-Jan-2016 16:53:30 ALS Bottle#: 38 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 3
Misc. Info.: 480-0049854-007
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:50 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: reiler Date: 12-Jan-2016 09:46:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.118	-0.001	99	115233	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.411	-0.001	85	203530	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.278	-0.001	94	229869	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.643	0.000	94	154363	25.0	25.4	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.892	0.000	0	91359	25.0	25.8	
$ 5 Toluene-d8 (Surr)	98	6.291	6.291	0.000	93	484594	25.0	25.3	
$ 6 4-Bromofluorobenzene (Surr	174	8.340	8.340	0.000	91	150687	25.0	25.5	
10 Dichlorodifluoromethane	85	1.420	1.432	-0.012	89	12643	2.00	2.08	M
12 Chloromethane	50	1.608	1.608	0.000	98	18806	2.00	2.27	
13 Vinyl chloride	62	1.711	1.706	0.005	95	16405	2.00	2.18	
144 Butadiene	54	1.730	1.730	0.000	94	14884	2.00	2.23	
14 Bromomethane	94	2.003	2.022	-0.019	77	7086	2.00	2.02	M
15 Chloroethane	64	2.101	2.113	-0.012	42	6554	2.00	2.00	
17 Trichlorofluoromethane	101	2.301	2.308	-0.007	97	19639	2.00	2.07	
16 Dichlorofluoromethane	67	2.332	2.332	0.000	95	22592	2.00	2.12	M
18 Ethyl ether	59	2.587	2.593	-0.006	89	12867	2.00	1.95	
20 Acrolein	56	2.739	2.745	-0.006	98	17623	10.0	10.2	
22 1,1-Dichloroethene	96	2.788	2.788	0.000	97	13985	2.00	1.91	
21 1,1,2-Trichloro-1,2,2-trif	101	2.818	2.812	0.006	88	13055	2.00	1.95	
23 Acetone	43	2.891	2.885	0.006	100	45934	10.0	11.2	
25 Iodomethane	142	2.934	2.934	0.000	99	26976	2.00	1.95	
26 Carbon disulfide	76	2.970	2.977	-0.007	99	46334	2.00	1.97	
28 3-Chloro-1-propene	41	3.122	3.122	0.000	90	25209	2.00	2.12	
27 Methyl acetate	43	3.159	3.159	0.000	98	106262	10.0	11.2	
30 Methylene Chloride	84	3.244	3.244	0.000	94	17166	2.00	2.02	
31 2-Methyl-2-propanol	59	3.390	3.439	-0.049	99	51175	20.0	22.5	M
32 Methyl tert-butyl ether	73	3.451	3.445	0.006	95	52404	2.00	2.03	
34 trans-1,2-Dichloroethene	96	3.457	3.457	0.000	96	15916	2.00	1.98	
33 Acrylonitrile	53	3.475	3.475	0.000	99	103441	20.0	22.1	
35 Hexane	57	3.639	3.639	0.000	90	22220	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.810	3.810	0.000	95	27386	2.00	1.98	
37 Vinyl acetate	43	3.846	3.846	0.000	97	76250	4.00	4.07	
44 2,2-Dichloropropane	77	4.247	4.248	-0.001	88	19914	2.00	2.01	
45 cis-1,2-Dichloroethene	96	4.272	4.266	0.006	81	17417	2.00	1.97	
43 2-Butanone (MEK)	43	4.284	4.278	0.006	100	65880	10.0	10.5	
48 Chlorobromomethane	128	4.460	4.460	0.000	92	8838	2.00	1.91	
49 Tetrahydrofuran	42	4.485	4.479	0.006	92	19064	4.00	4.18	
50 Chloroform	83	4.515	4.515	0.000	94	26304	2.00	1.98	
51 1,1,1-Trichloroethane	97	4.631	4.631	-0.001	98	21511	2.00	1.93	
52 Cyclohexane	56	4.655	4.649	0.006	92	27103	2.00	2.02	
55 Carbon tetrachloride	117	4.746	4.746	0.000	80	17582	2.00	1.82	
54 1,1-Dichloropropene	75	4.752	4.752	0.000	95	20410	2.00	1.95	
53 Isobutyl alcohol	43	4.880	4.874	0.006	95	47404	50.0	55.1	
57 Benzene	78	4.910	4.910	0.000	93	58278	2.00	2.00	
58 1,2-Dichloroethane	62	4.947	4.947	0.000	97	21659	2.00	2.02	
59 n-Heptane	43	5.062	5.056	0.006	89	17165	2.00	1.79	
62 Trichloroethene	95	5.391	5.391	0.000	97	15706	2.00	1.96	
64 Methylcyclohexane	83	5.506	5.500	0.006	89	25790	2.00	2.00	
65 1,2-Dichloropropane	63	5.567	5.567	0.000	92	13094	2.00	1.88	
67 Dibromomethane	93	5.670	5.671	-0.001	94	9761	2.00	1.92	
66 1,4-Dioxane	88	5.683	5.671	0.012	44	5132	40.0	43.6	
68 Dichlorobromomethane	83	5.786	5.786	0.000	98	15981	2.00	1.78	
69 2-Chloroethyl vinyl ether	63	5.987	5.987	0.000	93	7862	2.00	1.72	
77 trans-1,3-Dichloropropene	75	6.102	6.102	0.000	95	18568	2.00	1.84	
73 4-Methyl-2-pentanone (MIBK	43	6.199	6.200	-0.001	96	114454	10.0	10.8	
74 Toluene	92	6.339	6.339	0.000	98	33237	2.00	2.01	
72 cis-1,3-Dichloropropene	75	6.528	6.528	0.000	96	14793	2.00	1.63	
75 Ethyl methacrylate	69	6.558	6.552	0.006	90	16170	2.00	1.80	
79 1,1,2-Trichloroethane	83	6.674	6.674	0.000	88	9351	2.00	1.89	
81 Tetrachloroethene	166	6.753	6.753	0.000	96	14199	2.00	1.97	
82 1,3-Dichloropropane	76	6.802	6.802	0.000	90	19328	2.00	1.92	
80 2-Hexanone	43	6.832	6.832	0.000	96	81886	10.0	10.9	
83 Chlorodibromomethane	129	6.984	6.984	0.000	90	11617	2.00	1.73	
84 Ethylene Dibromide	107	7.069	7.069	0.000	97	12371	2.00	1.87	
87 Chlorobenzene	112	7.434	7.434	0.000	96	36454	2.00	1.98	
89 1,1,1,2-Tetrachloroethane	131	7.495	7.495	0.000	45	12736	2.00	1.84	
88 Ethylbenzene	91	7.495	7.495	0.000	98	60967	2.00	2.04	
90 m-Xylene & p-Xylene	106	7.586	7.586	0.000	0	25036	2.00	2.01	
91 o-Xylene	106	7.908	7.902	0.006	96	25436	2.00	2.01	
92 Styrene	104	7.921	7.921	-0.001	94	36861	2.00	1.92	
95 Bromoform	173	8.109	8.109	0.000	94	7061	2.00	1.70	
94 Isopropylbenzene	105	8.188	8.188	0.000	96	64064	2.00	1.94	
101 Bromobenzene	156	8.468	8.468	0.000	91	16723	2.00	1.96	
97 1,1,2,2-Tetrachloroethane	83	8.474	8.468	0.006	96	19643	2.00	1.93	
98 trans-1,4-Dichloro-2-buten	53	8.510	8.504	0.006	70	4696	2.00	1.78	
100 1,2,3-Trichloropropane	110	8.510	8.504	0.006	87	7078	2.00	1.98	
99 N-Propylbenzene	91	8.523	8.517	0.006	99	74648	2.00	2.03	
103 2-Chlorotoluene	126	8.614	8.608	0.006	98	15781	2.00	1.93	
102 1,3,5-Trimethylbenzene	105	8.656	8.656	0.000	95	53949	2.00	1.94	
105 4-Chlorotoluene	126	8.699	8.699	0.000	97	15729	2.00	1.91	
106 tert-Butylbenzene	134	8.924	8.924	0.000	93	11523	2.00	1.85	
107 1,2,4-Trimethylbenzene	105	8.967	8.967	-0.001	97	57327	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.100	9.100	0.000	94	66503	2.00	1.95	
110 4-Isopropyltoluene	119	9.216	9.216	0.000	98	60503	2.00	1.96	
111 1,3-Dichlorobenzene	146	9.228	9.222	0.006	98	33098	2.00	2.05	
113 1,4-Dichlorobenzene	146	9.301	9.295	0.006	95	34002	2.00	2.04	
115 n-Butylbenzene	91	9.556	9.557	-0.001	98	51267	2.00	2.00	
116 1,2-Dichlorobenzene	146	9.611	9.611	0.000	98	33905	2.00	2.05	
117 1,2-Dibromo-3-Chloropropan	75	10.268	10.268	0.000	84	4393	2.00	1.76	
119 1,2,4-Trichlorobenzene	180	10.937	10.931	0.006	94	24816	2.00	2.03	
120 Hexachlorobutadiene	225	11.046	11.046	0.000	96	8413	2.00	2.03	
121 Naphthalene	128	11.138	11.138	0.000	97	82714	2.00	2.01	
122 1,2,3-Trichlorobenzene	180	11.326	11.326	0.000	94	23969	2.00	2.04	
S 123 Total BTEX	1				0			10.1	
S 124 Xylenes, Total	1				0			4.02	
S 125 1,2-Dichloroethene, Total	1				0			3.95	
S 126 1,3-Dichloropropene, Total	1				0			3.47	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added:	2.00	Units: uL	
GAS CORP mix_00130	Amount Added:	2.00	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00106	Amount Added:	1.25	Units: uL	Run Reagent

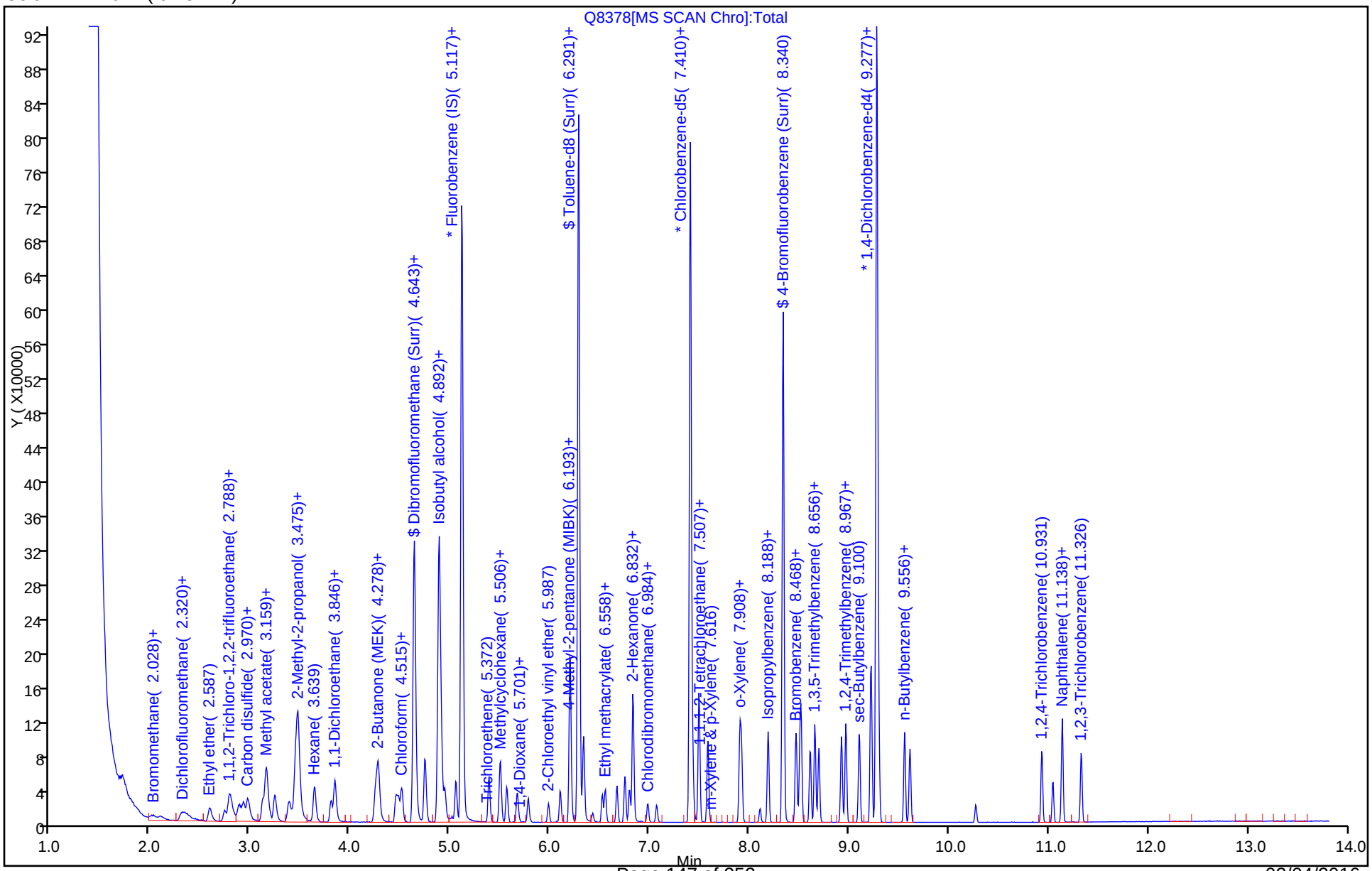
Report Date: 12-Jan-2016 14:25:50 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8378.D

Injection Date:	11-Jan-2016 16:53:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	IC 3			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	38
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



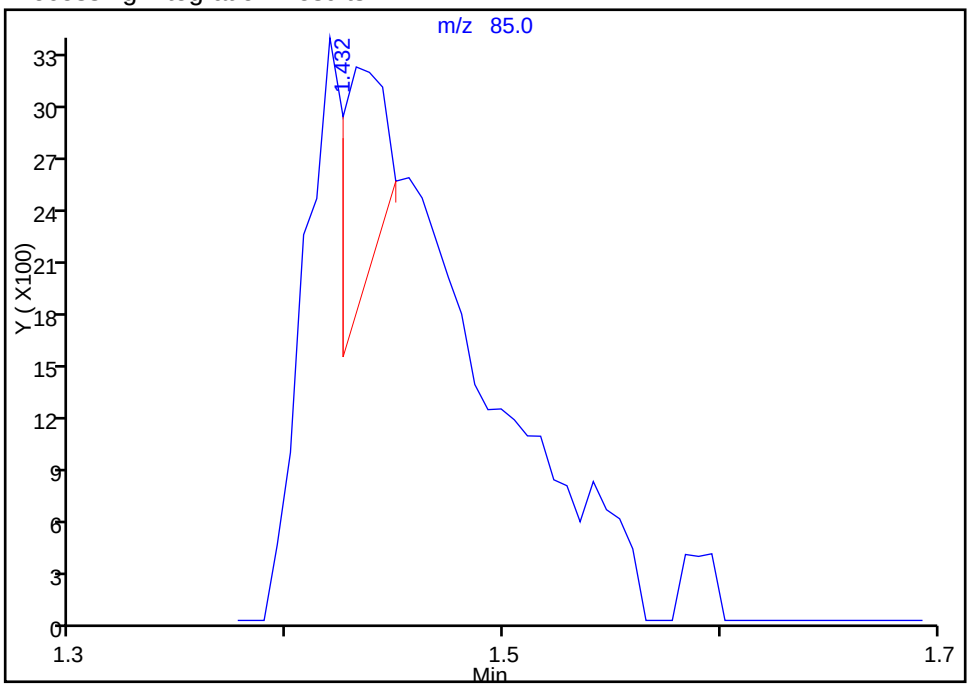
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8378.D
Injection Date: 11-Jan-2016 16:53:30 Instrument ID: HP5973Q
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 38 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

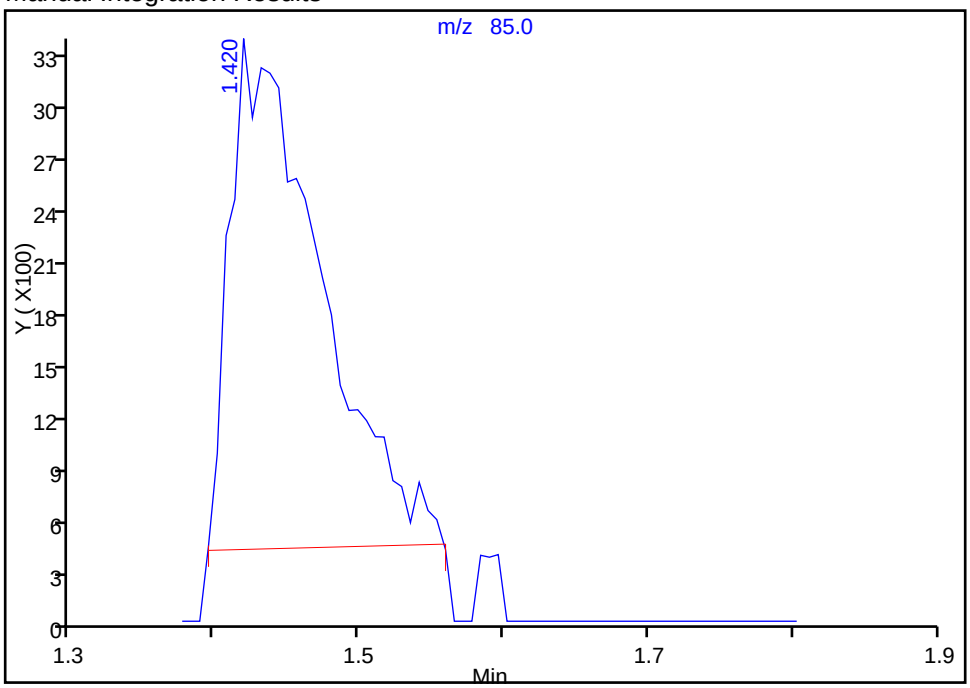
Processing Integration Results

RT: 1.43
Area: 1713
Amount: 0.363666
Amount Units: ug/L



Manual Integration Results

RT: 1.42
Area: 12643
Amount: 2.080103
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:02:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

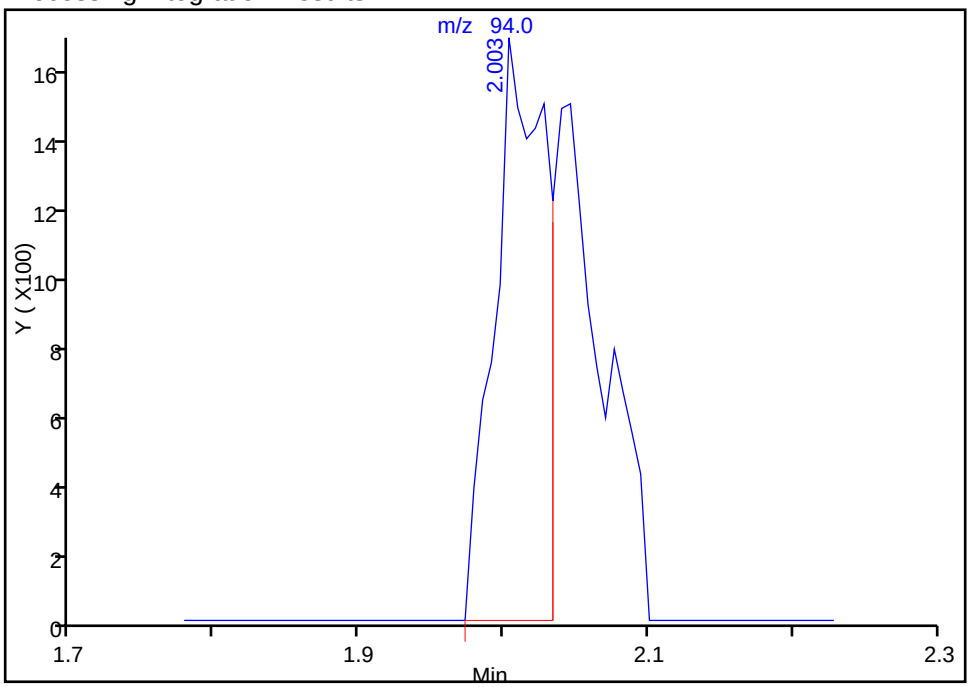
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8378.D
Injection Date: 11-Jan-2016 16:53:30 Instrument ID: HP5973Q
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 38 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

14 Bromomethane, CAS: 74-83-9

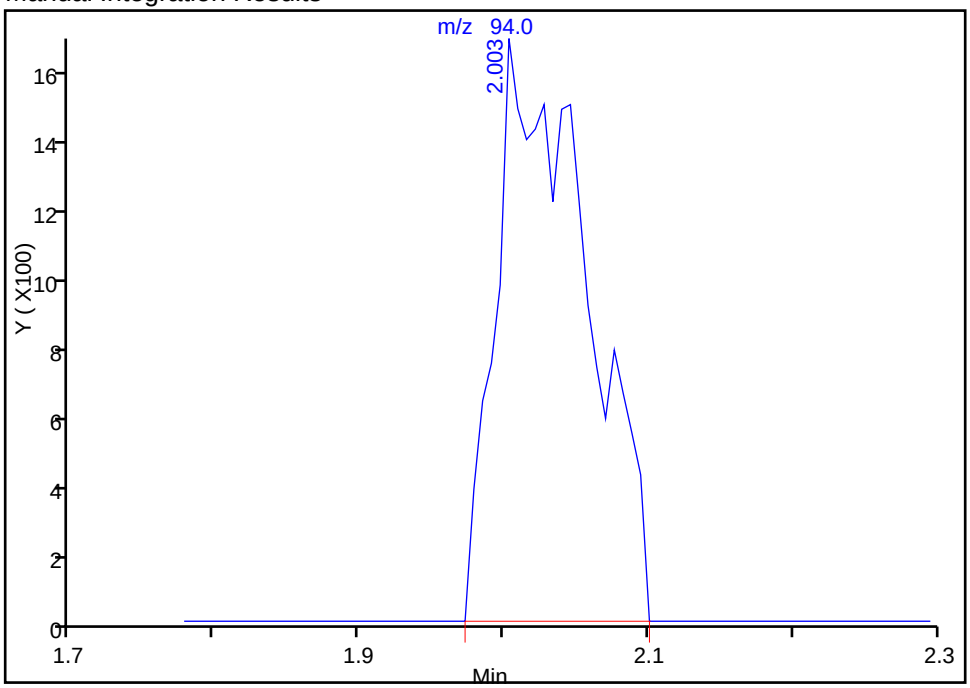
Processing Integration Results

RT: 2.00
Area: 3998
Amount: 1.216155
Amount Units: ug/L



Manual Integration Results

RT: 2.00
Area: 7086
Amount: 2.019965
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:02:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

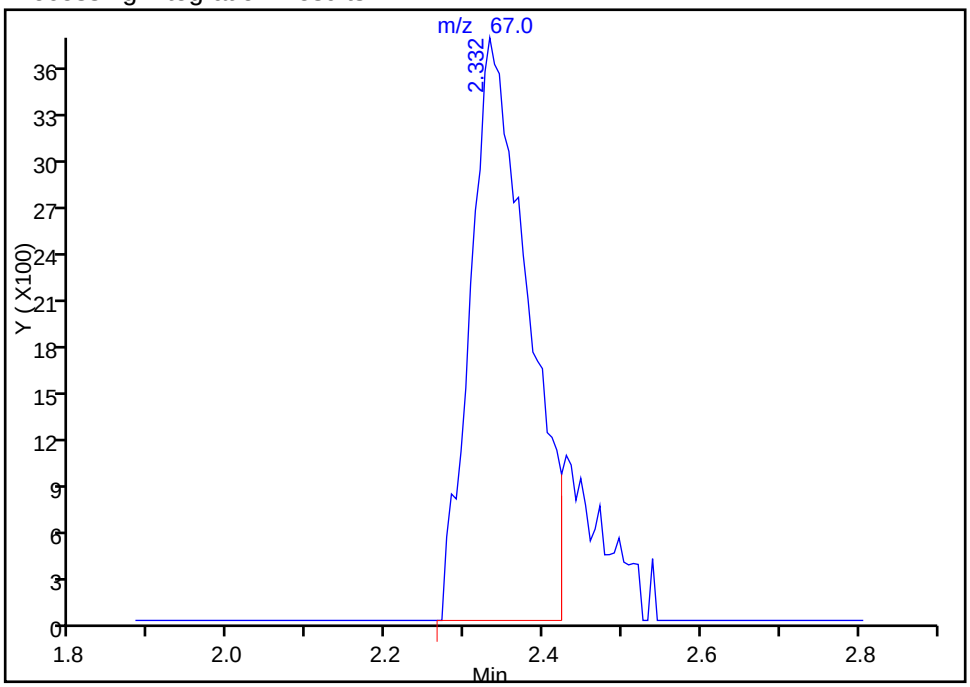
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8378.D
Injection Date: 11-Jan-2016 16:53:30 Instrument ID: HP5973Q
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 38 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

16 Dichlorofluoromethane, CAS: 75-43-4

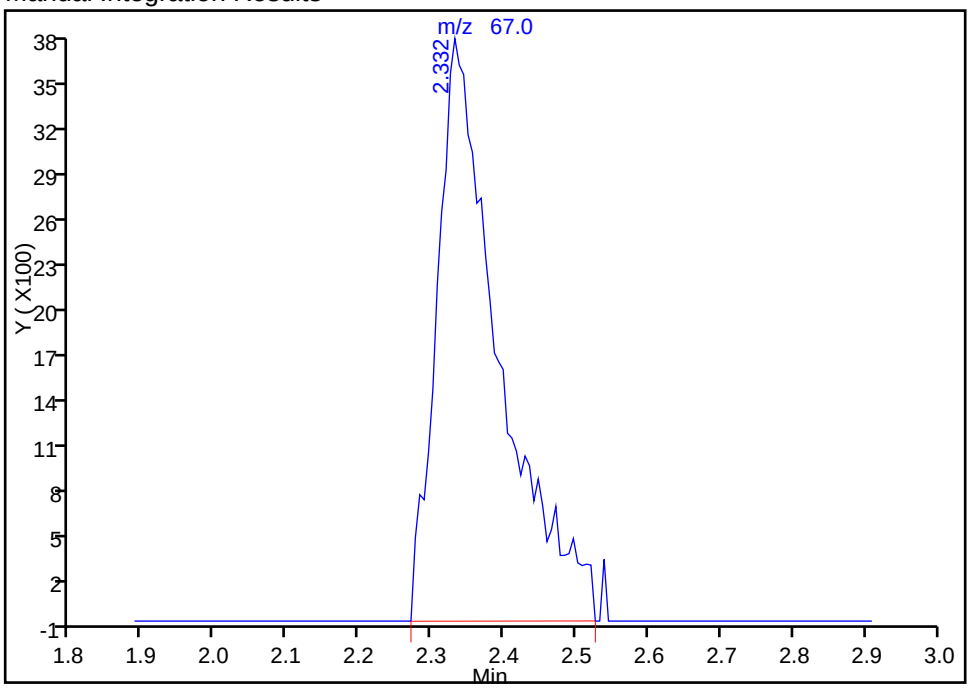
Processing Integration Results

RT: 2.33
Area: 19083
Amount: 1.969096
Amount Units: ug/L



Manual Integration Results

RT: 2.33
Area: 22592
Amount: 2.119007
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:04:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

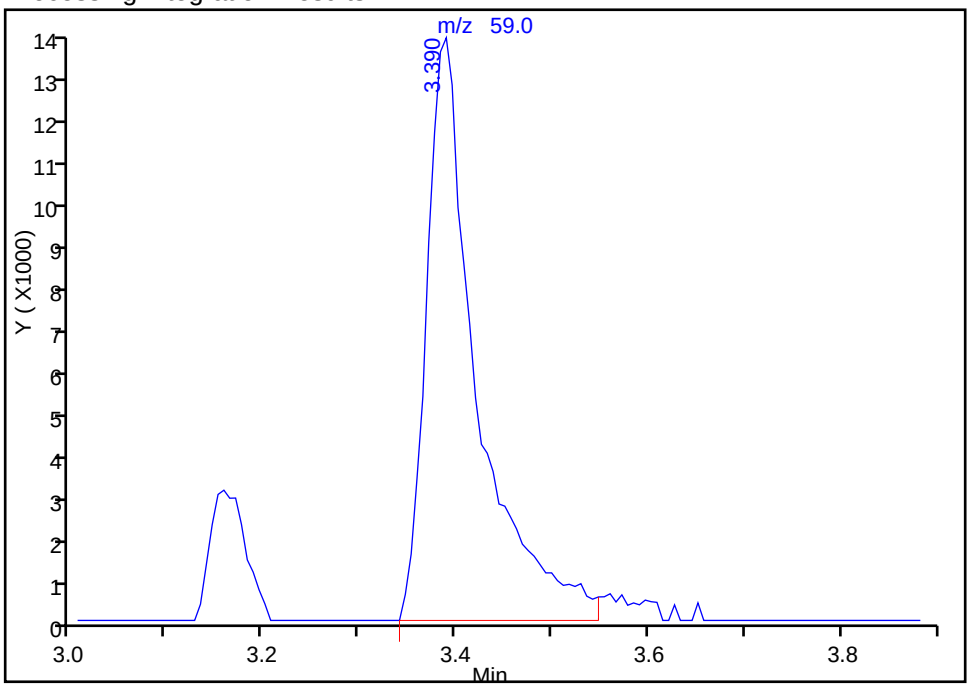
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8378.D
Injection Date: 11-Jan-2016 16:53:30 Instrument ID: HP5973Q
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 38 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

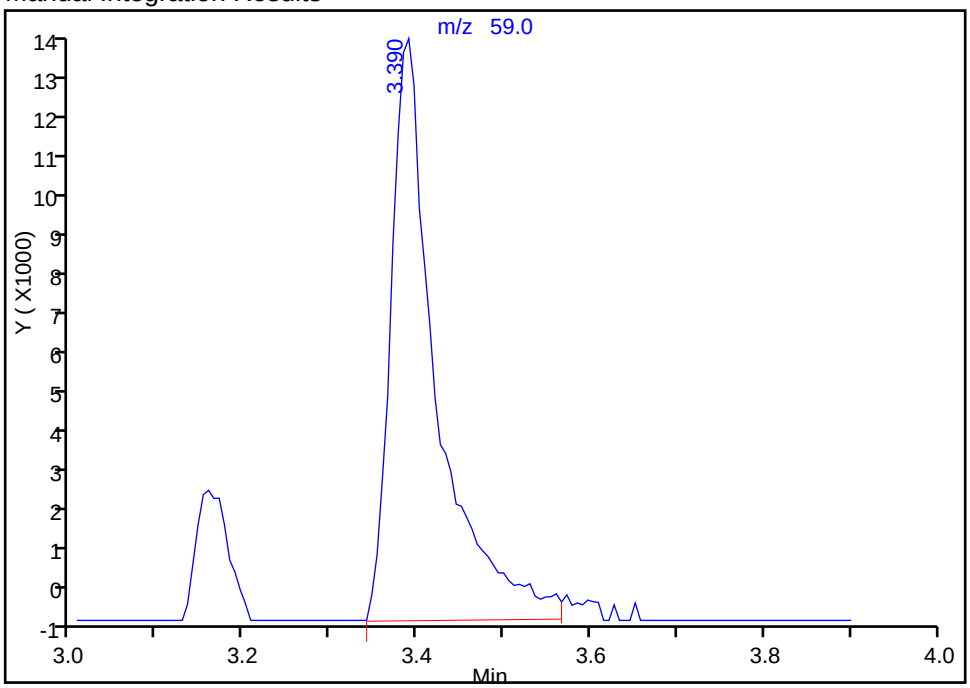
Processing Integration Results

RT: 3.39
Area: 50653
Amount: 25.324716
Amount Units: ug/L



Manual Integration Results

RT: 3.39
Area: 51175
Amount: 22.532178
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 14:06:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8379.D
Lims ID: IC 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Jan-2016 17:17:30 ALS Bottle#: 39 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 4
Misc. Info.: 480-0049854-008
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:51 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: reiler Date: 12-Jan-2016 09:59:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.120	5.118	0.002	99	113467	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.406	7.411	-0.005	85	208682	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.279	9.278	0.001	94	236340	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.639	4.643	-0.004	95	157043	25.0	26.3	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.889	4.892	-0.003	0	91448	25.0	26.2	
$ 5 Toluene-d8 (Surr)	98	6.287	6.291	-0.004	93	501883	25.0	25.5	
$ 6 4-Bromofluorobenzene (Surr	174	8.337	8.340	-0.003	91	153434	25.0	25.4	
10 Dichlorodifluoromethane	85	1.422	1.432	-0.010	96	27077	5.00	4.52	M
12 Chloromethane	50	1.593	1.608	-0.015	99	40383	5.00	4.96	
13 Vinyl chloride	62	1.696	1.706	-0.010	98	36134	5.00	4.87	
144 Butadiene	54	1.720	1.730	-0.010	90	33721	5.00	5.14	
14 Bromomethane	94	2.000	2.022	-0.022	93	15738	5.00	4.56	
15 Chloroethane	64	2.103	2.113	-0.010	98	14583	5.00	4.52	
17 Trichlorofluoromethane	101	2.298	2.308	-0.010	96	44673	5.00	4.77	
16 Dichlorofluoromethane	67	2.328	2.332	-0.004	97	50544	5.00	4.81	M
18 Ethyl ether	59	2.590	2.593	-0.003	92	31764	5.00	4.89	
20 Acrolein	56	2.736	2.745	-0.009	99	41616	25.0	24.5	
22 1,1-Dichloroethene	96	2.784	2.788	-0.004	98	36377	5.00	5.06	
21 1,1,2-Trichloro-1,2,2-trif	101	2.809	2.812	-0.003	91	35172	5.00	5.34	
23 Acetone	43	2.882	2.885	-0.003	100	104504	25.0	25.8	
25 Iodomethane	142	2.930	2.934	-0.004	99	68326	5.00	5.01	
26 Carbon disulfide	76	2.967	2.977	-0.010	99	115703	5.00	5.00	
28 3-Chloro-1-propene	41	3.119	3.122	-0.003	91	59053	5.00	5.04	
27 Methyl acetate	43	3.155	3.159	-0.004	98	239400	25.0	25.5	
30 Methylene Chloride	84	3.241	3.244	-0.003	93	41648	5.00	4.97	
31 2-Methyl-2-propanol	59	3.380	3.439	-0.059	100	119013	50.0	53.2	M
32 Methyl tert-butyl ether	73	3.441	3.445	-0.004	94	127037	5.00	4.99	
34 trans-1,2-Dichloroethene	96	3.453	3.457	-0.004	98	40301	5.00	5.08	
33 Acrylonitrile	53	3.472	3.475	-0.003	99	235846	50.0	51.1	
35 Hexane	57	3.636	3.639	-0.003	91	55276	5.00	5.16	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.806	3.810	-0.004	96	68630	5.00	5.04	
37 Vinyl acetate	43	3.843	3.846	-0.003	97	187655	10.0	10.2	
44 2,2-Dichloropropane	77	4.244	4.248	-0.004	91	50524	5.00	5.18	
45 cis-1,2-Dichloroethene	96	4.262	4.266	-0.004	81	43836	5.00	5.05	
43 2-Butanone (MEK)	43	4.280	4.278	0.002	100	152373	25.0	24.7	
48 Chlorobromomethane	128	4.457	4.460	-0.003	93	22990	5.00	5.06	
49 Tetrahydrofuran	42	4.481	4.479	0.002	89	45370	10.0	10.1	
50 Chloroform	83	4.518	4.515	0.003	94	65836	5.00	5.02	
51 1,1,1-Trichloroethane	97	4.627	4.631	-0.004	99	55039	5.00	5.02	
52 Cyclohexane	56	4.645	4.649	-0.004	92	68308	5.00	5.17	
55 Carbon tetrachloride	117	4.749	4.746	0.003	96	46329	5.00	4.88	
54 1,1-Dichloropropene	75	4.749	4.752	-0.003	97	52040	5.00	5.06	
53 Isobutyl alcohol	43	4.876	4.874	0.002	95	110063	125.0	130.0	
57 Benzene	78	4.913	4.910	0.003	94	147069	5.00	5.12	
58 1,2-Dichloroethane	62	4.943	4.947	-0.004	97	53887	5.00	5.09	
59 n-Heptane	43	5.059	5.056	0.003	92	46960	5.00	4.98	
62 Trichloroethene	95	5.387	5.391	-0.004	96	39305	5.00	4.97	
64 Methylcyclohexane	83	5.503	5.500	0.003	91	63511	5.00	5.00	
65 1,2-Dichloropropane	63	5.570	5.567	0.003	95	33910	5.00	4.95	
67 Dibromomethane	93	5.673	5.671	0.002	93	24147	5.00	4.83	
66 1,4-Dioxane	88	5.673	5.671	0.002	44	14480	100.0	120.1	
68 Dichlorobromomethane	83	5.783	5.786	-0.003	99	42916	5.00	4.85	
69 2-Chloroethyl vinyl ether	63	5.983	5.987	-0.004	92	21081	5.00	4.69	
77 trans-1,3-Dichloropropene	75	6.105	6.102	0.003	93	48485	5.00	4.68	
73 4-Methyl-2-pentanone (MIBK	43	6.202	6.200	0.002	97	284108	25.0	26.1	
74 Toluene	92	6.336	6.339	-0.003	98	82062	5.00	4.84	
72 cis-1,3-Dichloropropene	75	6.525	6.528	-0.004	97	41377	5.00	4.64	
75 Ethyl methacrylate	69	6.555	6.552	0.003	89	45779	5.00	4.97	
79 1,1,2-Trichloroethane	83	6.670	6.674	-0.004	91	23766	5.00	4.68	
81 Tetrachloroethene	166	6.756	6.753	0.003	97	36543	5.00	4.94	
82 1,3-Dichloropropane	76	6.798	6.802	-0.004	88	49968	5.00	4.84	
80 2-Hexanone	43	6.829	6.832	-0.003	97	202862	25.0	26.3	
83 Chlorodibromomethane	129	6.981	6.984	-0.003	90	31724	5.00	4.60	
84 Ethylene Dibromide	107	7.072	7.069	0.003	98	32656	5.00	4.81	
87 Chlorobenzene	112	7.431	7.434	-0.003	97	93041	5.00	4.92	
89 1,1,1,2-Tetrachloroethane	131	7.498	7.495	0.003	45	34397	5.00	4.86	
88 Ethylbenzene	91	7.498	7.495	0.003	98	154948	5.00	5.05	
90 m-Xylene & p-Xylene	106	7.583	7.586	-0.003	0	62264	5.00	4.87	
91 o-Xylene	106	7.905	7.902	0.003	96	63387	5.00	4.89	
92 Styrene	104	7.923	7.921	0.002	95	98125	5.00	4.98	
95 Bromoform	173	8.106	8.109	-0.003	95	18565	5.00	4.37	
94 Isopropylbenzene	105	8.191	8.188	0.003	95	165202	5.00	4.87	
101 Bromobenzene	156	8.464	8.468	-0.004	92	42278	5.00	4.81	
97 1,1,2,2-Tetrachloroethane	83	8.471	8.468	0.003	95	49750	5.00	4.75	
98 trans-1,4-Dichloro-2-buten	53	8.507	8.504	0.003	72	12466	5.00	4.60	
100 1,2,3-Trichloropropane	110	8.507	8.504	0.003	86	16968	5.00	4.61	
99 N-Propylbenzene	91	8.519	8.517	0.002	99	183439	5.00	4.86	
103 2-Chlorotoluene	126	8.610	8.608	0.002	97	40799	5.00	4.86	
102 1,3,5-Trimethylbenzene	105	8.659	8.656	0.003	95	137908	5.00	4.81	
105 4-Chlorotoluene	126	8.696	8.699	-0.003	96	40962	5.00	4.83	
106 tert-Butylbenzene	134	8.927	8.924	0.003	92	30301	5.00	4.73	
107 1,2,4-Trimethylbenzene	105	8.969	8.967	0.002	96	144135	5.00	4.88	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.103	9.100	0.003	94	170597	5.00	4.87	
110 4-Isopropyltoluene	119	9.219	9.216	0.003	97	155464	5.00	4.91	
111 1,3-Dichlorobenzene	146	9.225	9.222	0.003	97	80818	5.00	4.87	
113 1,4-Dichlorobenzene	146	9.298	9.295	0.003	96	81607	5.00	4.77	
115 n-Butylbenzene	91	9.559	9.557	0.002	97	129131	5.00	4.90	
116 1,2-Dichlorobenzene	146	9.614	9.611	0.003	98	81861	5.00	4.82	
117 1,2-Dibromo-3-Chloropropan	75	10.271	10.268	0.003	86	11543	5.00	4.50	
119 1,2,4-Trichlorobenzene	180	10.933	10.931	0.002	95	61074	5.00	4.85	
120 Hexachlorobutadiene	225	11.043	11.046	-0.003	96	20644	5.00	4.84	
121 Naphthalene	128	11.134	11.138	-0.004	97	206994	5.00	4.90	
122 1,2,3-Trichlorobenzene	180	11.329	11.326	0.003	96	58422	5.00	4.84	
S 123 Total BTEX	1				0			24.8	
S 124 Xylenes, Total	1				0			9.77	
S 125 1,2-Dichloroethene, Total	1				0			10.1	
S 126 1,3-Dichloropropene, Total	1				0			9.32	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added:	5.00	Units: uL	
GAS CORP mix_00130	Amount Added:	5.00	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00106	Amount Added:	1.25	Units: uL	Run Reagent

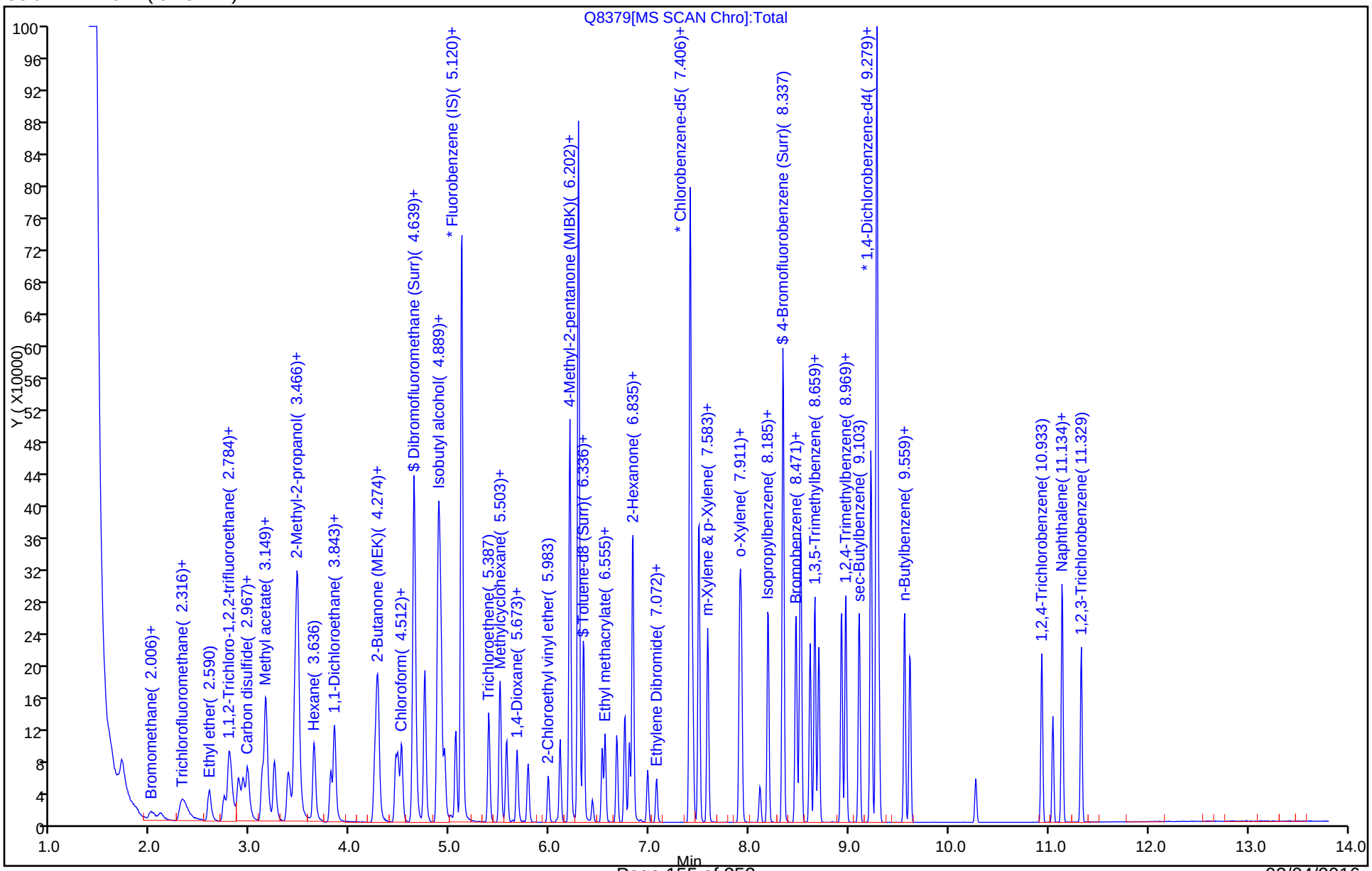
Report Date: 12-Jan-2016 14:25:52 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8379.D

Injection Date:	11-Jan-2016 17:17:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	IC 4			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	39
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



Manual Integration/User Assign Peak Report

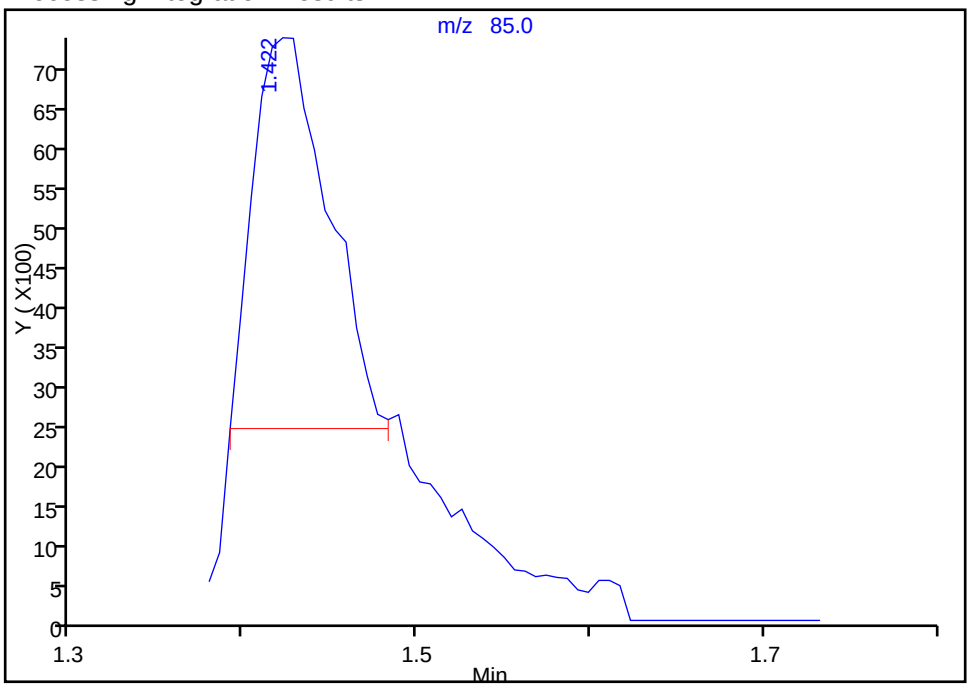
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8379.D
Injection Date: 11-Jan-2016 17:17:30 Instrument ID: HP5973Q
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 39 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

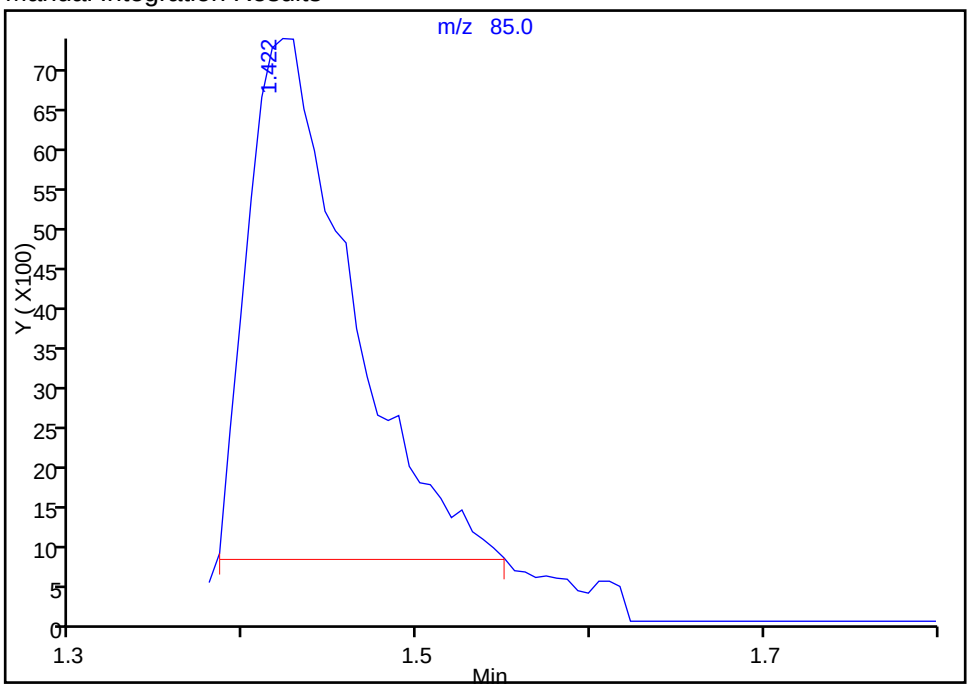
Processing Integration Results

RT: 1.42
Area: 14754
Amount: 2.708255
Amount Units: ug/L



Manual Integration Results

RT: 1.42
Area: 27077
Amount: 4.524207
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:05:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

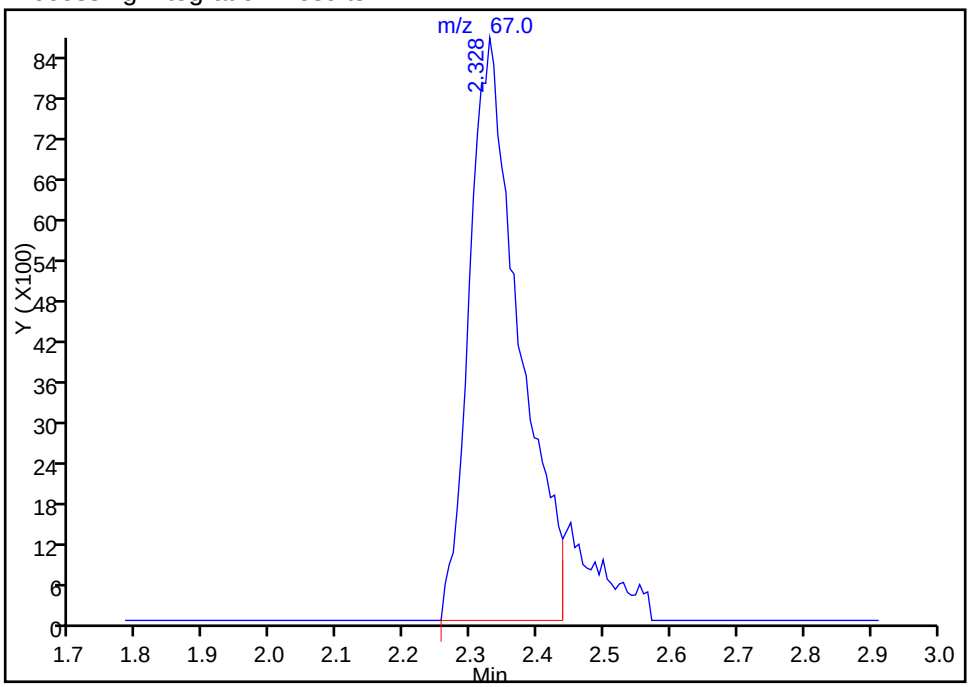
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8379.D
Injection Date: 11-Jan-2016 17:17:30 Instrument ID: HP5973Q
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 39 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

16 Dichlorofluoromethane, CAS: 75-43-4

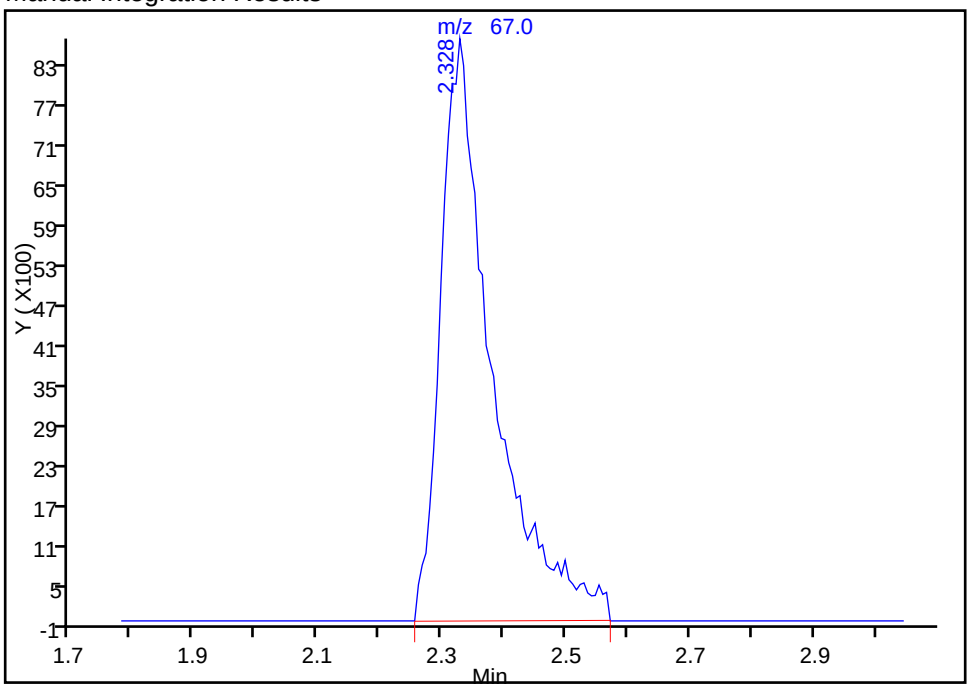
Processing Integration Results

RT: 2.33
Area: 45060
Amount: 4.477295
Amount Units: ug/L



Manual Integration Results

RT: 2.33
Area: 50544
Amount: 4.814539
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:05:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

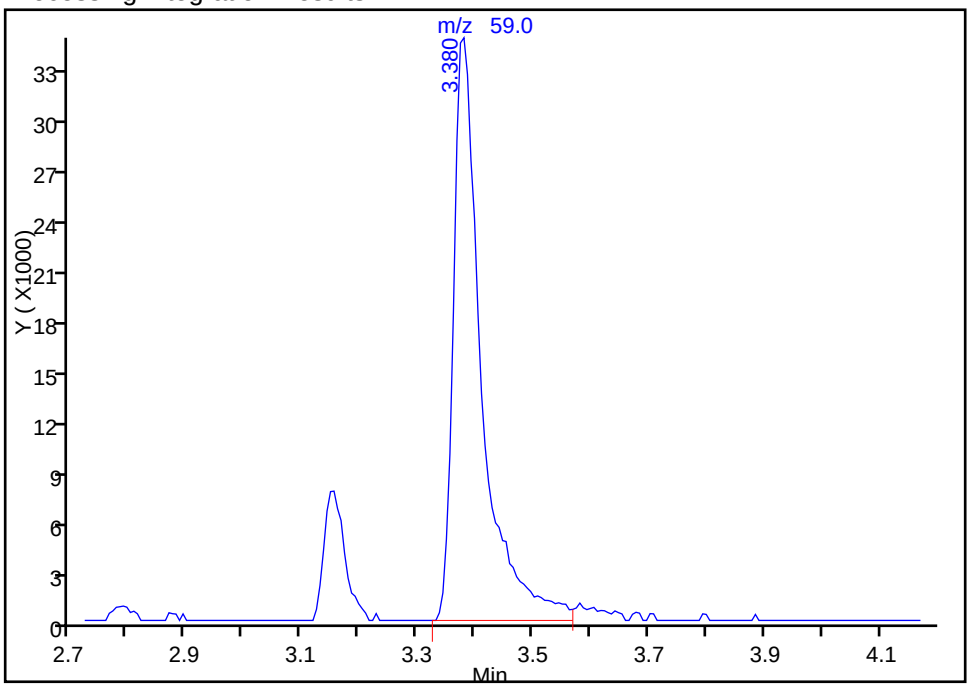
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8379.D
Injection Date: 11-Jan-2016 17:17:30 Instrument ID: HP5973Q
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 39 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

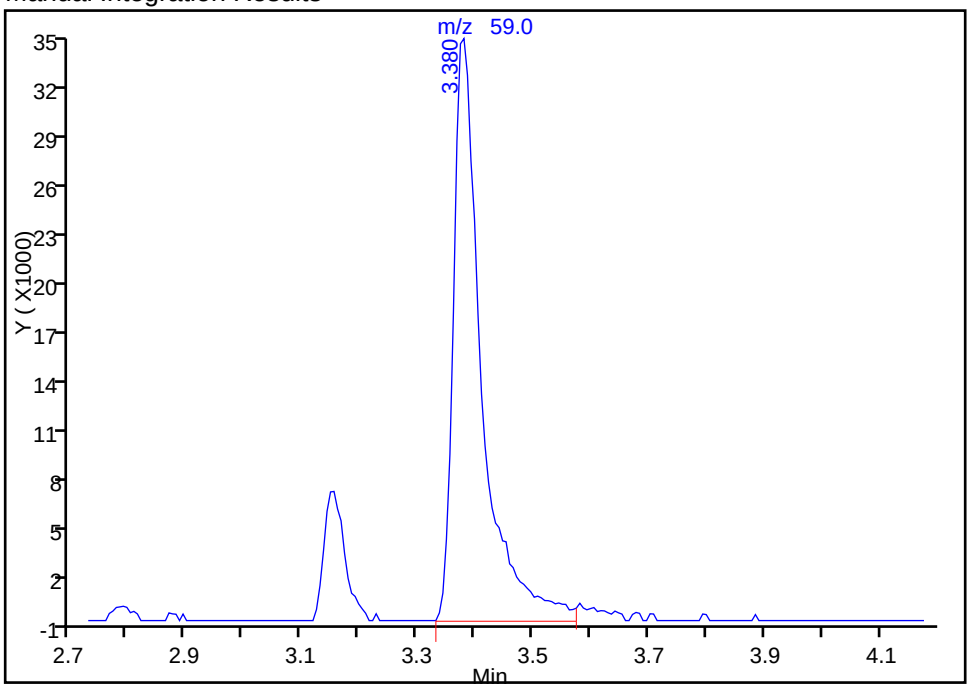
Processing Integration Results

RT: 3.38
Area: 118160
Amount: 61.967264
Amount Units: ug/L



Manual Integration Results

RT: 3.38
Area: 119013
Amount: 53.216588
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 14:06:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8380.D
Lims ID: IC 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 11-Jan-2016 17:40:30 ALS Bottle#: 40 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 5
Misc. Info.: 480-0049854-009
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:53 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: reiler Date: 12-Jan-2016 10:10:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.115	5.115	0.000	99	113982	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.407	7.407	0.000	85	204279	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.280	9.280	0.000	94	223329	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.640	4.640	0.000	94	156189	25.0	26.0	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.890	4.890	0.000	0	91352	25.0	26.1	
$ 5 Toluene-d8 (Surr)	98	6.288	6.288	0.000	92	493281	25.0	25.6	
$ 6 4-Bromofluorobenzene (Surr	174	8.338	8.338	0.000	91	146634	25.0	24.8	
10 Dichlorodifluoromethane	85	1.423	1.423	0.000	99	55315	10.0	9.20	M
12 Chloromethane	50	1.593	1.593	0.000	99	84065	10.0	10.3	
13 Vinyl chloride	62	1.691	1.691	0.000	98	76231	10.0	10.2	
144 Butadiene	54	1.721	1.721	0.000	90	68467	10.0	10.4	
14 Bromomethane	94	2.013	2.013	0.000	88	31794	10.0	9.16	
15 Chloroethane	64	2.110	2.110	0.000	99	32612	10.0	10.1	
17 Trichlorofluoromethane	101	2.305	2.305	0.000	98	98042	10.0	10.4	
16 Dichlorofluoromethane	67	2.317	2.317	0.000	98	110206	10.0	10.5	
18 Ethyl ether	59	2.585	2.585	0.000	92	71696	10.0	11.0	
20 Acrolein	56	2.731	2.731	0.000	99	91461	50.0	53.6	
22 1,1-Dichloroethene	96	2.785	2.785	0.000	98	75380	10.0	10.4	
21 1,1,2-Trichloro-1,2,2-trif	101	2.804	2.804	0.000	91	72850	10.0	11.0	
23 Acetone	43	2.883	2.883	0.000	100	223675	50.0	55.0	
25 Iodomethane	142	2.931	2.931	0.000	100	145131	10.0	10.6	
26 Carbon disulfide	76	2.974	2.974	0.000	99	240974	10.0	10.4	
28 3-Chloro-1-propene	41	3.120	3.120	0.000	91	125247	10.0	10.6	
27 Methyl acetate	43	3.150	3.150	0.000	98	505129	50.0	53.6	
30 Methylene Chloride	84	3.241	3.241	0.000	93	85844	10.0	10.2	
31 2-Methyl-2-propanol	59	3.381	3.381	0.000	100	260024	100.0	115.7	M
32 Methyl tert-butyl ether	73	3.442	3.442	0.000	95	271387	10.0	10.6	
34 trans-1,2-Dichloroethene	96	3.454	3.454	0.000	98	83149	10.0	10.4	
33 Acrylonitrile	53	3.473	3.473	0.000	99	504663	100.0	108.9	
35 Hexane	57	3.637	3.637	0.000	91	107118	10.0	9.95	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.807	3.807	0.000	96	145303	10.0	10.6	
37 Vinyl acetate	43	3.844	3.844	0.000	97	394564	20.0	21.3	
44 2,2-Dichloropropane	77	4.245	4.245	0.000	90	101910	10.0	10.4	
45 cis-1,2-Dichloroethene	96	4.263	4.263	0.000	81	92487	10.0	10.6	
43 2-Butanone (MEK)	43	4.281	4.281	0.000	100	326218	50.0	52.7	
48 Chlorobromomethane	128	4.458	4.458	0.000	94	48901	10.0	10.7	
49 Tetrahydrofuran	42	4.476	4.476	0.000	87	92962	20.0	20.6	
50 Chloroform	83	4.512	4.512	0.000	93	134543	10.0	10.2	
51 1,1,1-Trichloroethane	97	4.628	4.628	0.000	98	114702	10.0	10.4	
52 Cyclohexane	56	4.652	4.652	0.000	91	138008	10.0	10.4	
55 Carbon tetrachloride	117	4.744	4.744	0.000	96	96708	10.0	10.1	
54 1,1-Dichloropropene	75	4.750	4.750	0.000	96	103814	10.0	10.0	
53 Isobutyl alcohol	43	4.871	4.871	0.000	95	248028	250.0	291.6	
57 Benzene	78	4.908	4.908	0.000	97	297821	10.0	10.3	
58 1,2-Dichloroethane	62	4.944	4.944	0.000	96	110520	10.0	10.4	
59 n-Heptane	43	5.060	5.060	0.000	92	87767	10.0	9.27	
62 Trichloroethene	95	5.388	5.388	0.000	96	79757	10.0	10.0	
64 Methylcyclohexane	83	5.504	5.504	0.000	89	129849	10.0	10.2	
65 1,2-Dichloropropane	63	5.571	5.571	0.000	95	68783	10.0	10.0	
67 Dibromomethane	93	5.674	5.674	0.000	95	52125	10.0	10.4	
66 1,4-Dioxane	88	5.668	5.668	0.000	46	27827	200.0	235.7	
68 Dichlorobromomethane	83	5.784	5.784	0.000	99	91171	10.0	10.3	
69 2-Chloroethyl vinyl ether	63	5.984	5.984	0.000	93	43454	10.0	9.63	
77 trans-1,3-Dichloropropene	75	6.106	6.106	0.000	94	104405	10.0	10.3	
73 4-Methyl-2-pentanone (MIBK	43	6.203	6.203	0.000	96	583409	50.0	54.7	
74 Toluene	92	6.337	6.337	0.000	99	169036	10.0	10.2	
72 cis-1,3-Dichloropropene	75	6.525	6.525	0.000	97	87408	10.0	9.75	
75 Ethyl methacrylate	69	6.556	6.556	0.000	91	93433	10.0	10.4	
79 1,1,2-Trichloroethane	83	6.671	6.671	0.000	91	50660	10.0	10.2	
81 Tetrachloroethene	166	6.757	6.757	0.000	97	72794	10.0	10.0	
82 1,3-Dichloropropane	76	6.799	6.799	0.000	86	103129	10.0	10.2	
80 2-Hexanone	43	6.829	6.829	0.000	97	395725	50.0	52.5	
83 Chlorodibromomethane	129	6.982	6.982	0.000	90	69153	10.0	10.2	
84 Ethylene Dibromide	107	7.073	7.073	0.000	99	66727	10.0	10.0	
87 Chlorobenzene	112	7.432	7.432	0.000	96	186213	10.0	10.1	
89 1,1,1,2-Tetrachloroethane	131	7.498	7.498	0.000	46	72738	10.0	10.5	
88 Ethylbenzene	91	7.492	7.492	0.000	98	310657	10.0	10.3	
90 m-Xylene & p-Xylene	106	7.584	7.584	0.000	0	126357	10.0	10.1	
91 o-Xylene	106	7.906	7.906	0.000	96	132985	10.0	10.5	
92 Styrene	104	7.918	7.918	0.000	96	199069	10.0	10.3	
95 Bromoform	173	8.107	8.107	0.000	97	41947	10.0	10.1	
94 Isopropylbenzene	105	8.186	8.186	0.000	95	335807	10.0	10.5	
101 Bromobenzene	156	8.465	8.465	0.000	94	84618	10.0	10.2	
97 1,1,2,2-Tetrachloroethane	83	8.471	8.471	0.000	95	106169	10.0	10.7	
98 trans-1,4-Dichloro-2-buten	53	8.508	8.508	0.000	73	26036	10.0	10.2	
100 1,2,3-Trichloropropane	110	8.508	8.508	0.000	86	35113	10.0	10.1	
99 N-Propylbenzene	91	8.520	8.520	0.000	99	372755	10.0	10.4	
103 2-Chlorotoluene	126	8.611	8.611	0.000	97	81398	10.0	10.3	
102 1,3,5-Trimethylbenzene	105	8.660	8.660	0.000	95	282960	10.0	10.5	
105 4-Chlorotoluene	126	8.696	8.696	0.000	97	80799	10.0	10.1	
106 tert-Butylbenzene	134	8.921	8.921	0.000	92	62518	10.0	10.3	
107 1,2,4-Trimethylbenzene	105	8.970	8.970	0.000	96	293206	10.0	10.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.104	9.104	0.000	94	347856	10.0	10.5	
110 4-Isopropyltoluene	119	9.219	9.219	0.000	98	316742	10.0	10.6	
111 1,3-Dichlorobenzene	146	9.226	9.226	0.000	98	163697	10.0	10.4	
113 1,4-Dichlorobenzene	146	9.299	9.299	0.000	95	166778	10.0	10.3	
115 n-Butylbenzene	91	9.554	9.554	0.000	97	258736	10.0	10.4	
116 1,2-Dichlorobenzene	146	9.609	9.609	0.000	98	167566	10.0	10.4	
117 1,2-Dibromo-3-Chloropropan	75	10.272	10.272	0.000	88	25311	10.0	10.4	
119 1,2,4-Trichlorobenzene	180	10.934	10.934	0.000	94	127730	10.0	10.7	
120 Hexachlorobutadiene	225	11.044	11.044	0.000	98	41606	10.0	10.3	
121 Naphthalene	128	11.135	11.135	0.000	97	449295	10.0	11.3	
122 1,2,3-Trichlorobenzene	180	11.330	11.330	0.000	96	123271	10.0	10.8	
S 123 Total BTEX	1				0			51.4	
S 124 Xylenes, Total	1				0			20.6	
S 125 1,2-Dichloroethene, Total	1				0			21.0	
S 126 1,3-Dichloropropene, Total	1				0			20.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added:	5.00	Units: uL	
GAS CORP mix_00130	Amount Added:	5.00	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00106	Amount Added:	1.25	Units: uL	Run Reagent

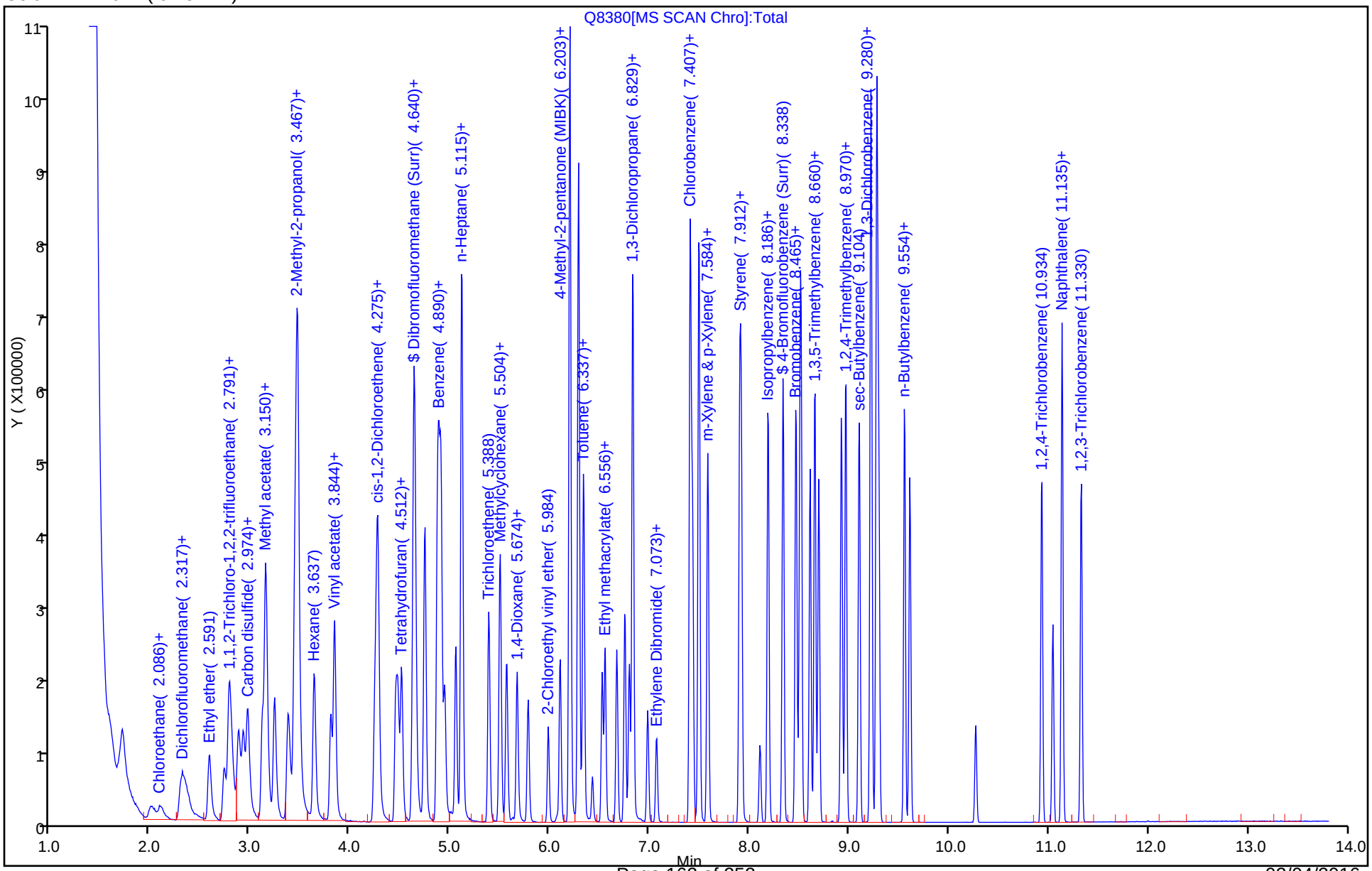
Report Date: 12-Jan-2016 14:25:53 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8380.D

Injection Date:	11-Jan-2016 17:40:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	IC 5			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	40
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



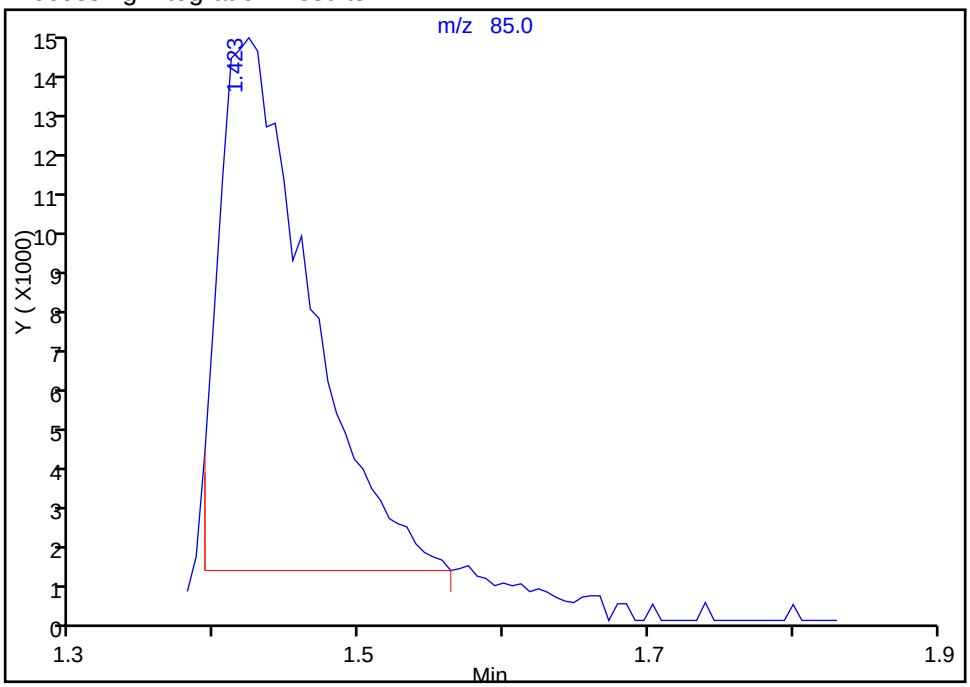
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8380.D
Injection Date: 11-Jan-2016 17:40:30 Instrument ID: HP5973Q
Lims ID: IC 5
Client ID:
Operator ID: LH ALS Bottle#: 40 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

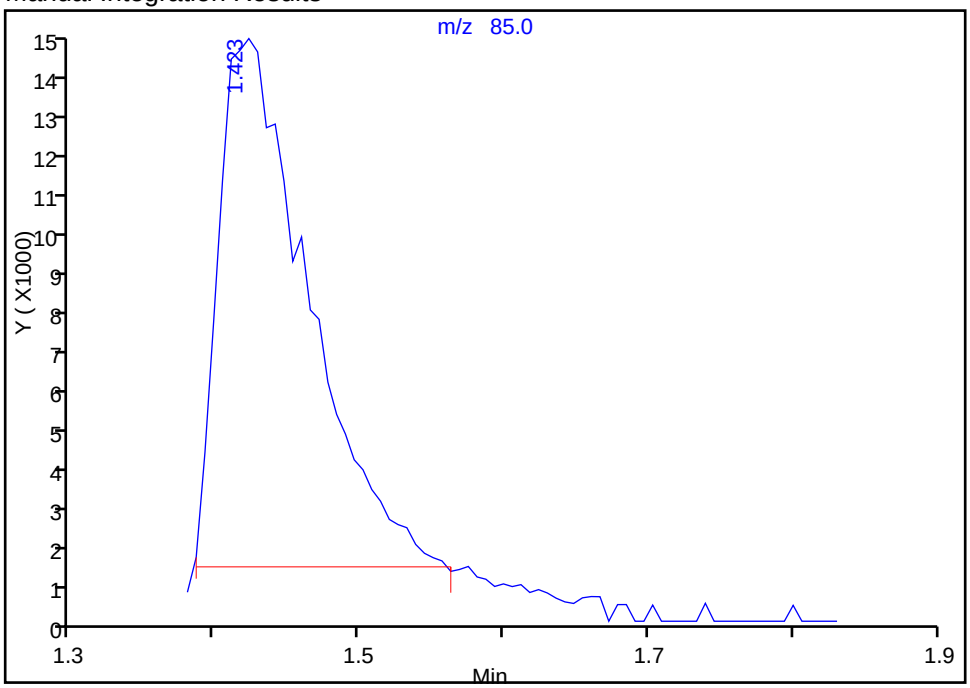
Processing Integration Results

RT: 1.42
Area: 56394
Amount: 9.575102
Amount Units: ug/L



Manual Integration Results

RT: 1.42
Area: 55315
Amount: 9.200643
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:08:23
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

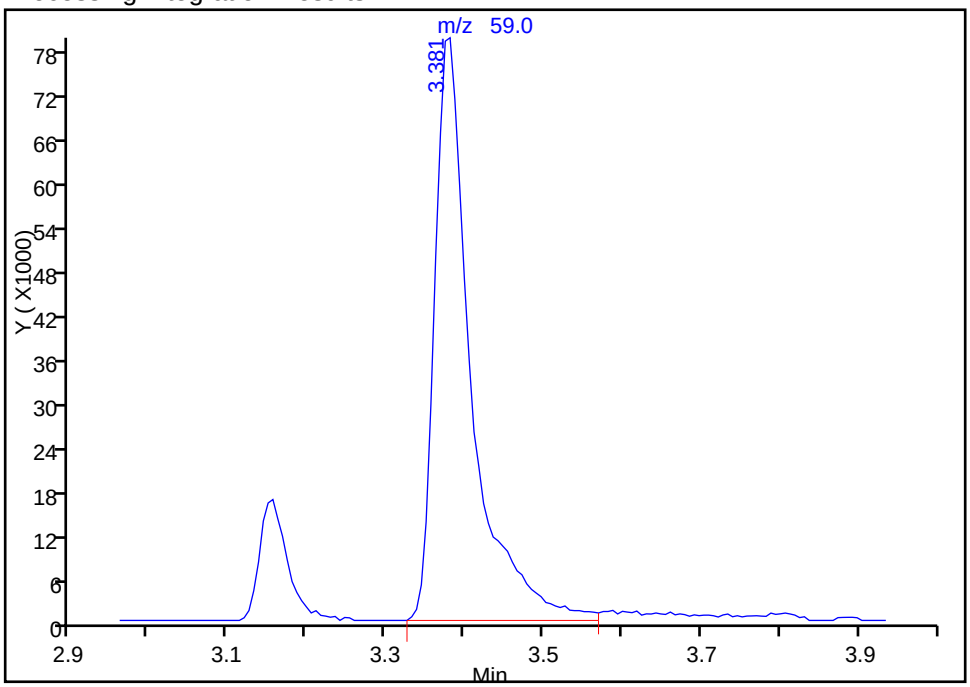
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8380.D
Injection Date: 11-Jan-2016 17:40:30 Instrument ID: HP5973Q
Lims ID: IC 5
Client ID:
Operator ID: LH ALS Bottle#: 40 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

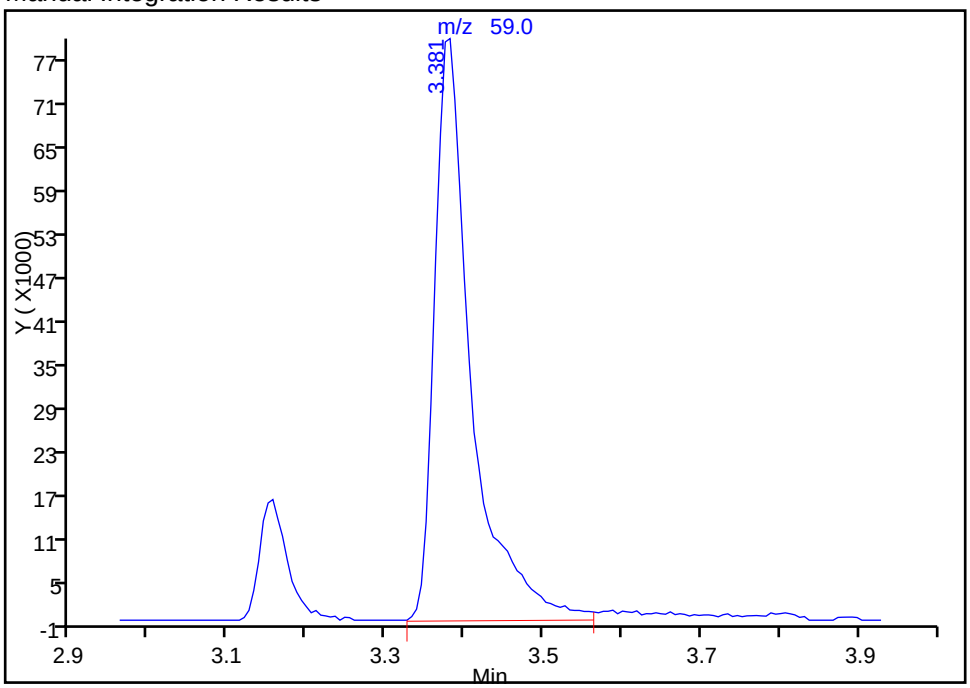
Processing Integration Results

RT: 3.38
Area: 259566
Amount: 138.7105
Amount Units: ug/L



Manual Integration Results

RT: 3.38
Area: 260024
Amount: 115.7442
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 14:06:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8381.D
Lims ID: ICIS 6
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 11-Jan-2016 18:03:30 ALS Bottle#: 41 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS 6
Misc. Info.: 480-0049854-010
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:33:03 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: reiler Date: 12-Jan-2016 10:21:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.117	0.000	98	114840	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.410	0.000	83	215084	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.277	0.000	74	232248	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.643	0.000	59	159167	25.0	26.3	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.892	0.000	0	90396	25.0	25.6	
$ 5 Toluene-d8 (Surr)	98	6.291	6.291	0.000	81	506068	25.0	25.0	
$ 6 4-Bromofluorobenzene (Surr	174	8.340	8.340	0.000	91	153624	25.0	24.6	
10 Dichlorodifluoromethane	85	1.432	1.432	0.000	86	159358	25.0	26.3	
12 Chloromethane	50	1.608	1.608	0.000	89	203095	25.0	24.6	
13 Vinyl chloride	62	1.706	1.706	0.000	66	198406	25.0	26.4	
144 Butadiene	54	1.730	1.730	0.000	63	174999	25.0	26.3	
14 Bromomethane	94	2.022	2.022	0.000	87	106250	25.0	30.4	
15 Chloroethane	64	2.113	2.113	0.000	93	93322	25.0	28.6	
17 Trichlorofluoromethane	101	2.308	2.308	0.000	84	261464	25.0	27.6	
16 Dichlorofluoromethane	67	2.332	2.332	0.000	80	284775	25.0	26.8	
18 Ethyl ether	59	2.593	2.593	0.000	89	171777	25.0	26.1	
20 Acrolein	56	2.745	2.745	0.000	93	221788	125.0	128.9	
22 1,1-Dichloroethene	96	2.788	2.788	0.000	90	189982	25.0	26.1	
21 1,1,2-Trichloro-1,2,2-trif	101	2.812	2.812	0.000	67	171045	25.0	25.6	
23 Acetone	43	2.885	2.885	0.000	97	478283	125.0	116.7	
25 Iodomethane	142	2.934	2.934	0.000	98	361411	25.0	26.2	
26 Carbon disulfide	76	2.977	2.977	0.000	98	614363	25.0	26.2	
28 3-Chloro-1-propene	41	3.122	3.122	0.000	90	305620	25.0	25.8	
27 Methyl acetate	43	3.159	3.159	0.000	98	1214469	125.0	128.0	
30 Methylene Chloride	84	3.244	3.244	0.000	84	209251	25.0	24.7	
31 2-Methyl-2-propanol	59	3.439	3.439	0.000	97	494122	250.0	218.3	M
32 Methyl tert-butyl ether	73	3.445	3.445	0.000	90	662906	25.0	25.7	
34 trans-1,2-Dichloroethene	96	3.457	3.457	0.000	75	209477	25.0	26.1	
33 Acrylonitrile	53	3.475	3.475	0.000	99	1217047	250.0	260.6	
35 Hexane	57	3.639	3.639	0.000	89	275296	25.0	25.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.810	3.810	0.000	85	355170	25.0	25.8	
37 Vinyl acetate	43	3.846	3.846	0.000	97	951184	50.0	51.0	
44 2,2-Dichloropropane	77	4.248	4.248	0.000	88	262192	25.0	26.6	
45 cis-1,2-Dichloroethene	96	4.266	4.266	0.000	69	228955	25.0	26.0	
43 2-Butanone (MEK)	43	4.278	4.278	0.000	97	760327	125.0	121.8	
48 Chlorobromomethane	128	4.460	4.460	0.000	89	118991	25.0	25.9	
49 Tetrahydrofuran	42	4.479	4.479	0.000	87	225877	50.0	49.7	
50 Chloroform	83	4.515	4.515	0.000	69	342571	25.0	25.8	
51 1,1,1-Trichloroethane	97	4.631	4.631	0.000	90	293638	25.0	26.5	
52 Cyclohexane	56	4.649	4.649	0.000	91	351442	25.0	26.3	
55 Carbon tetrachloride	117	4.746	4.746	0.000	73	260294	25.0	27.1	
54 1,1-Dichloropropene	75	4.752	4.752	0.000	92	267594	25.0	25.7	
53 Isobutyl alcohol	43	4.874	4.874	0.000	94	484760	625.0	565.7	
57 Benzene	78	4.910	4.910	0.000	96	736530	25.0	25.3	
58 1,2-Dichloroethane	62	4.947	4.947	0.000	83	275981	25.0	25.8	
59 n-Heptane	43	5.056	5.056	0.000	91	251448	25.0	26.4	
62 Trichloroethene	95	5.391	5.391	0.000	91	205482	25.0	25.7	
64 Methylcyclohexane	83	5.500	5.500	0.000	90	331592	25.0	25.8	
65 1,2-Dichloropropane	63	5.567	5.567	0.000	91	178465	25.0	25.7	
66 1,4-Dioxane	88	5.671	5.671	0.000	39	56278	500.0	452.8	
67 Dibromomethane	93	5.671	5.671	0.000	92	131499	25.0	26.0	
68 Dichlorobromomethane	83	5.786	5.786	0.000	91	240811	25.0	26.9	
69 2-Chloroethyl vinyl ether	63	5.987	5.987	0.000	92	115953	25.0	25.5	
77 trans-1,3-Dichloropropene	75	6.102	6.102	0.000	90	276595	25.0	25.9	
73 4-Methyl-2-pentanone (MIBK	43	6.200	6.200	0.000	96	1401461	125.0	124.8	
74 Toluene	92	6.339	6.339	0.000	89	428308	25.0	24.5	
72 cis-1,3-Dichloropropene	75	6.528	6.528	0.000	89	235737	25.0	26.1	
75 Ethyl methacrylate	69	6.552	6.552	0.000	84	243758	25.0	25.7	
79 1,1,2-Trichloroethane	83	6.674	6.674	0.000	86	128668	25.0	24.6	
81 Tetrachloroethene	166	6.753	6.753	0.000	91	187726	25.0	24.6	
82 1,3-Dichloropropane	76	6.802	6.802	0.000	86	262055	25.0	24.6	
80 2-Hexanone	43	6.832	6.832	0.000	96	937475	125.0	118.0	
83 Chlorodibromomethane	129	6.984	6.984	0.000	83	188238	25.0	26.5	
84 Ethylene Dibromide	107	7.069	7.069	0.000	98	174324	25.0	24.9	
87 Chlorobenzene	112	7.434	7.434	0.000	95	476216	25.0	24.5	
88 Ethylbenzene	91	7.495	7.495	0.000	98	787270	25.0	24.9	
89 1,1,1,2-Tetrachloroethane	131	7.495	7.495	0.000	41	192818	25.0	26.4	
90 m-Xylene & p-Xylene	106	7.586	7.586	0.000	0	325984	25.0	24.8	
91 o-Xylene	106	7.902	7.902	0.000	96	335616	25.0	25.1	
92 Styrene	104	7.921	7.921	0.000	95	517793	25.0	25.5	
95 Bromoform	173	8.109	8.109	0.000	96	116697	25.0	26.6	
94 Isopropylbenzene	105	8.188	8.188	0.000	95	853489	25.0	25.6	
101 Bromobenzene	156	8.468	8.468	0.000	89	212599	25.0	24.6	
97 1,1,2,2-Tetrachloroethane	83	8.468	8.468	0.000	83	257546	25.0	25.0	
98 trans-1,4-Dichloro-2-buten	53	8.504	8.504	0.000	36	66788	25.0	25.1	
100 1,2,3-Trichloropropane	110	8.504	8.504	0.000	46	88611	25.0	24.5	
99 N-Propylbenzene	91	8.517	8.517	0.000	87	943503	25.0	25.4	
103 2-Chlorotoluene	126	8.608	8.608	0.000	97	208996	25.0	25.3	
102 1,3,5-Trimethylbenzene	105	8.656	8.656	0.000	61	731238	25.0	26.0	
105 4-Chlorotoluene	126	8.699	8.699	0.000	78	206393	25.0	24.8	
106 tert-Butylbenzene	134	8.924	8.924	0.000	85	165579	25.0	26.3	
107 1,2,4-Trimethylbenzene	105	8.967	8.967	0.000	61	738163	25.0	25.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.100	9.100	0.000	94	892524	25.0	25.9	
110 4-Isopropyltoluene	119	9.216	9.216	0.000	95	812172	25.0	26.1	
111 1,3-Dichlorobenzene	146	9.222	9.222	0.000	74	401883	25.0	24.6	
113 1,4-Dichlorobenzene	146	9.295	9.295	0.000	94	410053	25.0	24.4	
115 n-Butylbenzene	91	9.557	9.557	0.000	95	669372	25.0	25.9	
116 1,2-Dichlorobenzene	146	9.611	9.611	0.000	96	415515	25.0	24.9	
117 1,2-Dibromo-3-Chloropropan	75	10.268	10.268	0.000	84	69176	25.0	27.5	
119 1,2,4-Trichlorobenzene	180	10.931	10.931	0.000	90	321440	25.0	26.0	
120 Hexachlorobutadiene	225	11.046	11.046	0.000	94	108892	25.0	26.0	
121 Naphthalene	128	11.138	11.138	0.000	97	1106557	25.0	26.6	
122 1,2,3-Trichlorobenzene	180	11.326	11.326	0.000	93	304465	25.0	25.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added:	12.50	Units: uL	
GAS CORP mix_00130	Amount Added:	12.50	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00106	Amount Added:	1.25	Units: uL	Run Reagent

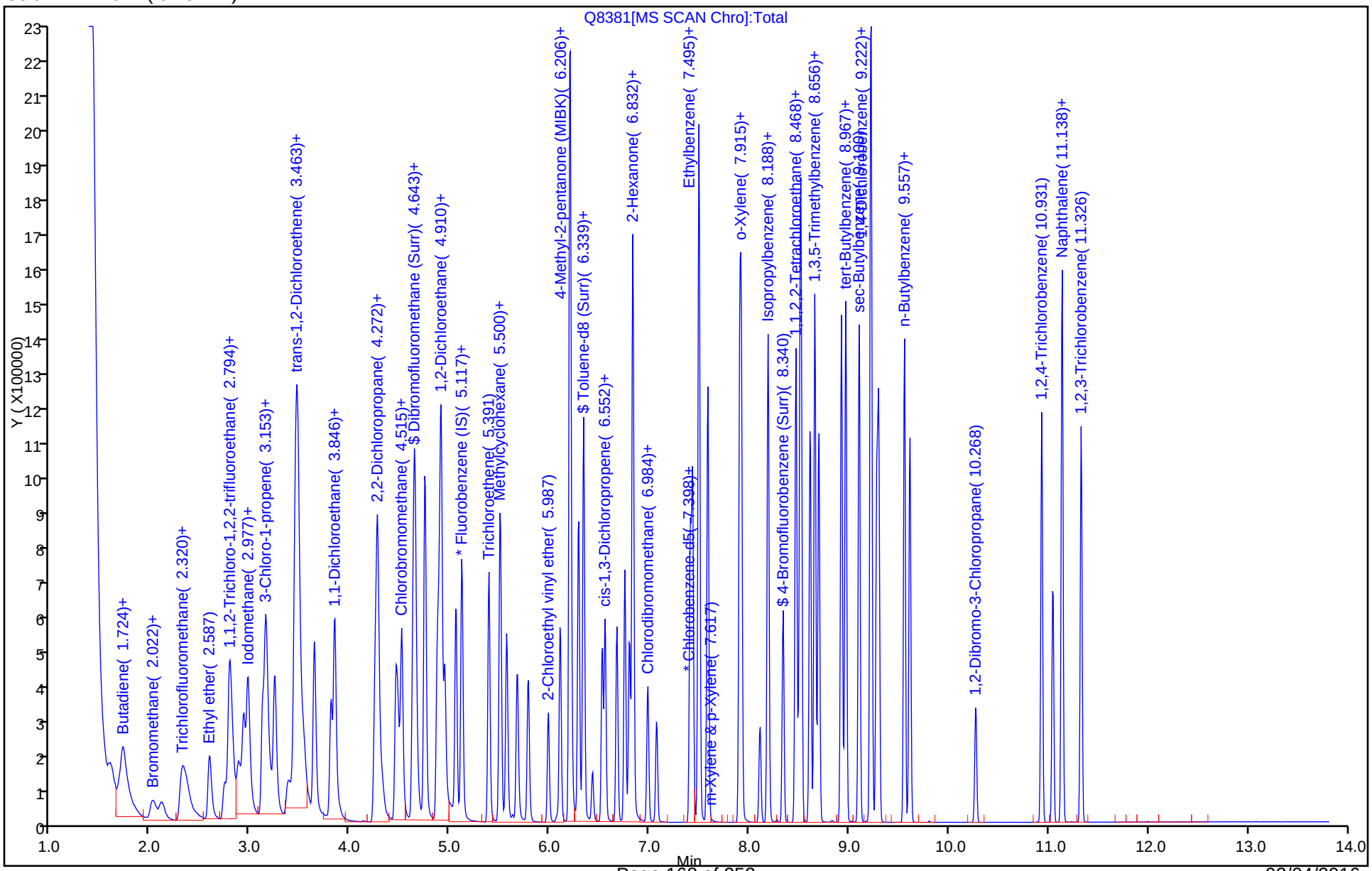
Report Date: 12-Jan-2016 14:33:05 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8381.D

Injection Date:	11-Jan-2016 18:03:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	ICIS 6			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	41
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



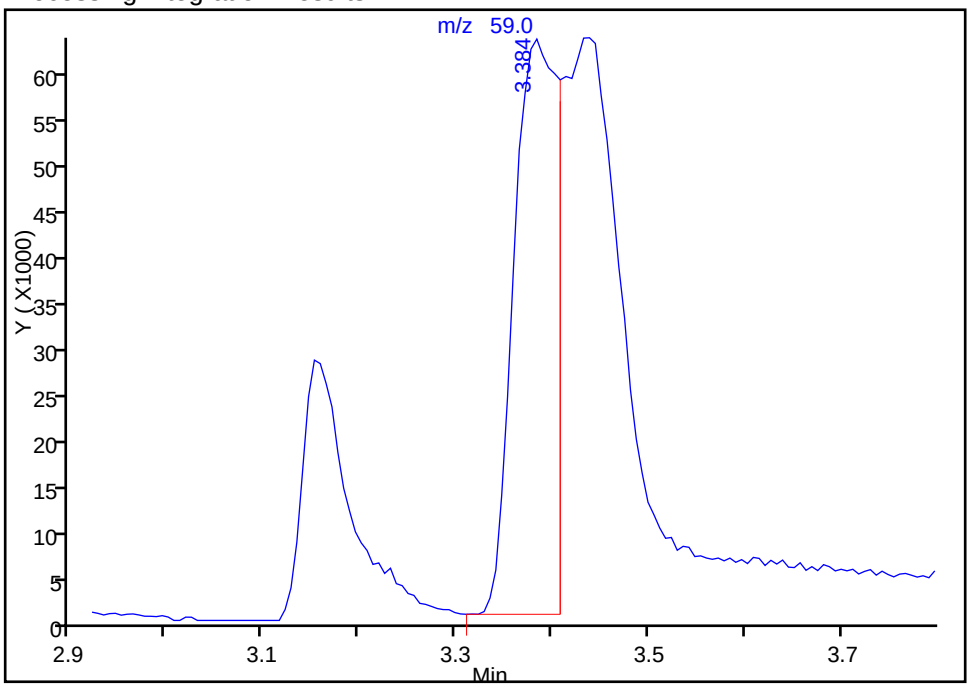
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8381.D
Injection Date: 11-Jan-2016 18:03:30 Instrument ID: HP5973Q
Lims ID: ICIS 6
Client ID:
Operator ID: LH ALS Bottle#: 41 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

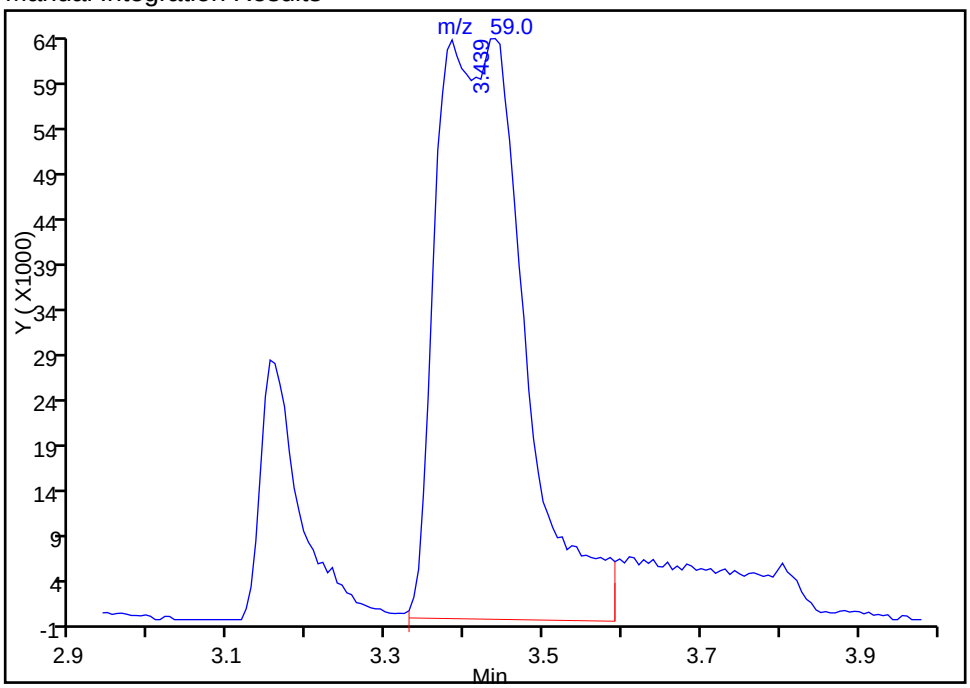
Processing Integration Results

RT: 3.38
Area: 201992
Amount: 111.9953
Amount Units: ug/L



Manual Integration Results

RT: 3.44
Area: 494122
Amount: 218.3048
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 14:06:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8382.D
Lims ID: IC 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 11-Jan-2016 18:26:30 ALS Bottle#: 42 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 7
Misc. Info.: 480-0049854-011
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:56 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: reiler Date: 12-Jan-2016 10:45:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.123	5.117	0.006	99	129496	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.410	0.000	83	238589	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.277	0.000	94	254595	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.643	0.000	93	161646	25.0	23.7	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.892	0.000	0	93857	25.0	23.6	
$ 5 Toluene-d8 (Surr)	98	6.291	6.291	0.000	92	549724	25.0	24.5	
$ 6 4-Bromofluorobenzene (Surr	174	8.340	8.340	0.000	91	168647	25.0	24.4	
10 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	346203	50.0	50.7	
12 Chloromethane	50	1.608	1.608	0.000	99	407881	50.0	43.9	
13 Vinyl chloride	62	1.705	1.706	-0.001	98	407299	50.0	48.1	
144 Butadiene	54	1.742	1.730	0.012	88	357011	50.0	47.6	
14 Bromomethane	94	2.034	2.022	0.012	91	239883	50.0	60.9	
15 Chloroethane	64	2.125	2.113	0.012	100	220015	50.0	59.7	
17 Trichlorofluoromethane	101	2.313	2.308	0.005	99	539874	50.0	50.5	
16 Dichlorofluoromethane	67	2.332	2.332	0.000	97	594237	50.0	49.6	
18 Ethyl ether	59	2.593	2.593	0.000	91	334552	50.0	45.1	
20 Acrolein	56	2.739	2.745	-0.006	99	461921	250.0	238.1	
22 1,1-Dichloroethene	96	2.794	2.788	0.006	98	375506	50.0	45.7	
21 1,1,2-Trichloro-1,2,2-trif	101	2.824	2.812	0.012	93	333357	50.0	44.3	
23 Acetone	43	2.885	2.885	0.000	100	923075	250.0	199.8	
25 Iodomethane	142	2.934	2.934	0.000	99	715581	50.0	45.9	
26 Carbon disulfide	76	2.976	2.977	-0.001	99	1229803	50.0	46.6	
28 3-Chloro-1-propene	41	3.128	3.122	0.006	92	586547	50.0	43.9	
27 Methyl acetate	43	3.159	3.159	0.000	98	2467365	250.0	230.5	
30 Methylene Chloride	84	3.250	3.244	0.006	93	413984	50.0	43.3	
31 2-Methyl-2-propanol	59	3.402	3.439	-0.037	97	886988	500.0	347.5	M
32 Methyl tert-butyl ether	73	3.445	3.445	0.000	94	1322958	50.0	45.6	
34 trans-1,2-Dichloroethene	96	3.457	3.457	0.000	99	414350	50.0	45.8	
33 Acrylonitrile	53	3.481	3.475	0.006	99	2492507	500.0	473.4	
35 Hexane	57	3.645	3.639	0.006	91	573476	50.0	46.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.809	3.810	-0.001	96	699156	50.0	45.0	
37 Vinyl acetate	43	3.846	3.846	0.000	97	1951689	100.0	92.8	
44 2,2-Dichloropropane	77	4.247	4.248	-0.001	87	490943	50.0	44.1	
45 cis-1,2-Dichloroethene	96	4.272	4.266	0.006	81	450972	50.0	45.5	
43 2-Butanone (MEK)	43	4.284	4.278	0.006	100	1595059	250.0	226.6	
48 Chlorobromomethane	128	4.460	4.460	0.000	93	242854	50.0	46.8	
49 Tetrahydrofuran	42	4.478	4.479	-0.001	88	467734	100.0	91.2	
50 Chloroform	83	4.515	4.515	0.000	93	677287	50.0	45.3	
51 1,1,1-Trichloroethane	97	4.630	4.631	-0.001	98	591249	50.0	47.3	
52 Cyclohexane	56	4.649	4.649	0.000	91	683107	50.0	45.3	
55 Carbon tetrachloride	117	4.746	4.746	0.000	97	549299	50.0	50.7	
54 1,1-Dichloropropene	75	4.752	4.752	0.000	97	551594	50.0	47.0	
53 Isobutyl alcohol	43	4.874	4.874	0.000	95	848954	1250.0	878.6	
57 Benzene	78	4.910	4.910	0.000	97	1491783	50.0	45.5	
58 1,2-Dichloroethane	62	4.947	4.947	0.000	97	557728	50.0	46.2	
59 n-Heptane	43	5.062	5.056	0.006	92	572216	50.0	53.2	
62 Trichloroethene	95	5.391	5.391	0.000	96	420436	50.0	46.6	
64 Methylcyclohexane	83	5.506	5.500	0.006	89	684451	50.0	47.2	
65 1,2-Dichloropropane	63	5.567	5.567	0.000	95	372122	50.0	47.6	
66 1,4-Dioxane	88	5.670	5.671	-0.001	95	114875	1000.0	833.2	
67 Dibromomethane	93	5.676	5.671	0.005	96	273366	50.0	47.9	
68 Dichlorobromomethane	83	5.786	5.786	0.000	99	507540	50.0	50.2	
69 2-Chloroethyl vinyl ether	63	5.987	5.987	0.000	93	272039	50.0	53.1	
77 trans-1,3-Dichloropropene	75	6.108	6.102	0.006	94	614015	50.0	51.8	
73 4-Methyl-2-pentanone (MIBK	43	6.205	6.200	0.005	94	2810072	250.0	225.6	
74 Toluene	92	6.339	6.339	0.000	99	918365	50.0	47.3	
72 cis-1,3-Dichloropropene	75	6.528	6.528	0.000	97	540072	50.0	53.0	
75 Ethyl methacrylate	69	6.558	6.552	0.006	89	539870	50.0	51.3	
79 1,1,2-Trichloroethane	83	6.674	6.674	0.000	91	285217	50.0	49.1	
81 Tetrachloroethene	166	6.753	6.753	0.000	97	401345	50.0	47.4	
82 1,3-Dichloropropane	76	6.801	6.802	-0.001	88	589219	50.0	49.9	
80 2-Hexanone	43	6.832	6.832	0.000	95	1973761	250.0	224.0	
83 Chlorodibromomethane	129	6.984	6.984	0.000	90	428843	50.0	54.4	
84 Ethylene Dibromide	107	7.069	7.069	0.000	98	391710	50.0	50.5	
87 Chlorobenzene	112	7.434	7.434	0.000	96	1034383	50.0	47.9	
88 Ethylbenzene	91	7.495	7.495	0.000	98	1645318	50.0	46.9	
89 1,1,1,2-Tetrachloroethane	131	7.495	7.495	0.000	46	408549	50.0	50.5	
90 m-Xylene & p-Xylene	106	7.586	7.586	0.000	0	697389	50.0	47.8	
91 o-Xylene	106	7.902	7.902	0.000	96	697659	50.0	47.1	
92 Styrene	104	7.920	7.921	-0.001	95	1092267	50.0	48.5	
95 Bromoform	173	8.109	8.109	0.000	97	276585	50.0	56.9	
94 Isopropylbenzene	105	8.188	8.188	0.000	95	1773995	50.0	48.6	
101 Bromobenzene	156	8.468	8.468	0.000	94	454157	50.0	48.0	
97 1,1,2,2-Tetrachloroethane	83	8.468	8.468	0.000	94	558227	50.0	49.5	
98 trans-1,4-Dichloro-2-buten	53	8.510	8.504	0.006	74	159223	50.0	54.5	
100 1,2,3-Trichloropropane	110	8.510	8.504	0.006	86	193103	50.0	48.7	
99 N-Propylbenzene	91	8.522	8.517	0.005	98	1950654	50.0	48.0	
103 2-Chlorotoluene	126	8.614	8.608	0.006	97	445468	50.0	49.2	
102 1,3,5-Trimethylbenzene	105	8.656	8.656	0.000	95	1513226	50.0	49.0	
105 4-Chlorotoluene	126	8.699	8.699	0.000	96	443936	50.0	48.6	
106 tert-Butylbenzene	134	8.924	8.924	0.000	92	351629	50.0	50.9	
107 1,2,4-Trimethylbenzene	105	8.966	8.967	-0.001	96	1538297	50.0	48.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.100	9.100	0.000	94	1857374	50.0	49.2	
110 4-Isopropyltoluene	119	9.216	9.216	0.000	97	1660394	50.0	48.7	
111 1,3-Dichlorobenzene	146	9.228	9.222	0.006	98	839681	50.0	47.0	
113 1,4-Dichlorobenzene	146	9.301	9.295	0.006	95	873513	50.0	47.4	
115 n-Butylbenzene	91	9.556	9.557	-0.001	97	1379137	50.0	48.6	
116 1,2-Dichlorobenzene	146	9.611	9.611	0.000	98	859498	50.0	46.9	
117 1,2-Dibromo-3-Chloropropan	75	10.268	10.268	0.000	90	152027	50.0	55.0	
119 1,2,4-Trichlorobenzene	180	10.931	10.931	0.000	94	646208	50.0	47.7	
120 Hexachlorobutadiene	225	11.046	11.046	0.000	98	224684	50.0	48.9	
121 Naphthalene	128	11.137	11.138	-0.001	97	2194372	50.0	48.2	
122 1,2,3-Trichlorobenzene	180	11.332	11.326	0.006	96	615215	50.0	47.3	
S 123 Total BTEX	1				0			234.6	
S 124 Xylenes, Total	1				0			94.8	
S 125 1,2-Dichloroethene, Total	1				0			91.3	
S 126 1,3-Dichloropropene, Total	1				0			104.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added: 25.00	Units: uL		
GAS CORP mix_00130	Amount Added: 25.00	Units: uL		
Q_8260_IS_00114	Amount Added: 1.25	Units: uL	Run Reagent	
Q_8260_SURR_00106	Amount Added: 1.25	Units: uL	Run Reagent	

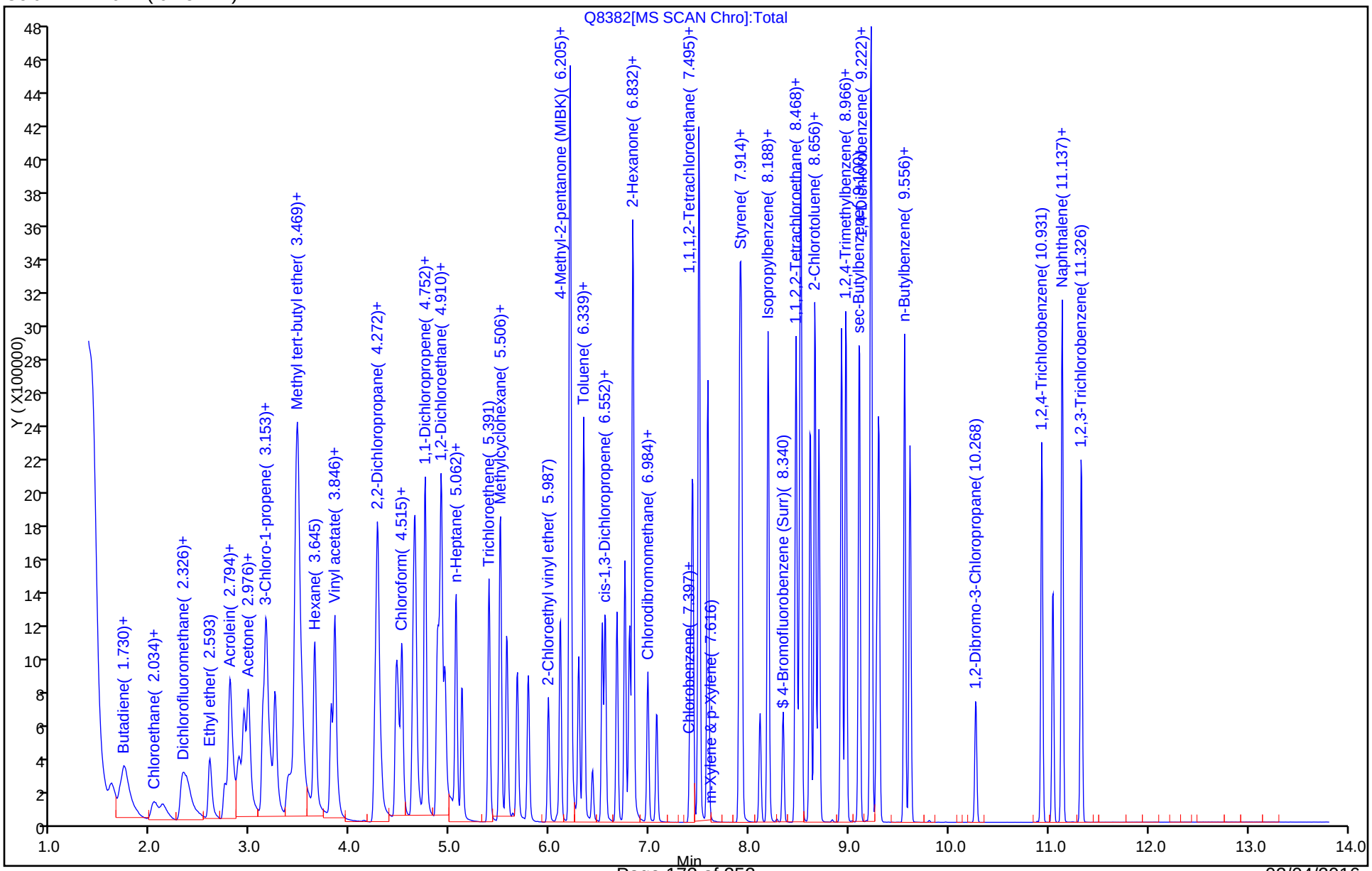
Report Date: 12-Jan-2016 14:25:56 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8382.D

Injection Date:	11-Jan-2016 18:26:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	IC 7			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	42
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



Manual Integration/User Assign Peak Report

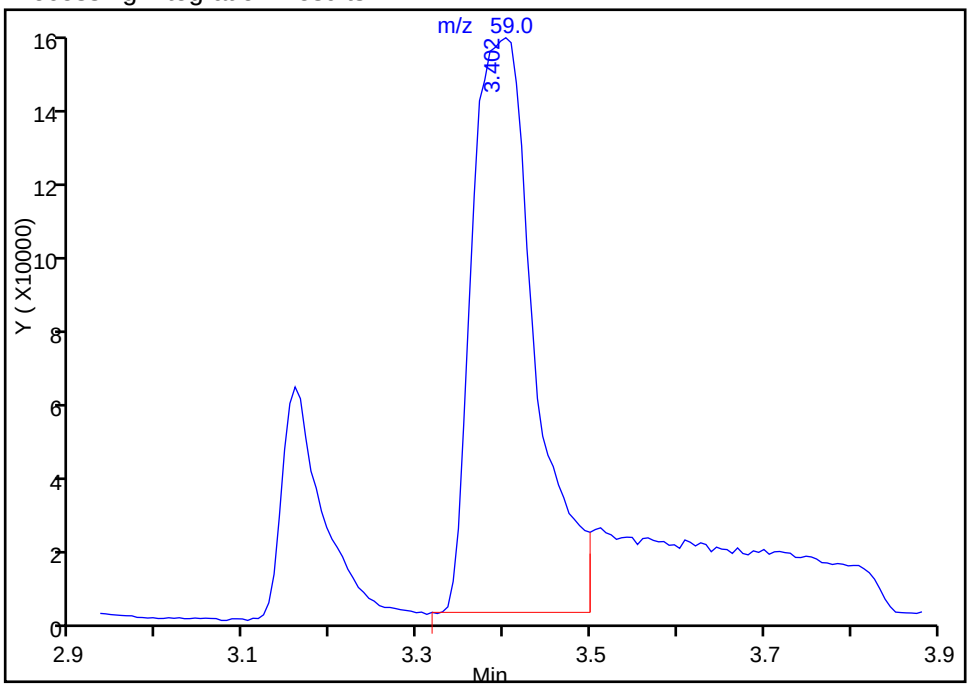
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8382.D
Injection Date: 11-Jan-2016 18:26:30 Instrument ID: HP5973Q
Lims ID: IC 7
Client ID:
Operator ID: LH ALS Bottle#: 42 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

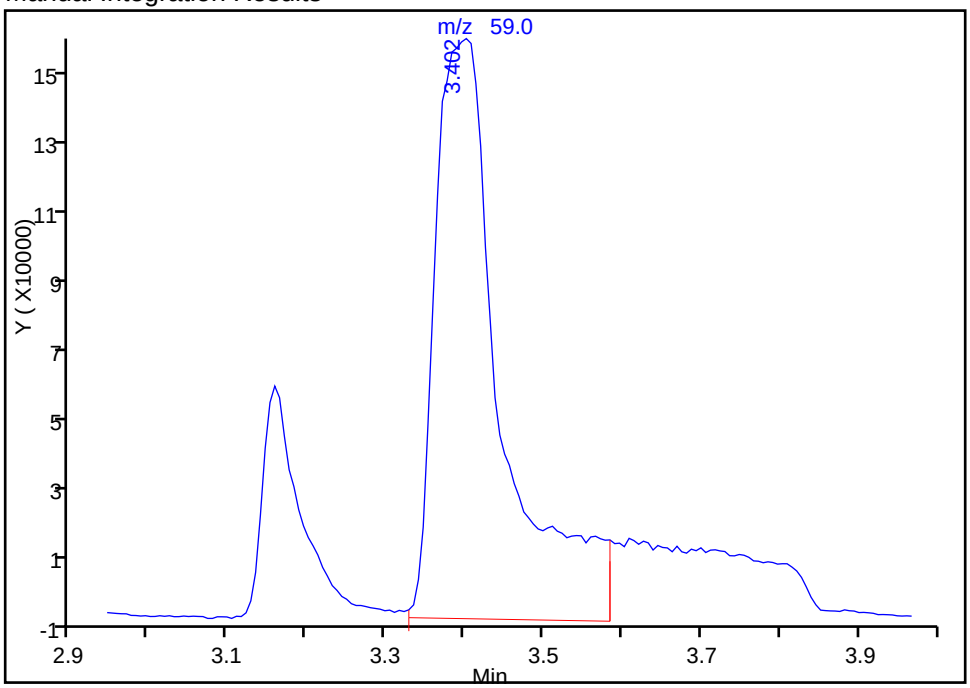
Processing Integration Results

RT: 3.40
Area: 750390
Amount: 362.8258
Amount Units: ug/L



Manual Integration Results

RT: 3.40
Area: 886988
Amount: 347.5230
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 14:07:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8383.D
Lims ID: IC 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 11-Jan-2016 18:50:30 ALS Bottle#: 43 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 8
Misc. Info.: 480-0049854-012
Operator ID: LH Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:57 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: reiler Date: 12-Jan-2016 11:05:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.119	5.117	0.002	99	136878	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.411	7.410	0.001	83	257460	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.278	9.277	0.001	93	266312	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.644	4.643	0.001	93	163699	25.0	22.7	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.894	4.892	0.002	0	93102	25.0	22.2	
$ 5 Toluene-d8 (Surr)	98	6.292	6.291	0.001	92	591513	25.0	24.4	
$ 6 4-Bromofluorobenzene (Surr	174	8.342	8.340	0.002	91	181343	25.0	24.3	
10 Dichlorodifluoromethane	85	1.433	1.432	0.001	99	697024	100.0	96.5	
12 Chloromethane	50	1.622	1.608	0.014	99	776434	100.0	79.0	M
13 Vinyl chloride	62	1.707	1.706	0.001	98	787118	100.0	88.0	
144 Butadiene	54	1.744	1.730	0.014	87	672566	100.0	84.9	
14 Bromomethane	94	2.042	2.022	0.020	91	402794	100.0	96.7	
15 Chloroethane	64	2.139	2.113	0.026	100	354342	100.0	91.0	
17 Trichlorofluoromethane	101	2.309	2.308	0.001	98	1039569	100.0	92.0	
16 Dichlorofluoromethane	67	2.340	2.332	0.008	97	1196838	100.0	94.5	
18 Ethyl ether	59	2.595	2.593	0.002	90	678470	100.0	86.6	
20 Acrolein	56	2.747	2.745	0.002	99	935860	500.0	456.3	
22 1,1-Dichloroethene	96	2.796	2.788	0.008	99	737400	100.0	85.0	M
21 1,1,2-Trichloro-1,2,2-trif	101	2.832	2.812	0.020	92	612441	100.0	77.0	
23 Acetone	43	2.893	2.885	0.008	100	2029627	500.0	415.6	
25 Iodomethane	142	2.936	2.934	0.002	99	1401071	100.0	85.1	
26 Carbon disulfide	76	2.978	2.977	0.001	99	2308570	100.0	82.7	
28 3-Chloro-1-propene	41	3.130	3.122	0.008	92	1080683	100.0	76.5	
27 Methyl acetate	43	3.161	3.159	0.001	97	4569841	500.0	404.0	
30 Methylene Chloride	84	3.246	3.244	0.002	92	813042	100.0	80.5	
31 2-Methyl-2-propanol	59	3.392	3.439	-0.047	100	2428953	1000.0	900.3	M
32 Methyl tert-butyl ether	73	3.446	3.445	0.001	94	2515922	100.0	82.0	
34 trans-1,2-Dichloroethene	96	3.459	3.457	0.001	98	771100	100.0	80.6	
33 Acrylonitrile	53	3.483	3.475	0.008	98	4560123	1000.0	819.3	
35 Hexane	57	3.647	3.639	0.008	91	1081421	100.0	83.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.811	3.810	0.001	96	1401849	100.0	85.4	
37 Vinyl acetate	43	3.848	3.846	0.002	97	3705149	200.0	166.6	
44 2,2-Dichloropropane	77	4.249	4.248	0.001	87	898003	100.0	76.3	
45 cis-1,2-Dichloroethene	96	4.267	4.266	0.001	79	878152	100.0	83.8	
43 2-Butanone (MEK)	43	4.286	4.278	0.008	99	3196810	500.0	429.7	
48 Chlorobromomethane	128	4.462	4.460	0.002	92	480953	100.0	87.7	
49 Tetrahydrofuran	42	4.480	4.479	0.001	88	949291	200.0	175.1	
50 Chloroform	83	4.517	4.515	0.002	93	1331996	100.0	84.2	
51 1,1,1-Trichloroethane	97	4.632	4.631	0.001	98	1141127	100.0	86.3	
52 Cyclohexane	56	4.650	4.649	0.001	90	1237910	100.0	77.7	
55 Carbon tetrachloride	117	4.748	4.746	0.002	97	1078436	100.0	94.1	
54 1,1-Dichloropropene	75	4.754	4.752	0.002	97	1088672	100.0	87.7	
53 Isobutyl alcohol	43	4.882	4.874	0.008	94	2287637	2500.0	2239.9	
57 Benzene	78	4.912	4.910	0.002	97	2870992	100.0	82.8	
58 1,2-Dichloroethane	62	4.948	4.947	0.001	97	1109065	100.0	86.9	
59 n-Heptane	43	5.058	5.056	0.002	91	975600	100.0	85.8	
62 Trichloroethene	95	5.392	5.391	0.001	96	849956	100.0	89.1	
64 Methylcyclohexane	83	5.502	5.500	0.002	89	1325594	100.0	86.5	
65 1,2-Dichloropropane	63	5.569	5.567	0.002	96	764722	100.0	92.5	
66 1,4-Dioxane	88	5.672	5.671	0.001	94	250181	2000.0	1681.5	
67 Dibromomethane	93	5.672	5.671	0.001	95	556467	100.0	92.2	
68 Dichlorobromomethane	83	5.788	5.786	0.002	99	1061820	100.0	99.4	
69 2-Chloroethyl vinyl ether	63	5.988	5.987	0.001	93	599962	100.0	110.7	
77 trans-1,3-Dichloropropene	75	6.104	6.102	0.002	94	1311120	100.0	102.5	
73 4-Methyl-2-pentanone (MIBK	43	6.207	6.200	0.007	89	4638328	500.0	345.1	
74 Toluene	92	6.341	6.339	0.002	98	1865893	100.0	89.1	
72 cis-1,3-Dichloropropene	75	6.530	6.528	0.002	98	1175767	100.0	109.3	
75 Ethyl methacrylate	69	6.560	6.552	0.008	88	1111358	100.0	97.9	
79 1,1,2-Trichloroethane	83	6.676	6.674	0.002	91	597054	100.0	95.3	
81 Tetrachloroethene	166	6.755	6.753	0.002	97	833798	100.0	91.3	
82 1,3-Dichloropropane	76	6.797	6.802	-0.005	88	1233020	100.0	96.8	
80 2-Hexanone	43	6.834	6.832	0.002	92	3471747	500.0	365.2	
83 Chlorodibromomethane	129	6.986	6.984	0.002	90	919677	100.0	108.0	
84 Ethylene Dibromide	107	7.071	7.069	0.002	99	840193	100.0	100.3	
87 Chlorobenzene	112	7.430	7.434	-0.004	95	2107490	100.0	90.4	
88 Ethylbenzene	91	7.497	7.495	0.001	98	3075886	100.0	81.2	
89 1,1,1,2-Tetrachloroethane	131	7.497	7.495	0.001	56	818219	100.0	93.7	
90 m-Xylene & p-Xylene	106	7.588	7.586	0.002	0	1409233	100.0	89.4	
91 o-Xylene	106	7.904	7.902	0.002	95	1377281	100.0	86.1	
92 Styrene	104	7.922	7.921	0.001	94	2146754	100.0	88.3	
95 Bromoform	173	8.111	8.109	0.002	97	598241	100.0	114.0	
94 Isopropylbenzene	105	8.190	8.188	0.002	96	3362022	100.0	88.0	
101 Bromobenzene	156	8.470	8.468	0.002	93	926548	100.0	93.6	
97 1,1,2,2-Tetrachloroethane	83	8.470	8.468	0.002	95	1099429	100.0	93.2	
98 trans-1,4-Dichloro-2-buten	53	8.512	8.504	0.008	77	323715	100.0	105.9	
100 1,2,3-Trichloropropane	110	8.506	8.504	0.002	85	381052	100.0	91.8	
99 N-Propylbenzene	91	8.524	8.517	0.007	97	3542243	100.0	83.3	
103 2-Chlorotoluene	126	8.615	8.608	0.007	98	895544	100.0	94.6	
102 1,3,5-Trimethylbenzene	105	8.658	8.656	0.002	96	2858995	100.0	88.6	
105 4-Chlorotoluene	126	8.701	8.699	0.002	96	899942	100.0	94.2	
106 tert-Butylbenzene	134	8.926	8.924	0.002	92	693355	100.0	96.0	
107 1,2,4-Trimethylbenzene	105	8.968	8.967	0.001	96	2911986	100.0	87.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.102	9.100	0.002	95	3408636	100.0	86.4	
110 4-Isopropyltoluene	119	9.218	9.216	0.002	96	3011218	100.0	84.4	
111 1,3-Dichlorobenzene	146	9.230	9.222	0.008	98	1608953	100.0	86.1	
113 1,4-Dichlorobenzene	146	9.303	9.295	0.008	94	1717054	100.0	89.0	
115 n-Butylbenzene	91	9.558	9.557	0.001	96	2580321	100.0	86.9	
116 1,2-Dichlorobenzene	146	9.613	9.611	0.002	97	1701652	100.0	88.8	
117 1,2-Dibromo-3-Chloropropan	75	10.270	10.268	0.002	91	317178	100.0	109.8	
119 1,2,4-Trichlorobenzene	180	10.932	10.931	0.001	95	1267241	100.0	89.4	
120 Hexachlorobutadiene	225	11.048	11.046	0.002	97	437135	100.0	90.9	
121 Naphthalene	128	11.139	11.138	0.001	98	3926183	100.0	82.4	
122 1,2,3-Trichlorobenzene	180	11.328	11.326	0.002	96	1216472	100.0	89.5	
S 123 Total BTEX	1				0			428.7	
S 124 Xylenes, Total	1				0			175.6	
S 125 1,2-Dichloroethene, Total	1				0			164.4	
S 126 1,3-Dichloropropene, Total	1				0			211.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added:	50.00	Units: uL	
GAS CORP mix_00130	Amount Added:	50.00	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00106	Amount Added:	1.25	Units: uL	Run Reagent

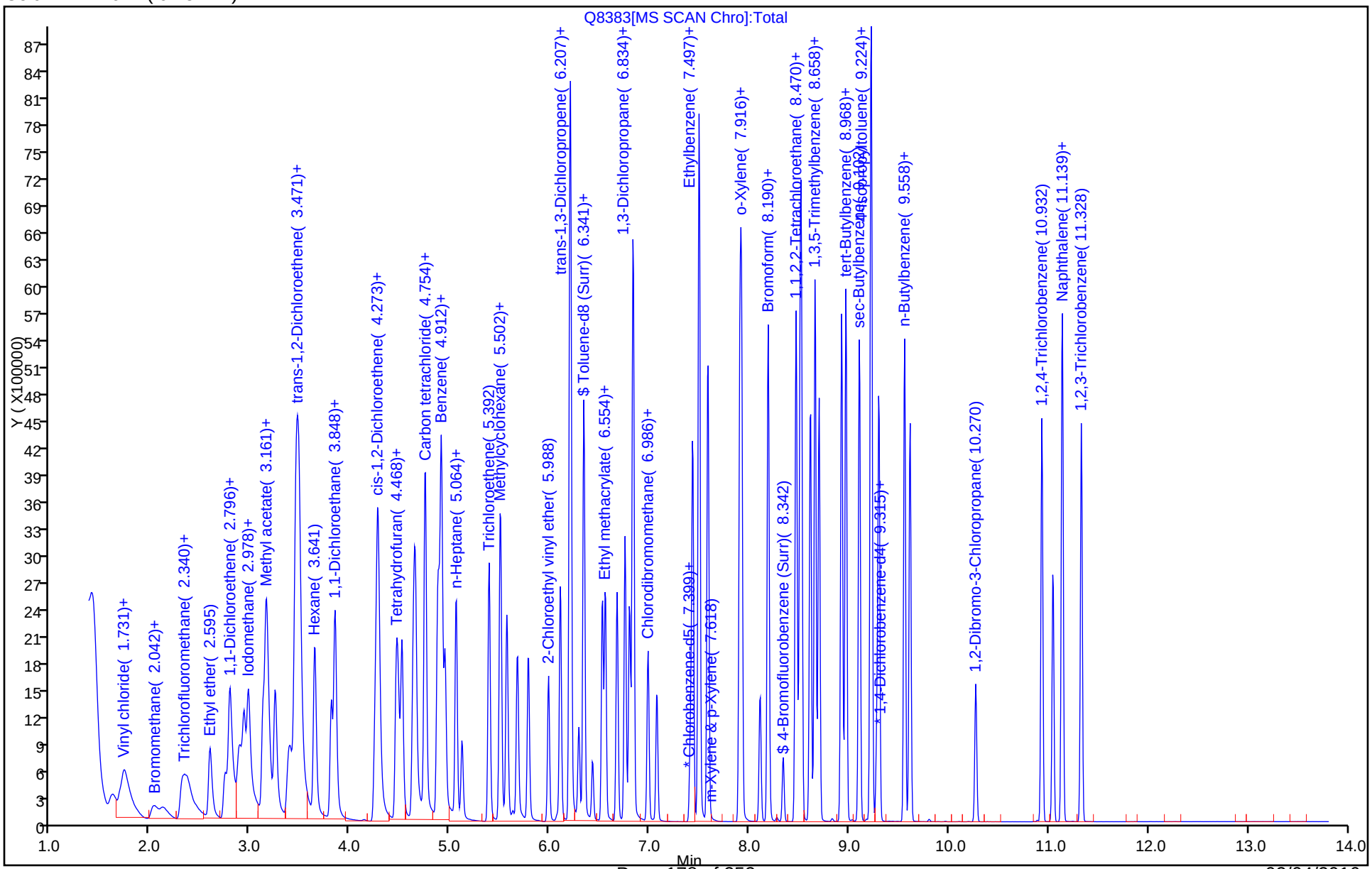
Report Date: 12-Jan-2016 14:25:58 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8383.D

Injection Date:	11-Jan-2016 18:50:30	Instrument ID:	HP5973Q	Operator ID:	LH
Lims ID:	IC 8			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	43
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



Manual Integration/User Assign Peak Report

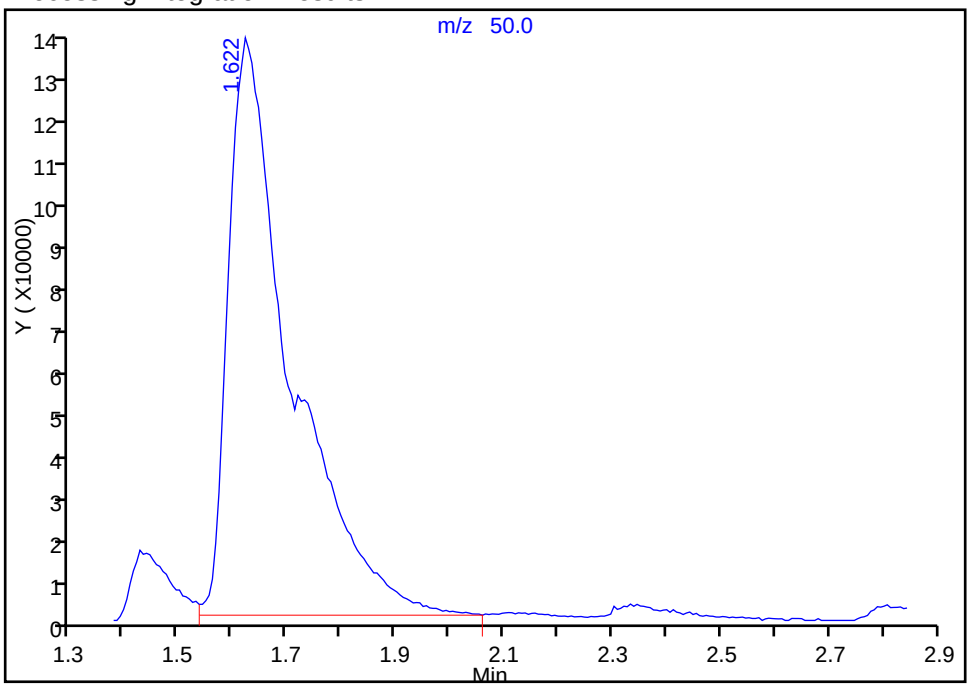
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8383.D
Injection Date: 11-Jan-2016 18:50:30 Instrument ID: HP5973Q
Lims ID: IC 8
Client ID:
Operator ID: LH ALS Bottle#: 43 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

12 Chloromethane, CAS: 74-87-3

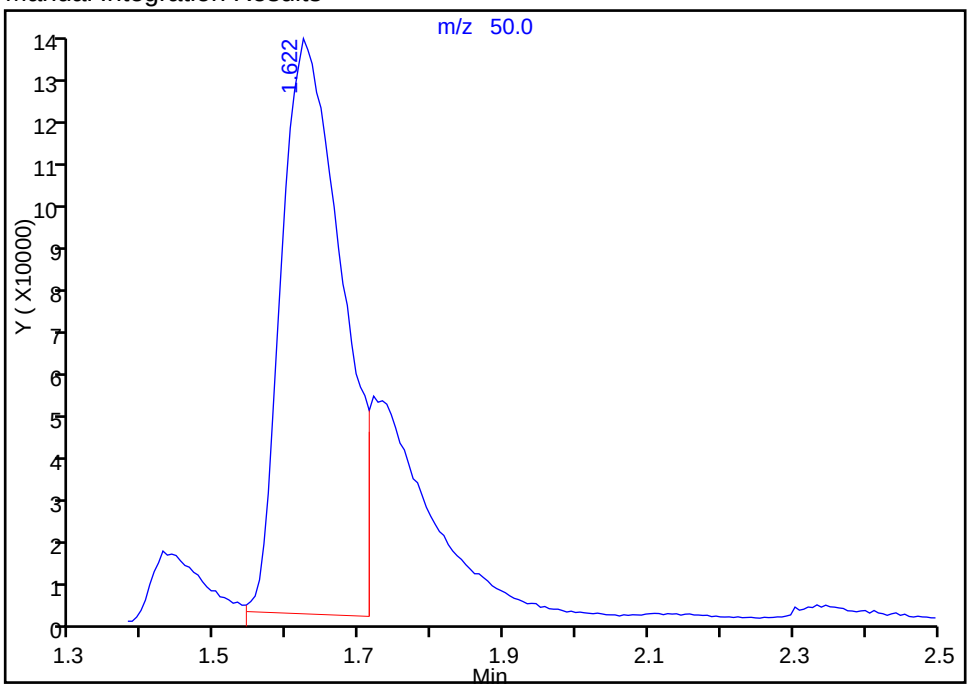
Processing Integration Results

RT: 1.62
Area: 1066661
Amount: 104.6541
Amount Units: ug/L



Manual Integration Results

RT: 1.62
Area: 776434
Amount: 78.990470
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:12:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

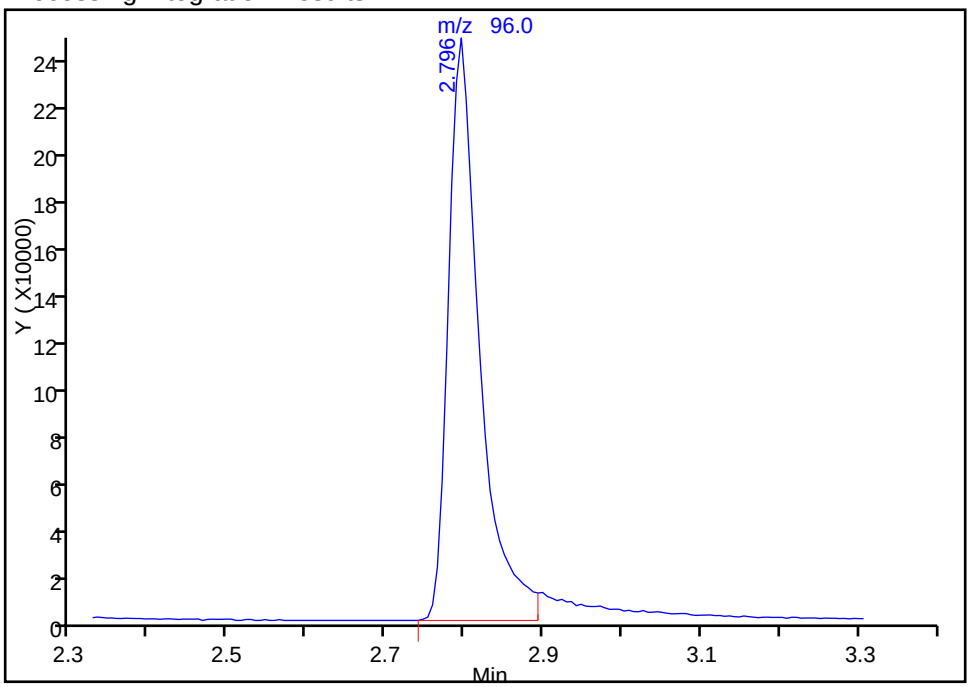
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8383.D
Injection Date: 11-Jan-2016 18:50:30 Instrument ID: HP5973Q
Lims ID: IC 8
Client ID:
Operator ID: LH ALS Bottle#: 43 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4

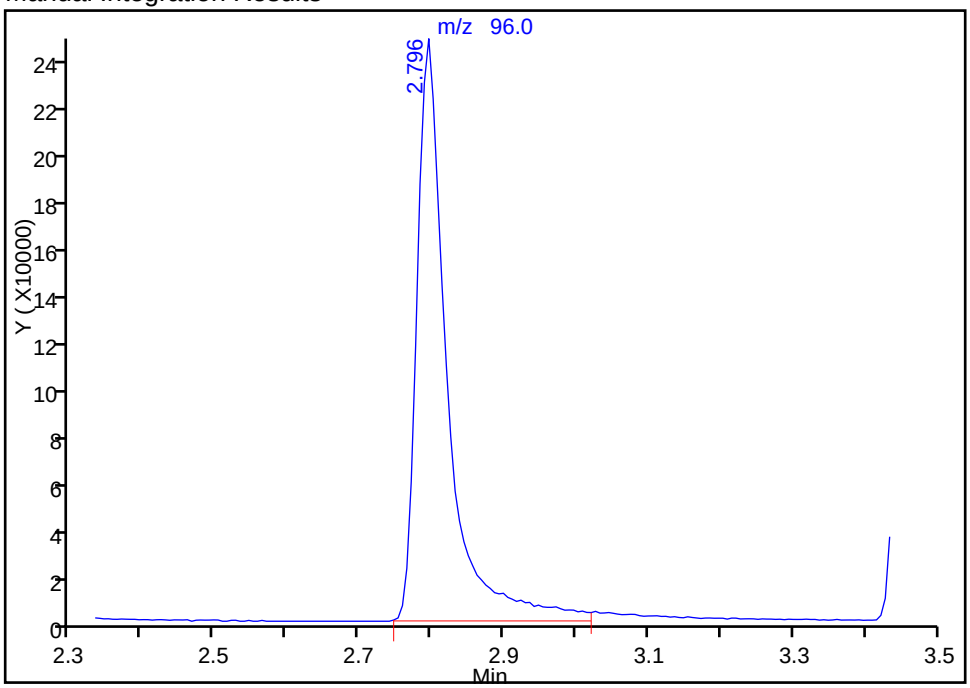
Processing Integration Results

RT: 2.80
Area: 689345
Amount: 84.362560
Amount Units: ug/L



Manual Integration Results

RT: 2.80
Area: 737400
Amount: 84.957532
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 13:14:16
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

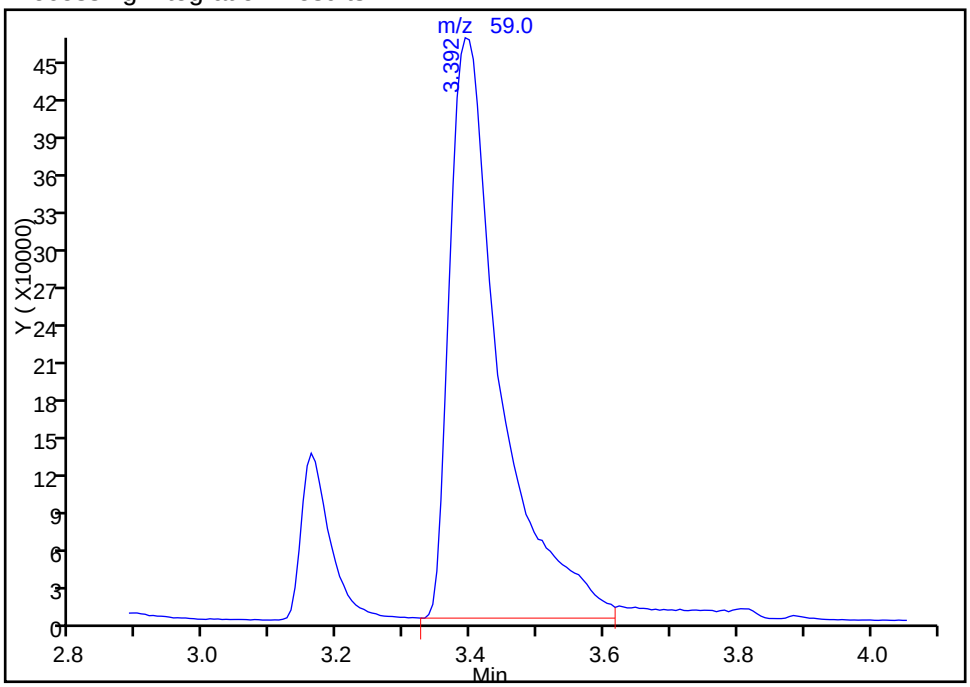
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8383.D
Injection Date: 11-Jan-2016 18:50:30 Instrument ID: HP5973Q
Lims ID: IC 8
Client ID:
Operator ID: LH ALS Bottle#: 43 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

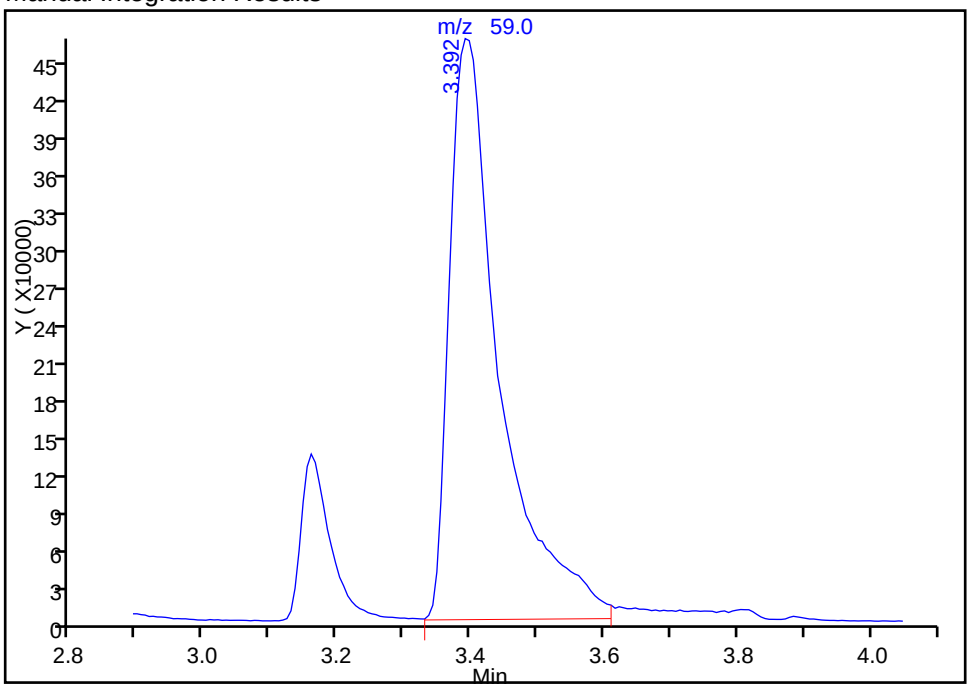
Processing Integration Results

RT: 3.39
Area: 2427094
Amount: 1115.4182
Amount Units: ug/L



Manual Integration Results

RT: 3.39
Area: 2428953
Amount: 900.3423
Amount Units: ug/L



Reviewer: HillL, 12-Jan-2016 14:07:51
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab Sample ID: CCVIS 480-285459/3 Calibration Date: 01/29/2016 10:02

Instrument ID: HP5973Q Calib Start Date: 01/11/2016 16:06

GC Column: ZB-624 (60) ID: 0.25(mm) Calib End Date: 01/11/2016 18:50

Lab File ID: Q8804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.319	1.166	0.1000	22.1	25.0	-11.6	50.0
Chloromethane	Ave	1.795	1.934	0.1000	26.9	25.0	7.7	20.0
Vinyl chloride	Ave	1.635	1.429	0.1000	21.9	25.0	-12.6	20.0
Butadiene	Ave	1.447	1.114		19.3	25.0	-23.0*	20.0
Bromomethane	Ave	0.7611	0.9740	0.1000	32.0	25.0	28.0	50.0
Chloroethane	Ave	0.7110	0.8254	0.1000	29.0	25.0	16.1	50.0
Trichlorofluoromethane	Ave	2.063	2.083	0.1000	25.2	25.0	1.0	20.0
Dichlorofluoromethane	Ave	2.313	2.205		23.8	25.0	-4.7	20.0
Ethyl ether	Ave	1.431	1.324		23.1	25.0	-7.5	20.0
Acrolein	Ave	0.3746	0.1616		53.9	125	-56.9*	50.0
1,1-Dichloroethene	Ave	1.585	1.222	0.1000	19.3	25.0	-22.9*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.452	0.8899	0.1000	15.3	25.0	-38.7*	20.0
Acetone	Ave	0.8920	0.8637	0.1000	121	125	-3.2	50.0
Iodomethane	Ave	3.007	2.492		20.7	25.0	-17.1	20.0
Carbon disulfide	Ave	5.098	3.775	0.1000	18.5	25.0	-25.9*	20.0
Allyl chloride	Ave	2.581	2.008		19.4	25.0	-22.2*	20.0
Methyl acetate	Ave	2.066	1.764	0.1000	107	125	-14.6	50.0
Methylene Chloride	Ave	1.845	1.476	0.1000	20.0	25.0	-20.0	20.0
2-Methyl-2-propanol	Ave	0.4927	0.4357		221	250	-11.6	50.0
Methyl tert-butyl ether	Ave	5.604	4.868	0.1000	21.7	25.0	-13.1	20.0
trans-1,2-Dichloroethene	Ave	1.748	1.457	0.1000	20.8	25.0	-16.6	20.0
Acrylonitrile	Ave	1.017	0.9042		222	250	-11.1	20.0
Hexane	Ave	2.362	1.539		16.3	25.0	-34.8*	20.0
1,1-Dichloroethane	Ave	2.999	2.514	0.2000	21.0	25.0	-16.2	20.0
Vinyl acetate	Ave	4.061	3.520		43.3	50.0	-13.3	20.0
2,2-Dichloropropane	Ave	2.150	1.645		19.1	25.0	-23.5*	20.0
cis-1,2-Dichloroethene	Ave	1.914	1.639	0.1000	21.4	25.0	-14.4	20.0
2-Butanone (MEK)	Ave	1.359	1.286	0.1000	118	125	-5.4	20.0
Chlorobromomethane	Ave	1.002	0.8802		22.0	25.0	-12.1	20.0
Tetrahydrofuran	Ave	0.9902	0.8818		44.5	50.0	-10.9	20.0
Chloroform	Ave	2.888	2.585	0.2000	22.4	25.0	-10.5	20.0
1,1,1-Trichloroethane	Ave	2.415	2.025	0.1000	21.0	25.0	-16.1	20.0
Cyclohexane	Ave	2.910	1.957	0.1000	16.8	25.0	-32.7*	20.0
1,1-Dichloropropene	Ave	2.267	1.920		21.2	25.0	-15.3	20.0
Carbon tetrachloride	Ave	2.093	1.748	0.1000	20.9	25.0	-16.5	20.0
Isobutyl alcohol	Ave	0.1865	0.1561		523	625	-16.3	50.0
Benzene	Ave	6.331	5.463	0.5000	21.6	25.0	-13.7	20.0
1,2-Dichloroethane	Ave	2.331	2.196	0.1000	23.6	25.0	-5.8	20.0
n-Heptane	Ave	2.077	1.490		17.9	25.0	-28.2*	20.0
Trichloroethene	Ave	1.742	1.547	0.2000	22.2	25.0	-11.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab Sample ID: CCVIS 480-285459/3 Calibration Date: 01/29/2016 10:02

Instrument ID: HP5973Q Calib Start Date: 01/11/2016 16:06

GC Column: ZB-624 (60) ID: 0.25(mm) Calib End Date: 01/11/2016 18:50

Lab File ID: Q8804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.798	2.106	0.1000	18.8	25.0	-24.8*	20.0
1,2-Dichloropropane	Ave	1.509	1.333	0.1000	22.1	25.0	-11.7	20.0
1,4-Dioxane	Ave	0.0144	0.0120		415	500	-16.9	50.0
Dibromomethane	Ave	1.103	1.038	0.1000	23.5	25.0	-5.8	20.0
Bromodichloromethane	Ave	1.951	1.902	0.2000	24.4	25.0	-2.5	20.0
2-Chloroethyl vinyl ether	Ave	0.9896	1.058		26.7	25.0	6.9	20.0
trans-1,3-Dichloropropene	Ave	1.242	1.158	0.1000	23.3	25.0	-6.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.305	1.169	0.1000	112	125	-10.4	20.0
Toluene	Ave	2.033	1.764	0.4000	21.7	25.0	-13.3	20.0
cis-1,3-Dichloropropene	Ave	1.965	2.112	0.2000	26.9	25.0	7.5	20.0
Ethyl methacrylate	Ave	1.102	1.074		24.3	25.0	-2.6	20.0
1,1,2-Trichloroethane	Ave	0.6086	0.5572	0.1000	22.9	25.0	-8.4	20.0
Tetrachloroethene	Ave	0.8866	0.7643	0.2000	21.6	25.0	-13.8	20.0
1,3-Dichloropropane	Ave	1.237	1.161		23.5	25.0	-6.1	20.0
2-Hexanone	Ave	0.9232	0.8874	0.1000	120	125	-3.9	20.0
Dibromochloromethane	Ave	0.8266	0.8088	0.1000	24.5	25.0	-2.2	20.0
1,2-Dibromoethane	Ave	0.8131	0.8047		24.7	25.0	-1.0	20.0
Chlorobenzene	Ave	2.264	2.010	0.5000	22.2	25.0	-11.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8484	0.7371		21.7	25.0	-13.1	20.0
Ethylbenzene	Ave	3.676	3.246	0.1000	22.1	25.0	-11.7	20.0
m,p-Xylene	Ave	1.530	1.320	0.1000	21.6	25.0	-13.8	20.0
o-Xylene	Ave	1.552	1.331	0.3000	21.4	25.0	-14.3	20.0
Styrene	Ave	2.361	2.176	0.3000	23.0	25.0	-7.8	20.0
Bromoform	Ave	0.5094	0.5010	0.1000	24.6	25.0	-1.7	50.0
Isopropylbenzene	Ave	3.587	3.163	0.1000	22.0	25.0	-11.8	20.0
1,1,2,2-Tetrachloroethane	Ave	1.107	1.006	0.3000	22.7	25.0	-9.2	20.0
Bromobenzene	Ave	0.9295	0.8516		22.9	25.0	-8.4	20.0
1,2,3-Trichloropropane	Ave	0.3896	0.3655		23.5	25.0	-6.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2869	0.2731		23.8	25.0	-4.8	50.0
N-Propylbenzene	Ave	3.993	3.543		22.2	25.0	-11.3	20.0
2-Chlorotoluene	Ave	0.8883	0.7913		22.3	25.0	-10.9	20.0
1,3,5-Trimethylbenzene	Ave	3.031	2.729		22.5	25.0	-10.0	20.0
4-Chlorotoluene	Ave	0.8970	0.8107		22.6	25.0	-9.6	20.0
tert-Butylbenzene	Ave	0.6778	0.5956		22.0	25.0	-12.1	20.0
1,2,4-Trimethylbenzene	Ave	3.124	2.804		22.4	25.0	-10.2	20.0
sec-Butylbenzene	Ave	3.705	3.218		21.7	25.0	-13.1	20.0
4-Isopropyltoluene	Ave	3.351	2.931		21.9	25.0	-12.5	20.0
1,3-Dichlorobenzene	Ave	1.755	1.554	0.6000	22.1	25.0	-11.4	20.0
1,4-Dichlorobenzene	Ave	1.810	1.596	0.5000	22.0	25.0	-11.8	20.0
n-Butylbenzene	Ave	2.786	2.366		21.2	25.0	-15.1	20.0
1,2-Dichlorobenzene	Ave	1.798	1.579	0.4000	22.0	25.0	-12.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab Sample ID: CCVIS 480-285459/3 Calibration Date: 01/29/2016 10:02

Instrument ID: HP5973Q Calib Start Date: 01/11/2016 16:06

GC Column: ZB-624 (60) ID: 0.25(mm) Calib End Date: 01/11/2016 18:50

Lab File ID: Q8804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2712	0.2688	0.0500	24.8	25.0	-0.9	50.0
1,2,4-Trichlorobenzene	Ave	1.331	1.181	0.2000	22.2	25.0	-11.3	20.0
Hexachlorobutadiene	Ave	0.4514	0.3794		21.0	25.0	-15.9	20.0
Naphthalene	Ave	4.471	4.146		23.2	25.0	-7.3	20.0
1,2,3-Trichlorobenzene	Ave	1.276	1.126		22.1	25.0	-11.8	20.0
Dibromofluoromethane (Surr)	Ave	1.318	1.181		22.4	25.0	-10.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.7676	0.6896		22.5	25.0	-10.2	20.0
Toluene-d8 (Surr)	Ave	2.356	2.049		21.7	25.0	-13.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.7250	0.6766		23.3	25.0	-6.7	20.0

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8804.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 29-Jan-2016 10:02:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 480-0050272-003
Operator ID: RR Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 29-Jan-2016 11:11:41 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: reiler Date: 29-Jan-2016 11:11:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.117	5.117	0.000	99	94908	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.410	0.000	84	187150	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.277	0.000	94	199422	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.643	0.000	93	112042	25.0	22.4	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.892	4.892	0.000	0	65445	25.0	22.5	
$ 5 Toluene-d8 (Surr)	98	6.291	6.291	0.000	92	383465	25.0	21.7	
$ 6 4-Bromofluorobenzene (Surr	174	8.340	8.340	0.000	92	126628	25.0	23.3	
10 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	110674	25.0	22.1	
12 Chloromethane	50	1.626	1.626	0.000	99	183538	25.0	26.9	
13 Vinyl chloride	62	1.712	1.712	0.000	98	135604	25.0	21.9	
144 Butadiene	54	1.724	1.724	0.000	88	105725	25.0	19.3	
14 Bromomethane	94	2.028	2.028	0.000	92	92437	25.0	32.0	
15 Chloroethane	64	2.119	2.119	0.000	99	78336	25.0	29.0	
17 Trichlorofluoromethane	101	2.320	2.320	0.000	97	197692	25.0	25.2	
16 Dichlorofluoromethane	67	2.326	2.326	0.000	93	209286	25.0	23.8	
18 Ethyl ether	59	2.599	2.599	0.000	90	125661	25.0	23.1	
20 Acrolein	56	2.745	2.745	0.000	99	76666	125.0	53.9	
22 1,1-Dichloroethene	96	2.800	2.800	0.000	98	116021	25.0	19.3	
21 1,1,2-Trichloro-1,2,2-trif	101	2.806	2.806	0.000	91	84455	25.0	15.3	
23 Acetone	43	2.891	2.891	0.000	99	409872	125.0	121.0	
25 Iodomethane	142	2.940	2.940	0.000	100	236486	25.0	20.7	
26 Carbon disulfide	76	2.983	2.983	0.000	99	358266	25.0	18.5	
28 3-Chloro-1-propene	41	3.129	3.129	0.000	90	190597	25.0	19.4	
27 Methyl acetate	43	3.159	3.159	0.000	97	836949	125.0	106.7	
30 Methylene Chloride	84	3.250	3.250	0.000	92	140084	25.0	20.0	
31 2-Methyl-2-propanol	59	3.378	3.378	0.000	100	413468	250.0	221.0	
32 Methyl tert-butyl ether	73	3.451	3.451	0.000	94	462022	25.0	21.7	
34 trans-1,2-Dichloroethene	96	3.463	3.463	0.000	98	138312	25.0	20.8	
33 Acrylonitrile	53	3.481	3.481	0.000	98	858149	250.0	222.4	
35 Hexane	57	3.645	3.645	0.000	92	146033	25.0	16.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.810	3.810	0.000	96	238624	25.0	21.0	
37 Vinyl acetate	43	3.846	3.846	0.000	97	668151	50.0	43.3	
44 2,2-Dichloropropane	77	4.254	4.254	0.000	87	156158	25.0	19.1	
45 cis-1,2-Dichloroethene	96	4.272	4.272	0.000	80	155584	25.0	21.4	
43 2-Butanone (MEK)	43	4.284	4.284	0.000	100	610242	125.0	118.3	
48 Chlorobromomethane	128	4.460	4.460	0.000	91	83542	25.0	22.0	
49 Tetrahydrofuran	42	4.479	4.479	0.000	86	167386	50.0	44.5	
50 Chloroform	83	4.521	4.521	0.000	93	245361	25.0	22.4	
51 1,1,1-Trichloroethane	97	4.631	4.631	0.000	98	192180	25.0	21.0	
52 Cyclohexane	56	4.655	4.655	0.000	92	185738	25.0	16.8	
55 Carbon tetrachloride	117	4.752	4.752	0.000	97	165878	25.0	20.9	
54 1,1-Dichloropropene	75	4.752	4.752	0.000	98	182243	25.0	21.2	
53 Isobutyl alcohol	43	4.874	4.874	0.000	94	370390	625.0	523.0	
57 Benzene	78	4.910	4.910	0.000	97	518435	25.0	21.6	
58 1,2-Dichloroethane	62	4.953	4.953	0.000	98	208431	25.0	23.6	
59 n-Heptane	43	5.062	5.062	0.000	94	141450	25.0	17.9	
62 Trichloroethene	95	5.391	5.391	0.000	96	146820	25.0	22.2	
64 Methylcyclohexane	83	5.506	5.506	0.000	89	199843	25.0	18.8	
65 1,2-Dichloropropane	63	5.567	5.567	0.000	94	126466	25.0	22.1	
66 1,4-Dioxane	88	5.677	5.677	0.000	38	44934	500.0	415.5	
67 Dibromomethane	93	5.677	5.677	0.000	94	98537	25.0	23.5	
68 Dichlorobromomethane	83	5.786	5.786	0.000	99	180520	25.0	24.4	
69 2-Chloroethyl vinyl ether	63	5.987	5.987	0.000	93	100430	25.0	26.7	
77 trans-1,3-Dichloropropene	75	6.108	6.108	0.000	94	216777	25.0	23.3	
73 4-Methyl-2-pentanone (MIBK	43	6.200	6.200	0.000	96	1093985	125.0	112.0	
74 Toluene	92	6.339	6.339	0.000	98	330050	25.0	21.7	
72 cis-1,3-Dichloropropene	75	6.528	6.528	0.000	98	200492	25.0	26.9	
75 Ethyl methacrylate	69	6.558	6.558	0.000	88	200917	25.0	24.3	
79 1,1,2-Trichloroethane	83	6.674	6.674	0.000	92	104286	25.0	22.9	
81 Tetrachloroethene	166	6.753	6.753	0.000	97	143040	25.0	21.6	
82 1,3-Dichloropropane	76	6.802	6.802	0.000	87	217318	25.0	23.5	
80 2-Hexanone	43	6.832	6.832	0.000	96	830421	125.0	120.2	
83 Chlorodibromomethane	129	6.984	6.984	0.000	89	151366	25.0	24.5	
84 Ethylene Dibromide	107	7.069	7.069	0.000	99	150590	25.0	24.7	
87 Chlorobenzene	112	7.434	7.434	0.000	96	376087	25.0	22.2	
88 Ethylbenzene	91	7.495	7.495	0.000	98	607497	25.0	22.1	
89 1,1,1,2-Tetrachloroethane	131	7.495	7.495	0.000	45	137954	25.0	21.7	
90 m-Xylene & p-Xylene	106	7.586	7.586	0.000	0	246982	25.0	21.6	
91 o-Xylene	106	7.908	7.908	0.000	96	249096	25.0	21.4	
92 Styrene	104	7.921	7.921	0.000	94	407282	25.0	23.0	
95 Bromoform	173	8.109	8.109	0.000	97	93753	25.0	24.6	
94 Isopropylbenzene	105	8.188	8.188	0.000	95	630681	25.0	22.0	
101 Bromobenzene	156	8.468	8.468	0.000	94	169831	25.0	22.9	
97 1,1,2,2-Tetrachloroethane	83	8.468	8.468	0.000	95	200573	25.0	22.7	
100 1,2,3-Trichloropropane	110	8.504	8.504	0.000	88	72891	25.0	23.5	
98 trans-1,4-Dichloro-2-buten	53	8.511	8.511	0.000	75	54454	25.0	23.8	
99 N-Propylbenzene	91	8.517	8.517	0.000	99	706463	25.0	22.2	
103 2-Chlorotoluene	126	8.608	8.608	0.000	97	157793	25.0	22.3	
102 1,3,5-Trimethylbenzene	105	8.656	8.656	0.000	94	544252	25.0	22.5	
105 4-Chlorotoluene	126	8.699	8.699	0.000	97	161661	25.0	22.6	
106 tert-Butylbenzene	134	8.924	8.924	0.000	92	118771	25.0	22.0	
107 1,2,4-Trimethylbenzene	105	8.967	8.967	0.000	97	559200	25.0	22.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.100	9.100	0.000	94	641752	25.0	21.7	
110 4-Isopropyltoluene	119	9.216	9.216	0.000	97	584464	25.0	21.9	
111 1,3-Dichlorobenzene	146	9.222	9.222	0.000	98	309981	25.0	22.1	
113 1,4-Dichlorobenzene	146	9.301	9.301	0.000	95	318218	25.0	22.0	
115 n-Butylbenzene	91	9.557	9.557	0.000	98	471889	25.0	21.2	
116 1,2-Dichlorobenzene	146	9.611	9.611	0.000	98	314835	25.0	22.0	
117 1,2-Dibromo-3-Chloropropan	75	10.268	10.268	0.000	90	53606	25.0	24.8	
119 1,2,4-Trichlorobenzene	180	10.931	10.931	0.000	95	235423	25.0	22.2	
120 Hexachlorobutadiene	225	11.046	11.046	0.000	97	75669	25.0	21.0	
121 Naphthalene	128	11.138	11.138	0.000	97	826704	25.0	23.2	
122 1,2,3-Trichlorobenzene	180	11.326	11.326	0.000	96	224481	25.0	22.1	

Reagents:

8260 CORP mix_00063	Amount Added: 12.50	Units: uL	
GAS CORP mix_00132	Amount Added: 12.50	Units: uL	
Q_8260_IS_00114	Amount Added: 1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added: 1.25	Units: uL	Run Reagent

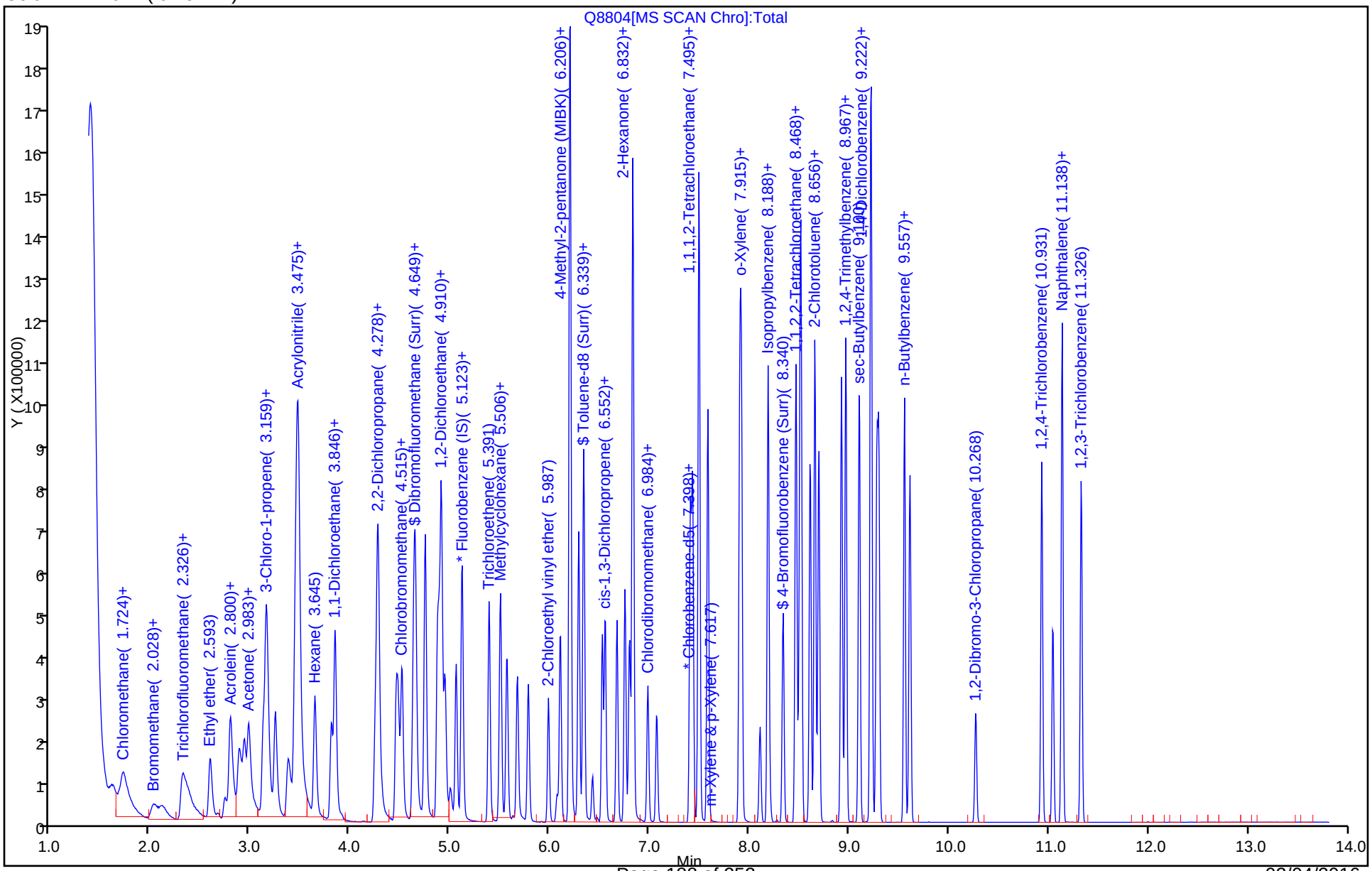
Report Date: 29-Jan-2016 11:11:42 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8804.D

Injection Date:	29-Jan-2016 10:02:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab Sample ID: CCVIS 480-285817/3 Calibration Date: 02/02/2016 09:44

Instrument ID: HP5973Q Calib Start Date: 01/11/2016 16:06

GC Column: ZB-624 (60) ID: 0.25(mm) Calib End Date: 01/11/2016 18:50

Lab File ID: Q8866.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.319	1.385	0.1000	26.3	25.0	5.0	50.0
Chloromethane	Ave	1.795	1.628	0.1000	22.7	25.0	-9.3	20.0
Vinyl chloride	Ave	1.635	1.596	0.1000	24.4	25.0	-2.4	20.0
Butadiene	Ave	1.447	1.386		24.0	25.0	-4.2	20.0
Bromomethane	Ave	0.7611	0.9474	0.1000	31.1	25.0	24.5	50.0
Chloroethane	Ave	0.7110	0.8418	0.1000	29.6	25.0	18.4	50.0
Trichlorofluoromethane	Ave	2.063	2.335	0.1000	28.3	25.0	13.2	20.0
Dichlorofluoromethane	Ave	2.313	2.322		25.1	25.0	0.4	20.0
Ethyl ether	Ave	1.431	1.248		21.8	25.0	-12.7	20.0
Acrolein	Ave	0.3746	0.1898		63.3	125	-49.3	50.0
1,1-Dichloroethene	Ave	1.585	1.401	0.1000	22.1	25.0	-11.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.452	1.174	0.1000	20.2	25.0	-19.2	20.0
Acetone	Ave	0.8920	0.7239	0.1000	101	125	-18.9	50.0
Iodomethane	Ave	3.007	2.811		23.4	25.0	-6.5	20.0
Carbon disulfide	Ave	5.098	4.561	0.1000	22.4	25.0	-10.5	20.0
Allyl chloride	Ave	2.581	2.104		20.4	25.0	-18.5	20.0
Methyl acetate	Ave	2.066	1.661	0.1000	101	125	-19.6	50.0
Methylene Chloride	Ave	1.845	1.565	0.1000	21.2	25.0	-15.1	20.0
2-Methyl-2-propanol	Ave	0.4927	0.3567		181	250	-27.6	50.0
Methyl tert-butyl ether	Ave	5.604	5.190	0.1000	23.2	25.0	-7.4	20.0
trans-1,2-Dichloroethene	Ave	1.748	1.616	0.1000	23.1	25.0	-7.5	20.0
Acrylonitrile	Ave	1.017	0.8280		204	250	-18.5	20.0
Hexane	Ave	2.362	1.842		19.5	25.0	-22.0*	20.0
1,1-Dichloroethane	Ave	2.999	2.614	0.2000	21.8	25.0	-12.8	20.0
Vinyl acetate	Ave	4.061	3.482		42.9	50.0	-14.3	20.0
2,2-Dichloropropane	Ave	2.150	2.047		23.8	25.0	-4.8	20.0
cis-1,2-Dichloroethene	Ave	1.914	1.739	0.1000	22.7	25.0	-9.1	20.0
2-Butanone (MEK)	Ave	1.359	1.090	0.1000	100	125	-19.8	20.0
Chlorobromomethane	Ave	1.002	0.9536		23.8	25.0	-4.8	20.0
Tetrahydrofuran	Ave	0.9902	0.7814		39.5	50.0	-21.1*	20.0
Chloroform	Ave	2.888	2.674	0.2000	23.1	25.0	-7.4	20.0
1,1,1-Trichloroethane	Ave	2.415	2.321	0.1000	24.0	25.0	-3.9	20.0
Cyclohexane	Ave	2.910	2.293	0.1000	19.7	25.0	-21.2*	20.0
1,1-Dichloropropene	Ave	2.267	2.091		23.1	25.0	-7.7	20.0
Carbon tetrachloride	Ave	2.093	2.016	0.1000	24.1	25.0	-3.7	20.0
Isobutyl alcohol	Ave	0.1865	0.1201		402	625	-35.6	50.0
Benzene	Ave	6.331	5.670	0.5000	22.4	25.0	-10.5	20.0
1,2-Dichloroethane	Ave	2.331	2.283	0.1000	24.5	25.0	-2.1	20.0
n-Heptane	Ave	2.077	1.756		21.1	25.0	-15.5	20.0
Trichloroethene	Ave	1.742	1.586	0.2000	22.8	25.0	-9.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab Sample ID: CCVIS 480-285817/3 Calibration Date: 02/02/2016 09:44

Instrument ID: HP5973Q Calib Start Date: 01/11/2016 16:06

GC Column: ZB-624 (60) ID: 0.25(mm) Calib End Date: 01/11/2016 18:50

Lab File ID: Q8866.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.798	2.366	0.1000	21.1	25.0	-15.4	20.0
1,2-Dichloropropane	Ave	1.509	1.321	0.1000	21.9	25.0	-12.5	20.0
1,4-Dioxane	Ave	0.0144	0.0092		319	500	-36.3	50.0
Dibromomethane	Ave	1.103	1.041	0.1000	23.6	25.0	-5.5	20.0
Bromodichloromethane	Ave	1.951	1.982	0.2000	25.4	25.0	1.6	20.0
2-Chloroethyl vinyl ether	Ave	0.9896	0.9463		23.9	25.0	-4.4	20.0
trans-1,3-Dichloropropene	Ave	1.242	1.172	0.1000	23.6	25.0	-5.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.305	1.073	0.1000	103	125	-17.8	20.0
Toluene	Ave	2.033	1.811	0.4000	22.3	25.0	-10.9	20.0
cis-1,3-Dichloropropene	Ave	1.965	2.011	0.2000	25.6	25.0	2.3	20.0
Ethyl methacrylate	Ave	1.102	1.015		23.0	25.0	-8.0	20.0
1,1,2-Trichloroethane	Ave	0.6086	0.5489	0.1000	22.5	25.0	-9.8	20.0
Tetrachloroethene	Ave	0.8866	0.8022	0.2000	22.6	25.0	-9.5	20.0
1,3-Dichloropropane	Ave	1.237	1.122		22.7	25.0	-9.3	20.0
2-Hexanone	Ave	0.9232	0.7349	0.1000	99.5	125	-20.4*	20.0
Dibromochloromethane	Ave	0.8266	0.8366	0.1000	25.3	25.0	1.2	20.0
1,2-Dibromoethane	Ave	0.8131	0.7785		23.9	25.0	-4.3	20.0
Chlorobenzene	Ave	2.264	2.036	0.5000	22.5	25.0	-10.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8484	0.8147		24.0	25.0	-4.0	20.0
Ethylbenzene	Ave	3.676	3.318	0.1000	22.6	25.0	-9.7	20.0
m,p-Xylene	Ave	1.530	1.347	0.1000	22.0	25.0	-12.0	20.0
o-Xylene	Ave	1.552	1.379	0.3000	22.2	25.0	-11.2	20.0
Styrene	Ave	2.361	2.171	0.3000	23.0	25.0	-8.0	20.0
Bromoform	Ave	0.5094	0.5105	0.1000	25.1	25.0	0.2	50.0
Isopropylbenzene	Ave	3.587	3.347	0.1000	23.3	25.0	-6.7	20.0
1,1,2,2-Tetrachloroethane	Ave	1.107	0.9830	0.3000	22.2	25.0	-11.2	20.0
Bromobenzene	Ave	0.9295	0.8704		23.4	25.0	-6.4	20.0
1,2,3-Trichloropropane	Ave	0.3896	0.3570		22.9	25.0	-8.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2869	0.2410		21.0	25.0	-16.0	50.0
N-Propylbenzene	Ave	3.993	3.655		22.9	25.0	-8.5	20.0
2-Chlorotoluene	Ave	0.8883	0.8282		23.3	25.0	-6.8	20.0
1,3,5-Trimethylbenzene	Ave	3.031	2.864		23.6	25.0	-5.5	20.0
4-Chlorotoluene	Ave	0.8970	0.8185		22.8	25.0	-8.8	20.0
tert-Butylbenzene	Ave	0.6778	0.6353		23.4	25.0	-6.3	20.0
1,2,4-Trimethylbenzene	Ave	3.124	2.906		23.3	25.0	-7.0	20.0
sec-Butylbenzene	Ave	3.705	3.356		22.6	25.0	-9.4	20.0
4-Isopropyltoluene	Ave	3.351	3.101		23.1	25.0	-7.5	20.0
1,3-Dichlorobenzene	Ave	1.755	1.597	0.6000	22.7	25.0	-9.0	20.0
1,4-Dichlorobenzene	Ave	1.810	1.630	0.5000	22.5	25.0	-10.0	20.0
n-Butylbenzene	Ave	2.786	2.491		22.4	25.0	-10.6	20.0
1,2-Dichlorobenzene	Ave	1.798	1.663	0.4000	23.1	25.0	-7.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Lab Sample ID: CCVIS 480-285817/3 Calibration Date: 02/02/2016 09:44

Instrument ID: HP5973Q Calib Start Date: 01/11/2016 16:06

GC Column: ZB-624 (60) ID: 0.25(mm) Calib End Date: 01/11/2016 18:50

Lab File ID: Q8866.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2712	0.2597	0.0500	23.9	25.0	-4.3	50.0
1,2,4-Trichlorobenzene	Ave	1.331	1.252	0.2000	23.5	25.0	-5.9	20.0
Hexachlorobutadiene	Ave	0.4514	0.4186		23.2	25.0	-7.3	20.0
Naphthalene	Ave	4.471	4.298		24.0	25.0	-3.9	20.0
1,2,3-Trichlorobenzene	Ave	1.276	1.179		23.1	25.0	-7.6	20.0
Dibromofluoromethane (Surr)	Ave	1.318	1.187		22.5	25.0	-9.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.7676	0.6749		22.0	25.0	-12.1	20.0
Toluene-d8 (Surr)	Ave	2.356	2.038		21.6	25.0	-13.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.7250	0.6873		23.7	25.0	-5.2	20.0

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8866.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 02-Feb-2016 09:44:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 480-0050332-003
Operator ID: RR Instrument ID: HP5973Q
Sublist: chrom-Q-8260*sub5

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 02-Feb-2016 11:42:03 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: reiler Date: 02-Feb-2016 11:42:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.118	5.118	0.000	99	90847	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.411	7.411	0.000	84	174627	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.278	9.278	0.000	94	183771	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.638	4.638	0.000	93	107845	25.0	22.5	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.893	4.893	0.000	0	61311	25.0	22.0	
$ 5 Toluene-d8 (Surr)	98	6.286	6.286	0.000	92	355870	25.0	21.6	
$ 6 4-Bromofluorobenzene (Surr	174	8.341	8.341	0.000	92	120020	25.0	23.7	
10 Dichlorodifluoromethane	85	1.433	1.433	0.000	99	125801	25.0	26.3	
12 Chloromethane	50	1.609	1.609	0.000	99	147924	25.0	22.7	
13 Vinyl chloride	62	1.707	1.707	0.000	98	145000	25.0	24.4	
144 Butadiene	54	1.737	1.737	0.000	88	125949	25.0	24.0	
14 Bromomethane	94	2.023	2.023	0.000	93	86068	25.0	31.1	
15 Chloroethane	64	2.126	2.126	0.000	100	76471	25.0	29.6	
17 Trichlorofluoromethane	101	2.303	2.303	0.000	99	212153	25.0	28.3	
16 Dichlorofluoromethane	67	2.333	2.333	0.000	97	210990	25.0	25.1	
18 Ethyl ether	59	2.588	2.588	0.000	90	113422	25.0	21.8	
20 Acrolein	56	2.741	2.741	0.000	99	86195	125.0	63.3	
22 1,1-Dichloroethene	96	2.789	2.789	0.000	98	127298	25.0	22.1	
21 1,1,2-Trichloro-1,2,2-trif	101	2.807	2.807	0.000	92	106627	25.0	20.2	
23 Acetone	43	2.886	2.886	0.000	99	328801	125.0	101.4	
25 Iodomethane	142	2.935	2.935	0.000	100	255377	25.0	23.4	
26 Carbon disulfide	76	2.978	2.978	0.000	99	414346	25.0	22.4	
28 3-Chloro-1-propene	41	3.124	3.124	0.000	90	191163	25.0	20.4	
27 Methyl acetate	43	3.160	3.160	0.000	97	754655	125.0	100.5	
30 Methylene Chloride	84	3.245	3.245	0.000	91	142213	25.0	21.2	
31 2-Methyl-2-propanol	59	3.385	3.385	0.000	100	324072	250.0	181.0	M
32 Methyl tert-butyl ether	73	3.446	3.446	0.000	94	471474	25.0	23.2	
34 trans-1,2-Dichloroethene	96	3.458	3.458	0.000	98	146808	25.0	23.1	
33 Acrylonitrile	53	3.476	3.476	0.000	99	752251	250.0	203.6	
35 Hexane	57	3.641	3.641	0.000	91	167329	25.0	19.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.811	3.811	0.000	96	237437	25.0	21.8	
37 Vinyl acetate	43	3.847	3.847	0.000	97	632589	50.0	42.9	
44 2,2-Dichloropropane	77	4.249	4.249	0.000	87	185988	25.0	23.8	
45 cis-1,2-Dichloroethene	96	4.267	4.267	0.000	81	158016	25.0	22.7	
43 2-Butanone (MEK)	43	4.279	4.279	0.000	100	495108	125.0	100.3	
48 Chlorobromomethane	128	4.462	4.462	0.000	89	86628	25.0	23.8	
49 Tetrahydrofuran	42	4.480	4.480	0.000	85	141978	50.0	39.5	
50 Chloroform	83	4.516	4.516	0.000	93	242934	25.0	23.1	
51 1,1,1-Trichloroethane	97	4.632	4.632	0.000	98	210827	25.0	24.0	
52 Cyclohexane	56	4.650	4.650	0.000	92	208293	25.0	19.7	
55 Carbon tetrachloride	117	4.747	4.747	0.000	97	183186	25.0	24.1	
54 1,1-Dichloropropene	75	4.747	4.747	0.000	97	189969	25.0	23.1	
53 Isobutyl alcohol	43	4.875	4.875	0.000	94	272715	625.0	402.3	
57 Benzene	78	4.912	4.912	0.000	96	515080	25.0	22.4	
58 1,2-Dichloroethane	62	4.948	4.948	0.000	98	207408	25.0	24.5	
59 n-Heptane	43	5.058	5.058	0.000	90	159489	25.0	21.1	
62 Trichloroethene	95	5.392	5.392	0.000	96	144051	25.0	22.8	
64 Methylcyclohexane	83	5.501	5.501	0.000	88	214976	25.0	21.1	
65 1,2-Dichloropropane	63	5.568	5.568	0.000	93	120026	25.0	21.9	
67 Dibromomethane	93	5.672	5.672	0.000	93	94606	25.0	23.6	
66 1,4-Dioxane	88	5.672	5.672	0.000	38	32146	500.0	318.6	
68 Dichlorobromomethane	83	5.781	5.781	0.000	99	180056	25.0	25.4	
69 2-Chloroethyl vinyl ether	63	5.988	5.988	0.000	93	85971	25.0	23.9	
77 trans-1,3-Dichloropropene	75	6.103	6.103	0.000	94	204692	25.0	23.6	
73 4-Methyl-2-pentanone (MIBK	43	6.201	6.201	0.000	95	936984	125.0	102.8	
74 Toluene	92	6.341	6.341	0.000	99	316281	25.0	22.3	
72 cis-1,3-Dichloropropene	75	6.529	6.529	0.000	98	182656	25.0	25.6	
75 Ethyl methacrylate	69	6.554	6.554	0.000	88	177162	25.0	23.0	
79 1,1,2-Trichloroethane	83	6.675	6.675	0.000	92	95854	25.0	22.5	
81 Tetrachloroethene	166	6.754	6.754	0.000	96	140084	25.0	22.6	
82 1,3-Dichloropropane	76	6.797	6.797	0.000	88	195939	25.0	22.7	
80 2-Hexanone	43	6.833	6.833	0.000	96	641671	125.0	99.5	
83 Chlorodibromomethane	129	6.985	6.985	0.000	90	146092	25.0	25.3	
84 Ethylene Dibromide	107	7.070	7.070	0.000	99	135940	25.0	23.9	
87 Chlorobenzene	112	7.429	7.429	0.000	96	355496	25.0	22.5	
89 1,1,1,2-Tetrachloroethane	131	7.496	7.496	0.000	46	142266	25.0	24.0	
88 Ethylbenzene	91	7.496	7.496	0.000	98	579436	25.0	22.6	
90 m-Xylene & p-Xylene	106	7.587	7.587	0.000	0	235136	25.0	22.0	
91 o-Xylene	106	7.904	7.904	0.000	96	240782	25.0	22.2	
92 Styrene	104	7.922	7.922	0.000	95	379064	25.0	23.0	
95 Bromoform	173	8.110	8.110	0.000	97	89141	25.0	25.1	
94 Isopropylbenzene	105	8.189	8.189	0.000	95	615070	25.0	23.3	
101 Bromobenzene	156	8.469	8.469	0.000	95	159957	25.0	23.4	
97 1,1,2,2-Tetrachloroethane	83	8.469	8.469	0.000	95	180637	25.0	22.2	
100 1,2,3-Trichloropropane	110	8.506	8.506	0.000	87	65601	25.0	22.9	
98 trans-1,4-Dichloro-2-buten	53	8.506	8.506	0.000	74	44294	25.0	21.0	
99 N-Propylbenzene	91	8.518	8.518	0.000	99	671728	25.0	22.9	
103 2-Chlorotoluene	126	8.609	8.609	0.000	97	152191	25.0	23.3	
102 1,3,5-Trimethylbenzene	105	8.658	8.658	0.000	95	526292	25.0	23.6	
105 4-Chlorotoluene	126	8.700	8.700	0.000	97	150422	25.0	22.8	
106 tert-Butylbenzene	134	8.925	8.925	0.000	92	116746	25.0	23.4	
107 1,2,4-Trimethylbenzene	105	8.968	8.968	0.000	97	534049	25.0	23.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.102	9.102	0.000	94	616666	25.0	22.6	
110 4-Isopropyltoluene	119	9.217	9.217	0.000	97	569823	25.0	23.1	
111 1,3-Dichlorobenzene	146	9.223	9.223	0.000	98	293510	25.0	22.7	
113 1,4-Dichlorobenzene	146	9.296	9.296	0.000	95	299493	25.0	22.5	
115 n-Butylbenzene	91	9.558	9.558	0.000	97	457864	25.0	22.4	
116 1,2-Dichlorobenzene	146	9.612	9.612	0.000	98	305539	25.0	23.1	
117 1,2-Dibromo-3-Chloropropan	75	10.269	10.269	0.000	90	47725	25.0	23.9	
119 1,2,4-Trichlorobenzene	180	10.932	10.932	0.000	94	230082	25.0	23.5	
120 Hexachlorobutadiene	225	11.048	11.048	0.000	97	76919	25.0	23.2	
121 Naphthalene	128	11.139	11.139	0.000	97	789843	25.0	24.0	
122 1,2,3-Trichlorobenzene	180	11.327	11.327	0.000	96	216732	25.0	23.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

GAS CORP mix_00133	Amount Added: 12.50	Units: uL	
8260 CORP mix_00064	Amount Added: 12.50	Units: uL	
Q_8260_IS_00114	Amount Added: 1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added: 1.25	Units: uL	Run Reagent

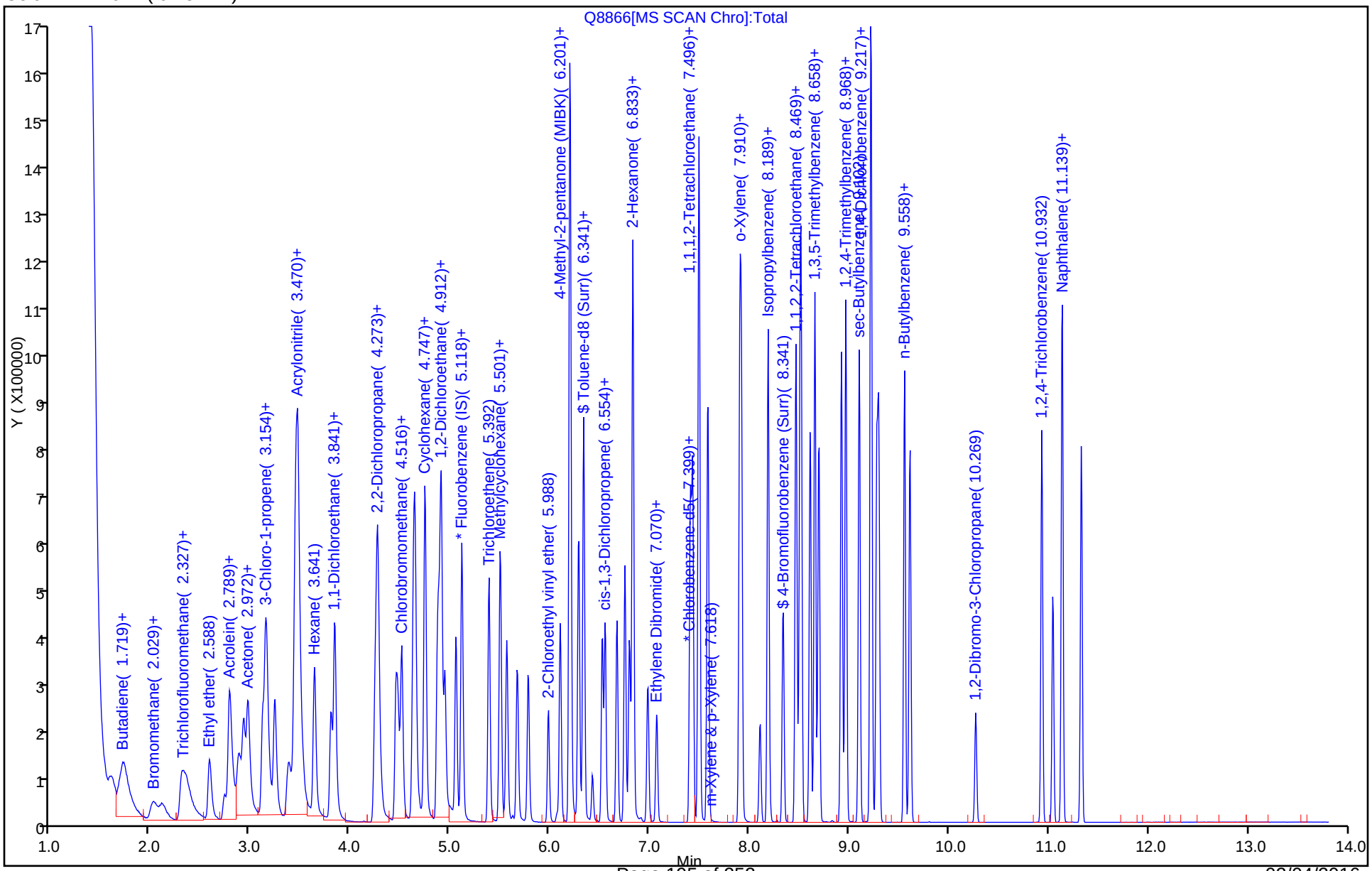
Report Date: 02-Feb-2016 11:42:04 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8866.D

Injection Date:	02-Feb-2016 09:44:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



Manual Integration/User Assign Peak Report

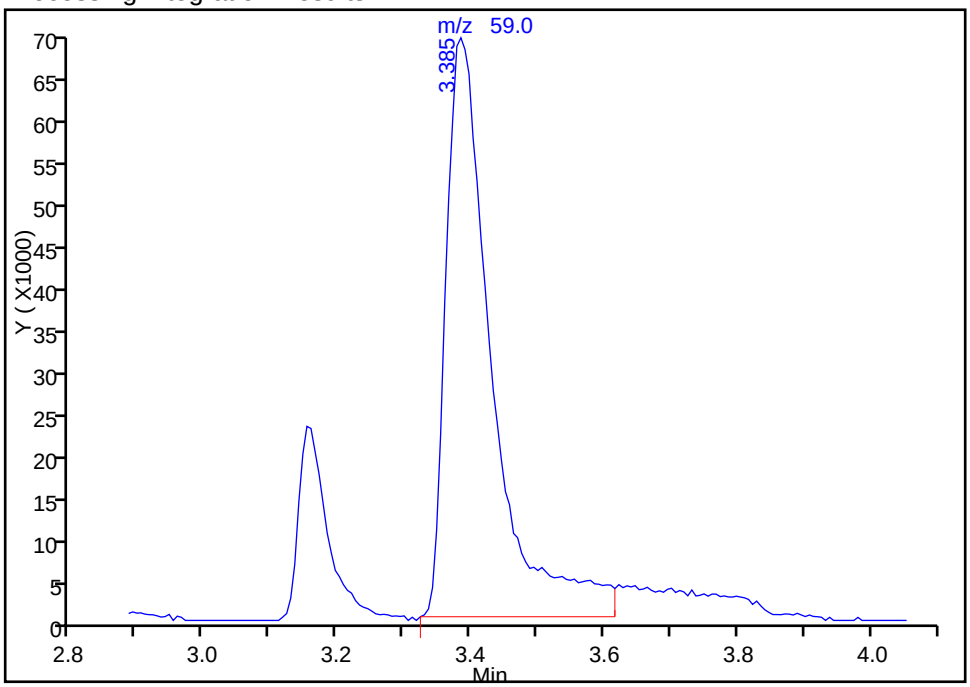
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8866.D
Injection Date: 02-Feb-2016 09:44:30 Instrument ID: HP5973Q
Lims ID: CCVIS
Client ID:
Operator ID: RR ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

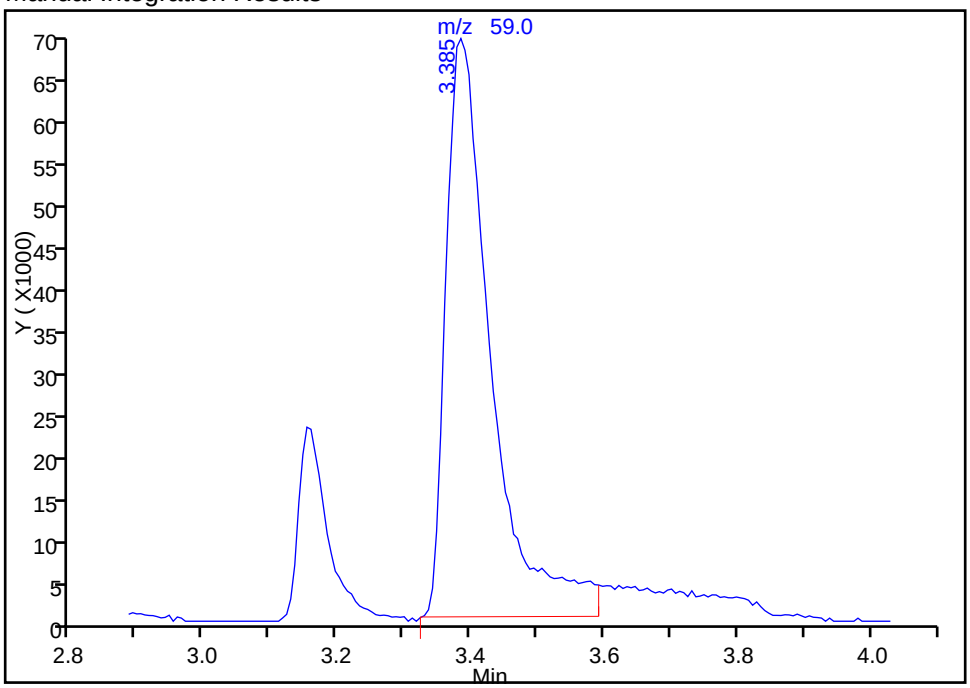
Processing Integration Results

RT: 3.39
Area: 331180
Amount: 184.9591
Amount Units: ug/L



Manual Integration Results

RT: 3.39
Area: 324072
Amount: 180.9894
Amount Units: ug/L



Reviewer: reiler, 02-Feb-2016 11:42:03
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8374.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 11-Jan-2016 15:13:30 ALS Bottle#: 34 Worklist Smp#: 3
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 480-0049854-003
Operator ID: LH Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 12-Jan-2016 14:25:58 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: HillL Date: 11-Jan-2016 15:22:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
$ 61 BFB	95	4.253	4.253	0.000	0	80505	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

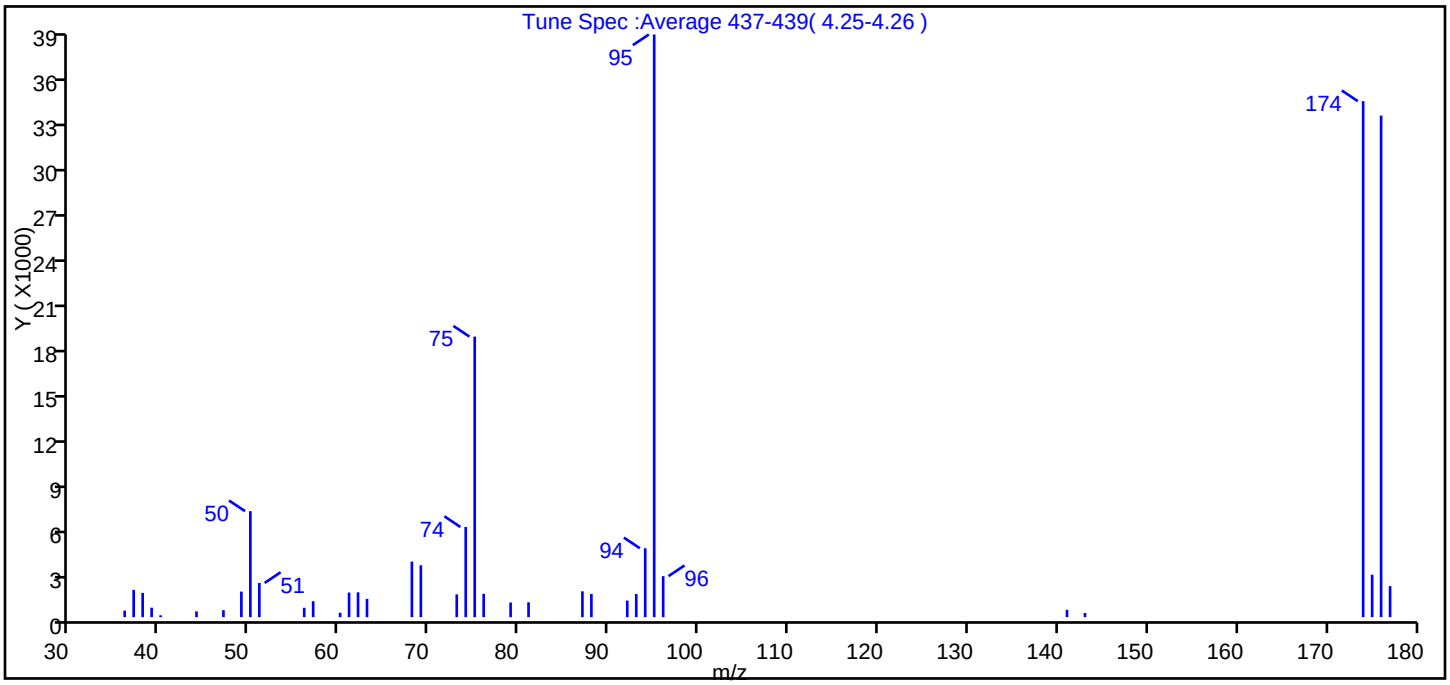
BFB_WRK_00050 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8374.D
Injection Date: 11-Jan-2016 15:13:30 Instrument ID: HP5973Q
Lims ID: BFB
Client ID:
Operator ID: LH ALS Bottle#: 34 Worklist Smp#: 3
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Tune Method: BFB Method 8260

$ 61 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.2
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	88.6
175	5 to 9% of m/z 174	7.3 (8.2)
176	Greater than 95% but less than 101% of m/z 174	86.1 (97.2)
177	5 to 9% of m/z 176	5.3 (6.2)

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8374.D\Q-8260.rslt\spectra.d
Injection Date: 11-Jan-2016 15:13:30
Spectrum: Tune Spec :Average 437-439(4.25-4.26)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 37

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	430	56.00	619	75.00	18544	96.00	2710
37.00	1804	57.00	1054	76.00	1542	141.00	485
38.00	1603	60.00	289	79.00	965	143.00	276
39.00	626	61.00	1628	81.00	982	174.00	34104
40.00	123	62.00	1642	87.00	1708	175.00	2804
44.00	379	63.00	1206	88.00	1533	176.00	33152
47.00	461	68.00	3672	92.00	1094	177.00	2051
49.00	1689	69.00	3428	93.00	1529		
50.00	7005	73.00	1503	94.00	4552		
51.00	2262	74.00	5960	95.00	38512		

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8803.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	29-Jan-2016 09:36:30	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	480-0050272-002				
Operator ID:	RR	Instrument ID:	HP5973Q		
Method:	\\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m				
Limit Group:	MV - 8260C ICAL				
Last Update:	29-Jan-2016 09:46:58	Calib Date:	11-Jan-2016 21:55:30		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D				
Column 1 :	ZB-624 (0.25 mm)		Det: MS SCAN		
Process Host:	XAWRK014				
First Level Reviewer: reiler		Date:	29-Jan-2016 09:46:58		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
$ 61 BFB	95	4.300	4.300	0.000	0	56783	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

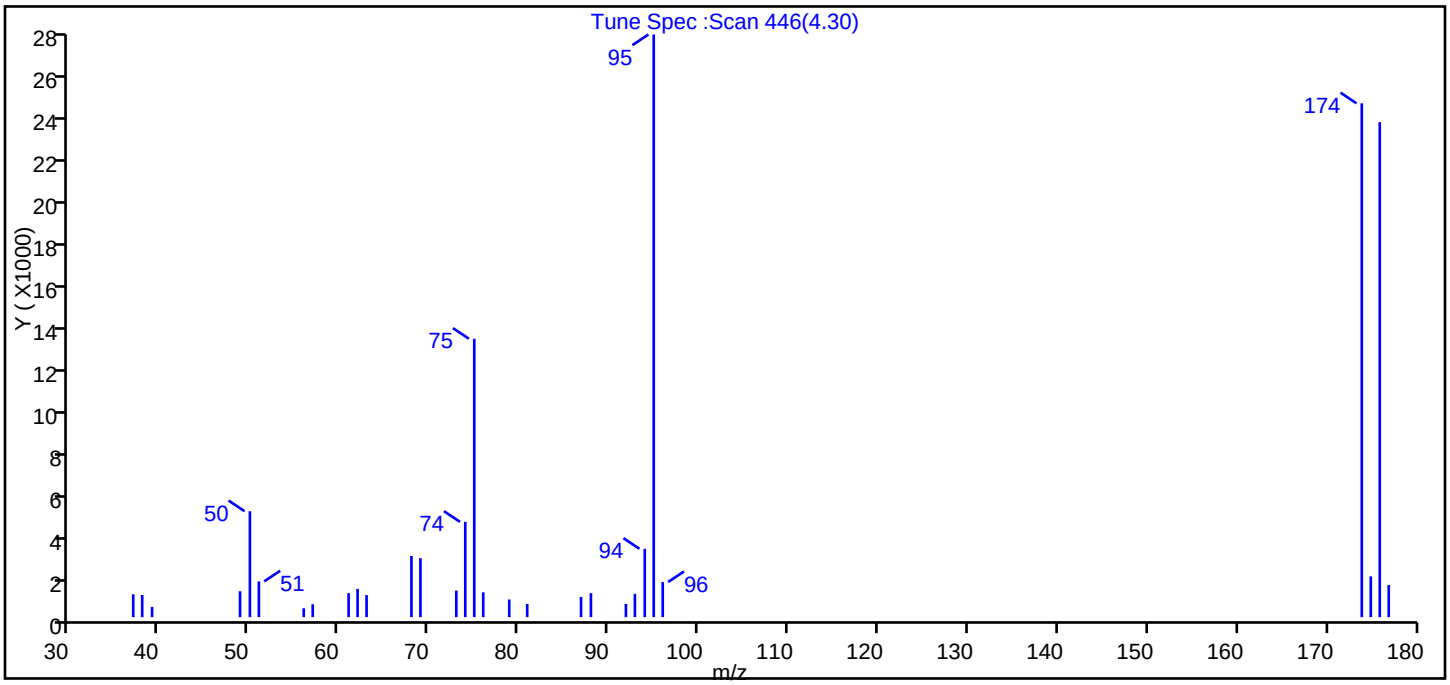
BFB_WRK_00050 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8803.D
Injection Date: 29-Jan-2016 09:36:30 Instrument ID: HP5973Q
Lims ID: BFB
Client ID:
Operator ID: RR ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Tune Method: BFB Method 8260

$ 61 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.2
75	30 to 60% of m/z 95	47.8
96	5 to 9% of m/z 95	6.0
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	88.2
175	5 to 9% of m/z 174	7.0 (7.9)
176	Greater than 95% but less than 101% of m/z 174	84.9 (96.3)
177	5 to 9% of m/z 176	5.5 (6.5)

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8803.D\Q-8260.rslt\spectra.d
Injection Date: 29-Jan-2016 09:36:30
Spectrum: Tune Spec :Scan 446(4.30)
Base Peak: 94.95
Minimum % Base Peak: 0
Number of Points: 30

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.95	1096	60.95	1148	75.95	1187	94.95	27904
37.95	1061	61.95	1353	78.85	845	95.95	1679
39.05	489	62.95	1054	80.85	630	173.85	24608
48.85	1240	67.95	2930	86.85	963	174.85	1951
49.95	5073	68.95	2823	87.95	1149	175.85	23704
50.95	1712	72.95	1273	91.85	634	176.85	1536
55.95	425	73.95	4564	92.85	1114		
56.95	617	74.95	13332	93.95	3272		

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8865.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 02-Feb-2016 09:21:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 480-0050332-002
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 02-Feb-2016 09:29:09 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: reiler Date: 02-Feb-2016 09:29:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
$ 61 BFB	95	4.239	4.239	0.000	0	41323	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

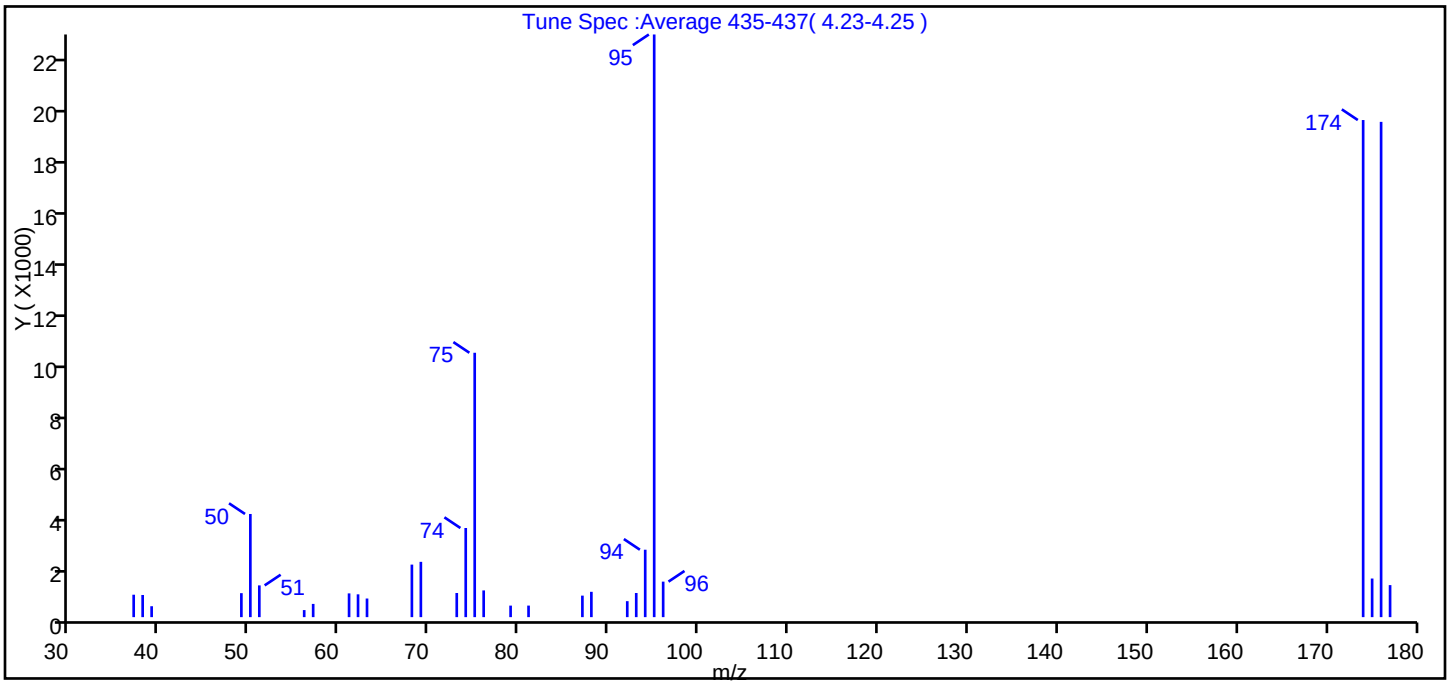
BFB_WRK_00051 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8865.D
Injection Date: 02-Feb-2016 09:21:30 Instrument ID: HP5973Q
Lims ID: BFB
Client ID:
Operator ID: RR ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Tune Method: BFB Method 8260

$ 61 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.7
75	30 to 60% of m/z 95	45.4
96	5 to 9% of m/z 95	6.1
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	85.3
175	5 to 9% of m/z 174	6.6 (7.8)
176	Greater than 95% but less than 101% of m/z 174	85.0 (99.6)
177	5 to 9% of m/z 176	5.5 (6.5)

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8865.D\Q-8260.rslt\spectra.d
Injection Date: 02-Feb-2016 09:21:30
Spectrum: Tune Spec :Average 435-437(4.23-4.25)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 30

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	883	61.00	935	76.00	1052	95.00	22936
38.00	872	62.00	898	79.00	454	96.00	1398
39.00	430	63.00	733	81.00	455	174.00	19568
49.00	944	68.00	2068	87.00	847	175.00	1520
50.00	4061	69.00	2177	88.00	997	176.00	19496
51.00	1250	73.00	950	92.00	629	177.00	1261
56.00	278	74.00	3509	93.00	950		
57.00	521	75.00	10407	94.00	2654		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-285459/7

Matrix: Water | Lab File ID: Q8809.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 13:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
78-93-3	2-Butanone (MEK)	ND		10	1.3
591-78-6	2-Hexanone	ND		5.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	0.202	J	1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-285459/7

Matrix: Water | Lab File ID: Q8809.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 13:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		66-137
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
2037-26-5	Toluene-d8 (Surr)	89		71-126
1868-53-7	Dibromofluoromethane (Surr)	95		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8809.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Jan-2016 13:17:30 ALS Bottle#: 8 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 480-0050272-007
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 29-Jan-2016 16:05:27 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: reiler Date: 29-Jan-2016 16:05:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.124	5.119	0.005	99	86474	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.406	0.004	84	158646	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.279	-0.002	94	188079	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.643	4.639	0.004	93	108166	25.0	23.7	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.893	4.888	0.005	0	61448	25.0	23.1	
$ 5 Toluene-d8 (Surr)	98	6.291	6.287	0.004	92	332300	25.0	22.2	
$ 6 4-Bromofluorobenzene (Surr	174	8.341	8.336	0.005	92	113739	25.0	24.7	
10 Dichlorodifluoromethane	85		1.432					ND	
11 Chlorodifluoromethane	51		1.458					ND	
12 Chloromethane	50		1.626					ND	
13 Vinyl chloride	62		1.712					ND	
144 Butadiene	54		1.724					ND	
14 Bromomethane	94		2.028					ND	
15 Chloroethane	64		2.119					ND	
17 Trichlorofluoromethane	101		2.320					ND	
16 Dichlorofluoromethane	67		2.326					ND	
18 Ethyl ether	59		2.599					ND	
20 Acrolein	56		2.745					ND	
22 1,1-Dichloroethene	96		2.800					ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.806					ND	
141 Ethanol	45		2.818					ND	
23 Acetone	43		2.891					ND	
25 Iodomethane	142		2.940					ND	
26 Carbon disulfide	76	2.983	2.983	0.000	97	3564		0.2021	
24 Isopropyl alcohol	45		3.046					ND	
28 3-Chloro-1-propene	41		3.129					ND	
27 Methyl acetate	43		3.159					ND	
29 Acetonitrile	40		3.161					ND	
30 Methylene Chloride	84		3.250					ND	
31 2-Methyl-2-propanol	59		3.378					ND	
32 Methyl tert-butyl ether	73		3.451					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
34 trans-1,2-Dichloroethene	96		3.463					ND	
33 Acrylonitrile	53		3.481					ND	
35 Hexane	57		3.645					ND	
39 1,1-Dichloroethane	63		3.810					ND	
36 Isopropyl ether	45		3.830					ND	
37 Vinyl acetate	43		3.846					ND	
40 2-Chloro-1,3-butadiene	53		3.867					ND	
38 1,1-Dimethoxyethane	75		3.885					ND	
41 Tert-butyl ethyl ether	59		4.110					ND	
44 2,2-Dichloropropane	77		4.254					ND	
45 cis-1,2-Dichloroethene	96		4.272					ND	
43 2-Butanone (MEK)	43		4.284					ND	
42 Ethyl acetate	43		4.311					ND	
46 Propionitrile	54		4.353					ND	
47 Methacrylonitrile	41		4.456					ND	
48 Chlorobromomethane	128		4.460					ND	
49 Tetrahydrofuran	42		4.479					ND	
50 Chloroform	83		4.521					ND	
51 1,1,1-Trichloroethane	97		4.631					ND	
52 Cyclohexane	56		4.655					ND	
54 1,1-Dichloropropene	75		4.752					ND	
55 Carbon tetrachloride	117		4.752					ND	
53 Isobutyl alcohol	43		4.874					ND	
57 Benzene	78		4.910					ND	
146 Isooctane	57		4.925					ND	
140 t-Amyl alcohol	59		4.937					ND	
58 1,2-Dichloroethane	62		4.953					ND	
56 Tert-amyl methyl ether	73		4.967					ND	
59 n-Heptane	43		5.062					ND	
1 1,4-Difluorobenzene	114		5.198					ND	
60 n-Butanol	56		5.357					ND	
62 Trichloroethene	95		5.391					ND	
145 Ethyl acrylate	55		5.460					ND	
64 Methylcyclohexane	83		5.506					ND	
65 1,2-Dichloropropane	63		5.567					ND	
63 Methyl methacrylate	41		5.630					ND	
67 Dibromomethane	93		5.677					ND	
66 1,4-Dioxane	88		5.677					ND	
68 Dichlorobromomethane	83		5.786					ND	
70 2-Nitropropane	43		5.959					ND	
69 2-Chloroethyl vinyl ether	63		5.987					ND	
71 Epichlorohydrin	57		6.056					ND	
77 trans-1,3-Dichloropropene	75		6.108					ND	
73 4-Methyl-2-pentanone (MIBK	43		6.200					ND	
74 Toluene	92		6.339					ND	
76 2-Methylthiophene	97		6.445					ND	
72 cis-1,3-Dichloropropene	75		6.528					ND	
75 Ethyl methacrylate	69		6.558					ND	
78 3-Methylthiophene	97		6.567					ND	
79 1,1,2-Trichloroethane	83		6.674					ND	
81 Tetrachloroethene	166		6.753					ND	
82 1,3-Dichloropropane	76		6.802					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
80 2-Hexanone	43		6.832					ND	
149 n-Butyl acetate	43		6.913					ND	
83 Chlorodibromomethane	129		6.984					ND	
84 Ethylene Dibromide	107		7.069					ND	
139 1-Chlorohexane	55		7.376					ND	
85 3-Chlorobenzotrifluoride	180		7.382					ND	
86 4-Chlorobenzotrifluoride	180		7.430					ND	
87 Chlorobenzene	112		7.434					ND	
89 1,1,1,2-Tetrachloroethane	131		7.495					ND	
88 Ethylbenzene	91		7.495					ND	
90 m-Xylene & p-Xylene	106		7.586					ND	
91 o-Xylene	106		7.908					ND	
92 Styrene	104		7.921					ND	
95 Bromoform	173		8.109					ND	
93 2-Chlorobenzotrifluoride	180		8.117					ND	
94 Isopropylbenzene	105		8.188					ND	
96 Cyclohexanone	55		8.312					ND	
101 Bromobenzene	156		8.468					ND	
97 1,1,2,2-Tetrachloroethane	83		8.468					ND	
100 1,2,3-Trichloropropane	110		8.504					ND	
98 trans-1,4-Dichloro-2-buten	53		8.511					ND	
99 N-Propylbenzene	91		8.517					ND	
103 2-Chlorotoluene	126		8.608					ND	
102 1,3,5-Trimethylbenzene	105		8.656					ND	
104 3-Chlorotoluene	126		8.659					ND	
105 4-Chlorotoluene	126		8.699					ND	
106 tert-Butylbenzene	134		8.924					ND	
107 1,2,4-Trimethylbenzene	105		8.967					ND	
108 Pentachloroethane	167		8.975					ND	
109 sec-Butylbenzene	105		9.100					ND	
110 4-Isopropyltoluene	119		9.216					ND	
111 1,3-Dichlorobenzene	146		9.222					ND	
114 Dicyclopentadiene	66		9.297					ND	
113 1,4-Dichlorobenzene	146		9.301					ND	
112 1,2,3-Trimethylbenzene	105		9.322					ND	
143 Benzyl chloride	126		9.413					ND	
115 n-Butylbenzene	91		9.557					ND	
116 1,2-Dichlorobenzene	146		9.611					ND	
117 1,2-Dibromo-3-Chloropropan	75		10.268					ND	
118 1,3,5-Trichlorobenzene	180		10.416					ND	
119 1,2,4-Trichlorobenzene	180		10.931					ND	
120 Hexachlorobutadiene	225		11.046					ND	
121 Naphthalene	128		11.138					ND	
122 1,2,3-Trichlorobenzene	180		11.326					ND	
142 2-Methylnaphthalene	142	11.996	11.997	-0.001	85	2601		0.6228	
132 Halothane	1		0.000					ND	
S 125 1,2-Dichloroethene, Total	1		30.000					ND	
S 126 1,3-Dichloropropene, Total	1		30.000					ND	
S 123 Total BTEX	1		30.000					ND	
S 124 Xylenes, Total	1		30.000					ND	
T 150 1-Chloro-1-fluoroethane TI	47		2.000					ND	
T 127 Ethanol TIC	45		2.280					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
T 134 Pentachloroethane TIC	1		0.000					ND	
T 136 Propene oxide TIC	1		0.000					ND	
T 133 bis(chloromethyl)ether TIC	1		0.000					ND	
T 9 bis(2-chloromethyl)ether T	1		0.000					ND	
T 128 Hexachloroethane TIC	1		0.000					ND	
T 138 Ethylene oxide TIC	1		0.000					ND	
T 137 1-Bromopropane TIC	1		0.000					ND	
T 131 tert-amyl alcohol TIC	1		0.000					ND	
T 130 Bromoethane TIC	1		0.000					ND	
T 129 Aziridine TIC	1		0.000					ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

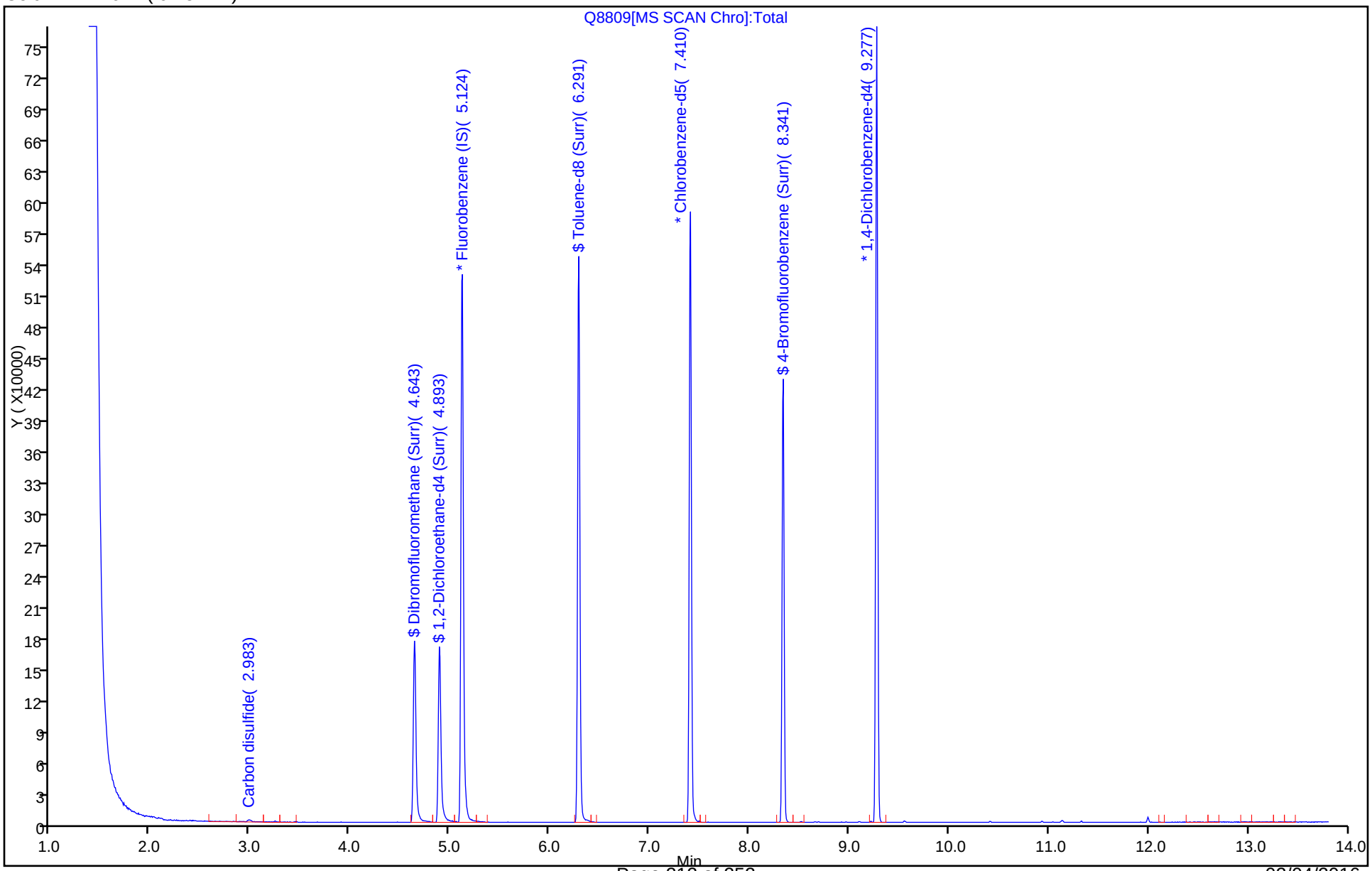
Report Date: 29-Jan-2016 16:05:28 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8809.D

Injection Date:	29-Jan-2016 13:17:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

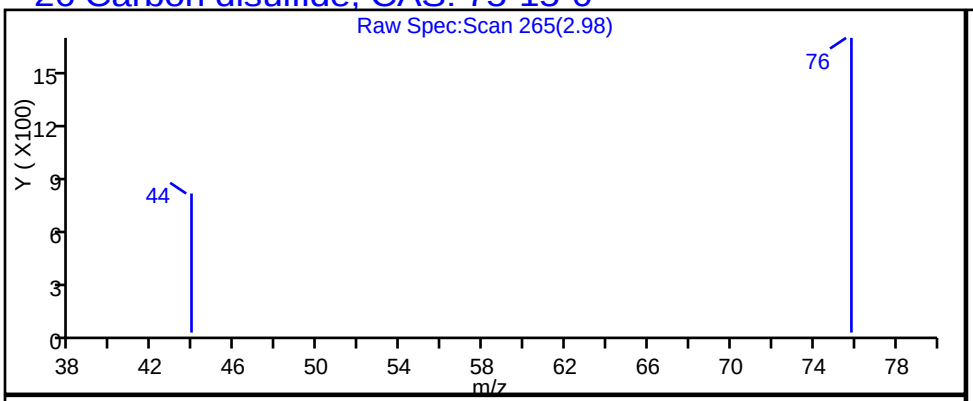
Column: ZB-624 (0.25 mm)

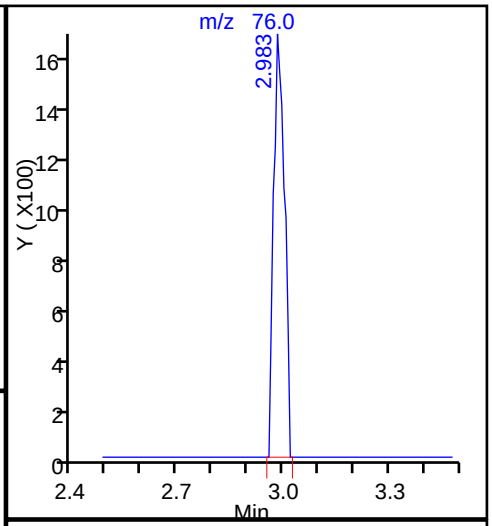


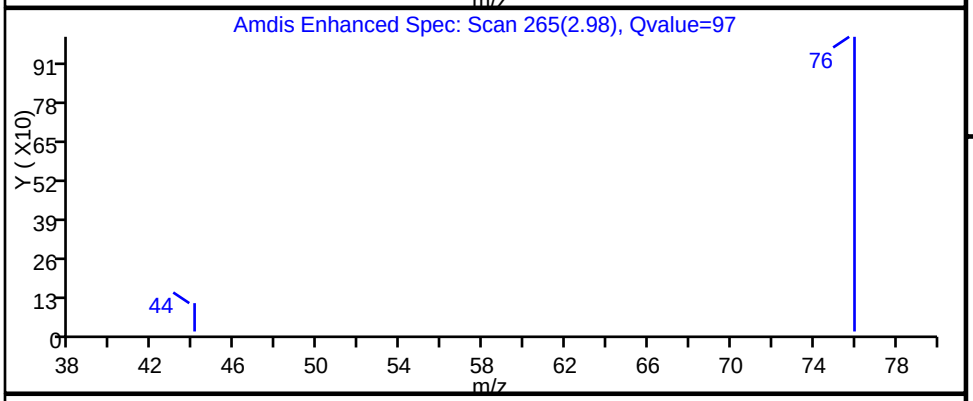
TestAmerica Buffalo

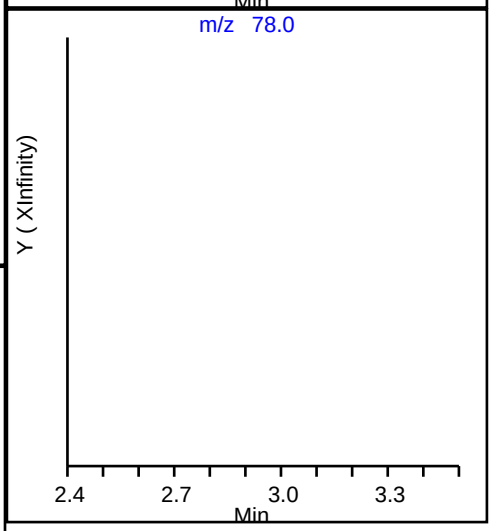
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8809.D
Injection Date: 29-Jan-2016 13:17:30 Instrument ID: HP5973Q
Lims ID: MB
Client ID:
Operator ID: RR ALS Bottle#: 8 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

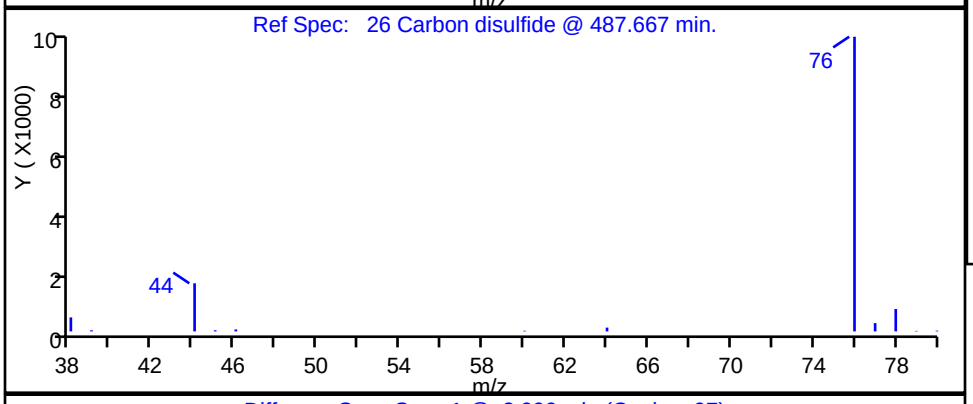
26 Carbon disulfide, CAS: 75-15-0

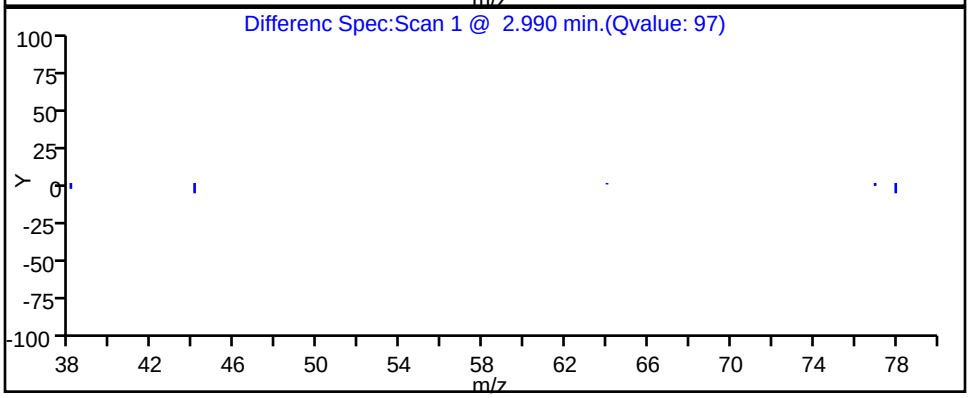












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-285817/7

Matrix: Water | Lab File ID: Q8870.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 02/02/2016 12:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285817 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
78-93-3	2-Butanone (MEK)	ND		10	1.3
591-78-6	2-Hexanone	ND		5.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-285817/7

Matrix: Water | Lab File ID: Q8870.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 02/02/2016 12:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285817 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		66-137
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
2037-26-5	Toluene-d8 (Surr)	86		71-126
1868-53-7	Dibromofluoromethane (Surr)	89		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8870.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 02-Feb-2016 12:09:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 480-0050332-007
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 02-Feb-2016 13:30:02 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: reiler Date: 02-Feb-2016 13:30:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.120	5.118	0.002	99	86528	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.406	7.411	-0.005	84	166349	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.279	9.278	0.001	94	189354	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.639	4.638	0.001	94	101468	25.0	22.2	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.895	4.893	0.002	0	56300	25.0	21.2	
$ 5 Toluene-d8 (Surr)	98	6.287	6.286	0.001	92	337697	25.0	21.5	
$ 6 4-Bromofluorobenzene (Surr	174	8.343	8.341	0.002	93	117527	25.0	24.4	
10 Dichlorodifluoromethane	85		1.433					ND	
11 Chlorodifluoromethane	51		1.451					ND	
12 Chloromethane	50		1.609					ND	
13 Vinyl chloride	62		1.707					ND	
144 Butadiene	54		1.737					ND	
14 Bromomethane	94		2.023					ND	
15 Chloroethane	64		2.126					ND	
17 Trichlorofluoromethane	101		2.303					ND	
16 Dichlorofluoromethane	67		2.333					ND	
18 Ethyl ether	59		2.588					ND	
20 Acrolein	56		2.741					ND	
22 1,1-Dichloroethene	96		2.789					ND	
21 1,1,2-Trichloro-1,2,2-trif	101		2.807					ND	
141 Ethanol	45		2.818					ND	
23 Acetone	43		2.886					ND	
25 Iodomethane	142		2.935					ND	
26 Carbon disulfide	76		2.978					ND	
24 Isopropyl alcohol	45		3.032					ND	
28 3-Chloro-1-propene	41		3.124					ND	
27 Methyl acetate	43		3.160					ND	
29 Acetonitrile	40		3.160					ND	
30 Methylene Chloride	84		3.245					ND	
31 2-Methyl-2-propanol	59		3.385					ND	
32 Methyl tert-butyl ether	73		3.446					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
34 trans-1,2-Dichloroethene	96		3.458					ND	
33 Acrylonitrile	53		3.476					ND	
35 Hexane	57		3.641					ND	
39 1,1-Dichloroethane	63		3.811					ND	
36 Isopropyl ether	45		3.829					ND	
37 Vinyl acetate	43		3.847					ND	
40 2-Chloro-1,3-butadiene	53		3.866					ND	
38 1,1-Dimethoxyethane	75		3.884					ND	
41 Tert-butyl ethyl ether	59		4.115					ND	
44 2,2-Dichloropropane	77		4.249					ND	
45 cis-1,2-Dichloroethene	96		4.267					ND	
43 2-Butanone (MEK)	43		4.279					ND	
42 Ethyl acetate	43		4.310					ND	
46 Propionitrile	54		4.352					ND	
47 Methacrylonitrile	41		4.455					ND	
48 Chlorobromomethane	128		4.462					ND	
49 Tetrahydrofuran	42		4.480					ND	
50 Chloroform	83		4.516					ND	
51 1,1,1-Trichloroethane	97		4.632					ND	
52 Cyclohexane	56		4.650					ND	
54 1,1-Dichloropropene	75		4.747					ND	
55 Carbon tetrachloride	117		4.747					ND	
53 Isobutyl alcohol	43		4.875					ND	
57 Benzene	78		4.912					ND	
146 Isooctane	57		4.924					ND	
140 t-Amyl alcohol	59		4.930					ND	
58 1,2-Dichloroethane	62		4.948					ND	
56 Tert-amyl methyl ether	73		4.966					ND	
59 n-Heptane	43		5.058					ND	
1 1,4-Difluorobenzene	114		5.197					ND	
60 n-Butanol	56		5.356					ND	
62 Trichloroethene	95		5.392					ND	
145 Ethyl acrylate	55		5.459					ND	
64 Methylcyclohexane	83		5.501					ND	
65 1,2-Dichloropropane	63		5.568					ND	
63 Methyl methacrylate	41		5.629					ND	
66 1,4-Dioxane	88		5.672					ND	
67 Dibromomethane	93		5.672					ND	
68 Dichlorobromomethane	83		5.781					ND	
70 2-Nitropropane	43		5.958					ND	
69 2-Chloroethyl vinyl ether	63		5.988					ND	
71 Epichlorohydrin	57		6.055					ND	
77 trans-1,3-Dichloropropene	75		6.103					ND	
73 4-Methyl-2-pentanone (MIBK	43		6.201					ND	
74 Toluene	92		6.341					ND	
76 2-Methylthiophene	97		6.445					ND	
72 cis-1,3-Dichloropropene	75		6.529					ND	
75 Ethyl methacrylate	69		6.554					ND	
78 3-Methylthiophene	97		6.567					ND	
79 1,1,2-Trichloroethane	83		6.675					ND	
81 Tetrachloroethene	166		6.754					ND	
82 1,3-Dichloropropane	76		6.797					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
80 2-Hexanone	43		6.833					ND	
149 n-Butyl acetate	43		6.912					ND	
83 Chlorodibromomethane	129		6.985					ND	
84 Ethylene Dibromide	107		7.070					ND	
139 1-Chlorohexane	55		7.381					ND	
85 3-Chlorobenzotrifluoride	180		7.387					ND	
87 Chlorobenzene	112		7.429					ND	
86 4-Chlorobenzotrifluoride	180		7.429					ND	
88 Ethylbenzene	91		7.496					ND	
89 1,1,1,2-Tetrachloroethane	131		7.496					ND	
90 m-Xylene & p-Xylene	106		7.587					ND	
91 o-Xylene	106		7.904					ND	
92 Styrene	104		7.922					ND	
95 Bromoform	173		8.110					ND	
93 2-Chlorobenzotrifluoride	180		8.116					ND	
94 Isopropylbenzene	105		8.189					ND	
96 Cyclohexanone	55		8.311					ND	
101 Bromobenzene	156		8.469					ND	
97 1,1,2,2-Tetrachloroethane	83		8.469					ND	
100 1,2,3-Trichloropropane	110		8.506					ND	
98 trans-1,4-Dichloro-2-buten	53		8.506					ND	
99 N-Propylbenzene	91		8.518					ND	
103 2-Chlorotoluene	126		8.609					ND	
102 1,3,5-Trimethylbenzene	105		8.658					ND	
104 3-Chlorotoluene	126		8.658					ND	
105 4-Chlorotoluene	126		8.700					ND	
106 tert-Butylbenzene	134		8.925					ND	
107 1,2,4-Trimethylbenzene	105		8.968					ND	
108 Pentachloroethane	167		8.974					ND	
109 sec-Butylbenzene	105		9.102					ND	
110 4-Isopropyltoluene	119		9.217					ND	
111 1,3-Dichlorobenzene	146		9.223					ND	
113 1,4-Dichlorobenzene	146		9.296					ND	
114 Dicyclopentadiene	66		9.296					ND	
112 1,2,3-Trimethylbenzene	105		9.321					ND	
143 Benzyl chloride	126		9.412					ND	
115 n-Butylbenzene	91		9.558					ND	
116 1,2-Dichlorobenzene	146		9.612					ND	
117 1,2-Dibromo-3-Chloropropan	75		10.269					ND	
118 1,3,5-Trichlorobenzene	180		10.415					ND	
119 1,2,4-Trichlorobenzene	180		10.932					ND	
120 Hexachlorobutadiene	225		11.048					ND	
121 Naphthalene	128		11.139					ND	
122 1,2,3-Trichlorobenzene	180		11.327					ND	
142 2-Methylnaphthalene	142		11.996					ND	
132 Halothane	1		0.000					ND	
S 123 Total BTEX	1		30.000					ND	
S 124 Xylenes, Total	1		30.000					ND	
S 125 1,2-Dichloroethene, Total	1		30.000					ND	
S 126 1,3-Dichloropropene, Total	1		30.000					ND	
T 150 1-Chloro-1-fluoroethane TI	47		2.000					ND	
T 127 Ethanol TIC	45		2.280					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
T 137 1-Bromopropane TIC	1		0.000					ND	
T 138 Ethylene oxide TIC	1		0.000					ND	
T 131 tert-amyl alcohol TIC	1		0.000					ND	
T 129 Aziridine TIC	1		0.000					ND	
T 130 Bromoethane TIC	1		0.000					ND	
T 136 Propene oxide TIC	1		0.000					ND	
T 134 Pentachloroethane TIC	1		0.000					ND	
T 133 bis(chloromethyl)ether TIC	1		0.000					ND	
T 128 Hexachloroethane TIC	1		0.000					ND	
T 9 bis(2-chloromethyl)ether T	1		0.000					ND	

Reagents:

Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

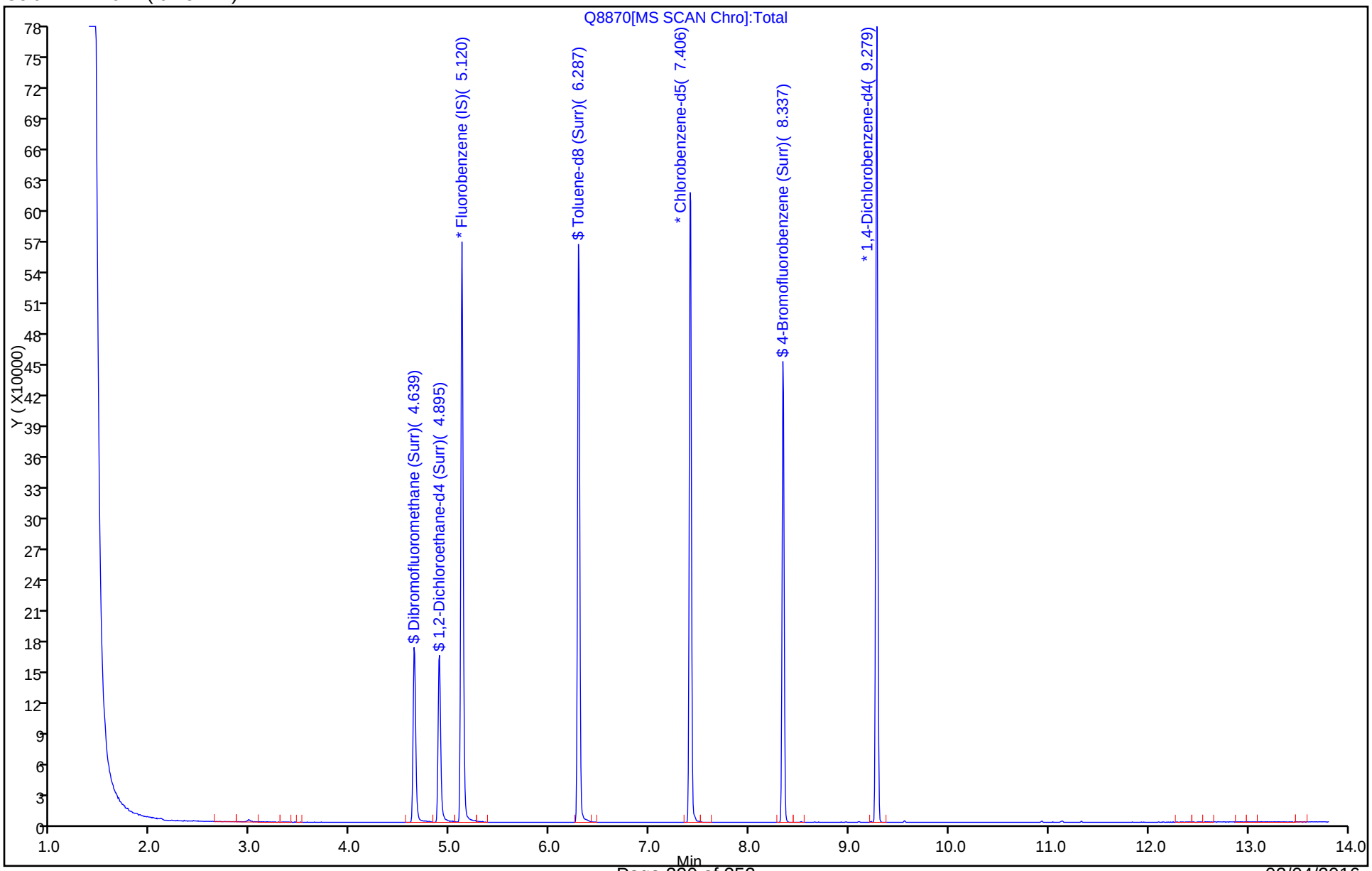
Report Date: 02-Feb-2016 13:30:03 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8870.D

Injection Date:	02-Feb-2016 12:09:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-285459/52

Matrix: Water | Lab File ID: Q8807.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 12:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	21.1		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	22.4		1.0	0.21
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	15.6		1.0	0.31
79-00-5	1,1,2-Trichloroethane	22.4		1.0	0.23
75-34-3	1,1-Dichloroethane	20.8		1.0	0.38
75-35-4	1,1-Dichloroethene	19.7		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	23.0		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	25.1		1.0	0.39
106-93-4	1,2-Dibromoethane	23.8		1.0	0.73
95-50-1	1,2-Dichlorobenzene	22.0		1.0	0.79
107-06-2	1,2-Dichloroethane	23.2		1.0	0.21
78-87-5	1,2-Dichloropropane	21.2		1.0	0.72
541-73-1	1,3-Dichlorobenzene	22.4		1.0	0.78
106-46-7	1,4-Dichlorobenzene	21.6		1.0	0.84
78-93-3	2-Butanone (MEK)	73.0		10	1.3
591-78-6	2-Hexanone	103		5.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	103		5.0	2.1
67-64-1	Acetone	107		10	3.0
71-43-2	Benzene	20.9		1.0	0.41
75-27-4	Bromodichloromethane	24.4		1.0	0.39
75-25-2	Bromoform	25.4		1.0	0.26
74-83-9	Bromomethane	32.8		1.0	0.69
75-15-0	Carbon disulfide	19.1		1.0	0.19
56-23-5	Carbon tetrachloride	21.4		1.0	0.27
108-90-7	Chlorobenzene	22.0		1.0	0.75
75-00-3	Chloroethane	30.5		1.0	0.32
67-66-3	Chloroform	21.5		1.0	0.34
74-87-3	Chloromethane	20.9		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	21.4		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	25.9		1.0	0.36
110-82-7	Cyclohexane	16.1		1.0	0.18
124-48-1	Dibromochloromethane	25.6		1.0	0.32
75-71-8	Dichlorodifluoromethane	25.3		1.0	0.68
100-41-4	Ethylbenzene	22.2		1.0	0.74
98-82-8	Isopropylbenzene	22.2		1.0	0.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-285459/52

Matrix: Water | Lab File ID: Q8807.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 01/29/2016 12:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285459 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	110		2.5	1.3
1634-04-4	Methyl tert-butyl ether	21.7		1.0	0.16
108-87-2	Methylcyclohexane	18.3		1.0	0.16
75-09-2	Methylene Chloride	20.1		1.0	0.44
100-42-5	Styrene	22.6		1.0	0.73
127-18-4	Tetrachloroethene	23.2		1.0	0.36
108-88-3	Toluene	21.5		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	20.8		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	23.9		1.0	0.37
79-01-6	Trichloroethene	21.8		1.0	0.46
75-69-4	Trichlorofluoromethane	27.8		1.0	0.88
75-01-4	Vinyl chloride	23.4		1.0	0.90
1330-20-7	Xylenes, Total	43.0		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		66-137
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
2037-26-5	Toluene-d8 (Surr)	88		71-126
1868-53-7	Dibromofluoromethane (Surr)	90		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8807.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-Jan-2016 12:16:30 ALS Bottle#: 6 Worklist Smp#: 52
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 480-0050272-052
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 29-Jan-2016 13:07:00 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: reiler Date: 29-Jan-2016 13:07:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.120	5.119	0.001	99	94743	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.406	7.406	0.000	84	182421	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.279	9.279	0.000	93	194784	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.639	4.639	0.000	94	112432	25.0	22.5	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.895	4.888	0.007	0	70461	25.0	24.2	
$ 5 Toluene-d8 (Surr)	98	6.287	6.287	0.000	92	376141	25.0	21.9	
$ 6 4-Bromofluorobenzene (Surr	174	8.337	8.336	0.001	91	125759	25.0	23.8	
10 Dichlorodifluoromethane	85	1.434	1.432	0.002	99	126186	25.0	25.3	
11 Chlorodifluoromethane	51	1.453	1.458	-0.005	97	149113	25.0	21.5	
12 Chloromethane	50	1.617	1.626	-0.009	99	142361	25.0	20.9	
13 Vinyl chloride	62	1.708	1.712	-0.004	98	144863	25.0	23.4	
144 Butadiene	54	1.738	1.724	0.014	89	118087	25.0	21.5	
14 Bromomethane	94	2.030	2.028	0.002	91	94608	25.0	32.8	
15 Chloroethane	64	2.134	2.119	0.015	100	82168	25.0	30.5	
17 Trichlorofluoromethane	101	2.310	2.320	-0.010	97	217189	25.0	27.8	
16 Dichlorofluoromethane	67	2.328	2.326	0.002	96	233650	25.0	26.7	
18 Ethyl ether	59	2.590	2.599	-0.009	93	129112	25.0	23.8	
20 Acrolein	56	2.742	2.745	-0.003	98	79587	125.0	56.1	
22 1,1-Dichloroethene	96	2.797	2.800	-0.004	98	118346	25.0	19.7	
21 1,1,2-Trichloro-1,2,2-trif	101	2.809	2.806	0.003	92	85711	25.0	15.6	
141 Ethanol	45		2.818				ND	ND	
23 Acetone	43	2.888	2.891	-0.003	99	361555	125.0	106.9	
25 Iodomethane	142	2.936	2.940	-0.004	100	240608	25.0	21.1	
26 Carbon disulfide	76	2.979	2.983	-0.004	99	369883	25.0	19.1	
24 Isopropyl alcohol	45	3.046	3.046	0.000	95	107575	250.0	212.7	
28 3-Chloro-1-propene	41	3.131	3.129	0.002	92	397475	25.0	40.6	
27 Methyl acetate	43	3.161	3.159	0.002	97	864768	125.0	110.4	
29 Acetonitrile	40	3.149	3.161	-0.012	86	140302	250.0	172.9	
30 Methylene Chloride	84	3.247	3.250	-0.004	91	140512	25.0	20.1	
31 2-Methyl-2-propanol	59	3.380	3.378	0.002	99	328378	250.0	175.9	
32 Methyl tert-butyl ether	73	3.447	3.451	-0.004	94	460623	25.0	21.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
34 trans-1,2-Dichloroethene	96	3.459	3.463	-0.004	98	137874	25.0	20.8	
33 Acrylonitrile	53	3.478	3.481	-0.003	98	830248	250.0	215.5	
35 Hexane	57	3.642	3.645	-0.003	92	153782	25.0	17.2	
39 1,1-Dichloroethane	63	3.806	3.810	-0.004	96	236793	25.0	20.8	
36 Isopropyl ether	45	3.830	3.830	0.000	96	450080	25.0	22.5	
37 Vinyl acetate	43	3.842	3.846	-0.004	97	991758	50.0	64.4	
40 2-Chloro-1,3-butadiene	53	3.867	3.867	0.000	92	229720	25.0	24.4	
38 1,1-Dimethoxyethane	75	3.885	3.885	0.000	91	262365	125.0	119.6	
41 Tert-butyl ethyl ether	59	4.110	4.110	0.000	97	462745	25.0	23.5	
44 2,2-Dichloropropane	77	4.250	4.254	-0.004	86	170262	25.0	20.9	
45 cis-1,2-Dichloroethene	96	4.268	4.272	-0.004	80	155562	25.0	21.4	
43 2-Butanone (MEK)	43	4.280	4.284	-0.004	94	375767	125.0	73.0	
42 Ethyl acetate	43	4.311	4.311	0.000	85	564239	50.0	72.7	M
46 Propionitrile	54	4.353	4.353	0.000	99	335820	250.0	206.8	
47 Methacrylonitrile	41	4.457	4.456	0.001	92	1228223	250.0	251.6	
48 Chlorobromomethane	128	4.463	4.460	0.003	86	80259	25.0	21.1	
49 Tetrahydrofuran	42	4.481	4.479	0.002	88	183034	50.0	48.8	
50 Chloroform	83	4.518	4.521	-0.003	93	235458	25.0	21.5	
51 1,1,1-Trichloroethane	97	4.633	4.631	0.002	98	193182	25.0	21.1	
52 Cyclohexane	56	4.651	4.655	-0.004	92	177302	25.0	16.1	
55 Carbon tetrachloride	117	4.749	4.752	-0.003	97	169924	25.0	21.4	
54 1,1-Dichloropropene	75	4.749	4.752	-0.003	97	181125	25.0	21.1	
53 Isobutyl alcohol	43	4.876	4.874	0.002	94	617994	625.0	874.2	
57 Benzene	78	4.913	4.910	0.003	96	500841	25.0	20.9	
146 Isooctane	57	4.925	4.925	0.000	92	343407	25.0	21.0	
140 t-Amyl alcohol	59	4.931	4.937	-0.006	89	384548	250.0	229.0	
58 1,2-Dichloroethane	62	4.949	4.953	-0.004	98	204910	25.0	23.2	
56 Tert-amyl methyl ether	73	4.968	4.967	0.001	97	506950	25.0	18.8	
59 n-Heptane	43	5.059	5.062	-0.003	92	150962	25.0	19.2	
1 1,4-Difluorobenzene	114	5.199	5.198	0.001	94	466749	25.0	26.1	
60 n-Butanol	56	5.357	5.357	0.001	87	189876	625.0	466.4	
62 Trichloroethene	95	5.387	5.391	-0.004	97	143695	25.0	21.8	
145 Ethyl acrylate	55	5.460	5.460	0.000	99	233241	25.0	25.4	
64 Methylcyclohexane	83	5.503	5.506	-0.003	88	193977	25.0	18.3	
65 1,2-Dichloropropane	63	5.570	5.567	0.003	93	121216	25.0	21.2	
63 Methyl methacrylate	41	5.630	5.630	0.000	90	303671	50.0	52.3	
66 1,4-Dioxane	88	5.673	5.677	-0.004	35	34321	500.0	325.6	
67 Dibromomethane	93	5.673	5.677	-0.004	95	96062	25.0	23.0	
68 Dichlorobromomethane	83	5.782	5.786	-0.004	99	180699	25.0	24.4	
70 2-Nitropropane	43	5.959	5.959	0.000	99	100243	50.0	52.3	
69 2-Chloroethyl vinyl ether	63	5.983	5.987	-0.004	87	91506	25.0	24.4	
71 Epichlorohydrin	57	6.056	6.056	0.000	99	265919	250.0	235.7	
77 trans-1,3-Dichloropropene	75	6.105	6.108	-0.003	93	216340	25.0	23.9	
73 4-Methyl-2-pentanone (MIBK	43	6.202	6.200	0.002	95	984732	125.0	103.4	
74 Toluene	92	6.342	6.339	0.003	99	318579	25.0	21.5	
72 cis-1,3-Dichloropropene	75	6.524	6.528	-0.004	98	193261	25.0	25.9	
75 Ethyl methacrylate	69	6.555	6.558	-0.003	88	181975	25.0	22.6	
79 1,1,2-Trichloroethane	83	6.670	6.674	-0.004	91	99398	25.0	22.4	
81 Tetrachloroethene	166	6.755	6.753	0.002	97	149846	25.0	23.2	
82 1,3-Dichloropropane	76	6.798	6.802	-0.004	87	203994	25.0	22.6	
80 2-Hexanone	43	6.835	6.832	0.002	96	694576	125.0	103.1	
149 n-Butyl acetate	43	6.914	6.913	0.001	98	250086	25.0	21.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
83 Chlorodibromomethane	129	6.980	6.984	-0.004	89	154347	25.0	25.6	
84 Ethylene Dibromide	107	7.072	7.069	0.003	99	141232	25.0	23.8	
139 1-Chlorohexane	55	7.382	7.376	0.006	96	117954	25.0	22.2	
85 3-Chlorobenzotrifluoride	180	7.388	7.382	0.006	91	228652	25.0	28.1	
86 4-Chlorobenzotrifluoride	180	7.430	7.430	0.000	97	218213	25.0	27.9	
87 Chlorobenzene	112	7.430	7.434	-0.004	97	362672	25.0	22.0	
88 Ethylbenzene	91	7.497	7.495	0.002	98	595647	25.0	22.2	
89 1,1,1,2-Tetrachloroethane	131	7.497	7.495	0.002	46	144576	25.0	23.4	
90 m-Xylene & p-Xylene	106	7.583	7.586	-0.004	0	239379	25.0	21.4	
91 o-Xylene	106	7.905	7.908	-0.003	96	244787	25.0	21.6	
92 Styrene	104	7.923	7.921	0.002	95	389126	25.0	22.6	
95 Bromoform	173	8.105	8.109	-0.004	96	94502	25.0	25.4	
93 2-Chlorobenzotrifluoride	180	8.118	8.117	0.001	97	234333	25.0	26.9	
94 Isopropylbenzene	105	8.191	8.188	0.003	95	620015	25.0	22.2	
96 Cyclohexanone	55	8.306	8.312	-0.006	92	81496	250.0	197.9	
101 Bromobenzene	156	8.464	8.468	-0.004	93	164117	25.0	22.7	
97 1,1,2,2-Tetrachloroethane	83	8.470	8.468	0.002	95	193449	25.0	22.4	
100 1,2,3-Trichloropropane	110	8.507	8.504	0.003	87	69244	25.0	22.8	
98 trans-1,4-Dichloro-2-buten	53	8.507	8.511	-0.004	74	50191	25.0	22.5	
99 N-Propylbenzene	91	8.519	8.517	0.002	98	684209	25.0	22.0	
103 2-Chlorotoluene	126	8.610	8.608	0.002	97	157287	25.0	22.7	
102 1,3,5-Trimethylbenzene	105	8.659	8.656	0.003	94	523115	25.0	22.2	
104 3-Chlorotoluene	126	8.659	8.659	0.000	93	174717	25.0	26.4	
105 4-Chlorotoluene	126	8.695	8.699	-0.004	97	163724	25.0	23.4	
106 tert-Butylbenzene	134	8.926	8.924	0.002	92	117009	25.0	22.2	
107 1,2,4-Trimethylbenzene	105	8.969	8.967	0.002	96	553581	25.0	22.7	
108 Pentachloroethane	167	8.975	8.975	0.000	92	92020	25.0	26.1	
109 sec-Butylbenzene	105	9.103	9.100	0.003	94	637026	25.0	22.1	
110 4-Isopropyltoluene	119	9.218	9.216	0.002	97	585507	25.0	22.4	
111 1,3-Dichlorobenzene	146	9.224	9.222	0.002	98	306548	25.0	22.4	
114 Dicyclopentadiene	66	9.297	9.297	0.000	96	617304	25.0	24.5	
113 1,4-Dichlorobenzene	146	9.297	9.301	-0.004	75	304381	25.0	21.6	
112 1,2,3-Trimethylbenzene	105	9.322	9.322	0.000	97	619852	25.0	26.3	
143 Benzyl chloride	126	9.413	9.413	0.000	98	91012	25.0	25.2	
115 n-Butylbenzene	91	9.559	9.557	0.002	97	463081	25.0	21.3	
116 1,2-Dichlorobenzene	146	9.614	9.611	0.003	98	308375	25.0	22.0	
117 1,2-Dibromo-3-Chloropropan	75	10.270	10.268	0.002	90	53123	25.0	25.1	
118 1,3,5-Trichlorobenzene	180	10.416	10.416	0.000	98	263388	25.0	26.6	
119 1,2,4-Trichlorobenzene	180	10.933	10.931	0.002	95	238080	25.0	23.0	
120 Hexachlorobutadiene	225	11.043	11.046	-0.003	97	77612	25.0	22.1	
121 Naphthalene	128	11.140	11.138	0.002	97	830036	25.0	23.8	
122 1,2,3-Trichlorobenzene	180	11.329	11.326	0.003	96	229704	25.0	23.1	
142 2-Methylnaphthalene	142	11.998	11.997	0.001	92	515740	25.0	25.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00063	Amount Added:	12.50	Units: uL	
GAS CORP mix_00132	Amount Added:	12.50	Units: uL	
ADD CORP mix_00043	Amount Added:	12.50	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

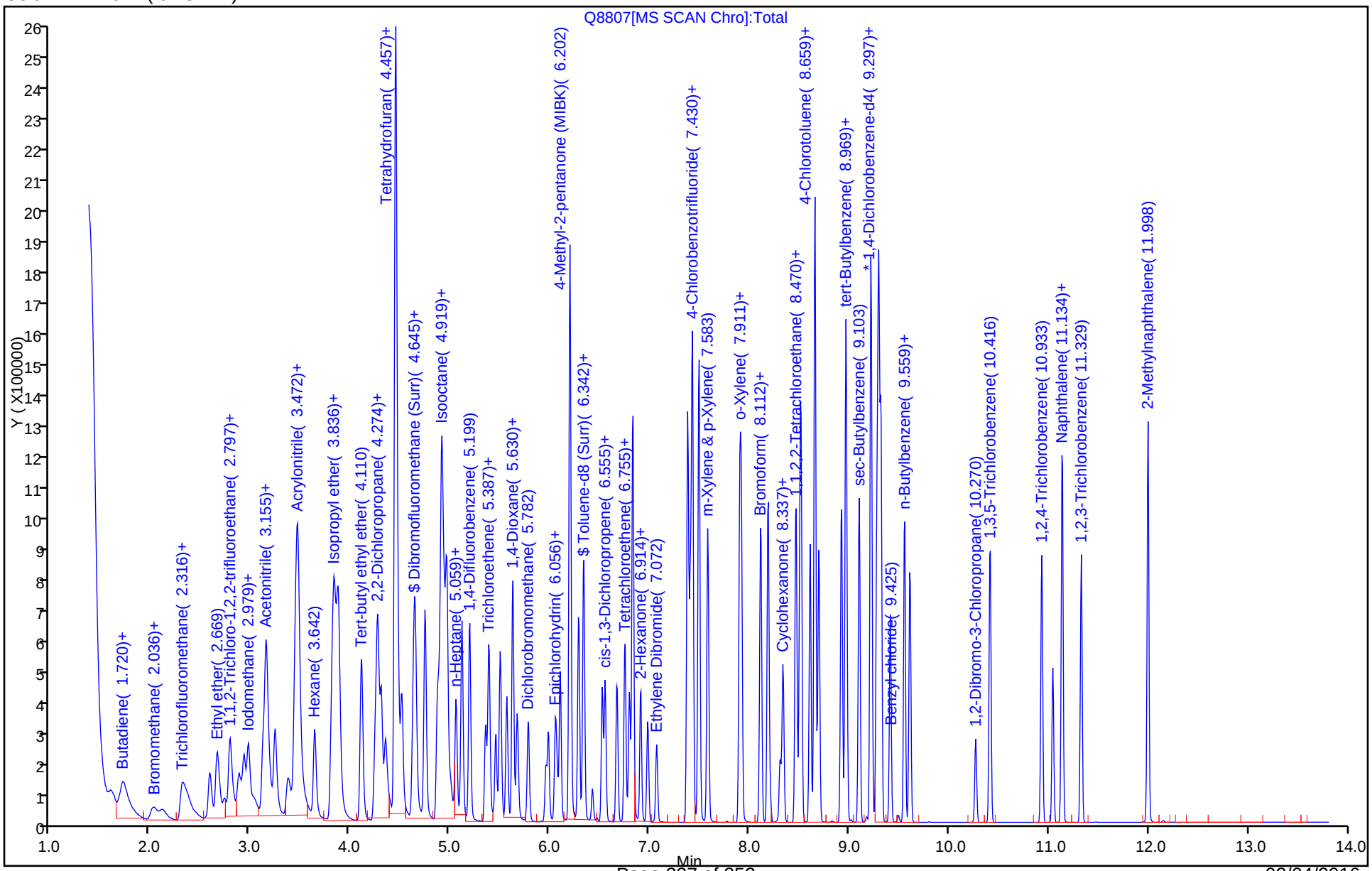
Report Date: 29-Jan-2016 13:07:01 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160129-50272.b\Q8807.D

Injection Date:	29-Jan-2016 12:16:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	LCS			Worklist Smp#:	52
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-285817/5

Matrix: Water | Lab File ID: Q8868.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 02/02/2016 11:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285817 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23.1		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	22.4		1.0	0.21
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	18.3		1.0	0.31
79-00-5	1,1,2-Trichloroethane	23.0		1.0	0.23
75-34-3	1,1-Dichloroethane	22.1		1.0	0.38
75-35-4	1,1-Dichloroethene	21.6		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	22.9		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	23.8		1.0	0.39
106-93-4	1,2-Dibromoethane	24.9		1.0	0.73
95-50-1	1,2-Dichlorobenzene	22.7		1.0	0.79
107-06-2	1,2-Dichloroethane	24.7		1.0	0.21
78-87-5	1,2-Dichloropropane	22.2		1.0	0.72
541-73-1	1,3-Dichlorobenzene	22.7		1.0	0.78
106-46-7	1,4-Dichlorobenzene	22.5		1.0	0.84
78-93-3	2-Butanone (MEK)	100		10	1.3
591-78-6	2-Hexanone	103		5.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	104		5.0	2.1
67-64-1	Acetone	53.9		10	3.0
71-43-2	Benzene	22.5		1.0	0.41
75-27-4	Bromodichloromethane	25.8		1.0	0.39
75-25-2	Bromoform	25.3		1.0	0.26
74-83-9	Bromomethane	30.4		1.0	0.69
75-15-0	Carbon disulfide	21.6		1.0	0.19
56-23-5	Carbon tetrachloride	23.8		1.0	0.27
108-90-7	Chlorobenzene	23.1		1.0	0.75
75-00-3	Chloroethane	26.7		1.0	0.32
67-66-3	Chloroform	23.5		1.0	0.34
74-87-3	Chloromethane	20.9		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	22.9		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	26.7		1.0	0.36
110-82-7	Cyclohexane	18.5		1.0	0.18
124-48-1	Dibromochloromethane	25.5		1.0	0.32
75-71-8	Dichlorodifluoromethane	29.1		1.0	0.68
100-41-4	Ethylbenzene	23.2		1.0	0.74
98-82-8	Isopropylbenzene	23.0		1.0	0.79

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-94483-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-285817/5

Matrix: Water | Lab File ID: Q8868.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 02/02/2016 11:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 285817 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	97.6		2.5	1.3
1634-04-4	Methyl tert-butyl ether	22.8		1.0	0.16
108-87-2	Methylcyclohexane	20.2		1.0	0.16
75-09-2	Methylene Chloride	20.4		1.0	0.44
100-42-5	Styrene	23.6		1.0	0.73
127-18-4	Tetrachloroethene	22.9		1.0	0.36
108-88-3	Toluene	22.7		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	22.8		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	24.4		1.0	0.37
79-01-6	Trichloroethene	23.4		1.0	0.46
75-69-4	Trichlorofluoromethane	25.3		1.0	0.88
75-01-4	Vinyl chloride	23.1		1.0	0.90
1330-20-7	Xylenes, Total	45.0		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		66-137
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
2037-26-5	Toluene-d8 (Surr)	85		71-126
1868-53-7	Dibromofluoromethane (Surr)	88		60-140

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8868.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 02-Feb-2016 11:08:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 480-0050332-005
Operator ID: RR Instrument ID: HP5973Q

Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 02-Feb-2016 11:42:03 Calib Date: 11-Jan-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160111-49854.b\Q8391.D

Column 1 : ZB-624 (0.25 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: reiler Date: 02-Feb-2016 11:43:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 147 Fluorobenzene (IS)	70	5.118	5.118	0.000	99	94854	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.410	7.411	-0.001	84	182045	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	9.277	9.278	-0.001	94	196598	25.0	25.0	
$ 148 Dibromofluoromethane (Surr	113	4.637	4.638	-0.001	93	110534	25.0	22.1	
$ 4 1,2-Dichloroethane-d4 (Sur	67	4.886	4.893	-0.007	0	63364	25.0	21.8	
$ 5 Toluene-d8 (Surr)	98	6.285	6.286	-0.001	92	364820	25.0	21.3	
$ 6 4-Bromofluorobenzene (Surr	174	8.341	8.341	0.000	92	123497	25.0	23.4	
10 Dichlorodifluoromethane	85	1.432	1.433	-0.001	99	145618	25.0	29.1	M
12 Chloromethane	50	1.627	1.609	0.018	99	142357	25.0	20.9	
13 Vinyl chloride	62	1.712	1.707	0.005	98	143448	25.0	23.1	
144 Butadiene	54	1.748	1.737	0.011	89	121675	25.0	22.2	
14 Bromomethane	94	2.040	2.023	0.017	93	87873	25.0	30.4	
15 Chloroethane	64	2.132	2.126	0.006	99	71918	25.0	26.7	
17 Trichlorofluoromethane	101	2.302	2.303	-0.001	98	197845	25.0	25.3	
16 Dichlorofluoromethane	67	2.344	2.333	0.011	97	211038	25.0	24.0	
18 Ethyl ether	59	2.588	2.588	0.000	90	110658	25.0	20.4	
20 Acrolein	56	2.740	2.741	0.000	100	83021	125.0	58.4	
22 1,1-Dichloroethene	96	2.788	2.789	-0.001	98	129697	25.0	21.6	
21 1,1,2-Trichloro-1,2,2-trif	101	2.825	2.807	0.018	91	101112	25.0	18.3	
23 Acetone	43	2.880	2.886	-0.006	99	182308	125.0	53.9	
25 Iodomethane	142	2.934	2.935	-0.001	99	260209	25.0	22.8	
26 Carbon disulfide	76	2.971	2.978	-0.007	99	418097	25.0	21.6	
28 3-Chloro-1-propene	41	3.123	3.124	-0.001	90	192090	25.0	19.6	
27 Methyl acetate	43	3.153	3.160	-0.007	97	765255	125.0	97.6	
30 Methylene Chloride	84	3.245	3.245	-0.001	91	142994	25.0	20.4	
31 2-Methyl-2-propanol	59	3.378	3.385	-0.007	99	275840	250.0	147.5	M
32 Methyl tert-butyl ether	73	3.445	3.446	-0.001	94	485462	25.0	22.8	
34 trans-1,2-Dichloroethene	96	3.457	3.458	-0.001	97	151270	25.0	22.8	
33 Acrylonitrile	53	3.476	3.476	0.000	99	820469	250.0	212.7	
35 Hexane	57	3.640	3.641	-0.001	91	170056	25.0	19.0	
39 1,1-Dichloroethane	63	3.804	3.811	-0.007	96	251648	25.0	22.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
37 Vinyl acetate	43	3.840	3.847	-0.007	97	671461	50.0	43.6	
44 2,2-Dichloropropane	77	4.248	4.249	-0.001	87	185793	25.0	22.8	
45 cis-1,2-Dichloroethene	96	4.266	4.267	-0.001	80	166328	25.0	22.9	
43 2-Butanone (MEK)	43	4.278	4.279	-0.001	99	517172	125.0	100.3	
48 Chlorobromomethane	128	4.455	4.462	-0.007	88	90353	25.0	23.8	
49 Tetrahydrofuran	42	4.479	4.480	-0.001	85	138918	50.0	37.0	
50 Chloroform	83	4.516	4.516	0.000	93	257620	25.0	23.5	
51 1,1,1-Trichloroethane	97	4.625	4.632	-0.007	98	211588	25.0	23.1	
52 Cyclohexane	56	4.649	4.650	-0.001	91	203788	25.0	18.5	
54 1,1-Dichloropropene	75	4.747	4.747	0.000	95	197366	25.0	22.9	
55 Carbon tetrachloride	117	4.747	4.747	0.000	97	189256	25.0	23.8	
53 Isobutyl alcohol	43	4.874	4.875	-0.001	95	304845	625.0	430.7	
57 Benzene	78	4.911	4.912	-0.001	97	539395	25.0	22.5	
58 1,2-Dichloroethane	62	4.947	4.948	-0.001	97	218412	25.0	24.7	
59 n-Heptane	43	5.057	5.058	-0.001	90	155065	25.0	19.7	
62 Trichloroethene	95	5.391	5.392	-0.001	97	154624	25.0	23.4	
64 Methylcyclohexane	83	5.501	5.501	0.000	89	213993	25.0	20.2	
65 1,2-Dichloropropane	63	5.568	5.568	0.000	93	127018	25.0	22.2	
66 1,4-Dioxane	88	5.671	5.672	-0.001	35	39059	500.0	371.3	
67 Dibromomethane	93	5.671	5.672	-0.001	93	101911	25.0	24.4	
68 Dichlorobromomethane	83	5.780	5.781	-0.001	99	190792	25.0	25.8	
69 2-Chloroethyl vinyl ether	63	5.987	5.988	-0.001	93	93547	25.0	24.9	
77 trans-1,3-Dichloropropene	75	6.103	6.103	0.000	93	220355	25.0	24.4	
73 4-Methyl-2-pentanone (MIBK	43	6.200	6.201	-0.001	95	985515	125.0	103.7	
74 Toluene	92	6.340	6.341	-0.001	99	336167	25.0	22.7	
72 cis-1,3-Dichloropropene	75	6.522	6.529	-0.007	98	199224	25.0	26.7	
75 Ethyl methacrylate	69	6.553	6.554	-0.001	89	189255	25.0	23.6	
79 1,1,2-Trichloroethane	83	6.674	6.675	-0.001	91	101903	25.0	23.0	
81 Tetrachloroethene	166	6.753	6.754	-0.001	96	147546	25.0	22.9	
82 1,3-Dichloropropane	76	6.796	6.797	-0.001	88	211408	25.0	23.5	
80 2-Hexanone	43	6.832	6.833	-0.001	95	695662	125.0	103.5	
83 Chlorodibromomethane	129	6.985	6.985	0.000	90	153475	25.0	25.5	
84 Ethylene Dibromide	107	7.070	7.070	0.000	98	147203	25.0	24.9	
87 Chlorobenzene	112	7.428	7.429	-0.001	97	381218	25.0	23.1	
88 Ethylbenzene	91	7.495	7.496	-0.001	98	619829	25.0	23.2	
89 1,1,1,2-Tetrachloroethane	131	7.495	7.496	-0.001	46	145754	25.0	23.6	
90 m-Xylene & p-Xylene	106	7.587	7.587	0.000	0	251707	25.0	22.6	
91 o-Xylene	106	7.903	7.904	-0.001	96	253268	25.0	22.4	
92 Styrene	104	7.921	7.922	-0.001	95	406444	25.0	23.6	
95 Bromoform	173	8.110	8.110	0.000	97	93990	25.0	25.3	
94 Isopropylbenzene	105	8.189	8.189	0.000	95	647955	25.0	23.0	
101 Bromobenzene	156	8.468	8.469	-0.001	92	170943	25.0	23.4	
97 1,1,2,2-Tetrachloroethane	83	8.468	8.469	-0.001	95	195408	25.0	22.4	
100 1,2,3-Trichloropropane	110	8.505	8.506	-0.001	87	68996	25.0	22.5	
98 trans-1,4-Dichloro-2-buten	53	8.505	8.506	-0.001	74	46335	25.0	20.5	
99 N-Propylbenzene	91	8.517	8.518	-0.001	99	715766	25.0	22.8	
103 2-Chlorotoluene	126	8.608	8.609	-0.001	97	161648	25.0	23.1	
102 1,3,5-Trimethylbenzene	105	8.657	8.658	-0.001	95	549694	25.0	23.1	
105 4-Chlorotoluene	126	8.699	8.700	-0.001	97	161679	25.0	22.9	
106 tert-Butylbenzene	134	8.924	8.925	-0.001	92	120677	25.0	22.6	
107 1,2,4-Trimethylbenzene	105	8.967	8.968	-0.001	97	567118	25.0	23.1	
109 sec-Butylbenzene	105	9.101	9.102	-0.001	94	643028	25.0	22.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
110 4-Isopropyltoluene	119	9.216	9.217	-0.001	97	594985	25.0	22.6	
111 1,3-Dichlorobenzene	146	9.222	9.223	-0.001	98	312965	25.0	22.7	
113 1,4-Dichlorobenzene	146	9.295	9.296	-0.001	95	320424	25.0	22.5	
115 n-Butylbenzene	91	9.557	9.558	-0.001	97	481086	25.0	22.0	
116 1,2-Dichlorobenzene	146	9.612	9.612	0.000	98	320655	25.0	22.7	
117 1,2-Dibromo-3-Chloropropan	75	10.268	10.269	-0.001	88	50831	25.0	23.8	
119 1,2,4-Trichlorobenzene	180	10.931	10.932	-0.001	95	239394	25.0	22.9	
120 Hexachlorobutadiene	225	11.041	11.048	-0.007	97	79199	25.0	22.3	
121 Naphthalene	128	11.138	11.139	-0.001	97	810712	25.0	23.1	
122 1,2,3-Trichlorobenzene	180	11.327	11.327	0.000	96	227818	25.0	22.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

GAS CORP mix_00133	Amount Added:	12.50	Units: uL	
8260 CORP mix_00064	Amount Added:	12.50	Units: uL	
Q_8260_IS_00114	Amount Added:	1.25	Units: uL	Run Reagent
Q_8260_SURR_00107	Amount Added:	1.25	Units: uL	Run Reagent

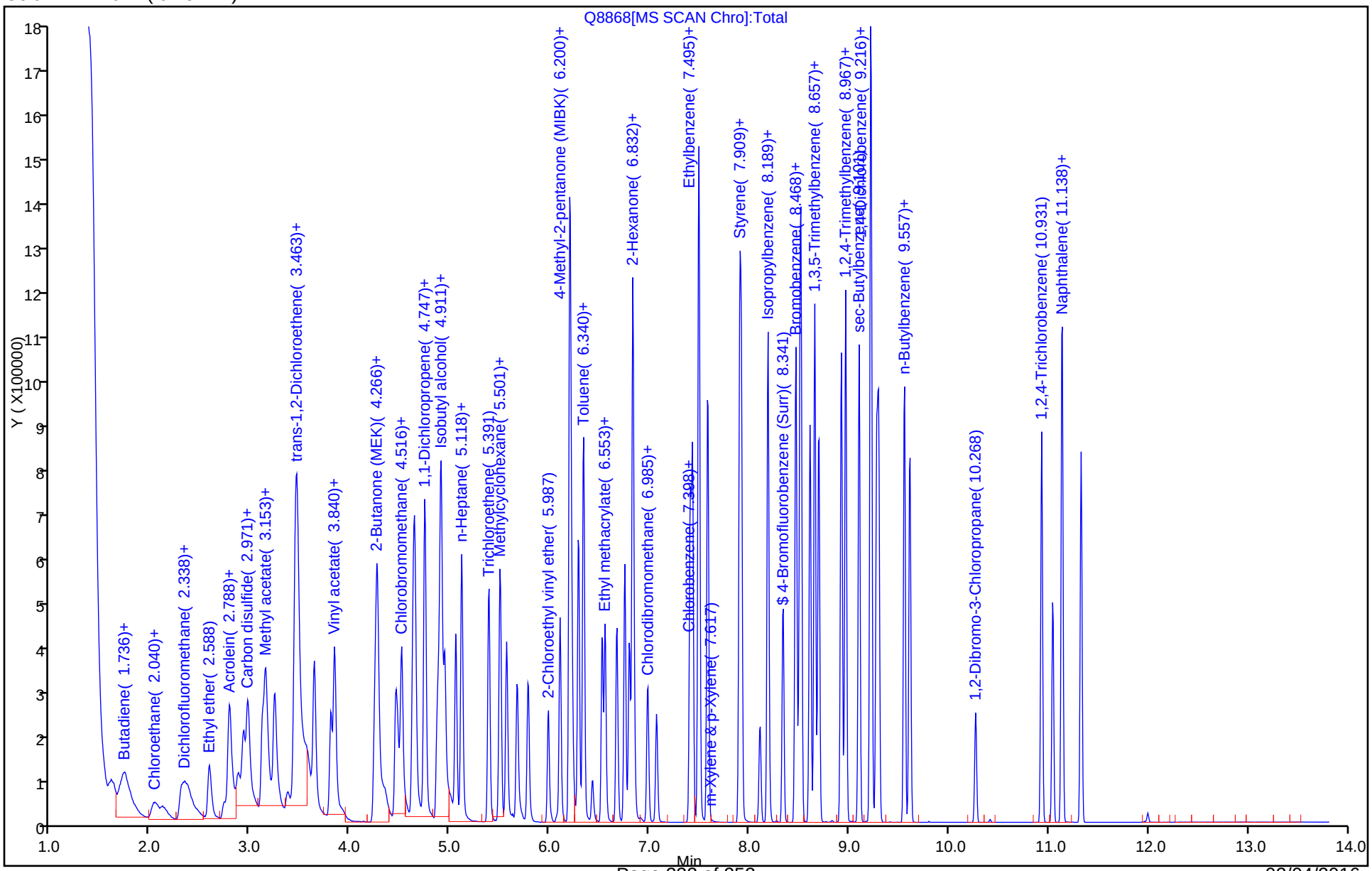
Report Date: 02-Feb-2016 11:43:29 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8868.D

Injection Date:	02-Feb-2016 11:08:30	Instrument ID:	HP5973Q	Operator ID:	RR
Lims ID:	LCS			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	Q-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.25 mm)



Manual Integration/User Assign Peak Report

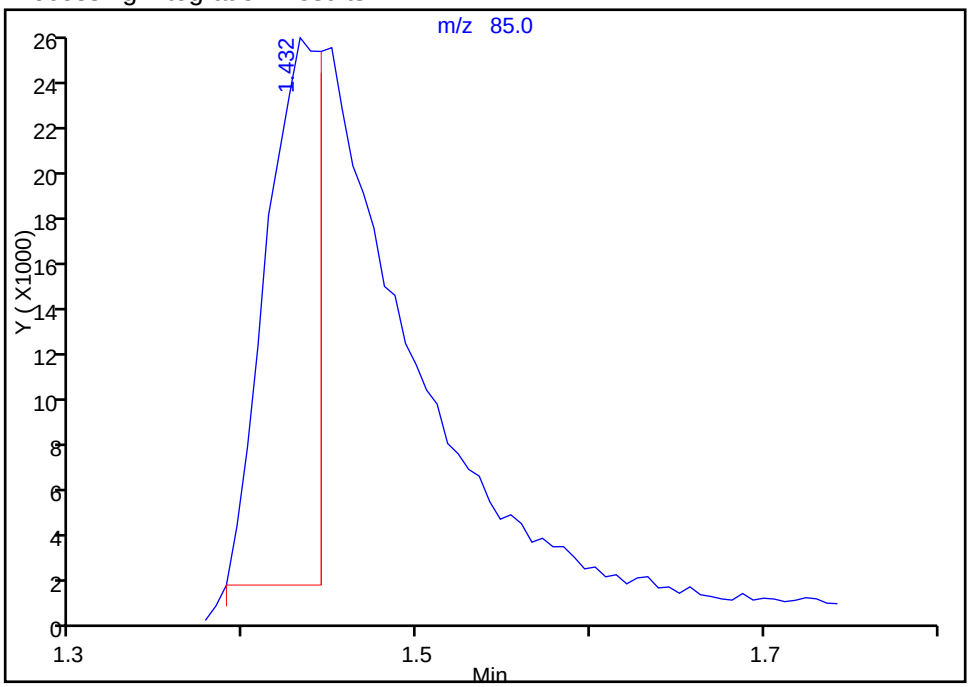
TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20160202-50332.b\Q8868.D
Injection Date: 02-Feb-2016 11:08:30 Instrument ID: HP5973Q
Lims ID: LCS
Client ID:
Operator ID: RR ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.25 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

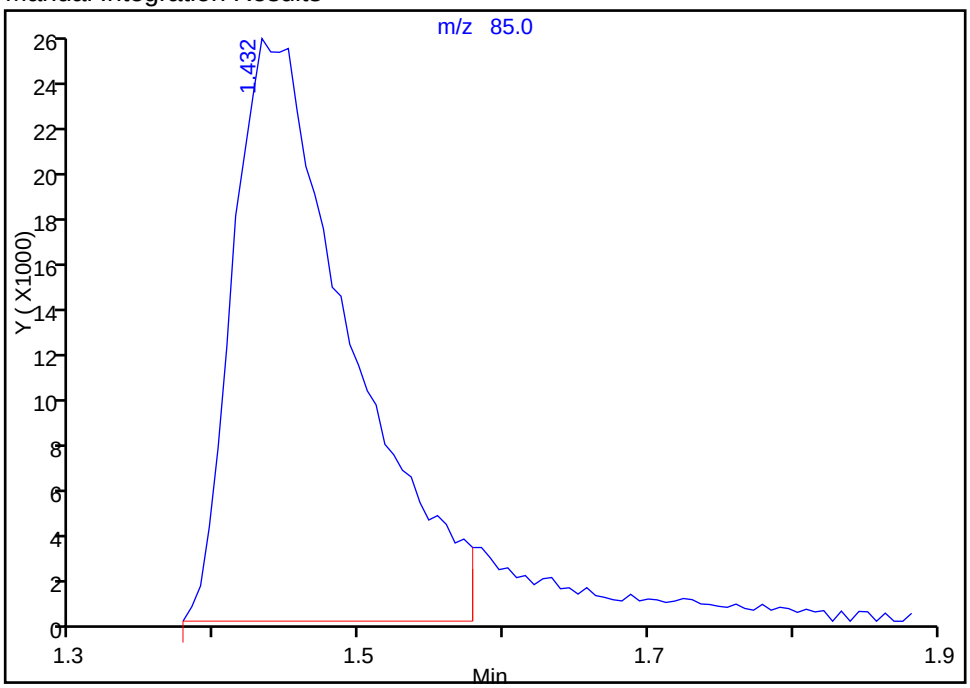
Processing Integration Results

RT: 1.43
Area: 54080
Amount: 10.809175
Amount Units: ug/L



Manual Integration Results

RT: 1.43
Area: 145618
Amount: 29.105223
Amount Units: ug/L



Reviewer: reiler, 02-Feb-2016 11:33:08
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Instrument ID: HP5973Q Start Date: 01/11/2016 12:30

Analysis Batch Number: 283036 End Date: 01/11/2016 23:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		01/11/2016 12:30	1		ZB-624 (60) 0.25(mm)
BFB 480-283036/3		01/11/2016 15:13	1	Q8374.D	ZB-624 (60) 0.25(mm)
ZZZZZ		01/11/2016 15:43	1		ZB-624 (60) 0.25(mm)
IC 480-283036/5		01/11/2016 16:06	1	Q8376.D	ZB-624 (60) 0.25(mm)
IC 480-283036/6		01/11/2016 16:29	1	Q8377.D	ZB-624 (60) 0.25(mm)
IC 480-283036/7		01/11/2016 16:53	1	Q8378.D	ZB-624 (60) 0.25(mm)
IC 480-283036/8		01/11/2016 17:17	1	Q8379.D	ZB-624 (60) 0.25(mm)
IC 480-283036/9		01/11/2016 17:40	1	Q8380.D	ZB-624 (60) 0.25(mm)
ICIS 480-283036/10		01/11/2016 18:03	1	Q8381.D	ZB-624 (60) 0.25(mm)
IC 480-283036/11		01/11/2016 18:26	1	Q8382.D	ZB-624 (60) 0.25(mm)
IC 480-283036/12		01/11/2016 18:50	1	Q8383.D	ZB-624 (60) 0.25(mm)
ZZZZZ		01/11/2016 19:13	1		ZB-624 (60) 0.25(mm)
IC 480-283036/14		01/11/2016 19:36	1		ZB-624 (60) 0.25(mm)
IC 480-283036/15		01/11/2016 19:59	1		ZB-624 (60) 0.25(mm)
IC 480-283036/16		01/11/2016 20:22	1		ZB-624 (60) 0.25(mm)
IC 480-283036/17		01/11/2016 20:45	1		ZB-624 (60) 0.25(mm)
IC 480-283036/18		01/11/2016 21:08	1		ZB-624 (60) 0.25(mm)
IC 480-283036/19		01/11/2016 21:32	1		ZB-624 (60) 0.25(mm)
IC 480-283036/20		01/11/2016 21:55	1		ZB-624 (60) 0.25(mm)
MDLV 480-283036/22		01/11/2016 22:42	1		ZB-624 (60) 0.25(mm)
MDLV 480-283036/23		01/11/2016 23:05	1		ZB-624 (60) 0.25(mm)
ICV 480-283036/24		01/11/2016 23:28	1		ZB-624 (60) 0.25(mm)
ICV 480-283036/25		01/11/2016 23:52	1		ZB-624 (60) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Instrument ID: HP5973Q Start Date: 01/29/2016 09:36

Analysis Batch Number: 285459 End Date: 01/29/2016 21:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 480-285459/2		01/29/2016 09:36	1	Q8803.D	ZB-624 (60) 0.25(mm)
CCVIS 480-285459/3		01/29/2016 10:02	1	Q8804.D	ZB-624 (60) 0.25(mm)
CCV 480-285459/4		01/29/2016 10:45	1		ZB-624 (60) 0.25(mm)
LCS 480-285459/52		01/29/2016 12:16	1	Q8807.D	ZB-624 (60) 0.25(mm)
RL 480-285459/6		01/29/2016 12:53	1		ZB-624 (60) 0.25(mm)
MB 480-285459/7		01/29/2016 13:17	1	Q8809.D	ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 13:52	50		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 14:16	2		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 14:40	1		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 15:03	1		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 15:26	1		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 15:50	5		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 16:13	4		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 16:36	1		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 16:59	1		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 17:23	1		ZB-624 (60) 0.25(mm)
480-94483-1		01/29/2016 17:46	10	Q8820.D	ZB-624 (60) 0.25(mm)
480-94483-2		01/29/2016 18:09	8	Q8821.D	ZB-624 (60) 0.25(mm)
480-94483-3		01/29/2016 18:33	1	Q8822.D	ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 18:56	10		ZB-624 (60) 0.25(mm)
480-94483-5		01/29/2016 19:19	20	Q8824.D	ZB-624 (60) 0.25(mm)
480-94483-6		01/29/2016 19:42	500	Q8825.D	ZB-624 (60) 0.25(mm)
480-94483-7		01/29/2016 20:05	20	Q8826.D	ZB-624 (60) 0.25(mm)
480-94483-8		01/29/2016 20:29	500	Q8827.D	ZB-624 (60) 0.25(mm)
480-94483-9		01/29/2016 20:52	1	Q8828.D	ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 21:16	500		ZB-624 (60) 0.25(mm)
ZZZZZ		01/29/2016 21:39	500		ZB-624 (60) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-94483-1

SDG No.:

Instrument ID: HP5973Q Start Date: 02/02/2016 09:21

Analysis Batch Number: 285817 End Date: 02/02/2016 20:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 480-285817/2		02/02/2016 09:21	1	Q8865.D	ZB-624 (60) 0.25(mm)
CCVIS 480-285817/3		02/02/2016 09:44	1	Q8866.D	ZB-624 (60) 0.25(mm)
CCV 480-285817/4		02/02/2016 10:19	1		ZB-624 (60) 0.25(mm)
LCS 480-285817/5		02/02/2016 11:08	1	Q8868.D	ZB-624 (60) 0.25(mm)
RL 480-285817/6		02/02/2016 11:46	1		ZB-624 (60) 0.25(mm)
MB 480-285817/7		02/02/2016 12:09	1	Q8870.D	ZB-624 (60) 0.25(mm)
480-94483-4		02/02/2016 12:48	2	Q8871.D	ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 13:11	10		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 13:35	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 13:58	5		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 14:22	5		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 14:46	5		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 15:09	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 15:33	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 15:57	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 16:21	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 16:44	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 17:07	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 17:30	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 17:54	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 18:17	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 18:40	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 19:04	1		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 19:27	4		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 19:50	10		ZB-624 (60) 0.25(mm)
ZZZZZ		02/02/2016 20:13	10		ZB-624 (60) 0.25(mm)

GC/MS VOA Worksheet

Batch Number: 480-285459
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Jan 29 2016 9:36AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Initial pH	Initial weight/volume of sample	Final weight/volume of sample	Instrument	8260 CORP mix_00063	ADD CORP mix_00043
BFB~480-285459/2		8260C			1 uL	1 uL	HP5973Q		
CCVIS~480-285459/3		8260C			5 mL	5 mL	HP5973Q	12.5 uL	
CCV~480-285459/4		8260C			5 mL	5 mL	HP5973Q		12.5 uL
RL~480-285459/6					5 mL	5 mL	HP5973Q	1 uL	
MB~480-285459/7		8260C			5 mL	5 mL	HP5973Q		
480-94460-A-1	WELL 1-2A	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94460-A-2	WELL 1-3	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94460-A-3	TRIP BLANK 1-27-15	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-1	MW-23S	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-2	MW-23D	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-3	MW-1DD	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-4	GM-9	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-5	MW-1D	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-6	MW-13	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-7	MW-1	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-8	DUP-1_012816	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-9	TRIP BLANK	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94333-A-13	57625	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94442-D-2	MW-1			<2 SU	5 mL	5 mL	HP5973Q		
480-94475-D-1	B-4	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94475-D-2	B-5	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94475-D-3	B-6	8260C	T	<2 SU	5 mL	5 mL	HP5973Q		
480-94483-A-6~MS		8260C	T	<2 SU	5 mL	5 mL	HP5973Q	12.5 uL	12.5 uL
480-94483-A-6~MSD		8260C	T	<2 SU	5 mL	5 mL	HP5973Q	12.5 uL	12.5 uL
LCS~480-285459/52		8260C			5 mL	5 mL	HP5973Q	12.5 uL	12.5 uL

GC/MS VOA Worksheet

Batch Number: 480-285459
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Jan 29 2016 9:36AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	BFB_WRK_00050	GAS CORP mix_00132	Q_8260_IS_00114	Q_8260_SURR_00107
BFB~480-285459/2		8260C		1 uL			
CCVIS~480-285459/3		8260C			12.5 uL	1.25 uL	1.25 uL
CCV~480-285459/4		8260C				1.25 uL	1.25 uL
RL~480-285459/6					1 uL	1.25 uL	1.25 uL
MB~480-285459/7		8260C				1.25 uL	1.25 uL
480-94460-A-1	WELL 1-2A	8260C	T			1.25 uL	1.25 uL
480-94460-A-2	WELL 1-3	8260C	T			1.25 uL	1.25 uL
480-94460-A-3	TRIP BLANK 1-27-15	8260C	T			1.25 uL	1.25 uL
480-94483-A-1	MW-23S	8260C	T			1.25 uL	1.25 uL
480-94483-A-2	MW-23D	8260C	T			1.25 uL	1.25 uL
480-94483-A-3	MW-1DD	8260C	T			1.25 uL	1.25 uL
480-94483-A-4	GM-9	8260C	T			1.25 uL	1.25 uL
480-94483-A-5	MW-1D	8260C	T			1.25 uL	1.25 uL
480-94483-A-6	MW-13	8260C	T			1.25 uL	1.25 uL
480-94483-A-7	MW-1	8260C	T			1.25 uL	1.25 uL
480-94483-A-8	DUP-1_012816	8260C	T			1.25 uL	1.25 uL
480-94483-A-9	TRIP BLANK	8260C	T			1.25 uL	1.25 uL
480-94333-A-13	57625	8260C	T			1.25 uL	1.25 uL
480-94442-D-2	MW-1					1.25 uL	1.25 uL
480-94475-D-1	B-4	8260C	T			1.25 uL	1.25 uL
480-94475-D-2	B-5	8260C	T			1.25 uL	1.25 uL
480-94475-D-3	B-6	8260C	T			1.25 uL	1.25 uL
480-94483-A-6~MS		8260C	T		12.5 uL	1.25 uL	1.25 uL
480-94483-A-6~MSD		8260C	T		12.5 uL	1.25 uL	1.25 uL
LCS~480-285459/52		8260C			12.5 uL	1.25 uL	1.25 uL

GC/MS VOA Worksheet

Batch Number: 480-285459
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Jan 29 2016 9:36AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Initial pH	Initial weight/volume of sample	Final weight/volume of sample	Instrument	8260 CORP mix_00063	ADD CORP mix_00043
480-94458-B-1-A		8260C	P		5 mL	5 mL	HP5973Q		
480-94442-D-2	MW-1	8260C	T	7 SU	5 mL	5 mL	HP5973Q		

GC/MS VOA Worksheet

Batch Number: 480-285459
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Jan 29 2016 9:36AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	BFB_WRK_00050	GAS CORP mix_00132	Q_8260_IS_00114	Q_8260_SURR_00107
480-94458-B-1-A		8260C	P			1.25 uL	1.25 uL
480-94442-D-2	MW-1	8260C	T			1.25 uL	1.25 uL

GC/MS VOA Worksheet

Batch Number: 480-285459
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Jan 29 2016 9:36AM
Batch End:

Comments

Lab ID	Client ID	Method Chain	Basis	Analysis comment
BFB~480-285459/2		8260C		
CCVIS~480-285459/3		8260C		
CCV~480-285459/4		8260C		
RL~480-285459/6				
MB~480-285459/7		8260C		
480-94460-A-1	WELL 1-2A	8260C	T	
480-94460-A-2	WELL 1-3	8260C	T	
480-94460-A-3	TRIP BLANK 1-27-15	8260C	T	
480-94483-A-1	MW-23S	8260C	T	
480-94483-A-2	MW-23D	8260C	T	
480-94483-A-3	MW-1DD	8260C	T	
480-94483-A-4	GM-9	8260C	T	rerun at lower DL
480-94483-A-5	MW-1D	8260C	T	
480-94483-A-6	MW-13	8260C	T	
480-94483-A-7	MW-1	8260C	T	
480-94483-A-8	DUP-1_012816	8260C	T	
480-94483-A-9	TRIP BLANK	8260C	T	
480-94333-A-13	57625	8260C	T	
480-94442-D-2	MW-1			reran at higher DL
480-94475-D-1	B-4	8260C	T	
480-94475-D-2	B-5	8260C	T	
480-94475-D-3	B-6	8260C	T	
480-94483-A-6~MS		8260C	T	
480-94483-A-6~MSD		8260C	T	didn't make 12 hour
LCS~480-285459/52		8260C		

GC/MS VOA Worksheet

Batch Number: 480-285459
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Jan 29 2016 9:36AM
Batch End:

Comments

Lab ID	Client ID	Method Chain	Basis	Analysis comment
480-94458-B-1-A		8260C	P	
480-94442-D-2	MW-1	8260C	T	

GC/MS VOA Worksheet

Batch Number: 480-285817
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Feb 02 2016 9:21AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Initial pH	Initial weight/volume of sample	Final weight/volume of sample	Instrument	8260 CORP mix_00064	ADD CORP mix_00043
BFB~480-285817/2		8260C			1 uL	1 uL	HP5973Q		
CCVIS~480-285817/3		8260C			5 mL	5 mL	HP5973Q	12.5 uL	
CCV~480-285817/4		8260C			5 mL	5 mL	HP5973Q		12.5 uL
LCS~480-285817/5		8260C			5 mL	5 mL	HP5973Q	12.5 uL	
RL~480-285817/6					5 mL	5 mL	HP5973Q	1 uL	
MB~480-285817/7		8260C			5 mL	5 mL	HP5973Q		
480-94529-C-1	MW-1	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94529-C-2	MW-2	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94529-C-3	MW-3	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94529-C-4	MW-4	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94529-C-5	MW-5	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94529-C-6	RW-1	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94529-A-7	TRIP BLANK	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94533-A-1	SYSTEM INFLUENT	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94533-A-2	SYSTEM EFFLUENT	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94539-A-1	OW-1	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94539-A-2	OW-2	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
480-94483-B-4	GM-9	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
680-121370-B-1	1P-1	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
680-121370-B-4	IW-B3	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
680-121370-B-8	MW-19	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
680-121370-B-9	MW-16	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
680-121370-B-11	MW-18	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
680-121370-B-12	MW-20	8260C	T	<2 SU	1 uL	1 uL	HP5973Q		
680-121370-B-1~MS		8260C	T	<2 SU	1 uL	1 uL	HP5973Q	12.5 uL	

GC/MS VOA Worksheet

Batch Number: 480-285817
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Feb 02 2016 9:21AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	BFB_WRK_00051	GAS CORP mix_00133	Q_8260_IS_00114	Q_8260_SURR_00107
BFB~480-285817/2		8260C		1 uL			
CCVIS~480-285817/3		8260C			12.5 uL	1.25 uL	1.25 uL
CCV~480-285817/4		8260C				1.25 uL	1.25 uL
LCS~480-285817/5		8260C			12.5 uL	1.25 uL	1.25 uL
RL~480-285817/6					1 uL	1.25 uL	1.25 uL
MB~480-285817/7		8260C				1.25 uL	1.25 uL
480-94529-C-1	MW-1	8260C	T			1.25 uL	1.25 uL
480-94529-C-2	MW-2	8260C	T			1.25 uL	1.25 uL
480-94529-C-3	MW-3	8260C	T			1.25 uL	1.25 uL
480-94529-C-4	MW-4	8260C	T			1.25 uL	1.25 uL
480-94529-C-5	MW-5	8260C	T			1.25 uL	1.25 uL
480-94529-C-6	RW-1	8260C	T			1.25 uL	1.25 uL
480-94529-A-7	TRIP BLANK	8260C	T			1.25 uL	1.25 uL
480-94533-A-1	SYSTEM INFLUENT	8260C	T			1.25 uL	1.25 uL
480-94533-A-2	SYSTEM EFFLUENT	8260C	T			1.25 uL	1.25 uL
480-94539-A-1	OW-1	8260C	T			1.25 uL	1.25 uL
480-94539-A-2	OW-2	8260C	T			1.25 uL	1.25 uL
480-94483-B-4	GM-9	8260C	T			1.25 uL	1.25 uL
680-121370-B-1	1P-1	8260C	T			1.25 uL	1.25 uL
680-121370-B-4	IW-B3	8260C	T			1.25 uL	1.25 uL
680-121370-B-8	MW-19	8260C	T			1.25 uL	1.25 uL
680-121370-B-9	MW-16	8260C	T			1.25 uL	1.25 uL
680-121370-B-11	MW-18	8260C	T			1.25 uL	1.25 uL
680-121370-B-12	MW-20	8260C	T			1.25 uL	1.25 uL
680-121370-B-1~MS		8260C	T		12.5 uL	1.25 uL	1.25 uL

GC/MS VOA Worksheet

Batch Number: 480-285817
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Feb 02 2016 9:21AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Initial pH	Initial weight/volume of sample	Final weight/volume of sample	Instrument	8260 CORP mix_00064	ADD CORP mix_00043
680-121370-B-1~MSD		8260C	T	<2 SU	1 uL	1 uL	HP5973Q	12.5 uL	

GC/MS VOA Worksheet

Batch Number: 480-285817
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Feb 02 2016 9:21AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	BFB_WRK_00051	GAS CORP mix_00133	Q_8260_IS_00114	Q_8260_SURR_00107
680-121370-B-1~MSD		8260C	T		12.5 uL	1.25 uL	1.25 uL

GC/MS VOA Worksheet

Batch Number: 480-285817
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Feb 02 2016 9:21AM
Batch End:

Comments

Lab ID	Client ID	Method Chain	Basis	Analysis comment
BFB~480-285817/2		8260C		
CCVIS~480-285817/3		8260C		
CCV~480-285817/4		8260C		
LCS~480-285817/5		8260C		
RL~480-285817/6				
MB~480-285817/7		8260C		
480-94529-C-1	MW-1	8260C	T	
480-94529-C-2	MW-2	8260C	T	
480-94529-C-3	MW-3	8260C	T	
480-94529-C-4	MW-4	8260C	T	
480-94529-C-5	MW-5	8260C	T	
480-94529-C-6	RW-1	8260C	T	
480-94529-A-7	TRIP BLANK	8260C	T	
480-94533-A-1	SYSTEM INFLUENT	8260C	T	
480-94533-A-2	SYSTEM EFFLUENT	8260C	T	rerunning at higher DL
480-94539-A-1	OW-1	8260C	T	rerunning for possible carry over
480-94539-A-2	OW-2	8260C	T	rerunning at lower DL
480-94483-B-4	GM-9	8260C	T	
680-121370-B-1	1P-1	8260C	T	
680-121370-B-4	IW-B3	8260C	T	
680-121370-B-8	MW-19	8260C	T	
680-121370-B-9	MW-16	8260C	T	
680-121370-B-11	MW-18	8260C	T	
680-121370-B-12	MW-20	8260C	T	
680-121370-B-1~MS		8260C	T	

GC/MS VOA Worksheet

Batch Number: 480-285817
Method: 8260C
Analyst: Reile, Rebecca S

Date Open: Feb 02 2016 9:21AM
Batch End:

Comments

Lab ID	Client ID	Method Chain	Basis	Analysis comment
680-121370-B-1~MSD		8260C	T	

Shipping and Receiving Documents

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

480501-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: BO + ES	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-77941-19312.2
Client Contact: Aaron Bobar	Phone: (518)250-7300	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days):			
State, Zip: NY, 12065				
Phone: (518)250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-23S	1/27/16	1550	G	Water	N	N	3		
MW-23D	1/27/16	1550	G	Water	N	N	3		
MW-1DD	1/28/16	0825	G	Water	N	N	3		
GM-9	1/28/16	0820	G	Water	N	N	3		
MW-1D	1/28/16	0900	G	Water	N	N	3		
MW-13	1/28/16	0920	G	Water	N	N	3		
MW-1	1/28/16	0930	G	Water	N	N	3		
DUP-1-012816	1/28/16	—	G	Water	N	N	3		
Trip Blank	—	—	—	Water	N	N	2		
				Water					

480-94483 Chain of Custody

480501 Albany

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 1/28/16 1330	Company: arcadis	Received by:	Date/Time: 1/28/16 13:30	Company: TA-ALB
Relinquished by:	Date/Time: 1/28/16 1800	Company: TA-ALB	Received by:	Date/Time: 1-29-16 0100	Company: TAO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.6 #2

02/04/2016

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-94483-1

Login Number: 94483
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Second Post-Injection Analytical Sampling – March 2015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-96991-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Melissa Deyo

Authorized for release by:
4/5/2016 10:09:29 AM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-96991-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-96991-1

Receipt
The samples were received on 3/24/2016 2:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-293392 recovered above the upper control limit for Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: MW-23S (480-96991-1), MW-23D (480-96991-2), MW-1DD (480-96991-3), MW-1D (480-96991-4), IW-01S (480-96991-5), MW-1 (480-96991-6), MW-13 (480-96991-8), MW-9 (480-96991-9), MW-14R (480-96991-10), MP-20 (480-96991-11), DUP-1 (480-96991-12) and TRIP BLANK (480-96991-13).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-23S (480-96991-1), MW-23D (480-96991-2), MW-23D (480-96991-2[MS]), MW-23D (480-96991-2[MSD]), MW-1D (480-96991-4), IW-01S (480-96991-5), MW-1 (480-96991-6), MW-13 (480-96991-8), MW-9 (480-96991-9), MW-14R (480-96991-10) and DUP-1 (480-96991-12). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-293565 recovered above the upper control limit for 1,4-Dioxane, Acetone and Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-23S (480-96991-1), MW-23D (480-96991-2), MW-1DD (480-96991-3), MW-1D (480-96991-4), IW-01S (480-96991-5), GM-9 (480-96991-7), MW-14R (480-96991-10) and DUP-1 (480-96991-12).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-293565 recovered outside acceptance criteria, low biased, for Bromomethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: MW-23S (480-96991-1), MW-23D (480-96991-2), MW-1DD (480-96991-3), MW-1D (480-96991-4), IW-01S (480-96991-5), GM-9 (480-96991-7), MW-14R (480-96991-10) and DUP-1 (480-96991-12).

Method(s) 8260C: The laboratory control sample (LCS) for batch analytical batch 480-293565 recovered outside control limits for the following analyte: Acetone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: MW-23S (480-96991-1), MW-23D (480-96991-2), MW-1DD (480-96991-3), MW-1D (480-96991-4), IW-01S (480-96991-5), GM-9 (480-96991-7), MW-14R (480-96991-10) and DUP-1 (480-96991-12).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-293565 recovered outside control limits for the following analyte: Bromomethane. Bromomethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The following samples are impacted: MW-23S (480-96991-1), MW-23D (480-96991-2), MW-1DD (480-96991-3), MW-1D (480-96991-4), IW-01S (480-96991-5), GM-9 (480-96991-7), MW-14R (480-96991-10) and DUP-1 (480-96991-12).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-23S (480-96991-1), MW-23D (480-96991-2), MW-1DD (480-96991-3), MW-1D (480-96991-4), IW-01S (480-96991-5), GM-9 (480-96991-7), MW-14R (480-96991-10), DUP-1 (480-96991-12), (480-96991-B-1 MS) and (480-96991-B-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-23D (480-96991-2[MS]), MW-23D (480-96991-2[MSD]) and MW-9 (480-96991-9). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with analytical batch 293608 recovered above the upper control limit for analyte Carbon tetrachloride. The sample associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. MW-9 (480-96991-9).

Method(s) 8260C: The continuing calibration verification (CCV) associated with analytical batch 293608 recovered outside acceptance criteria, low biased, for analytes Chloromethane and Cyclohexane. A reporting limit (RL) standard was analyzed, and the target analytes

Job ID: 480-96991-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

were detected. Since the associated sample was non-detect for these analytes, the data has been reported. MW-9 (480-96991-9).

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in analytical batch 293608 was outside the method criteria for the following analyte Vinyl chloride. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. MW-9 (480-96991-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-23S — Lab Sample ID: 480-96991-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2400	E	10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	1600	E	10	3.6	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	15		10	9.0	ug/L	10		8260C	Total/NA
Trichloroethene	680		10	4.6	ug/L	10		8260C	Total/NA
Carbon disulfide - DL	17	J	50	9.5	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3000	F1	50	41	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	2000	F1	50	18	ug/L	50		8260C	Total/NA
Trichloroethene - DL	840		50	23	ug/L	50		8260C	Total/NA

Client Sample ID: MW-23D — Lab Sample ID: 480-96991-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1000	E	8.0	6.5	ug/L	8		8260C	Total/NA
Tetrachloroethene	700	F1	8.0	2.9	ug/L	8		8260C	Total/NA
Trichloroethene	300	F1	8.0	3.7	ug/L	8		8260C	Total/NA
cis-1,2-Dichloroethene - DL	1200	F1	20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene - DL	820	F1	20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene - DL	350		20	9.2	ug/L	20		8260C	Total/NA

Client Sample ID: MW-1DD — Lab Sample ID: 480-96991-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.4		1.0	0.29	ug/L	1		8260C	Total/NA
Benzene	0.49	J	1.0	0.41	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	500	E	1.0	0.81	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	9.9		1.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	300	E	1.0	0.36	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	2.6		1.0	0.90	ug/L	1		8260C	Total/NA
Trichloroethene	150	E	1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	31		1.0	0.90	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	560		10	8.1	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether - DL	10		10	1.6	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	290		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene - DL	150		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride - DL	28		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: MW-1D — Lab Sample ID: 480-96991-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1900		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	2600	E	20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	1000		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	31		20	18	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene - DL	2500		50	41	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	3500		50	18	ug/L	50		8260C	Total/NA
Trichloroethene - DL	1400		50	23	ug/L	50		8260C	Total/NA

Client Sample ID: IW-01S — Lab Sample ID: 480-96991-5

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: IW-01S (Continued) — Lab Sample ID: 480-96991-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	500		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	3300	E	20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	240		20	9.2	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene - DL	590		50	41	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	4400		50	18	ug/L	50		8260C	Total/NA
Trichloroethene - DL	290		50	23	ug/L	50		8260C	Total/NA

Client Sample ID: MW-1 — Lab Sample ID: 480-96991-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1300		20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	350		20	7.2	ug/L	20		8260C	Total/NA
Trichloroethene	130		20	9.2	ug/L	20		8260C	Total/NA

Client Sample ID: GM-9 — Lab Sample ID: 480-96991-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	91		5.0	4.1	ug/L	5		8260C	Total/NA
Methyl tert-butyl ether	1.5	J	5.0	0.80	ug/L	5		8260C	Total/NA
Tetrachloroethene	120		5.0	1.8	ug/L	5		8260C	Total/NA
Trichloroethene	24		5.0	2.3	ug/L	5		8260C	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 480-96991-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	15000		500	410	ug/L	500		8260C	Total/NA
Tetrachloroethene	3500		500	180	ug/L	500		8260C	Total/NA
Trichloroethene	1800		500	230	ug/L	500		8260C	Total/NA

Client Sample ID: MW-9 — Lab Sample ID: 480-96991-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1400	E	10	8.1	ug/L	10		8260C	Total/NA
Vinyl chloride	170		10	9.0	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene - DL	1800		40	32	ug/L	40		8260C	Total/NA
Vinyl chloride - DL	200		40	36	ug/L	40		8260C	Total/NA

Client Sample ID: MW-14R — Lab Sample ID: 480-96991-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dibromo-3-Chloropropane	2.3		2.0	0.78	ug/L	2		8260C	Total/NA
Acetone	6.7	J	20	6.0	ug/L	2		8260C	Total/NA
Benzene	1.8	J	2.0	0.82	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	990	E	2.0	1.6	ug/L	2		8260C	Total/NA
Ethylbenzene	29		2.0	1.5	ug/L	2		8260C	Total/NA
Isopropylbenzene	14		2.0	1.6	ug/L	2		8260C	Total/NA
Methyl tert-butyl ether	1.7	J	2.0	0.32	ug/L	2		8260C	Total/NA
Methylcyclohexane	1.4	J	2.0	0.32	ug/L	2		8260C	Total/NA
Toluene	25		2.0	1.0	ug/L	2		8260C	Total/NA
trans-1,2-Dichloroethene	8.3		2.0	1.8	ug/L	2		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-14R (Continued) — Lab Sample ID: 480-96991-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	810	E	2.0	1.8	ug/L	2		8260C	Total/NA
Xylenes, Total	200		4.0	1.3	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene - DL	1500		20	16	ug/L	20		8260C	Total/NA
Ethylbenzene - DL	36		20	15	ug/L	20		8260C	Total/NA
Isopropylbenzene - DL	17	J	20	16	ug/L	20		8260C	Total/NA
Toluene - DL	31		20	10	ug/L	20		8260C	Total/NA
Vinyl chloride - DL	1100		20	18	ug/L	20		8260C	Total/NA
Xylenes, Total - DL	250		40	13	ug/L	20		8260C	Total/NA

Client Sample ID: MP-20 — Lab Sample ID: 480-96991-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.1		1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.51	J	1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	0.98	J	1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	1.9		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: DUP-1 — Lab Sample ID: 480-96991-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2500	E	10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	1600	E	10	3.6	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	13		10	9.0	ug/L	10		8260C	Total/NA
Trichloroethene	680		10	4.6	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3300		50	41	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	2200		50	18	ug/L	50		8260C	Total/NA
Trichloroethene - DL	900		50	23	ug/L	50		8260C	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-96991-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.96	J	1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.52	J	1.0	0.36	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-23S
Date Collected: 03/22/16 15:25
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			03/31/16 11:28	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			03/31/16 11:28	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			03/31/16 11:28	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			03/31/16 11:28	10
1,1-Dichloroethane	ND		10	3.8	ug/L			03/31/16 11:28	10
1,1-Dichloroethene	ND		10	2.9	ug/L			03/31/16 11:28	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			03/31/16 11:28	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			03/31/16 11:28	10
1,2-Dibromoethane	ND		10	7.3	ug/L			03/31/16 11:28	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			03/31/16 11:28	10
1,2-Dichloroethane	ND		10	2.1	ug/L			03/31/16 11:28	10
1,2-Dichloropropane	ND		10	7.2	ug/L			03/31/16 11:28	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			03/31/16 11:28	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			03/31/16 11:28	10
1,4-Dioxane	ND		400	93	ug/L			03/31/16 11:28	10
2-Butanone (MEK)	ND		100	13	ug/L			03/31/16 11:28	10
2-Hexanone	ND		50	12	ug/L			03/31/16 11:28	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			03/31/16 11:28	10
Acetone	ND		100	30	ug/L			03/31/16 11:28	10
Benzene	ND		10	4.1	ug/L			03/31/16 11:28	10
Bromodichloromethane	ND		10	3.9	ug/L			03/31/16 11:28	10
Bromoform	ND		10	2.6	ug/L			03/31/16 11:28	10
Bromomethane	ND		10	6.9	ug/L			03/31/16 11:28	10
Carbon disulfide	ND		10	1.9	ug/L			03/31/16 11:28	10
Carbon tetrachloride	ND		10	2.7	ug/L			03/31/16 11:28	10
Chlorobenzene	ND		10	7.5	ug/L			03/31/16 11:28	10
Chloroethane	ND		10	3.2	ug/L			03/31/16 11:28	10
Chloroform	ND		10	3.4	ug/L			03/31/16 11:28	10
Chloromethane	ND		10	3.5	ug/L			03/31/16 11:28	10
cis-1,2-Dichloroethene	**2400**	**E**	10	8.1	ug/L			03/31/16 11:28	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			03/31/16 11:28	10
Cyclohexane	ND		10	1.8	ug/L			03/31/16 11:28	10
Dibromochloromethane	ND		10	3.2	ug/L			03/31/16 11:28	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			03/31/16 11:28	10
Ethylbenzene	ND		10	7.4	ug/L			03/31/16 11:28	10
Isopropylbenzene	ND		10	7.9	ug/L			03/31/16 11:28	10
Methyl acetate	ND		25	13	ug/L			03/31/16 11:28	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			03/31/16 11:28	10
Methylcyclohexane	ND		10	1.6	ug/L			03/31/16 11:28	10
Methylene Chloride	ND		10	4.4	ug/L			03/31/16 11:28	10
Styrene	ND		10	7.3	ug/L			03/31/16 11:28	10
Tetrachloroethene	**1600**	**E**	10	3.6	ug/L			03/31/16 11:28	10
Toluene	ND		10	5.1	ug/L			03/31/16 11:28	10
trans-1,2-Dichloroethene	**15**		10	9.0	ug/L			03/31/16 11:28	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			03/31/16 11:28	10
Trichloroethene	**680**		10	4.6	ug/L			03/31/16 11:28	10
Trichlorofluoromethane	ND		10	8.8	ug/L			03/31/16 11:28	10
Vinyl chloride	ND		10	9.0	ug/L			03/31/16 11:28	10
Xylenes, Total	ND		20	6.6	ug/L			03/31/16 11:28	10

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-23S
Date Collected: 03/22/16 15:25
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		66 - 137		03/31/16 11:28	10
4-Bromofluorobenzene (Surr)	108		73 - 120		03/31/16 11:28	10
Dibromofluoromethane (Surr)	112		60 - 140		03/31/16 11:28	10
Toluene-d8 (Surr)	107		71 - 126		03/31/16 11:28	10

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			03/31/16 22:19	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			03/31/16 22:19	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			03/31/16 22:19	50
1,1,2-Trichloroethane	ND		50	12	ug/L			03/31/16 22:19	50
1,1-Dichloroethane	ND		50	19	ug/L			03/31/16 22:19	50
1,1-Dichloroethene	ND		50	15	ug/L			03/31/16 22:19	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			03/31/16 22:19	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			03/31/16 22:19	50
1,2-Dibromoethane	ND		50	37	ug/L			03/31/16 22:19	50
1,2-Dichlorobenzene	ND		50	40	ug/L			03/31/16 22:19	50
1,2-Dichloroethane	ND		50	11	ug/L			03/31/16 22:19	50
1,2-Dichloropropane	ND		50	36	ug/L			03/31/16 22:19	50
1,3-Dichlorobenzene	ND		50	39	ug/L			03/31/16 22:19	50
1,4-Dichlorobenzene	ND		50	42	ug/L			03/31/16 22:19	50
1,4-Dioxane	ND		2000	470	ug/L			03/31/16 22:19	50
2-Butanone (MEK)	ND		500	66	ug/L			03/31/16 22:19	50
2-Hexanone	ND		250	62	ug/L			03/31/16 22:19	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			03/31/16 22:19	50
Acetone	ND	*	500	150	ug/L			03/31/16 22:19	50
Benzene	ND		50	21	ug/L			03/31/16 22:19	50
Bromodichloromethane	ND		50	20	ug/L			03/31/16 22:19	50
Bromoform	ND		50	13	ug/L			03/31/16 22:19	50
Bromomethane	ND	*	50	35	ug/L			03/31/16 22:19	50
Carbon disulfide	**17**	**J**	50	9.5	ug/L			03/31/16 22:19	50
Carbon tetrachloride	ND	F1	50	14	ug/L			03/31/16 22:19	50
Chlorobenzene	ND		50	38	ug/L			03/31/16 22:19	50
Chloroethane	ND		50	16	ug/L			03/31/16 22:19	50
Chloroform	ND		50	17	ug/L			03/31/16 22:19	50
Chloromethane	ND		50	18	ug/L			03/31/16 22:19	50
cis-1,2-Dichloroethene	**3000**	**F1**	50	41	ug/L			03/31/16 22:19	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			03/31/16 22:19	50
Cyclohexane	ND		50	9.0	ug/L			03/31/16 22:19	50
Dibromochloromethane	ND		50	16	ug/L			03/31/16 22:19	50
Dichlorodifluoromethane	ND		50	34	ug/L			03/31/16 22:19	50
Ethylbenzene	ND		50	37	ug/L			03/31/16 22:19	50
Isopropylbenzene	ND		50	40	ug/L			03/31/16 22:19	50
Methyl acetate	ND		130	65	ug/L			03/31/16 22:19	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			03/31/16 22:19	50
Methylcyclohexane	ND		50	8.0	ug/L			03/31/16 22:19	50
Methylene Chloride	ND		50	22	ug/L			03/31/16 22:19	50
Styrene	ND		50	37	ug/L			03/31/16 22:19	50
Tetrachloroethene	**2000**	**F1**	50	18	ug/L			03/31/16 22:19	50
Toluene	ND		50	26	ug/L			03/31/16 22:19	50

Client Sample ID: MW-23S

Lab Sample ID: 480-96991-1

Date Collected: 03/22/16 15:25

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		50	45	ug/L			03/31/16 22:19	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			03/31/16 22:19	50
Trichloroethene	**840**		50	23	ug/L			03/31/16 22:19	50
Trichlorofluoromethane	ND		50	44	ug/L			03/31/16 22:19	50
Vinyl chloride	ND		50	45	ug/L			03/31/16 22:19	50
Xylenes, Total	ND		100	33	ug/L			03/31/16 22:19	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*03/31/16 22:19*	*50*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*03/31/16 22:19*	*50*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*03/31/16 22:19*	*50*
Toluene-d8 (Surr)	*107*		*71 - 126*		*03/31/16 22:19*	*50*

Client Sample ID: MW-23D

Lab Sample ID: 480-96991-2

Date Collected: 03/22/16 15:35

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			03/31/16 11:52	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			03/31/16 11:52	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5	ug/L			03/31/16 11:52	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			03/31/16 11:52	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			03/31/16 11:52	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			03/31/16 11:52	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			03/31/16 11:52	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			03/31/16 11:52	8
1,2-Dibromoethane	ND		8.0	5.8	ug/L			03/31/16 11:52	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			03/31/16 11:52	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			03/31/16 11:52	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			03/31/16 11:52	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			03/31/16 11:52	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			03/31/16 11:52	8
1,4-Dioxane	ND		320	75	ug/L			03/31/16 11:52	8
2-Butanone (MEK)	ND		80	11	ug/L			03/31/16 11:52	8
2-Hexanone	ND		40	9.9	ug/L			03/31/16 11:52	8
4-Methyl-2-pentanone (MIBK)	ND		40	17	ug/L			03/31/16 11:52	8
Acetone	ND		80	24	ug/L			03/31/16 11:52	8
Benzene	ND		8.0	3.3	ug/L			03/31/16 11:52	8
Bromodichloromethane	ND		8.0	3.1	ug/L			03/31/16 11:52	8
Bromoform	ND		8.0	2.1	ug/L			03/31/16 11:52	8
Bromomethane	ND		8.0	5.5	ug/L			03/31/16 11:52	8
Carbon disulfide	ND		8.0	1.5	ug/L			03/31/16 11:52	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			03/31/16 11:52	8
Chlorobenzene	ND		8.0	6.0	ug/L			03/31/16 11:52	8
Chloroethane	ND		8.0	2.6	ug/L			03/31/16 11:52	8
Chloroform	ND		8.0	2.7	ug/L			03/31/16 11:52	8
Chloromethane	ND		8.0	2.8	ug/L			03/31/16 11:52	8
cis-1,2-Dichloroethene	**1000**	**E**	8.0	6.5	ug/L			03/31/16 11:52	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			03/31/16 11:52	8

Client Sample ID: MW-23D
Date Collected: 03/22/16 15:35
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		8.0	1.4	ug/L			03/31/16 11:52	8
Dibromochloromethane	ND		8.0	2.6	ug/L			03/31/16 11:52	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			03/31/16 11:52	8
Ethylbenzene	ND		8.0	5.9	ug/L			03/31/16 11:52	8
Isopropylbenzene	ND		8.0	6.3	ug/L			03/31/16 11:52	8
Methyl acetate	ND		20	10	ug/L			03/31/16 11:52	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			03/31/16 11:52	8
Methylcyclohexane	ND		8.0	1.3	ug/L			03/31/16 11:52	8
Methylene Chloride	ND		8.0	3.5	ug/L			03/31/16 11:52	8
Styrene	ND		8.0	5.8	ug/L			03/31/16 11:52	8
Tetrachloroethene	**700**	**F1**	8.0	2.9	ug/L			03/31/16 11:52	8
Toluene	ND		8.0	4.1	ug/L			03/31/16 11:52	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			03/31/16 11:52	8
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			03/31/16 11:52	8
Trichloroethene	**300**	**F1**	8.0	3.7	ug/L			03/31/16 11:52	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			03/31/16 11:52	8
Vinyl chloride	ND		8.0	7.2	ug/L			03/31/16 11:52	8
Xylenes, Total	ND		16	5.3	ug/L			03/31/16 11:52	8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/31/16 11:52*	*8*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*03/31/16 11:52*	*8*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*03/31/16 11:52*	*8*
Toluene-d8 (Surr)	*108*		*71 - 126*		*03/31/16 11:52*	*8*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			03/31/16 22:42	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			03/31/16 22:42	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			03/31/16 22:42	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			03/31/16 22:42	20
1,1-Dichloroethane	ND		20	7.6	ug/L			03/31/16 22:42	20
1,1-Dichloroethene	ND		20	5.8	ug/L			03/31/16 22:42	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			03/31/16 22:42	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			03/31/16 22:42	20
1,2-Dibromoethane	ND		20	15	ug/L			03/31/16 22:42	20
1,2-Dichlorobenzene	ND		20	16	ug/L			03/31/16 22:42	20
1,2-Dichloroethane	ND		20	4.2	ug/L			03/31/16 22:42	20
1,2-Dichloropropane	ND		20	14	ug/L			03/31/16 22:42	20
1,3-Dichlorobenzene	ND		20	16	ug/L			03/31/16 22:42	20
1,4-Dichlorobenzene	ND		20	17	ug/L			03/31/16 22:42	20
1,4-Dioxane	ND		800	190	ug/L			03/31/16 22:42	20
2-Butanone (MEK)	ND		200	26	ug/L			03/31/16 22:42	20
2-Hexanone	ND		100	25	ug/L			03/31/16 22:42	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			03/31/16 22:42	20
Acetone	ND	*	200	60	ug/L			03/31/16 22:42	20
Benzene	ND		20	8.2	ug/L			03/31/16 22:42	20
Bromodichloromethane	ND		20	7.8	ug/L			03/31/16 22:42	20
Bromoform	ND		20	5.2	ug/L			03/31/16 22:42	20
Bromomethane	ND	*	20	14	ug/L			03/31/16 22:42	20

Client Sample ID: MW-23D

Date Collected: 03/22/16 15:35
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		20	3.8	ug/L			03/31/16 22:42	20
Carbon tetrachloride	ND		20	5.4	ug/L			03/31/16 22:42	20
Chlorobenzene	ND		20	15	ug/L			03/31/16 22:42	20
Chloroethane	ND		20	6.4	ug/L			03/31/16 22:42	20
Chloroform	ND		20	6.8	ug/L			03/31/16 22:42	20
Chloromethane	ND		20	7.0	ug/L			03/31/16 22:42	20
cis-1,2-Dichloroethene	**1200**	**F1**	20	16	ug/L			03/31/16 22:42	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			03/31/16 22:42	20
Cyclohexane	ND		20	3.6	ug/L			03/31/16 22:42	20
Dibromochloromethane	ND		20	6.4	ug/L			03/31/16 22:42	20
Dichlorodifluoromethane	ND		20	14	ug/L			03/31/16 22:42	20
Ethylbenzene	ND		20	15	ug/L			03/31/16 22:42	20
Isopropylbenzene	ND		20	16	ug/L			03/31/16 22:42	20
Methyl acetate	ND		50	26	ug/L			03/31/16 22:42	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			03/31/16 22:42	20
Methylcyclohexane	ND		20	3.2	ug/L			03/31/16 22:42	20
Methylene Chloride	ND		20	8.8	ug/L			03/31/16 22:42	20
Styrene	ND		20	15	ug/L			03/31/16 22:42	20
Tetrachloroethene	**820**	**F1**	20	7.2	ug/L			03/31/16 22:42	20
Toluene	ND		20	10	ug/L			03/31/16 22:42	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			03/31/16 22:42	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			03/31/16 22:42	20
Trichloroethene	**350**		20	9.2	ug/L			03/31/16 22:42	20
Trichlorofluoromethane	ND		20	18	ug/L			03/31/16 22:42	20
Vinyl chloride	ND		20	18	ug/L			03/31/16 22:42	20
Xylenes, Total	ND		40	13	ug/L			03/31/16 22:42	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/31/16 22:42*	*20*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*03/31/16 22:42*	*20*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*03/31/16 22:42*	*20*
Toluene-d8 (Surr)	*107*		*71 - 126*		*03/31/16 22:42*	*20*

Client Sample ID: MW-1DD

Date Collected: 03/22/16 16:25
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/31/16 12:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/31/16 12:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/31/16 12:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/31/16 12:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/31/16 12:16	1
1,1-Dichloroethene	**1.4**		1.0	0.29	ug/L			03/31/16 12:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/31/16 12:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/31/16 12:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/31/16 12:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/31/16 12:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/31/16 12:16	1

Client Sample ID: MW-1DD
Date Collected: 03/22/16 16:25
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/31/16 12:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/31/16 12:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/31/16 12:16	1
1,4-Dioxane	ND		40	9.3	ug/L			03/31/16 12:16	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/31/16 12:16	1
2-Hexanone	ND		5.0	1.2	ug/L			03/31/16 12:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/31/16 12:16	1
Acetone	ND		10	3.0	ug/L			03/31/16 12:16	1
Benzene	**0.49**	**J**	1.0	0.41	ug/L			03/31/16 12:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/31/16 12:16	1
Bromoform	ND		1.0	0.26	ug/L			03/31/16 12:16	1
Bromomethane	ND		1.0	0.69	ug/L			03/31/16 12:16	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/31/16 12:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/31/16 12:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/31/16 12:16	1
Chloroethane	ND		1.0	0.32	ug/L			03/31/16 12:16	1
Chloroform	ND		1.0	0.34	ug/L			03/31/16 12:16	1
Chloromethane	ND		1.0	0.35	ug/L			03/31/16 12:16	1
cis-1,2-Dichloroethene	**500**	**E**	1.0	0.81	ug/L			03/31/16 12:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/31/16 12:16	1
Cyclohexane	ND		1.0	0.18	ug/L			03/31/16 12:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/31/16 12:16	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/31/16 12:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/31/16 12:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/31/16 12:16	1
Methyl acetate	ND		2.5	1.3	ug/L			03/31/16 12:16	1
Methyl tert-butyl ether	**9.9**		1.0	0.16	ug/L			03/31/16 12:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/31/16 12:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/31/16 12:16	1
Styrene	ND		1.0	0.73	ug/L			03/31/16 12:16	1
Tetrachloroethene	**300**	**E**	1.0	0.36	ug/L			03/31/16 12:16	1
Toluene	ND		1.0	0.51	ug/L			03/31/16 12:16	1
trans-1,2-Dichloroethene	**2.6**		1.0	0.90	ug/L			03/31/16 12:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/31/16 12:16	1
Trichloroethene	**150**	**E**	1.0	0.46	ug/L			03/31/16 12:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/31/16 12:16	1
Vinyl chloride	**31**		1.0	0.90	ug/L			03/31/16 12:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/31/16 12:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/31/16 12:16*	*1*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*03/31/16 12:16*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*03/31/16 12:16*	*1*
Toluene-d8 (Surr)	*107*		*71 - 126*		*03/31/16 12:16*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			03/31/16 23:06	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			03/31/16 23:06	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			03/31/16 23:06	10

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-1DD
Date Collected: 03/22/16 16:25
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		10	2.3	ug/L			03/31/16 23:06	10
1,1-Dichloroethane	ND		10	3.8	ug/L			03/31/16 23:06	10
1,1-Dichloroethene	ND		10	2.9	ug/L			03/31/16 23:06	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			03/31/16 23:06	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			03/31/16 23:06	10
1,2-Dibromoethane	ND		10	7.3	ug/L			03/31/16 23:06	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			03/31/16 23:06	10
1,2-Dichloroethane	ND		10	2.1	ug/L			03/31/16 23:06	10
1,2-Dichloropropane	ND		10	7.2	ug/L			03/31/16 23:06	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			03/31/16 23:06	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			03/31/16 23:06	10
1,4-Dioxane	ND		400	93	ug/L			03/31/16 23:06	10
2-Butanone (MEK)	ND		100	13	ug/L			03/31/16 23:06	10
2-Hexanone	ND		50	12	ug/L			03/31/16 23:06	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			03/31/16 23:06	10
Acetone	ND	*	100	30	ug/L			03/31/16 23:06	10
Benzene	ND		10	4.1	ug/L			03/31/16 23:06	10
Bromodichloromethane	ND		10	3.9	ug/L			03/31/16 23:06	10
Bromoform	ND		10	2.6	ug/L			03/31/16 23:06	10
Bromomethane	ND	*	10	6.9	ug/L			03/31/16 23:06	10
Carbon disulfide	ND		10	1.9	ug/L			03/31/16 23:06	10
Carbon tetrachloride	ND		10	2.7	ug/L			03/31/16 23:06	10
Chlorobenzene	ND		10	7.5	ug/L			03/31/16 23:06	10
Chloroethane	ND		10	3.2	ug/L			03/31/16 23:06	10
Chloroform	ND		10	3.4	ug/L			03/31/16 23:06	10
Chloromethane	ND		10	3.5	ug/L			03/31/16 23:06	10
cis-1,2-Dichloroethene	**560**		10	8.1	ug/L			03/31/16 23:06	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			03/31/16 23:06	10
Cyclohexane	ND		10	1.8	ug/L			03/31/16 23:06	10
Dibromochloromethane	ND		10	3.2	ug/L			03/31/16 23:06	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			03/31/16 23:06	10
Ethylbenzene	ND		10	7.4	ug/L			03/31/16 23:06	10
Isopropylbenzene	ND		10	7.9	ug/L			03/31/16 23:06	10
Methyl acetate	ND		25	13	ug/L			03/31/16 23:06	10
Methyl tert-butyl ether	**10**		10	1.6	ug/L			03/31/16 23:06	10
Methylcyclohexane	ND		10	1.6	ug/L			03/31/16 23:06	10
Methylene Chloride	ND		10	4.4	ug/L			03/31/16 23:06	10
Styrene	ND		10	7.3	ug/L			03/31/16 23:06	10
Tetrachloroethene	**290**		10	3.6	ug/L			03/31/16 23:06	10
Toluene	ND		10	5.1	ug/L			03/31/16 23:06	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			03/31/16 23:06	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			03/31/16 23:06	10
Trichloroethene	**150**		10	4.6	ug/L			03/31/16 23:06	10
Trichlorofluoromethane	ND		10	8.8	ug/L			03/31/16 23:06	10
Vinyl chloride	**28**		10	9.0	ug/L			03/31/16 23:06	10
Xylenes, Total	ND		20	6.6	ug/L			03/31/16 23:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*03/31/16 23:06*	*10*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*03/31/16 23:06*	*10*

Client Sample ID: MW-1DD

Date Collected: 03/22/16 16:25
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*105*		*60 - 140*		*03/31/16 23:06*	*10*
Toluene-d8 (Surr)	*107*		*71 - 126*		*03/31/16 23:06*	*10*

Client Sample ID: MW-1D

Date Collected: 03/22/16 16:30
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			03/31/16 12:39	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			03/31/16 12:39	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			03/31/16 12:39	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			03/31/16 12:39	20
1,1-Dichloroethane	ND		20	7.6	ug/L			03/31/16 12:39	20
1,1-Dichloroethene	ND		20	5.8	ug/L			03/31/16 12:39	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			03/31/16 12:39	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			03/31/16 12:39	20
1,2-Dibromoethane	ND		20	15	ug/L			03/31/16 12:39	20
1,2-Dichlorobenzene	ND		20	16	ug/L			03/31/16 12:39	20
1,2-Dichloroethane	ND		20	4.2	ug/L			03/31/16 12:39	20
1,2-Dichloropropane	ND		20	14	ug/L			03/31/16 12:39	20
1,3-Dichlorobenzene	ND		20	16	ug/L			03/31/16 12:39	20
1,4-Dichlorobenzene	ND		20	17	ug/L			03/31/16 12:39	20
1,4-Dioxane	ND		800	190	ug/L			03/31/16 12:39	20
2-Butanone (MEK)	ND		200	26	ug/L			03/31/16 12:39	20
2-Hexanone	ND		100	25	ug/L			03/31/16 12:39	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			03/31/16 12:39	20
Acetone	ND		200	60	ug/L			03/31/16 12:39	20
Benzene	ND		20	8.2	ug/L			03/31/16 12:39	20
Bromodichloromethane	ND		20	7.8	ug/L			03/31/16 12:39	20
Bromoform	ND		20	5.2	ug/L			03/31/16 12:39	20
Bromomethane	ND		20	14	ug/L			03/31/16 12:39	20
Carbon disulfide	ND		20	3.8	ug/L			03/31/16 12:39	20
Carbon tetrachloride	ND		20	5.4	ug/L			03/31/16 12:39	20
Chlorobenzene	ND		20	15	ug/L			03/31/16 12:39	20
Chloroethane	ND		20	6.4	ug/L			03/31/16 12:39	20
Chloroform	ND		20	6.8	ug/L			03/31/16 12:39	20
Chloromethane	ND		20	7.0	ug/L			03/31/16 12:39	20
cis-1,2-Dichloroethene	**1900**		20	16	ug/L			03/31/16 12:39	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			03/31/16 12:39	20
Cyclohexane	ND		20	3.6	ug/L			03/31/16 12:39	20
Dibromochloromethane	ND		20	6.4	ug/L			03/31/16 12:39	20
Dichlorodifluoromethane	ND		20	14	ug/L			03/31/16 12:39	20
Ethylbenzene	ND		20	15	ug/L			03/31/16 12:39	20
Isopropylbenzene	ND		20	16	ug/L			03/31/16 12:39	20
Methyl acetate	ND		50	26	ug/L			03/31/16 12:39	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			03/31/16 12:39	20
Methylcyclohexane	ND		20	3.2	ug/L			03/31/16 12:39	20
Methylene Chloride	ND		20	8.8	ug/L			03/31/16 12:39	20

Client Sample ID: MW-1D
Date Collected: 03/22/16 16:30
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		20	15	ug/L			03/31/16 12:39	20
Tetrachloroethene	**2600**	**E**	20	7.2	ug/L			03/31/16 12:39	20
Toluene	ND		20	10	ug/L			03/31/16 12:39	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			03/31/16 12:39	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			03/31/16 12:39	20
Trichloroethene	**1000**		20	9.2	ug/L			03/31/16 12:39	20
Trichlorofluoromethane	ND		20	18	ug/L			03/31/16 12:39	20
Vinyl chloride	**31**		20	18	ug/L			03/31/16 12:39	20
Xylenes, Total	ND		40	13	ug/L			03/31/16 12:39	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/31/16 12:39*	*20*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*03/31/16 12:39*	*20*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*03/31/16 12:39*	*20*
Toluene-d8 (Surr)	*106*		*71 - 126*		*03/31/16 12:39*	*20*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			03/31/16 23:29	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			03/31/16 23:29	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			03/31/16 23:29	50
1,1,2-Trichloroethane	ND		50	12	ug/L			03/31/16 23:29	50
1,1-Dichloroethane	ND		50	19	ug/L			03/31/16 23:29	50
1,1-Dichloroethene	ND		50	15	ug/L			03/31/16 23:29	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			03/31/16 23:29	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			03/31/16 23:29	50
1,2-Dibromoethane	ND		50	37	ug/L			03/31/16 23:29	50
1,2-Dichlorobenzene	ND		50	40	ug/L			03/31/16 23:29	50
1,2-Dichloroethane	ND		50	11	ug/L			03/31/16 23:29	50
1,2-Dichloropropane	ND		50	36	ug/L			03/31/16 23:29	50
1,3-Dichlorobenzene	ND		50	39	ug/L			03/31/16 23:29	50
1,4-Dichlorobenzene	ND		50	42	ug/L			03/31/16 23:29	50
1,4-Dioxane	ND		2000	470	ug/L			03/31/16 23:29	50
2-Butanone (MEK)	ND		500	66	ug/L			03/31/16 23:29	50
2-Hexanone	ND		250	62	ug/L			03/31/16 23:29	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			03/31/16 23:29	50
Acetone	ND	*	500	150	ug/L			03/31/16 23:29	50
Benzene	ND		50	21	ug/L			03/31/16 23:29	50
Bromodichloromethane	ND		50	20	ug/L			03/31/16 23:29	50
Bromoform	ND		50	13	ug/L			03/31/16 23:29	50
Bromomethane	ND	*	50	35	ug/L			03/31/16 23:29	50
Carbon disulfide	ND		50	9.5	ug/L			03/31/16 23:29	50
Carbon tetrachloride	ND		50	14	ug/L			03/31/16 23:29	50
Chlorobenzene	ND		50	38	ug/L			03/31/16 23:29	50
Chloroethane	ND		50	16	ug/L			03/31/16 23:29	50
Chloroform	ND		50	17	ug/L			03/31/16 23:29	50
Chloromethane	ND		50	18	ug/L			03/31/16 23:29	50
cis-1,2-Dichloroethene	**2500**		50	41	ug/L			03/31/16 23:29	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			03/31/16 23:29	50
Cyclohexane	ND		50	9.0	ug/L			03/31/16 23:29	50

Client Sample ID: MW-1D

Date Collected: 03/22/16 16:30
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		50	16	ug/L			03/31/16 23:29	50
Dichlorodifluoromethane	ND		50	34	ug/L			03/31/16 23:29	50
Ethylbenzene	ND		50	37	ug/L			03/31/16 23:29	50
Isopropylbenzene	ND		50	40	ug/L			03/31/16 23:29	50
Methyl acetate	ND		130	65	ug/L			03/31/16 23:29	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			03/31/16 23:29	50
Methylcyclohexane	ND		50	8.0	ug/L			03/31/16 23:29	50
Methylene Chloride	ND		50	22	ug/L			03/31/16 23:29	50
Styrene	ND		50	37	ug/L			03/31/16 23:29	50
Tetrachloroethene	**3500**		50	18	ug/L			03/31/16 23:29	50
Toluene	ND		50	26	ug/L			03/31/16 23:29	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			03/31/16 23:29	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			03/31/16 23:29	50
Trichloroethene	**1400**		50	23	ug/L			03/31/16 23:29	50
Trichlorofluoromethane	ND		50	44	ug/L			03/31/16 23:29	50
Vinyl chloride	ND		50	45	ug/L			03/31/16 23:29	50
Xylenes, Total	ND		100	33	ug/L			03/31/16 23:29	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*03/31/16 23:29*	*50*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*03/31/16 23:29*	*50*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*03/31/16 23:29*	*50*
Toluene-d8 (Surr)	*106*		*71 - 126*		*03/31/16 23:29*	*50*

Client Sample ID: IW-01S

Date Collected: 03/22/16 17:15
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			03/31/16 13:03	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			03/31/16 13:03	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			03/31/16 13:03	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			03/31/16 13:03	20
1,1-Dichloroethane	ND		20	7.6	ug/L			03/31/16 13:03	20
1,1-Dichloroethene	ND		20	5.8	ug/L			03/31/16 13:03	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			03/31/16 13:03	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			03/31/16 13:03	20
1,2-Dibromoethane	ND		20	15	ug/L			03/31/16 13:03	20
1,2-Dichlorobenzene	ND		20	16	ug/L			03/31/16 13:03	20
1,2-Dichloroethane	ND		20	4.2	ug/L			03/31/16 13:03	20
1,2-Dichloropropane	ND		20	14	ug/L			03/31/16 13:03	20
1,3-Dichlorobenzene	ND		20	16	ug/L			03/31/16 13:03	20
1,4-Dichlorobenzene	ND		20	17	ug/L			03/31/16 13:03	20
1,4-Dioxane	ND		800	190	ug/L			03/31/16 13:03	20
2-Butanone (MEK)	ND		200	26	ug/L			03/31/16 13:03	20
2-Hexanone	ND		100	25	ug/L			03/31/16 13:03	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			03/31/16 13:03	20
Acetone	ND		200	60	ug/L			03/31/16 13:03	20
Benzene	ND		20	8.2	ug/L			03/31/16 13:03	20

Client Sample ID: IW-01S
Date Collected: 03/22/16 17:15
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		20	7.8	ug/L			03/31/16 13:03	20
Bromoform	ND		20	5.2	ug/L			03/31/16 13:03	20
Bromomethane	ND		20	14	ug/L			03/31/16 13:03	20
Carbon disulfide	ND		20	3.8	ug/L			03/31/16 13:03	20
Carbon tetrachloride	ND		20	5.4	ug/L			03/31/16 13:03	20
Chlorobenzene	ND		20	15	ug/L			03/31/16 13:03	20
Chloroethane	ND		20	6.4	ug/L			03/31/16 13:03	20
Chloroform	ND		20	6.8	ug/L			03/31/16 13:03	20
Chloromethane	ND		20	7.0	ug/L			03/31/16 13:03	20
cis-1,2-Dichloroethene	**500**		20	16	ug/L			03/31/16 13:03	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			03/31/16 13:03	20
Cyclohexane	ND		20	3.6	ug/L			03/31/16 13:03	20
Dibromochloromethane	ND		20	6.4	ug/L			03/31/16 13:03	20
Dichlorodifluoromethane	ND		20	14	ug/L			03/31/16 13:03	20
Ethylbenzene	ND		20	15	ug/L			03/31/16 13:03	20
Isopropylbenzene	ND		20	16	ug/L			03/31/16 13:03	20
Methyl acetate	ND		50	26	ug/L			03/31/16 13:03	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			03/31/16 13:03	20
Methylcyclohexane	ND		20	3.2	ug/L			03/31/16 13:03	20
Methylene Chloride	ND		20	8.8	ug/L			03/31/16 13:03	20
Styrene	ND		20	15	ug/L			03/31/16 13:03	20
Tetrachloroethene	**3300**	**E**	20	7.2	ug/L			03/31/16 13:03	20
Toluene	ND		20	10	ug/L			03/31/16 13:03	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			03/31/16 13:03	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			03/31/16 13:03	20
Trichloroethene	**240**		20	9.2	ug/L			03/31/16 13:03	20
Trichlorofluoromethane	ND		20	18	ug/L			03/31/16 13:03	20
Vinyl chloride	ND		20	18	ug/L			03/31/16 13:03	20
Xylenes, Total	ND		40	13	ug/L			03/31/16 13:03	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*03/31/16 13:03*	*20*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*03/31/16 13:03*	*20*
Dibromofluoromethane (Surr)	*105*		*60 - 140*		*03/31/16 13:03*	*20*
Toluene-d8 (Surr)	*104*		*71 - 126*		*03/31/16 13:03*	*20*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			03/31/16 23:52	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			03/31/16 23:52	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			03/31/16 23:52	50
1,1,2-Trichloroethane	ND		50	12	ug/L			03/31/16 23:52	50
1,1-Dichloroethane	ND		50	19	ug/L			03/31/16 23:52	50
1,1-Dichloroethene	ND		50	15	ug/L			03/31/16 23:52	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			03/31/16 23:52	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			03/31/16 23:52	50
1,2-Dibromoethane	ND		50	37	ug/L			03/31/16 23:52	50
1,2-Dichlorobenzene	ND		50	40	ug/L			03/31/16 23:52	50
1,2-Dichloroethane	ND		50	11	ug/L			03/31/16 23:52	50
1,2-Dichloropropane	ND		50	36	ug/L			03/31/16 23:52	50

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: IW-01S
Date Collected: 03/22/16 17:15
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		50	39	ug/L			03/31/16 23:52	50
1,4-Dichlorobenzene	ND		50	42	ug/L			03/31/16 23:52	50
1,4-Dioxane	ND		2000	470	ug/L			03/31/16 23:52	50
2-Butanone (MEK)	ND		500	66	ug/L			03/31/16 23:52	50
2-Hexanone	ND		250	62	ug/L			03/31/16 23:52	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			03/31/16 23:52	50
Acetone	ND	*	500	150	ug/L			03/31/16 23:52	50
Benzene	ND		50	21	ug/L			03/31/16 23:52	50
Bromodichloromethane	ND		50	20	ug/L			03/31/16 23:52	50
Bromoform	ND		50	13	ug/L			03/31/16 23:52	50
Bromomethane	ND	*	50	35	ug/L			03/31/16 23:52	50
Carbon disulfide	ND		50	9.5	ug/L			03/31/16 23:52	50
Carbon tetrachloride	ND		50	14	ug/L			03/31/16 23:52	50
Chlorobenzene	ND		50	38	ug/L			03/31/16 23:52	50
Chloroethane	ND		50	16	ug/L			03/31/16 23:52	50
Chloroform	ND		50	17	ug/L			03/31/16 23:52	50
Chloromethane	ND		50	18	ug/L			03/31/16 23:52	50
cis-1,2-Dichloroethene	**590**		50	41	ug/L			03/31/16 23:52	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			03/31/16 23:52	50
Cyclohexane	ND		50	9.0	ug/L			03/31/16 23:52	50
Dibromochloromethane	ND		50	16	ug/L			03/31/16 23:52	50
Dichlorodifluoromethane	ND		50	34	ug/L			03/31/16 23:52	50
Ethylbenzene	ND		50	37	ug/L			03/31/16 23:52	50
Isopropylbenzene	ND		50	40	ug/L			03/31/16 23:52	50
Methyl acetate	ND		130	65	ug/L			03/31/16 23:52	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			03/31/16 23:52	50
Methylcyclohexane	ND		50	8.0	ug/L			03/31/16 23:52	50
Methylene Chloride	ND		50	22	ug/L			03/31/16 23:52	50
Styrene	ND		50	37	ug/L			03/31/16 23:52	50
Tetrachloroethene	**4400**		50	18	ug/L			03/31/16 23:52	50
Toluene	ND		50	26	ug/L			03/31/16 23:52	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			03/31/16 23:52	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			03/31/16 23:52	50
Trichloroethene	**290**		50	23	ug/L			03/31/16 23:52	50
Trichlorofluoromethane	ND		50	44	ug/L			03/31/16 23:52	50
Vinyl chloride	ND		50	45	ug/L			03/31/16 23:52	50
Xylenes, Total	ND		100	33	ug/L			03/31/16 23:52	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*03/31/16 23:52*	*50*
4-Bromofluorobenzene (Surr)	*113*		*73 - 120*		*03/31/16 23:52*	*50*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*03/31/16 23:52*	*50*
Toluene-d8 (Surr)	*106*		*71 - 126*		*03/31/16 23:52*	*50*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-1
Date Collected: 03/22/16 17:20
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			03/31/16 13:27	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			03/31/16 13:27	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			03/31/16 13:27	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			03/31/16 13:27	20
1,1-Dichloroethane	ND		20	7.6	ug/L			03/31/16 13:27	20
1,1-Dichloroethene	ND		20	5.8	ug/L			03/31/16 13:27	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			03/31/16 13:27	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			03/31/16 13:27	20
1,2-Dibromoethane	ND		20	15	ug/L			03/31/16 13:27	20
1,2-Dichlorobenzene	ND		20	16	ug/L			03/31/16 13:27	20
1,2-Dichloroethane	ND		20	4.2	ug/L			03/31/16 13:27	20
1,2-Dichloropropane	ND		20	14	ug/L			03/31/16 13:27	20
1,3-Dichlorobenzene	ND		20	16	ug/L			03/31/16 13:27	20
1,4-Dichlorobenzene	ND		20	17	ug/L			03/31/16 13:27	20
1,4-Dioxane	ND		800	190	ug/L			03/31/16 13:27	20
2-Butanone (MEK)	ND		200	26	ug/L			03/31/16 13:27	20
2-Hexanone	ND		100	25	ug/L			03/31/16 13:27	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			03/31/16 13:27	20
Acetone	ND		200	60	ug/L			03/31/16 13:27	20
Benzene	ND		20	8.2	ug/L			03/31/16 13:27	20
Bromodichloromethane	ND		20	7.8	ug/L			03/31/16 13:27	20
Bromoform	ND		20	5.2	ug/L			03/31/16 13:27	20
Bromomethane	ND		20	14	ug/L			03/31/16 13:27	20
Carbon disulfide	ND		20	3.8	ug/L			03/31/16 13:27	20
Carbon tetrachloride	ND		20	5.4	ug/L			03/31/16 13:27	20
Chlorobenzene	ND		20	15	ug/L			03/31/16 13:27	20
Chloroethane	ND		20	6.4	ug/L			03/31/16 13:27	20
Chloroform	ND		20	6.8	ug/L			03/31/16 13:27	20
Chloromethane	ND		20	7.0	ug/L			03/31/16 13:27	20
cis-1,2-Dichloroethene	**1300**		20	16	ug/L			03/31/16 13:27	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			03/31/16 13:27	20
Cyclohexane	ND		20	3.6	ug/L			03/31/16 13:27	20
Dibromochloromethane	ND		20	6.4	ug/L			03/31/16 13:27	20
Dichlorodifluoromethane	ND		20	14	ug/L			03/31/16 13:27	20
Ethylbenzene	ND		20	15	ug/L			03/31/16 13:27	20
Isopropylbenzene	ND		20	16	ug/L			03/31/16 13:27	20
Methyl acetate	ND		50	26	ug/L			03/31/16 13:27	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			03/31/16 13:27	20
Methylcyclohexane	ND		20	3.2	ug/L			03/31/16 13:27	20
Methylene Chloride	ND		20	8.8	ug/L			03/31/16 13:27	20
Styrene	ND		20	15	ug/L			03/31/16 13:27	20
Tetrachloroethene	**350**		20	7.2	ug/L			03/31/16 13:27	20
Toluene	ND		20	10	ug/L			03/31/16 13:27	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			03/31/16 13:27	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			03/31/16 13:27	20
Trichloroethene	**130**		20	9.2	ug/L			03/31/16 13:27	20
Trichlorofluoromethane	ND		20	18	ug/L			03/31/16 13:27	20
Vinyl chloride	ND		20	18	ug/L			03/31/16 13:27	20
Xylenes, Total	ND		40	13	ug/L			03/31/16 13:27	20

Client Sample ID: MW-1

Lab Sample ID: 480-96991-6

Date Collected: 03/22/16 17:20
Matrix: Water
Date Received: 03/24/16 02:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*03/31/16 13:27*	*20*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*03/31/16 13:27*	*20*
Dibromofluoromethane (Surr)	*107*		*60 - 140*		*03/31/16 13:27*	*20*
Toluene-d8 (Surr)	*108*		*71 - 126*		*03/31/16 13:27*	*20*

Client Sample ID: GM-9

Lab Sample ID: 480-96991-7

Date Collected: 03/22/16 17:55
Matrix: Water
Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			04/01/16 00:16	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			04/01/16 00:16	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			04/01/16 00:16	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/01/16 00:16	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			04/01/16 00:16	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			04/01/16 00:16	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/01/16 00:16	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			04/01/16 00:16	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			04/01/16 00:16	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/01/16 00:16	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/01/16 00:16	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/01/16 00:16	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/01/16 00:16	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/01/16 00:16	5
1,4-Dioxane	ND		200	47	ug/L			04/01/16 00:16	5
2-Butanone (MEK)	ND		50	6.6	ug/L			04/01/16 00:16	5
2-Hexanone	ND		25	6.2	ug/L			04/01/16 00:16	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			04/01/16 00:16	5
Acetone	ND	*	50	15	ug/L			04/01/16 00:16	5
Benzene	ND		5.0	2.1	ug/L			04/01/16 00:16	5
Bromodichloromethane	ND		5.0	2.0	ug/L			04/01/16 00:16	5
Bromoform	ND		5.0	1.3	ug/L			04/01/16 00:16	5
Bromomethane	ND	*	5.0	3.5	ug/L			04/01/16 00:16	5
Carbon disulfide	ND		5.0	0.95	ug/L			04/01/16 00:16	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/01/16 00:16	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/01/16 00:16	5
Chloroethane	ND		5.0	1.6	ug/L			04/01/16 00:16	5
Chloroform	ND		5.0	1.7	ug/L			04/01/16 00:16	5
Chloromethane	ND		5.0	1.8	ug/L			04/01/16 00:16	5
cis-1,2-Dichloroethene	**91**		5.0	4.1	ug/L			04/01/16 00:16	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			04/01/16 00:16	5
Cyclohexane	ND		5.0	0.90	ug/L			04/01/16 00:16	5
Dibromochloromethane	ND		5.0	1.6	ug/L			04/01/16 00:16	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/01/16 00:16	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/01/16 00:16	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/01/16 00:16	5
Methyl acetate	ND		13	6.5	ug/L			04/01/16 00:16	5
Methyl tert-butyl ether	**1.5**	**J**	5.0	0.80	ug/L			04/01/16 00:16	5
Methylcyclohexane	ND		5.0	0.80	ug/L			04/01/16 00:16	5

Client Sample ID: GM-9

Lab Sample ID: 480-96991-7

Date Collected: 03/22/16 17:55

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	2.2	ug/L			04/01/16 00:16	5
Styrene	ND		5.0	3.7	ug/L			04/01/16 00:16	5
Tetrachloroethene	**120**		5.0	1.8	ug/L			04/01/16 00:16	5
Toluene	ND		5.0	2.6	ug/L			04/01/16 00:16	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/01/16 00:16	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			04/01/16 00:16	5
Trichloroethene	**24**		5.0	2.3	ug/L			04/01/16 00:16	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/01/16 00:16	5
Vinyl chloride	ND		5.0	4.5	ug/L			04/01/16 00:16	5
Xylenes, Total	ND		10	3.3	ug/L			04/01/16 00:16	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*04/01/16 00:16*	*5*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*04/01/16 00:16*	*5*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*04/01/16 00:16*	*5*
Toluene-d8 (Surr)	*107*		*71 - 126*		*04/01/16 00:16*	*5*

Client Sample ID: MW-13

Lab Sample ID: 480-96991-8

Date Collected: 03/22/16 18:00

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		500	410	ug/L			03/31/16 14:13	500
1,1,2,2-Tetrachloroethane	ND		500	110	ug/L			03/31/16 14:13	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	160	ug/L			03/31/16 14:13	500
1,1,2-Trichloroethane	ND		500	120	ug/L			03/31/16 14:13	500
1,1-Dichloroethane	ND		500	190	ug/L			03/31/16 14:13	500
1,1-Dichloroethene	ND		500	150	ug/L			03/31/16 14:13	500
1,2,4-Trichlorobenzene	ND		500	210	ug/L			03/31/16 14:13	500
1,2-Dibromo-3-Chloropropane	ND		500	200	ug/L			03/31/16 14:13	500
1,2-Dibromoethane	ND		500	370	ug/L			03/31/16 14:13	500
1,2-Dichlorobenzene	ND		500	400	ug/L			03/31/16 14:13	500
1,2-Dichloroethane	ND		500	110	ug/L			03/31/16 14:13	500
1,2-Dichloropropane	ND		500	360	ug/L			03/31/16 14:13	500
1,3-Dichlorobenzene	ND		500	390	ug/L			03/31/16 14:13	500
1,4-Dichlorobenzene	ND		500	420	ug/L			03/31/16 14:13	500
1,4-Dioxane	ND		20000	4700	ug/L			03/31/16 14:13	500
2-Butanone (MEK)	ND		5000	660	ug/L			03/31/16 14:13	500
2-Hexanone	ND		2500	620	ug/L			03/31/16 14:13	500
4-Methyl-2-pentanone (MIBK)	ND		2500	1100	ug/L			03/31/16 14:13	500
Acetone	ND		5000	1500	ug/L			03/31/16 14:13	500
Benzene	ND		500	210	ug/L			03/31/16 14:13	500
Bromodichloromethane	ND		500	200	ug/L			03/31/16 14:13	500
Bromoform	ND		500	130	ug/L			03/31/16 14:13	500
Bromomethane	ND		500	350	ug/L			03/31/16 14:13	500
Carbon disulfide	ND		500	95	ug/L			03/31/16 14:13	500
Carbon tetrachloride	ND		500	140	ug/L			03/31/16 14:13	500
Chlorobenzene	ND		500	380	ug/L			03/31/16 14:13	500
Chloroethane	ND		500	160	ug/L			03/31/16 14:13	500

Client Sample ID: MW-13

Lab Sample ID: 480-96991-8

Date Collected: 03/22/16 18:00

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		500	170	ug/L			03/31/16 14:13	500
Chloromethane	ND		500	180	ug/L			03/31/16 14:13	500
cis-1,2-Dichloroethene	**15000**		500	410	ug/L			03/31/16 14:13	500
cis-1,3-Dichloropropene	ND		500	180	ug/L			03/31/16 14:13	500
Cyclohexane	ND		500	90	ug/L			03/31/16 14:13	500
Dibromochloromethane	ND		500	160	ug/L			03/31/16 14:13	500
Dichlorodifluoromethane	ND		500	340	ug/L			03/31/16 14:13	500
Ethylbenzene	ND		500	370	ug/L			03/31/16 14:13	500
Isopropylbenzene	ND		500	400	ug/L			03/31/16 14:13	500
Methyl acetate	ND		1300	650	ug/L			03/31/16 14:13	500
Methyl tert-butyl ether	ND		500	80	ug/L			03/31/16 14:13	500
Methylcyclohexane	ND		500	80	ug/L			03/31/16 14:13	500
Methylene Chloride	ND		500	220	ug/L			03/31/16 14:13	500
Styrene	ND		500	370	ug/L			03/31/16 14:13	500
Tetrachloroethene	**3500**		500	180	ug/L			03/31/16 14:13	500
Toluene	ND		500	260	ug/L			03/31/16 14:13	500
trans-1,2-Dichloroethene	ND		500	450	ug/L			03/31/16 14:13	500
trans-1,3-Dichloropropene	ND		500	190	ug/L			03/31/16 14:13	500
Trichloroethene	**1800**		500	230	ug/L			03/31/16 14:13	500
Trichlorofluoromethane	ND		500	440	ug/L			03/31/16 14:13	500
Vinyl chloride	ND		500	450	ug/L			03/31/16 14:13	500
Xylenes, Total	ND		1000	330	ug/L			03/31/16 14:13	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*03/31/16 14:13*	*500*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*03/31/16 14:13*	*500*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*03/31/16 14:13*	*500*
Toluene-d8 (Surr)	*108*		*71 - 126*		*03/31/16 14:13*	*500*

Client Sample ID: MW-9

Lab Sample ID: 480-96991-9

Date Collected: 03/23/16 08:45

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			03/31/16 14:36	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			03/31/16 14:36	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			03/31/16 14:36	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			03/31/16 14:36	10
1,1-Dichloroethane	ND		10	3.8	ug/L			03/31/16 14:36	10
1,1-Dichloroethene	ND		10	2.9	ug/L			03/31/16 14:36	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			03/31/16 14:36	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			03/31/16 14:36	10
1,2-Dibromoethane	ND		10	7.3	ug/L			03/31/16 14:36	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			03/31/16 14:36	10
1,2-Dichloroethane	ND		10	2.1	ug/L			03/31/16 14:36	10
1,2-Dichloropropane	ND		10	7.2	ug/L			03/31/16 14:36	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			03/31/16 14:36	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			03/31/16 14:36	10
1,4-Dioxane	ND		400	93	ug/L			03/31/16 14:36	10

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-9
Date Collected: 03/23/16 08:45
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		100	13	ug/L			03/31/16 14:36	10
2-Hexanone	ND		50	12	ug/L			03/31/16 14:36	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			03/31/16 14:36	10
Acetone	ND		100	30	ug/L			03/31/16 14:36	10
Benzene	ND		10	4.1	ug/L			03/31/16 14:36	10
Bromodichloromethane	ND		10	3.9	ug/L			03/31/16 14:36	10
Bromoform	ND		10	2.6	ug/L			03/31/16 14:36	10
Bromomethane	ND		10	6.9	ug/L			03/31/16 14:36	10
Carbon disulfide	ND		10	1.9	ug/L			03/31/16 14:36	10
Carbon tetrachloride	ND		10	2.7	ug/L			03/31/16 14:36	10
Chlorobenzene	ND		10	7.5	ug/L			03/31/16 14:36	10
Chloroethane	ND		10	3.2	ug/L			03/31/16 14:36	10
Chloroform	ND		10	3.4	ug/L			03/31/16 14:36	10
Chloromethane	ND		10	3.5	ug/L			03/31/16 14:36	10
cis-1,2-Dichloroethene	**1400**	**E**	10	8.1	ug/L			03/31/16 14:36	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			03/31/16 14:36	10
Cyclohexane	ND		10	1.8	ug/L			03/31/16 14:36	10
Dibromochloromethane	ND		10	3.2	ug/L			03/31/16 14:36	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			03/31/16 14:36	10
Ethylbenzene	ND		10	7.4	ug/L			03/31/16 14:36	10
Isopropylbenzene	ND		10	7.9	ug/L			03/31/16 14:36	10
Methyl acetate	ND		25	13	ug/L			03/31/16 14:36	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			03/31/16 14:36	10
Methylcyclohexane	ND		10	1.6	ug/L			03/31/16 14:36	10
Methylene Chloride	ND		10	4.4	ug/L			03/31/16 14:36	10
Styrene	ND		10	7.3	ug/L			03/31/16 14:36	10
Tetrachloroethene	ND		10	3.6	ug/L			03/31/16 14:36	10
Toluene	ND		10	5.1	ug/L			03/31/16 14:36	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			03/31/16 14:36	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			03/31/16 14:36	10
Trichloroethene	ND		10	4.6	ug/L			03/31/16 14:36	10
Trichlorofluoromethane	ND		10	8.8	ug/L			03/31/16 14:36	10
Vinyl chloride	**170**		10	9.0	ug/L			03/31/16 14:36	10
Xylenes, Total	ND		20	6.6	ug/L			03/31/16 14:36	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*66 - 137*		*03/31/16 14:36*	*10*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*03/31/16 14:36*	*10*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*03/31/16 14:36*	*10*
Toluene-d8 (Surr)	*108*		*71 - 126*		*03/31/16 14:36*	*10*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	33	ug/L			04/01/16 14:29	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			04/01/16 14:29	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	12	ug/L			04/01/16 14:29	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			04/01/16 14:29	40
1,1-Dichloroethane	ND		40	15	ug/L			04/01/16 14:29	40
1,1-Dichloroethene	ND		40	12	ug/L			04/01/16 14:29	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			04/01/16 14:29	40

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-9
Date Collected: 03/23/16 08:45
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			04/01/16 14:29	40
1,2-Dibromoethane	ND		40	29	ug/L			04/01/16 14:29	40
1,2-Dichlorobenzene	ND		40	32	ug/L			04/01/16 14:29	40
1,2-Dichloroethane	ND		40	8.4	ug/L			04/01/16 14:29	40
1,2-Dichloropropane	ND		40	29	ug/L			04/01/16 14:29	40
1,3-Dichlorobenzene	ND		40	31	ug/L			04/01/16 14:29	40
1,4-Dichlorobenzene	ND		40	34	ug/L			04/01/16 14:29	40
1,4-Dioxane	ND		1600	370	ug/L			04/01/16 14:29	40
2-Butanone (MEK)	ND		400	53	ug/L			04/01/16 14:29	40
2-Hexanone	ND		200	50	ug/L			04/01/16 14:29	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			04/01/16 14:29	40
Acetone	ND		400	120	ug/L			04/01/16 14:29	40
Benzene	ND		40	16	ug/L			04/01/16 14:29	40
Bromodichloromethane	ND		40	16	ug/L			04/01/16 14:29	40
Bromoform	ND		40	10	ug/L			04/01/16 14:29	40
Bromomethane	ND		40	28	ug/L			04/01/16 14:29	40
Carbon disulfide	ND		40	7.6	ug/L			04/01/16 14:29	40
Carbon tetrachloride	ND		40	11	ug/L			04/01/16 14:29	40
Chlorobenzene	ND		40	30	ug/L			04/01/16 14:29	40
Chloroethane	ND		40	13	ug/L			04/01/16 14:29	40
Chloroform	ND		40	14	ug/L			04/01/16 14:29	40
Chloromethane	ND		40	14	ug/L			04/01/16 14:29	40
cis-1,2-Dichloroethene	**1800**		40	32	ug/L			04/01/16 14:29	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			04/01/16 14:29	40
Cyclohexane	ND		40	7.2	ug/L			04/01/16 14:29	40
Dibromochloromethane	ND		40	13	ug/L			04/01/16 14:29	40
Dichlorodifluoromethane	ND		40	27	ug/L			04/01/16 14:29	40
Ethylbenzene	ND		40	30	ug/L			04/01/16 14:29	40
Isopropylbenzene	ND		40	32	ug/L			04/01/16 14:29	40
Methyl acetate	ND		100	52	ug/L			04/01/16 14:29	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			04/01/16 14:29	40
Methylcyclohexane	ND		40	6.4	ug/L			04/01/16 14:29	40
Methylene Chloride	ND		40	18	ug/L			04/01/16 14:29	40
Styrene	ND		40	29	ug/L			04/01/16 14:29	40
Tetrachloroethene	ND		40	14	ug/L			04/01/16 14:29	40
Toluene	ND		40	20	ug/L			04/01/16 14:29	40
trans-1,2-Dichloroethene	ND		40	36	ug/L			04/01/16 14:29	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			04/01/16 14:29	40
Trichloroethene	ND		40	18	ug/L			04/01/16 14:29	40
Trichlorofluoromethane	ND		40	35	ug/L			04/01/16 14:29	40
Vinyl chloride	**200**		40	36	ug/L			04/01/16 14:29	40
Xylenes, Total	ND		80	26	ug/L			04/01/16 14:29	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*04/01/16 14:29*	*40*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*04/01/16 14:29*	*40*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*04/01/16 14:29*	*40*
Toluene-d8 (Surr)	*109*		*71 - 126*		*04/01/16 14:29*	*40*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-14R
Date Collected: 03/23/16 09:45
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			03/31/16 15:00	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			03/31/16 15:00	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			03/31/16 15:00	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			03/31/16 15:00	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			03/31/16 15:00	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			03/31/16 15:00	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			03/31/16 15:00	2
1,2-Dibromo-3-Chloropropane	**2.3**		2.0	0.78	ug/L			03/31/16 15:00	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			03/31/16 15:00	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			03/31/16 15:00	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			03/31/16 15:00	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			03/31/16 15:00	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			03/31/16 15:00	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			03/31/16 15:00	2
1,4-Dioxane	ND		80	19	ug/L			03/31/16 15:00	2
2-Butanone (MEK)	ND		20	2.6	ug/L			03/31/16 15:00	2
2-Hexanone	ND		10	2.5	ug/L			03/31/16 15:00	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			03/31/16 15:00	2
Acetone	**6.7**	**J**	20	6.0	ug/L			03/31/16 15:00	2
Benzene	**1.8**	**J**	2.0	0.82	ug/L			03/31/16 15:00	2
Bromodichloromethane	ND		2.0	0.78	ug/L			03/31/16 15:00	2
Bromoform	ND		2.0	0.52	ug/L			03/31/16 15:00	2
Bromomethane	ND		2.0	1.4	ug/L			03/31/16 15:00	2
Carbon disulfide	ND		2.0	0.38	ug/L			03/31/16 15:00	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			03/31/16 15:00	2
Chlorobenzene	ND		2.0	1.5	ug/L			03/31/16 15:00	2
Chloroethane	ND		2.0	0.64	ug/L			03/31/16 15:00	2
Chloroform	ND		2.0	0.68	ug/L			03/31/16 15:00	2
Chloromethane	ND		2.0	0.70	ug/L			03/31/16 15:00	2
cis-1,2-Dichloroethene	**990**	**E**	2.0	1.6	ug/L			03/31/16 15:00	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			03/31/16 15:00	2
Cyclohexane	ND		2.0	0.36	ug/L			03/31/16 15:00	2
Dibromochloromethane	ND		2.0	0.64	ug/L			03/31/16 15:00	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			03/31/16 15:00	2
Ethylbenzene	**29**		2.0	1.5	ug/L			03/31/16 15:00	2
Isopropylbenzene	**14**		2.0	1.6	ug/L			03/31/16 15:00	2
Methyl acetate	ND		5.0	2.6	ug/L			03/31/16 15:00	2
Methyl tert-butyl ether	**1.7**	**J**	2.0	0.32	ug/L			03/31/16 15:00	2
Methylcyclohexane	**1.4**	**J**	2.0	0.32	ug/L			03/31/16 15:00	2
Methylene Chloride	ND		2.0	0.88	ug/L			03/31/16 15:00	2
Styrene	ND		2.0	1.5	ug/L			03/31/16 15:00	2
Tetrachloroethene	ND		2.0	0.72	ug/L			03/31/16 15:00	2
Toluene	**25**		2.0	1.0	ug/L			03/31/16 15:00	2
trans-1,2-Dichloroethene	**8.3**		2.0	1.8	ug/L			03/31/16 15:00	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			03/31/16 15:00	2
Trichloroethene	ND		2.0	0.92	ug/L			03/31/16 15:00	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			03/31/16 15:00	2
Vinyl chloride	**810**	**E**	2.0	1.8	ug/L			03/31/16 15:00	2
Xylenes, Total	**200**		4.0	1.3	ug/L			03/31/16 15:00	2

Client Sample ID: MW-14R
Date Collected: 03/23/16 09:45
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-10
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*03/31/16 15:00*	*2*
4-Bromofluorobenzene (Surr)	*115*		*73 - 120*		*03/31/16 15:00*	*2*
Dibromofluoromethane (Surr)	*116*		*60 - 140*		*03/31/16 15:00*	*2*
Toluene-d8 (Surr)	*111*		*71 - 126*		*03/31/16 15:00*	*2*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			04/01/16 01:04	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			04/01/16 01:04	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			04/01/16 01:04	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			04/01/16 01:04	20
1,1-Dichloroethane	ND		20	7.6	ug/L			04/01/16 01:04	20
1,1-Dichloroethene	ND		20	5.8	ug/L			04/01/16 01:04	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			04/01/16 01:04	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			04/01/16 01:04	20
1,2-Dibromoethane	ND		20	15	ug/L			04/01/16 01:04	20
1,2-Dichlorobenzene	ND		20	16	ug/L			04/01/16 01:04	20
1,2-Dichloroethane	ND		20	4.2	ug/L			04/01/16 01:04	20
1,2-Dichloropropane	ND		20	14	ug/L			04/01/16 01:04	20
1,3-Dichlorobenzene	ND		20	16	ug/L			04/01/16 01:04	20
1,4-Dichlorobenzene	ND		20	17	ug/L			04/01/16 01:04	20
1,4-Dioxane	ND		800	190	ug/L			04/01/16 01:04	20
2-Butanone (MEK)	ND		200	26	ug/L			04/01/16 01:04	20
2-Hexanone	ND		100	25	ug/L			04/01/16 01:04	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			04/01/16 01:04	20
Acetone	ND	*	200	60	ug/L			04/01/16 01:04	20
Benzene	ND		20	8.2	ug/L			04/01/16 01:04	20
Bromodichloromethane	ND		20	7.8	ug/L			04/01/16 01:04	20
Bromoform	ND		20	5.2	ug/L			04/01/16 01:04	20
Bromomethane	ND	*	20	14	ug/L			04/01/16 01:04	20
Carbon disulfide	ND		20	3.8	ug/L			04/01/16 01:04	20
Carbon tetrachloride	ND		20	5.4	ug/L			04/01/16 01:04	20
Chlorobenzene	ND		20	15	ug/L			04/01/16 01:04	20
Chloroethane	ND		20	6.4	ug/L			04/01/16 01:04	20
Chloroform	ND		20	6.8	ug/L			04/01/16 01:04	20
Chloromethane	ND		20	7.0	ug/L			04/01/16 01:04	20
cis-1,2-Dichloroethene	**1500**		20	16	ug/L			04/01/16 01:04	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			04/01/16 01:04	20
Cyclohexane	ND		20	3.6	ug/L			04/01/16 01:04	20
Dibromochloromethane	ND		20	6.4	ug/L			04/01/16 01:04	20
Dichlorodifluoromethane	ND		20	14	ug/L			04/01/16 01:04	20
Ethylbenzene	**36**		20	15	ug/L			04/01/16 01:04	20
Isopropylbenzene	**17**	**J**	20	16	ug/L			04/01/16 01:04	20
Methyl acetate	ND		50	26	ug/L			04/01/16 01:04	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			04/01/16 01:04	20
Methylcyclohexane	ND		20	3.2	ug/L			04/01/16 01:04	20
Methylene Chloride	ND		20	8.8	ug/L			04/01/16 01:04	20
Styrene	ND		20	15	ug/L			04/01/16 01:04	20
Tetrachloroethene	ND		20	7.2	ug/L			04/01/16 01:04	20
Toluene	**31**		20	10	ug/L			04/01/16 01:04	20

Client Sample ID: MW-14R

Lab Sample ID: 480-96991-10

Date Collected: 03/23/16 09:45

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		20	18	ug/L			04/01/16 01:04	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			04/01/16 01:04	20
Trichloroethene	ND		20	9.2	ug/L			04/01/16 01:04	20
Trichlorofluoromethane	ND		20	18	ug/L			04/01/16 01:04	20
Vinyl chloride	**1100**		20	18	ug/L			04/01/16 01:04	20
Xylenes, Total	**250**		40	13	ug/L			04/01/16 01:04	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*04/01/16 01:04*	*20*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*04/01/16 01:04*	*20*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*04/01/16 01:04*	*20*
Toluene-d8 (Surr)	*108*		*71 - 126*		*04/01/16 01:04*	*20*

Client Sample ID: MP-20

Lab Sample ID: 480-96991-11

Date Collected: 03/23/16 09:45

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/31/16 15:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/31/16 15:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/31/16 15:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/31/16 15:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/31/16 15:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/31/16 15:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/31/16 15:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/31/16 15:23	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/31/16 15:23	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/31/16 15:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/31/16 15:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/31/16 15:23	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/31/16 15:23	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/31/16 15:23	1
1,4-Dioxane	ND		40	9.3	ug/L			03/31/16 15:23	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/31/16 15:23	1
2-Hexanone	ND		5.0	1.2	ug/L			03/31/16 15:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/31/16 15:23	1
Acetone	ND		10	3.0	ug/L			03/31/16 15:23	1
Benzene	ND		1.0	0.41	ug/L			03/31/16 15:23	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/31/16 15:23	1
Bromoform	ND		1.0	0.26	ug/L			03/31/16 15:23	1
Bromomethane	ND		1.0	0.69	ug/L			03/31/16 15:23	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/31/16 15:23	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/31/16 15:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/31/16 15:23	1
Chloroethane	ND		1.0	0.32	ug/L			03/31/16 15:23	1
Chloroform	ND		1.0	0.34	ug/L			03/31/16 15:23	1
Chloromethane	ND		1.0	0.35	ug/L			03/31/16 15:23	1
cis-1,2-Dichloroethene	**4.1**		1.0	0.81	ug/L			03/31/16 15:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/31/16 15:23	1

Client Sample ID: MP-20

Lab Sample ID: 480-96991-11

Date Collected: 03/23/16 09:45

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		1.0	0.18	ug/L			03/31/16 15:23	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/31/16 15:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/31/16 15:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/31/16 15:23	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/31/16 15:23	1
Methyl acetate	ND		2.5	1.3	ug/L			03/31/16 15:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/31/16 15:23	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/31/16 15:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/31/16 15:23	1
Styrene	ND		1.0	0.73	ug/L			03/31/16 15:23	1
Tetrachloroethene	**0.51**	**J**	1.0	0.36	ug/L			03/31/16 15:23	1
Toluene	ND		1.0	0.51	ug/L			03/31/16 15:23	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/31/16 15:23	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/31/16 15:23	1
Trichloroethene	**0.98**	**J**	1.0	0.46	ug/L			03/31/16 15:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/31/16 15:23	1
Vinyl chloride	**1.9**		1.0	0.90	ug/L			03/31/16 15:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/31/16 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*66 - 137*		*03/31/16 15:23*	*1*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*		*03/31/16 15:23*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*03/31/16 15:23*	*1*
Toluene-d8 (Surr)	*108*		*71 - 126*		*03/31/16 15:23*	*1*

Client Sample ID: DUP-1

Lab Sample ID: 480-96991-12

Date Collected: 03/22/16 00:00

Matrix: Water

Date Received: 03/24/16 02:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			03/31/16 15:46	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			03/31/16 15:46	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			03/31/16 15:46	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			03/31/16 15:46	10
1,1-Dichloroethane	ND		10	3.8	ug/L			03/31/16 15:46	10
1,1-Dichloroethene	ND		10	2.9	ug/L			03/31/16 15:46	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			03/31/16 15:46	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			03/31/16 15:46	10
1,2-Dibromoethane	ND		10	7.3	ug/L			03/31/16 15:46	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			03/31/16 15:46	10
1,2-Dichloroethane	ND		10	2.1	ug/L			03/31/16 15:46	10
1,2-Dichloropropane	ND		10	7.2	ug/L			03/31/16 15:46	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			03/31/16 15:46	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			03/31/16 15:46	10
1,4-Dioxane	ND		400	93	ug/L			03/31/16 15:46	10
2-Butanone (MEK)	ND		100	13	ug/L			03/31/16 15:46	10
2-Hexanone	ND		50	12	ug/L			03/31/16 15:46	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			03/31/16 15:46	10
Acetone	ND		100	30	ug/L			03/31/16 15:46	10

Client Sample ID: DUP-1
Date Collected: 03/22/16 00:00
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		10	4.1	ug/L			03/31/16 15:46	10
Bromodichloromethane	ND		10	3.9	ug/L			03/31/16 15:46	10
Bromoform	ND		10	2.6	ug/L			03/31/16 15:46	10
Bromomethane	ND		10	6.9	ug/L			03/31/16 15:46	10
Carbon disulfide	ND		10	1.9	ug/L			03/31/16 15:46	10
Carbon tetrachloride	ND		10	2.7	ug/L			03/31/16 15:46	10
Chlorobenzene	ND		10	7.5	ug/L			03/31/16 15:46	10
Chloroethane	ND		10	3.2	ug/L			03/31/16 15:46	10
Chloroform	ND		10	3.4	ug/L			03/31/16 15:46	10
Chloromethane	ND		10	3.5	ug/L			03/31/16 15:46	10
cis-1,2-Dichloroethene	**2500**	**E**	10	8.1	ug/L			03/31/16 15:46	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			03/31/16 15:46	10
Cyclohexane	ND		10	1.8	ug/L			03/31/16 15:46	10
Dibromochloromethane	ND		10	3.2	ug/L			03/31/16 15:46	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			03/31/16 15:46	10
Ethylbenzene	ND		10	7.4	ug/L			03/31/16 15:46	10
Isopropylbenzene	ND		10	7.9	ug/L			03/31/16 15:46	10
Methyl acetate	ND		25	13	ug/L			03/31/16 15:46	10
Methyl tert-butyl ether	ND		10	1.6	ug/L			03/31/16 15:46	10
Methylcyclohexane	ND		10	1.6	ug/L			03/31/16 15:46	10
Methylene Chloride	ND		10	4.4	ug/L			03/31/16 15:46	10
Styrene	ND		10	7.3	ug/L			03/31/16 15:46	10
Tetrachloroethene	**1600**	**E**	10	3.6	ug/L			03/31/16 15:46	10
Toluene	ND		10	5.1	ug/L			03/31/16 15:46	10
trans-1,2-Dichloroethene	**13**		10	9.0	ug/L			03/31/16 15:46	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			03/31/16 15:46	10
Trichloroethene	**680**		10	4.6	ug/L			03/31/16 15:46	10
Trichlorofluoromethane	ND		10	8.8	ug/L			03/31/16 15:46	10
Vinyl chloride	ND		10	9.0	ug/L			03/31/16 15:46	10
Xylenes, Total	ND		20	6.6	ug/L			03/31/16 15:46	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*03/31/16 15:46*	*10*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*03/31/16 15:46*	*10*
Dibromofluoromethane (Surr)	*111*		*60 - 140*		*03/31/16 15:46*	*10*
Toluene-d8 (Surr)	*106*		*71 - 126*		*03/31/16 15:46*	*10*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			04/01/16 01:28	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			04/01/16 01:28	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			04/01/16 01:28	50
1,1,2-Trichloroethane	ND		50	12	ug/L			04/01/16 01:28	50
1,1-Dichloroethane	ND		50	19	ug/L			04/01/16 01:28	50
1,1-Dichloroethene	ND		50	15	ug/L			04/01/16 01:28	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			04/01/16 01:28	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			04/01/16 01:28	50
1,2-Dibromoethane	ND		50	37	ug/L			04/01/16 01:28	50
1,2-Dichlorobenzene	ND		50	40	ug/L			04/01/16 01:28	50
1,2-Dichloroethane	ND		50	11	ug/L			04/01/16 01:28	50

Client Sample ID: DUP-1
Date Collected: 03/22/16 00:00
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		50	36	ug/L			04/01/16 01:28	50
1,3-Dichlorobenzene	ND		50	39	ug/L			04/01/16 01:28	50
1,4-Dichlorobenzene	ND		50	42	ug/L			04/01/16 01:28	50
1,4-Dioxane	ND		2000	470	ug/L			04/01/16 01:28	50
2-Butanone (MEK)	ND		500	66	ug/L			04/01/16 01:28	50
2-Hexanone	ND		250	62	ug/L			04/01/16 01:28	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			04/01/16 01:28	50
Acetone	ND	*	500	150	ug/L			04/01/16 01:28	50
Benzene	ND		50	21	ug/L			04/01/16 01:28	50
Bromodichloromethane	ND		50	20	ug/L			04/01/16 01:28	50
Bromoform	ND		50	13	ug/L			04/01/16 01:28	50
Bromomethane	ND	*	50	35	ug/L			04/01/16 01:28	50
Carbon disulfide	ND		50	9.5	ug/L			04/01/16 01:28	50
Carbon tetrachloride	ND		50	14	ug/L			04/01/16 01:28	50
Chlorobenzene	ND		50	38	ug/L			04/01/16 01:28	50
Chloroethane	ND		50	16	ug/L			04/01/16 01:28	50
Chloroform	ND		50	17	ug/L			04/01/16 01:28	50
Chloromethane	ND		50	18	ug/L			04/01/16 01:28	50
cis-1,2-Dichloroethene	**3300**		50	41	ug/L			04/01/16 01:28	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			04/01/16 01:28	50
Cyclohexane	ND		50	9.0	ug/L			04/01/16 01:28	50
Dibromochloromethane	ND		50	16	ug/L			04/01/16 01:28	50
Dichlorodifluoromethane	ND		50	34	ug/L			04/01/16 01:28	50
Ethylbenzene	ND		50	37	ug/L			04/01/16 01:28	50
Isopropylbenzene	ND		50	40	ug/L			04/01/16 01:28	50
Methyl acetate	ND		130	65	ug/L			04/01/16 01:28	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			04/01/16 01:28	50
Methylcyclohexane	ND		50	8.0	ug/L			04/01/16 01:28	50
Methylene Chloride	ND		50	22	ug/L			04/01/16 01:28	50
Styrene	ND		50	37	ug/L			04/01/16 01:28	50
Tetrachloroethene	**2200**		50	18	ug/L			04/01/16 01:28	50
Toluene	ND		50	26	ug/L			04/01/16 01:28	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			04/01/16 01:28	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			04/01/16 01:28	50
Trichloroethene	**900**		50	23	ug/L			04/01/16 01:28	50
Trichlorofluoromethane	ND		50	44	ug/L			04/01/16 01:28	50
Vinyl chloride	ND		50	45	ug/L			04/01/16 01:28	50
Xylenes, Total	ND		100	33	ug/L			04/01/16 01:28	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*04/01/16 01:28*	*50*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*04/01/16 01:28*	*50*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*04/01/16 01:28*	*50*
Toluene-d8 (Surr)	*108*		*71 - 126*		*04/01/16 01:28*	*50*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: TRIP BLANK
Date Collected: 03/22/16 00:00
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/31/16 16:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/31/16 16:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/31/16 16:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/31/16 16:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/31/16 16:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/31/16 16:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/31/16 16:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/31/16 16:09	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/31/16 16:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/31/16 16:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/31/16 16:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/31/16 16:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/31/16 16:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/31/16 16:09	1
1,4-Dioxane	ND		40	9.3	ug/L			03/31/16 16:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/31/16 16:09	1
2-Hexanone	ND		5.0	1.2	ug/L			03/31/16 16:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/31/16 16:09	1
Acetone	ND		10	3.0	ug/L			03/31/16 16:09	1
Benzene	ND		1.0	0.41	ug/L			03/31/16 16:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/31/16 16:09	1
Bromoform	ND		1.0	0.26	ug/L			03/31/16 16:09	1
Bromomethane	ND		1.0	0.69	ug/L			03/31/16 16:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/31/16 16:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/31/16 16:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/31/16 16:09	1
Chloroethane	ND		1.0	0.32	ug/L			03/31/16 16:09	1
Chloroform	ND		1.0	0.34	ug/L			03/31/16 16:09	1
Chloromethane	ND		1.0	0.35	ug/L			03/31/16 16:09	1
cis-1,2-Dichloroethene	**0.96**	**J**	1.0	0.81	ug/L			03/31/16 16:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/31/16 16:09	1
Cyclohexane	ND		1.0	0.18	ug/L			03/31/16 16:09	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/31/16 16:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/31/16 16:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/31/16 16:09	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/31/16 16:09	1
Methyl acetate	ND		2.5	1.3	ug/L			03/31/16 16:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/31/16 16:09	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/31/16 16:09	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/31/16 16:09	1
Styrene	ND		1.0	0.73	ug/L			03/31/16 16:09	1
Tetrachloroethene	**0.52**	**J**	1.0	0.36	ug/L			03/31/16 16:09	1
Toluene	ND		1.0	0.51	ug/L			03/31/16 16:09	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/31/16 16:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/31/16 16:09	1
Trichloroethene	ND		1.0	0.46	ug/L			03/31/16 16:09	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/31/16 16:09	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/31/16 16:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/31/16 16:09	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: TRIP BLANK
Date Collected: 03/22/16 00:00
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-13
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		66 - 137		03/31/16 16:09	1
4-Bromofluorobenzene (Surr)	111		73 - 120		03/31/16 16:09	1
Dibromofluoromethane (Surr)	110		60 - 140		03/31/16 16:09	1
Toluene-d8 (Surr)	107		71 - 126		03/31/16 16:09	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(60-140)	(71-126)
480-96991-1	MW-23S	105	108	112	107
480-96991-1 - DL	MW-23S	104	110	108	107
480-96991-1 MS	MW-23S	104	113	108	110
480-96991-1 MSD	MW-23S	101	112	107	109
480-96991-2	MW-23D	103	109	109	108
480-96991-2 - DL	MW-23D	103	112	108	107
480-96991-2 MS	MW-23D	99	113	104	109
480-96991-2 MS - DL	MW-23D	102	113	107	109
480-96991-2 MSD	MW-23D	104	112	108	109
480-96991-2 MSD - DL	MW-23D	102	112	109	110
480-96991-3	MW-1DD	103	109	110	107
480-96991-3 - DL	MW-1DD	102	111	105	107
480-96991-4	MW-1D	103	109	108	106
480-96991-4 - DL	MW-1D	106	112	111	106
480-96991-5	IW-01S	102	108	105	104
480-96991-5 - DL	IW-01S	102	113	106	106
480-96991-6	MW-1	105	110	107	108
480-96991-7	GM-9	106	111	110	107
480-96991-8	MW-13	105	112	106	108
480-96991-9	MW-9	107	112	110	108
480-96991-9 - DL	MW-9	106	111	108	109
480-96991-10	MW-14R	106	115	116	111
480-96991-10 - DL	MW-14R	105	112	108	108
480-96991-11	MP-20	108	114	111	108
480-96991-12	DUP-1	106	111	111	106
480-96991-12 - DL	DUP-1	105	112	109	108
480-96991-13	TRIP BLANK	104	111	110	107
LCS 480-293392/5	Lab Control Sample	102	113	106	110
LCS 480-293565/5	Lab Control Sample	101	114	107	108
LCS 480-293608/5	Lab Control Sample	103	112	110	109
MB 480-293392/7	Method Blank	104	113	109	107
MB 480-293565/7	Method Blank	103	112	105	107
MB 480-293608/7	Method Blank	104	112	106	108

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-293392/7
Matrix: Water
Analysis Batch: 293392

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/31/16 10:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/31/16 10:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/31/16 10:43	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/31/16 10:43	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/31/16 10:43	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/31/16 10:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/31/16 10:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/31/16 10:43	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/31/16 10:43	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/31/16 10:43	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/31/16 10:43	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/31/16 10:43	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/31/16 10:43	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/31/16 10:43	1
1,4-Dioxane	ND		40	9.3	ug/L			03/31/16 10:43	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/31/16 10:43	1
2-Hexanone	ND		5.0	1.2	ug/L			03/31/16 10:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/31/16 10:43	1
Acetone	ND		10	3.0	ug/L			03/31/16 10:43	1
Benzene	ND		1.0	0.41	ug/L			03/31/16 10:43	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/31/16 10:43	1
Bromoform	ND		1.0	0.26	ug/L			03/31/16 10:43	1
Bromomethane	ND		1.0	0.69	ug/L			03/31/16 10:43	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/31/16 10:43	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/31/16 10:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/31/16 10:43	1
Chloroethane	ND		1.0	0.32	ug/L			03/31/16 10:43	1
Chloroform	ND		1.0	0.34	ug/L			03/31/16 10:43	1
Chloromethane	ND		1.0	0.35	ug/L			03/31/16 10:43	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/31/16 10:43	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/31/16 10:43	1
Cyclohexane	ND		1.0	0.18	ug/L			03/31/16 10:43	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/31/16 10:43	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/31/16 10:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/31/16 10:43	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/31/16 10:43	1
Methyl acetate	ND		2.5	1.3	ug/L			03/31/16 10:43	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/31/16 10:43	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/31/16 10:43	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/31/16 10:43	1
Styrene	ND		1.0	0.73	ug/L			03/31/16 10:43	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/31/16 10:43	1
Toluene	ND		1.0	0.51	ug/L			03/31/16 10:43	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/31/16 10:43	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/31/16 10:43	1
Trichloroethene	ND		1.0	0.46	ug/L			03/31/16 10:43	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/31/16 10:43	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/31/16 10:43	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-293392/7
Matrix: Water
Analysis Batch: 293392

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		2.0	0.66	ug/L			03/31/16 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*03/31/16 10:43*	*1*
4-Bromofluorobenzene (Surr)	*113*		*73 - 120*		*03/31/16 10:43*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*03/31/16 10:43*	*1*
Toluene-d8 (Surr)	*107*		*71 - 126*		*03/31/16 10:43*	*1*

Lab Sample ID: LCS 480-293392/5
Matrix: Water
Analysis Batch: 293392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.3		ug/L		93	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L		102	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.0		ug/L		96	52 - 148
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	21.9		ug/L		88	71 - 129
1,1-Dichloroethene	25.0	22.6		ug/L		90	58 - 121
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	25.0		ug/L		100	56 - 134
1,2-Dibromoethane	25.0	26.9		ug/L		107	77 - 120
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	20.7		ug/L		83	75 - 127
1,2-Dichloropropane	25.0	24.1		ug/L		97	76 - 120
1,3-Dichlorobenzene	25.0	23.4		ug/L		94	77 - 120
1,4-Dichlorobenzene	25.0	22.7		ug/L		91	75 - 120
1,4-Dioxane	500	498		ug/L		100	50 - 174
2-Butanone (MEK)	125	125		ug/L		100	57 - 140
2-Hexanone	125	116		ug/L		93	65 - 127
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	71 - 125
Acetone	125	136		ug/L		109	56 - 142
Benzene	25.0	22.7		ug/L		91	71 - 124
Bromodichloromethane	25.0	25.8		ug/L		103	80 - 122
Bromoform	25.0	26.8		ug/L		107	52 - 132
Bromomethane	25.0	19.1		ug/L		76	55 - 144
Carbon disulfide	25.0	20.6		ug/L		82	59 - 134
Carbon tetrachloride	25.0	31.4		ug/L		126	72 - 134
Chlorobenzene	25.0	24.4		ug/L		98	72 - 120
Chloroethane	25.0	19.8		ug/L		79	69 - 136
Chloroform	25.0	21.6		ug/L		87	73 - 127
Chloromethane	25.0	19.1		ug/L		76	68 - 124
cis-1,2-Dichloroethene	25.0	23.0		ug/L		92	74 - 124
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124
Cyclohexane	25.0	21.6		ug/L		87	59 - 135
Dibromochloromethane	25.0	26.3		ug/L		105	75 - 125
Dichlorodifluoromethane	25.0	19.1		ug/L		76	59 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-293392/5
Matrix: Water
Analysis Batch: 293392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	23.2		ug/L		93	77 - 123
Isopropylbenzene	25.0	23.4		ug/L		93	77 - 122
Methyl acetate	125	115		ug/L		92	74 - 133
Methyl tert-butyl ether	25.0	22.6		ug/L		91	64 - 127
Methylcyclohexane	25.0	23.0		ug/L		92	61 - 138
Methylene Chloride	25.0	23.5		ug/L		94	57 - 132
Styrene	25.0	24.8		ug/L		99	70 - 130
Tetrachloroethene	25.0	23.6		ug/L		94	74 - 122
Toluene	25.0	23.6		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	22.9		ug/L		92	73 - 127
trans-1,3-Dichloropropene	25.0	28.2		ug/L		113	72 - 123
Trichloroethene	25.0	23.0		ug/L		92	74 - 123
Trichlorofluoromethane	25.0	23.0		ug/L		92	62 - 152
Vinyl chloride	25.0	18.3		ug/L		73	65 - 133
Xylenes, Total	50.0	48.0		ug/L		96	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*
4-Bromofluorobenzene (Surr)	*113*		*73 - 120*
Dibromofluoromethane (Surr)	*106*		*60 - 140*
Toluene-d8 (Surr)	*110*		*71 - 126*

Lab Sample ID: 480-96991-2 MS
Matrix: Water
Analysis Batch: 293392

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		200	195		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	ND		200	208		ug/L		104	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		200	177		ug/L		88	52 - 148
1,1,2-Trichloroethane	ND		200	208		ug/L		104	76 - 122
1,1-Dichloroethane	ND		200	176		ug/L		88	71 - 129
1,1-Dichloroethene	ND		200	182		ug/L		91	58 - 121
1,2,4-Trichlorobenzene	ND		200	197		ug/L		98	70 - 122
1,2-Dibromo-3-Chloropropane	ND		200	198		ug/L		99	56 - 134
1,2-Dibromoethane	ND		200	223		ug/L		112	77 - 120
1,2-Dichlorobenzene	ND		200	196		ug/L		98	80 - 124
1,2-Dichloroethane	ND		200	167		ug/L		84	75 - 127
1,2-Dichloropropane	ND		200	198		ug/L		99	76 - 120
1,3-Dichlorobenzene	ND		200	189		ug/L		95	77 - 120
1,4-Dichlorobenzene	ND		200	184		ug/L		92	75 - 120
1,4-Dioxane	ND		4000	4820		ug/L		121	50 - 174
2-Butanone (MEK)	ND		1000	994		ug/L		99	57 - 140
2-Hexanone	ND		1000	954		ug/L		95	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		1000	952		ug/L		95	71 - 125
Acetone	ND		1000	1100		ug/L		110	56 - 142
Benzene	ND		200	187		ug/L		94	71 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-96991-2 MS
Matrix: Water
Analysis Batch: 293392

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	ND		200	204		ug/L		102	80 - 122
Bromoform	ND		200	211		ug/L		106	52 - 132
Bromomethane	ND		200	156		ug/L		78	55 - 144
Carbon disulfide	ND		200	165		ug/L		83	59 - 134
Carbon tetrachloride	ND		200	255		ug/L		127	72 - 134
Chlorobenzene	ND		200	201		ug/L		100	72 - 120
Chloroethane	ND		200	165		ug/L		82	69 - 136
Chloroform	ND		200	175		ug/L		87	73 - 127
Chloromethane	ND		200	161		ug/L		80	68 - 124
cis-1,2-Dichloroethene	1000	E	200	1060	E 4	ug/L		21	74 - 124
cis-1,3-Dichloropropene	ND		200	209		ug/L		104	74 - 124
Cyclohexane	ND		200	170		ug/L		85	59 - 135
Dibromochloromethane	ND		200	213		ug/L		106	75 - 125
Dichlorodifluoromethane	ND		200	151		ug/L		76	59 - 135
Ethylbenzene	ND		200	191		ug/L		96	77 - 123
Isopropylbenzene	ND		200	189		ug/L		95	77 - 122
Methyl acetate	ND		1000	927		ug/L		93	74 - 133
Methyl tert-butyl ether	ND		200	178		ug/L		89	64 - 127
Methylcyclohexane	ND		200	180		ug/L		90	61 - 138
Methylene Chloride	ND		200	190		ug/L		95	57 - 132
Styrene	ND		200	202		ug/L		101	70 - 130
Tetrachloroethene	700	F1	200	805	E F1	ug/L		54	74 - 122
Toluene	ND		200	193		ug/L		97	80 - 122
trans-1,2-Dichloroethene	ND		200	198		ug/L		99	73 - 127
trans-1,3-Dichloropropene	ND		200	221		ug/L		111	72 - 123
Trichloroethene	300	F1	200	447	F1	ug/L		71	74 - 123
Trichlorofluoromethane	ND		200	191		ug/L		95	62 - 152
Vinyl chloride	ND		200	159		ug/L		79	65 - 133
Xylenes, Total	ND		400	392		ug/L		98	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*
4-Bromofluorobenzene (Surr)	*113*		*73 - 120*
Dibromofluoromethane (Surr)	*104*		*60 - 140*
Toluene-d8 (Surr)	*109*		*71 - 126*

Lab Sample ID: 480-96991-2 MSD
Matrix: Water
Analysis Batch: 293392

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		200	201		ug/L		100	73 - 126	3	15
1,1,2,2-Tetrachloroethane	ND		200	210		ug/L		105	70 - 126	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		200	187		ug/L		94	52 - 148	6	20
1,1,2-Trichloroethane	ND		200	202		ug/L		101	76 - 122	3	15
1,1-Dichloroethane	ND		200	180		ug/L		90	71 - 129	2	20
1,1-Dichloroethene	ND		200	185		ug/L		92	58 - 121	2	16

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-96991-2 MSD
Matrix: Water
Analysis Batch: 293392

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		200	200		ug/L		100	70 - 122	1	20
1,2-Dibromo-3-Chloropropane	ND		200	207		ug/L		104	56 - 134	4	15
1,2-Dibromoethane	ND		200	215		ug/L		107	77 - 120	4	15
1,2-Dichlorobenzene	ND		200	194		ug/L		97	80 - 124	1	20
1,2-Dichloroethane	ND		200	172		ug/L		86	75 - 127	3	20
1,2-Dichloropropane	ND		200	197		ug/L		99	76 - 120	0	20
1,3-Dichlorobenzene	ND		200	185		ug/L		92	77 - 120	2	20
1,4-Dichlorobenzene	ND		200	179		ug/L		90	75 - 120	2	20
1,4-Dioxane	ND		4000	4820		ug/L		120	50 - 174	0	20
2-Butanone (MEK)	ND		1000	1070		ug/L		107	57 - 140	8	20
2-Hexanone	ND		1000	962		ug/L		96	65 - 127	1	15
4-Methyl-2-pentanone (MIBK)	ND		1000	971		ug/L		97	71 - 125	2	35
Acetone	ND		1000	1190		ug/L		119	56 - 142	8	15
Benzene	ND		200	189		ug/L		94	71 - 124	1	13
Bromodichloromethane	ND		200	210		ug/L		105	80 - 122	3	15
Bromoform	ND		200	210		ug/L		105	52 - 132	1	15
Bromomethane	ND		200	154		ug/L		77	55 - 144	1	15
Carbon disulfide	ND		200	173		ug/L		86	59 - 134	4	15
Carbon tetrachloride	ND		200	259		ug/L		130	72 - 134	2	15
Chlorobenzene	ND		200	193		ug/L		97	72 - 120	4	25
Chloroethane	ND		200	165		ug/L		82	69 - 136	0	15
Chloroform	ND		200	179		ug/L		90	73 - 127	3	20
Chloromethane	ND		200	156		ug/L		78	68 - 124	3	15
cis-1,2-Dichloroethene	1000	E	200	1100	E 4	ug/L		39	74 - 124	3	15
cis-1,3-Dichloropropene	ND		200	206		ug/L		103	74 - 124	1	15
Cyclohexane	ND		200	171		ug/L		86	59 - 135	1	20
Dibromochloromethane	ND		200	212		ug/L		106	75 - 125	0	15
Dichlorodifluoromethane	ND		200	155		ug/L		77	59 - 135	2	20
Ethylbenzene	ND		200	185		ug/L		93	77 - 123	3	15
Isopropylbenzene	ND		200	185		ug/L		93	77 - 122	2	20
Methyl acetate	ND		1000	989		ug/L		99	74 - 133	6	20
Methyl tert-butyl ether	ND		200	187		ug/L		94	64 - 127	5	37
Methylcyclohexane	ND		200	181		ug/L		90	61 - 138	1	20
Methylene Chloride	ND		200	197		ug/L		98	57 - 132	3	15
Styrene	ND		200	195		ug/L		97	70 - 130	3	20
Tetrachloroethene	700	F1	200	775	F1	ug/L		39	74 - 122	4	20
Toluene	ND		200	186		ug/L		93	80 - 122	4	15
trans-1,2-Dichloroethene	ND		200	200		ug/L		100	73 - 127	1	20
trans-1,3-Dichloropropene	ND		200	214		ug/L		107	72 - 123	3	15
Trichloroethene	300	F1	200	448	F1	ug/L		72	74 - 123	0	16
Trichlorofluoromethane	ND		200	191		ug/L		95	62 - 152	0	20
Vinyl chloride	ND		200	157		ug/L		79	65 - 133	1	15
Xylenes, Total	ND		400	385		ug/L		96	76 - 122	2	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*
Dibromofluoromethane (Surr)	*108*		*60 - 140*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-96991-2 MSD
Matrix: Water
Analysis Batch: 293392

Client Sample ID: MW-23D
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	109		71 - 126

Lab Sample ID: MB 480-293565/7
Matrix: Water
Analysis Batch: 293565

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/31/16 21:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/31/16 21:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/31/16 21:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/31/16 21:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/31/16 21:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/31/16 21:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/31/16 21:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/31/16 21:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/31/16 21:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/31/16 21:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/31/16 21:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/31/16 21:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/31/16 21:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/31/16 21:25	1
1,4-Dioxane	ND		40	9.3	ug/L			03/31/16 21:25	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/31/16 21:25	1
2-Hexanone	ND		5.0	1.2	ug/L			03/31/16 21:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/31/16 21:25	1
Acetone	ND		10	3.0	ug/L			03/31/16 21:25	1
Benzene	ND		1.0	0.41	ug/L			03/31/16 21:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/31/16 21:25	1
Bromoform	ND		1.0	0.26	ug/L			03/31/16 21:25	1
Bromomethane	ND		1.0	0.69	ug/L			03/31/16 21:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/31/16 21:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/31/16 21:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/31/16 21:25	1
Chloroethane	ND		1.0	0.32	ug/L			03/31/16 21:25	1
Chloroform	ND		1.0	0.34	ug/L			03/31/16 21:25	1
Chloromethane	ND		1.0	0.35	ug/L			03/31/16 21:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/31/16 21:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/31/16 21:25	1
Cyclohexane	ND		1.0	0.18	ug/L			03/31/16 21:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/31/16 21:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/31/16 21:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/31/16 21:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/31/16 21:25	1
Methyl acetate	ND		2.5	1.3	ug/L			03/31/16 21:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/31/16 21:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/31/16 21:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/31/16 21:25	1
Styrene	ND		1.0	0.73	ug/L			03/31/16 21:25	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-293565/7
Matrix: Water
Analysis Batch: 293565

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.36	ug/L			03/31/16 21:25	1
Toluene	ND		1.0	0.51	ug/L			03/31/16 21:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/31/16 21:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/31/16 21:25	1
Trichloroethene	ND		1.0	0.46	ug/L			03/31/16 21:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/31/16 21:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/31/16 21:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/31/16 21:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/31/16 21:25*	*1*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*03/31/16 21:25*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*		*03/31/16 21:25*	*1*
Toluene-d8 (Surr)	*107*		*71 - 126*		*03/31/16 21:25*	*1*

Lab Sample ID: LCS 480-293565/5
Matrix: Water
Analysis Batch: 293565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.7		ug/L		103	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.9		ug/L		108	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.3		ug/L		97	52 - 148
1,1,2-Trichloroethane	25.0	26.8		ug/L		107	76 - 122
1,1-Dichloroethane	25.0	23.6		ug/L		94	71 - 129
1,1-Dichloroethene	25.0	23.6		ug/L		94	58 - 121
1,2,4-Trichlorobenzene	25.0	29.0		ug/L		116	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	27.2		ug/L		109	56 - 134
1,2-Dibromoethane	25.0	28.8		ug/L		115	77 - 120
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	80 - 124
1,2-Dichloroethane	25.0	22.7		ug/L		91	75 - 127
1,2-Dichloropropane	25.0	26.4		ug/L		106	76 - 120
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	75 - 120
1,4-Dioxane	500	798		ug/L		160	50 - 174
2-Butanone (MEK)	125	150		ug/L		120	57 - 140
2-Hexanone	125	128		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	125	125		ug/L		100	71 - 125
Acetone	125	187	*	ug/L		150	56 - 142
Benzene	25.0	25.0		ug/L		100	71 - 124
Bromodichloromethane	25.0	27.3		ug/L		109	80 - 122
Bromoform	25.0	27.0		ug/L		108	52 - 132
Bromomethane	25.0	12.7	*	ug/L		51	55 - 144
Carbon disulfide	25.0	21.4		ug/L		85	59 - 134
Carbon tetrachloride	25.0	33.1		ug/L		132	72 - 134
Chlorobenzene	25.0	26.1		ug/L		104	72 - 120
Chloroethane	25.0	19.8		ug/L		79	69 - 136

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-293565/5
Matrix: Water
Analysis Batch: 293565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	25.0	23.1		ug/L		92	73 - 127
Chloromethane	25.0	21.2		ug/L		85	68 - 124
cis-1,2-Dichloroethene	25.0	25.1		ug/L		100	74 - 124
cis-1,3-Dichloropropene	25.0	29.0		ug/L		116	74 - 124
Cyclohexane	25.0	22.4		ug/L		89	59 - 135
Dibromochloromethane	25.0	27.1		ug/L		108	75 - 125
Dichlorodifluoromethane	25.0	20.7		ug/L		83	59 - 135
Ethylbenzene	25.0	24.7		ug/L		99	77 - 123
Isopropylbenzene	25.0	24.6		ug/L		99	77 - 122
Methyl acetate	125	126		ug/L		101	74 - 133
Methyl tert-butyl ether	25.0	24.7		ug/L		99	64 - 127
Methylcyclohexane	25.0	24.0		ug/L		96	61 - 138
Methylene Chloride	25.0	25.4		ug/L		102	57 - 132
Styrene	25.0	26.5		ug/L		106	70 - 130
Tetrachloroethene	25.0	25.1		ug/L		100	74 - 122
Toluene	25.0	24.8		ug/L		99	80 - 122
trans-1,2-Dichloroethene	25.0	24.3		ug/L		97	73 - 127
trans-1,3-Dichloropropene	25.0	29.6		ug/L		118	72 - 123
Trichloroethene	25.0	24.9		ug/L		100	74 - 123
Trichlorofluoromethane	25.0	23.7		ug/L		95	62 - 152
Vinyl chloride	25.0	20.6		ug/L		83	65 - 133
Xylenes, Total	50.0	51.0		ug/L		102	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*
Dibromofluoromethane (Surr)	*107*		*60 - 140*
Toluene-d8 (Surr)	*108*		*71 - 126*

Lab Sample ID: 480-96991-1 MS
Matrix: Water
Analysis Batch: 293565

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		1250	1310		ug/L		104	73 - 126
1,1,2,2-Tetrachloroethane	ND		1250	1350		ug/L		108	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroetha ne	ND		1250	1230		ug/L		98	52 - 148
1,1,2-Trichloroethane	ND		1250	1340		ug/L		107	76 - 122
1,1-Dichloroethane	ND		1250	1190		ug/L		95	71 - 129
1,1-Dichloroethene	ND		1250	1200		ug/L		96	58 - 121
1,2,4-Trichlorobenzene	ND		1250	1210		ug/L		97	70 - 122
1,2-Dibromo-3-Chloropropane	ND		1250	1210		ug/L		96	56 - 134
1,2-Dibromoethane	ND		1250	1440		ug/L		116	77 - 120
1,2-Dichlorobenzene	ND		1250	1270		ug/L		102	80 - 124
1,2-Dichloroethane	ND		1250	1130		ug/L		91	75 - 127
1,2-Dichloropropane	ND		1250	1330		ug/L		106	76 - 120
1,3-Dichlorobenzene	ND		1250	1230		ug/L		98	77 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-96991-1 MS
Matrix: Water
Analysis Batch: 293565

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	ND		1250	1190		ug/L		95	75 - 120
1,4-Dioxane	ND		25000	27600		ug/L		110	50 - 174
2-Butanone (MEK)	ND		6250	6640		ug/L		106	57 - 140
2-Hexanone	ND		6250	6260		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		6250	6290		ug/L		101	71 - 125
Acetone	ND	*	6250	7330		ug/L		117	56 - 142
Benzene	ND		1250	1260		ug/L		101	71 - 124
Bromodichloromethane	ND		1250	1370		ug/L		110	80 - 122
Bromoform	ND		1250	1330		ug/L		106	52 - 132
Bromomethane	ND	*	1250	1010		ug/L		81	55 - 144
Carbon disulfide	17	J	1250	1100		ug/L		87	59 - 134
Carbon tetrachloride	ND	F1	1250	1670		ug/L		134	72 - 134
Chlorobenzene	ND		1250	1310		ug/L		105	72 - 120
Chloroethane	ND		1250	1040		ug/L		83	69 - 136
Chloroform	ND		1250	1180		ug/L		95	73 - 127
Chloromethane	ND		1250	1050		ug/L		84	68 - 124
cis-1,2-Dichloroethene	3000	F1	1250	3650	F1	ug/L		53	74 - 124
cis-1,3-Dichloropropene	ND		1250	1390		ug/L		111	74 - 124
Cyclohexane	ND		1250	1140		ug/L		91	59 - 135
Dibromochloromethane	ND		1250	1370		ug/L		109	75 - 125
Dichlorodifluoromethane	ND		1250	966		ug/L		77	59 - 135
Ethylbenzene	ND		1250	1260		ug/L		101	77 - 123
Isopropylbenzene	ND		1250	1240		ug/L		99	77 - 122
Methyl acetate	ND		6250	6290		ug/L		101	74 - 133
Methyl tert-butyl ether	ND		1250	1240		ug/L		99	64 - 127
Methylcyclohexane	ND		1250	1200		ug/L		96	61 - 138
Methylene Chloride	ND		1250	1330		ug/L		106	57 - 132
Styrene	ND		1250	1340		ug/L		108	70 - 130
Tetrachloroethene	2000	F1	1250	2750	F1	ug/L		59	74 - 122
Toluene	ND		1250	1270		ug/L		101	80 - 122
trans-1,2-Dichloroethene	ND		1250	1270		ug/L		102	73 - 127
trans-1,3-Dichloropropene	ND		1250	1450		ug/L		116	72 - 123
Trichloroethene	840		1250	1890		ug/L		84	74 - 123
Trichlorofluoromethane	ND		1250	1200		ug/L		96	62 - 152
Vinyl chloride	ND		1250	1020		ug/L		81	65 - 133
Xylenes, Total	ND		2500	2590		ug/L		104	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*
4-Bromofluorobenzene (Surr)	*113*		*73 - 120*
Dibromofluoromethane (Surr)	*108*		*60 - 140*
Toluene-d8 (Surr)	*110*		*71 - 126*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-96991-1 MSD
Matrix: Water
Analysis Batch: 293565

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		1250	1290		ug/L		103	73 - 126	2	15
1,1,2,2-Tetrachloroethane	ND		1250	1350		ug/L		108	70 - 126	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1250	1200		ug/L		96	52 - 148	2	20
1,1,2-Trichloroethane	ND		1250	1340		ug/L		107	76 - 122	0	15
1,1-Dichloroethane	ND		1250	1200		ug/L		96	71 - 129	0	20
1,1-Dichloroethene	ND		1250	1250		ug/L		100	58 - 121	4	16
1,2,4-Trichlorobenzene	ND		1250	1230		ug/L		98	70 - 122	2	20
1,2-Dibromo-3-Chloropropane	ND		1250	1240		ug/L		99	56 - 134	3	15
1,2-Dibromoethane	ND		1250	1440		ug/L		116	77 - 120	0	15
1,2-Dichlorobenzene	ND		1250	1290		ug/L		103	80 - 124	1	20
1,2-Dichloroethane	ND		1250	1130		ug/L		90	75 - 127	0	20
1,2-Dichloropropane	ND		1250	1360		ug/L		108	76 - 120	2	20
1,3-Dichlorobenzene	ND		1250	1250		ug/L		100	77 - 120	2	20
1,4-Dichlorobenzene	ND		1250	1220		ug/L		97	75 - 120	3	20
1,4-Dioxane	ND		25000	28600		ug/L		114	50 - 174	3	20
2-Butanone (MEK)	ND		6250	6850		ug/L		110	57 - 140	3	20
2-Hexanone	ND		6250	6240		ug/L		100	65 - 127	0	15
4-Methyl-2-pentanone (MIBK)	ND		6250	6160		ug/L		99	71 - 125	2	35
Acetone	ND	*	6250	7260		ug/L		116	56 - 142	1	15
Benzene	ND		1250	1270		ug/L		102	71 - 124	1	13
Bromodichloromethane	ND		1250	1390		ug/L		111	80 - 122	1	15
Bromoform	ND		1250	1320		ug/L		106	52 - 132	0	15
Bromomethane	ND	*	1250	984		ug/L		79	55 - 144	3	15
Carbon disulfide	17	J	1250	1120		ug/L		88	59 - 134	2	15
Carbon tetrachloride	ND	F1	1250	1680	F1	ug/L		135	72 - 134	1	15
Chlorobenzene	ND		1250	1320		ug/L		105	72 - 120	1	25
Chloroethane	ND		1250	1020		ug/L		81	69 - 136	2	15
Chloroform	ND		1250	1190		ug/L		95	73 - 127	0	20
Chloromethane	ND		1250	1090		ug/L		87	68 - 124	4	15
cis-1,2-Dichloroethene	3000	F1	1250	3640	F1	ug/L		52	74 - 124	0	15
cis-1,3-Dichloropropene	ND		1250	1440		ug/L		115	74 - 124	4	15
Cyclohexane	ND		1250	1170		ug/L		94	59 - 135	3	20
Dibromochloromethane	ND		1250	1370		ug/L		109	75 - 125	0	15
Dichlorodifluoromethane	ND		1250	1060		ug/L		85	59 - 135	10	20
Ethylbenzene	ND		1250	1250		ug/L		100	77 - 123	0	15
Isopropylbenzene	ND		1250	1250		ug/L		100	77 - 122	1	20
Methyl acetate	ND		6250	6280		ug/L		101	74 - 133	0	20
Methyl tert-butyl ether	ND		1250	1210		ug/L		97	64 - 127	2	37
Methylcyclohexane	ND		1250	1260		ug/L		101	61 - 138	5	20
Methylene Chloride	ND		1250	1310		ug/L		105	57 - 132	2	15
Styrene	ND		1250	1330		ug/L		106	70 - 130	1	20
Tetrachloroethene	2000	F1	1250	2790	F1	ug/L		62	74 - 122	1	20
Toluene	ND		1250	1260		ug/L		101	80 - 122	0	15
trans-1,2-Dichloroethene	ND		1250	1280		ug/L		102	73 - 127	0	20
trans-1,3-Dichloropropene	ND		1250	1470		ug/L		118	72 - 123	2	15
Trichloroethene	840		1250	1940		ug/L		88	74 - 123	3	16
Trichlorofluoromethane	ND		1250	1220		ug/L		97	62 - 152	2	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-96991-1 MSD
Matrix: Water
Analysis Batch: 293565

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	ND		1250	1040		ug/L		83	65 - 133	2	15
Xylenes, Total	ND		2500	2570		ug/L		103	76 - 122	1	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*
Dibromofluoromethane (Surr)	*107*		*60 - 140*
Toluene-d8 (Surr)	*109*		*71 - 126*

Lab Sample ID: MB 480-293608/7
Matrix: Water
Analysis Batch: 293608

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/01/16 10:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/01/16 10:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			04/01/16 10:43	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/01/16 10:43	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/01/16 10:43	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/01/16 10:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/01/16 10:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			04/01/16 10:43	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			04/01/16 10:43	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/01/16 10:43	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/01/16 10:43	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/01/16 10:43	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/01/16 10:43	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/01/16 10:43	1
1,4-Dioxane	ND		40	9.3	ug/L			04/01/16 10:43	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/01/16 10:43	1
2-Hexanone	ND		5.0	1.2	ug/L			04/01/16 10:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/01/16 10:43	1
Acetone	ND		10	3.0	ug/L			04/01/16 10:43	1
Benzene	ND		1.0	0.41	ug/L			04/01/16 10:43	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/01/16 10:43	1
Bromoform	ND		1.0	0.26	ug/L			04/01/16 10:43	1
Bromomethane	ND		1.0	0.69	ug/L			04/01/16 10:43	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/01/16 10:43	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/01/16 10:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/01/16 10:43	1
Chloroethane	ND		1.0	0.32	ug/L			04/01/16 10:43	1
Chloroform	ND		1.0	0.34	ug/L			04/01/16 10:43	1
Chloromethane	ND		1.0	0.35	ug/L			04/01/16 10:43	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/01/16 10:43	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/01/16 10:43	1
Cyclohexane	ND		1.0	0.18	ug/L			04/01/16 10:43	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/01/16 10:43	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/01/16 10:43	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-293608/7
Matrix: Water
Analysis Batch: 293608

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.74	ug/L			04/01/16 10:43	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/01/16 10:43	1
Methyl acetate	ND		2.5	1.3	ug/L			04/01/16 10:43	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/01/16 10:43	1
Methylcyclohexane	ND		1.0	0.16	ug/L			04/01/16 10:43	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/01/16 10:43	1
Styrene	ND		1.0	0.73	ug/L			04/01/16 10:43	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/01/16 10:43	1
Toluene	ND		1.0	0.51	ug/L			04/01/16 10:43	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/01/16 10:43	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/01/16 10:43	1
Trichloroethene	ND		1.0	0.46	ug/L			04/01/16 10:43	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/01/16 10:43	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/01/16 10:43	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/01/16 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*04/01/16 10:43*	*1*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*04/01/16 10:43*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*04/01/16 10:43*	*1*
Toluene-d8 (Surr)	*108*		*71 - 126*		*04/01/16 10:43*	*1*

Lab Sample ID: LCS 480-293608/5
Matrix: Water
Analysis Batch: 293608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	21.7		ug/L		87	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.6		ug/L		102	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.6		ug/L		74	52 - 148
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	76 - 122
1,1-Dichloroethane	25.0	21.5		ug/L		86	71 - 129
1,1-Dichloroethene	25.0	19.7		ug/L		79	58 - 121
1,2,4-Trichlorobenzene	25.0	23.5		ug/L		94	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	56 - 134
1,2-Dibromoethane	25.0	26.7		ug/L		107	77 - 120
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	21.1		ug/L		84	75 - 127
1,2-Dichloropropane	25.0	24.3		ug/L		97	76 - 120
1,3-Dichlorobenzene	25.0	22.9		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	22.3		ug/L		89	75 - 120
1,4-Dioxane	500	561		ug/L		112	50 - 174
2-Butanone (MEK)	125	132		ug/L		106	57 - 140
2-Hexanone	125	121		ug/L		97	65 - 127
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125
Acetone	125	145		ug/L		116	56 - 142
Benzene	25.0	22.3		ug/L		89	71 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-293608/5
Matrix: Water
Analysis Batch: 293608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	25.0	26.0		ug/L		104	80 - 122
Bromoform	25.0	26.1		ug/L		104	52 - 132
Bromomethane	25.0	19.8		ug/L		79	55 - 144
Carbon disulfide	25.0	18.0		ug/L		72	59 - 134
Carbon tetrachloride	25.0	27.3		ug/L		109	72 - 134
Chlorobenzene	25.0	23.5		ug/L		94	72 - 120
Chloroethane	25.0	20.1		ug/L		81	69 - 136
Chloroform	25.0	21.6		ug/L		86	73 - 127
Chloromethane	25.0	19.4		ug/L		78	68 - 124
cis-1,2-Dichloroethene	25.0	23.2		ug/L		93	74 - 124
cis-1,3-Dichloropropene	25.0	27.0		ug/L		108	74 - 124
Cyclohexane	25.0	17.3		ug/L		69	59 - 135
Dibromochloromethane	25.0	25.8		ug/L		103	75 - 125
Dichlorodifluoromethane	25.0	17.2		ug/L		69	59 - 135
Ethylbenzene	25.0	21.7		ug/L		87	77 - 123
Isopropylbenzene	25.0	21.6		ug/L		87	77 - 122
Methyl acetate	125	125		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	23.0		ug/L		92	64 - 127
Methylcyclohexane	25.0	19.5		ug/L		78	61 - 138
Methylene Chloride	25.0	23.8		ug/L		95	57 - 132
Styrene	25.0	23.9		ug/L		96	70 - 130
Tetrachloroethene	25.0	20.6		ug/L		83	74 - 122
Toluene	25.0	22.0		ug/L		88	80 - 122
trans-1,2-Dichloroethene	25.0	21.8		ug/L		87	73 - 127
trans-1,3-Dichloropropene	25.0	27.8		ug/L		111	72 - 123
Trichloroethene	25.0	21.7		ug/L		87	74 - 123
Trichlorofluoromethane	25.0	22.9		ug/L		91	62 - 152
Vinyl chloride	25.0	18.2		ug/L		73	65 - 133
Xylenes, Total	50.0	45.1		ug/L		90	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*
Dibromofluoromethane (Surr)	*110*		*60 - 140*
Toluene-d8 (Surr)	*109*		*71 - 126*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Lab Sample ID: 480-96991-2 MS
Matrix: Water
Analysis Batch: 293608

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane - DL	ND		500	502		ug/L		100	73 - 126
1,1,2,2-Tetrachloroethane - DL	ND		500	502		ug/L		100	70 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane - DL	ND		500	480		ug/L		96	52 - 148
1,1,2-Trichloroethane - DL	ND		500	503		ug/L		101	76 - 122

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Lab Sample ID: 480-96991-2 MS
Matrix: Water
Analysis Batch: 293608

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane - DL	ND		500	456		ug/L		91	71 - 129
1,1-Dichloroethene - DL	ND		500	462		ug/L		92	58 - 121
1,2,4-Trichlorobenzene - DL	ND		500	459		ug/L		92	70 - 122
1,2-Dibromo-3-Chloropropane - DL	ND		500	452		ug/L		90	56 - 134
1,2-Dibromoethane - DL	ND		500	536		ug/L		107	77 - 120
1,2-Dichlorobenzene - DL	ND		500	476		ug/L		95	80 - 124
1,2-Dichloroethane - DL	ND		500	429		ug/L		86	75 - 127
1,2-Dichloropropane - DL	ND		500	495		ug/L		99	76 - 120
1,3-Dichlorobenzene - DL	ND		500	461		ug/L		92	77 - 120
1,4-Dichlorobenzene - DL	ND		500	447		ug/L		89	75 - 120
1,4-Dioxane - DL	ND		10000	11700		ug/L		117	50 - 174
2-Butanone (MEK) - DL	ND		2500	2440		ug/L		98	57 - 140
2-Hexanone - DL	ND		2500	2290		ug/L		91	65 - 127
4-Methyl-2-pentanone (MIBK) - DL	ND		2500	2320		ug/L		93	71 - 125
Acetone - DL	ND	*	2500	2660		ug/L		106	56 - 142
Benzene - DL	ND		500	475		ug/L		95	71 - 124
Bromodichloromethane - DL	ND		500	519		ug/L		104	80 - 122
Bromoform - DL	ND		500	507		ug/L		101	52 - 132
Bromomethane - DL	ND	*	500	406		ug/L		81	55 - 144
Carbon disulfide - DL	ND		500	417		ug/L		83	59 - 134
Carbon tetrachloride - DL	ND		500	646		ug/L		129	72 - 134
Chlorobenzene - DL	ND		500	494		ug/L		99	72 - 120
Chloroethane - DL	ND		500	420		ug/L		84	69 - 136
Chloroform - DL	ND		500	449		ug/L		90	73 - 127
Chloromethane - DL	ND		500	395		ug/L		79	68 - 124
cis-1,2-Dichloroethene - DL	1200	F1	500	1520	F1	ug/L		63	74 - 124
cis-1,3-Dichloropropene - DL	ND		500	527		ug/L		105	74 - 124
Cyclohexane - DL	ND		500	437		ug/L		87	59 - 135
Dibromochloromethane - DL	ND		500	514		ug/L		103	75 - 125
Dichlorodifluoromethane - DL	ND		500	383		ug/L		77	59 - 135
Ethylbenzene - DL	ND		500	478		ug/L		96	77 - 123
Isopropylbenzene - DL	ND		500	467		ug/L		93	77 - 122
Methyl acetate - DL	ND		2500	2330		ug/L		93	74 - 133
Methyl tert-butyl ether - DL	ND		500	457		ug/L		91	64 - 127
Methylcyclohexane - DL	ND		500	465		ug/L		93	61 - 138
Methylene Chloride - DL	ND		500	488		ug/L		98	57 - 132
Styrene - DL	ND		500	500		ug/L		100	70 - 130
Tetrachloroethene - DL	820	F1	500	1180	F1	ug/L		72	74 - 122
Toluene - DL	ND		500	483		ug/L		97	80 - 122
trans-1,2-Dichloroethene - DL	ND		500	486		ug/L		97	73 - 127
trans-1,3-Dichloropropene - DL	ND		500	541		ug/L		108	72 - 123
Trichloroethene - DL	350		500	789		ug/L		87	74 - 123
Trichlorofluoromethane - DL	ND		500	493		ug/L		99	62 - 152
Vinyl chloride - DL	ND		500	395		ug/L		79	65 - 133
Xylenes, Total - DL	ND		1000	977		ug/L		98	76 - 122

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Lab Sample ID: 480-96991-2 MS
Matrix: Water
Analysis Batch: 293608

Client Sample ID: MW-23D
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr) - DL	102		66 - 137
4-Bromofluorobenzene (Surr) - DL	113		73 - 120
Dibromofluoromethane (Surr) - DL	107		60 - 140
Toluene-d8 (Surr) - DL	109		71 - 126

Lab Sample ID: 480-96991-2 MSD
Matrix: Water
Analysis Batch: 293608

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane - DL	ND		500	489		ug/L		98	73 - 126	3	15
1,1,2,2-Tetrachloroethane - DL	ND		500	506		ug/L		101	70 - 126	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane - DL	ND		500	424		ug/L		85	52 - 148	12	20
1,1,2-Trichloroethane - DL	ND		500	494		ug/L		99	76 - 122	2	15
1,1-Dichloroethane - DL	ND		500	447		ug/L		89	71 - 129	2	20
1,1-Dichloroethene - DL	ND		500	456		ug/L		91	58 - 121	1	16
1,2,4-Trichlorobenzene - DL	ND		500	440		ug/L		88	70 - 122	4	20
1,2-Dibromo-3-Chloropropane - DL	ND		500	445		ug/L		89	56 - 134	2	15
1,2-Dibromoethane - DL	ND		500	528		ug/L		106	77 - 120	2	15
1,2-Dichlorobenzene - DL	ND		500	468		ug/L		94	80 - 124	2	20
1,2-Dichloroethane - DL	ND		500	428		ug/L		86	75 - 127	0	20
1,2-Dichloropropane - DL	ND		500	493		ug/L		99	76 - 120	0	20
1,3-Dichlorobenzene - DL	ND		500	457		ug/L		91	77 - 120	1	20
1,4-Dichlorobenzene - DL	ND		500	442		ug/L		88	75 - 120	1	20
1,4-Dioxane - DL	ND		10000	10600		ug/L		106	50 - 174	9	20
2-Butanone (MEK) - DL	ND		2500	2340		ug/L		94	57 - 140	4	20
2-Hexanone - DL	ND		2500	2220		ug/L		89	65 - 127	3	15
4-Methyl-2-pentanone (MIBK) - DL	ND		2500	2250		ug/L		90	71 - 125	3	35
Acetone - DL	ND	*	2500	2550		ug/L		102	56 - 142	4	15
Benzene - DL	ND		500	469		ug/L		94	71 - 124	1	13
Bromodichloromethane - DL	ND		500	516		ug/L		103	80 - 122	0	15
Bromoform - DL	ND		500	509		ug/L		102	52 - 132	0	15
Bromomethane - DL	ND	*	500	376		ug/L		75	55 - 144	8	15
Carbon disulfide - DL	ND		500	410		ug/L		82	59 - 134	2	15
Carbon tetrachloride - DL	ND		500	638		ug/L		128	72 - 134	1	15
Chlorobenzene - DL	ND		500	481		ug/L		96	72 - 120	3	25
Chloroethane - DL	ND		500	402		ug/L		80	69 - 136	4	15
Chloroform - DL	ND		500	445		ug/L		89	73 - 127	1	20
Chloromethane - DL	ND		500	384		ug/L		77	68 - 124	3	15
cis-1,2-Dichloroethene - DL	1200	F1	500	1520	F1	ug/L		62	74 - 124	0	15
cis-1,3-Dichloropropene - DL	ND		500	524		ug/L		105	74 - 124	0	15
Cyclohexane - DL	ND		500	419		ug/L		84	59 - 135	4	20
Dibromochloromethane - DL	ND		500	518		ug/L		104	75 - 125	1	15

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Lab Sample ID: 480-96991-2 MSD
Matrix: Water
Analysis Batch: 293608

Client Sample ID: MW-23D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane - DL	ND		500	352		ug/L		70	59 - 135	8	20
Ethylbenzene - DL	ND		500	462		ug/L		92	77 - 123	3	15
Isopropylbenzene - DL	ND		500	463		ug/L		93	77 - 122	1	20
Methyl acetate - DL	ND		2500	2250		ug/L		90	74 - 133	4	20
Methyl tert-butyl ether - DL	ND		500	455		ug/L		91	64 - 127	0	37
Methylcyclohexane - DL	ND		500	448		ug/L		90	61 - 138	4	20
Methylene Chloride - DL	ND		500	480		ug/L		96	57 - 132	2	15
Styrene - DL	ND		500	487		ug/L		97	70 - 130	3	20
Tetrachloroethene - DL	820	F1	500	1140	F1	ug/L		64	74 - 122	4	20
Toluene - DL	ND		500	465		ug/L		93	80 - 122	4	15
trans-1,2-Dichloroethene - DL	ND		500	484		ug/L		97	73 - 127	0	20
trans-1,3-Dichloropropene - DL	ND		500	542		ug/L		108	72 - 123	0	15
Trichloroethene - DL	350		500	767		ug/L		83	74 - 123	3	16
Trichlorofluoromethane - DL	ND		500	476		ug/L		95	62 - 152	4	20
Vinyl chloride - DL	ND		500	380		ug/L		76	65 - 133	4	15
Xylenes, Total - DL	ND		1000	944		ug/L		94	76 - 122	3	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr) - DL	*102*		*66 - 137*
4-Bromofluorobenzene (Surr) - DL	*112*		*73 - 120*
Dibromofluoromethane (Surr) - DL	*109*		*60 - 140*
Toluene-d8 (Surr) - DL	*110*		*71 - 126*

GC/MS VOA

Analysis Batch: 293392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-96991-1	MW-23S	Total/NA	Water	8260C	
480-96991-2	MW-23D	Total/NA	Water	8260C	
480-96991-2 MS	MW-23D	Total/NA	Water	8260C	
480-96991-2 MSD	MW-23D	Total/NA	Water	8260C	
480-96991-3	MW-1DD	Total/NA	Water	8260C	
480-96991-4	MW-1D	Total/NA	Water	8260C	
480-96991-5	IW-01S	Total/NA	Water	8260C	
480-96991-6	MW-1	Total/NA	Water	8260C	
480-96991-8	MW-13	Total/NA	Water	8260C	
480-96991-9	MW-9	Total/NA	Water	8260C	
480-96991-10	MW-14R	Total/NA	Water	8260C	
480-96991-11	MP-20	Total/NA	Water	8260C	
480-96991-12	DUP-1	Total/NA	Water	8260C	
480-96991-13	TRIP BLANK	Total/NA	Water	8260C	
LCS 480-293392/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-293392/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 293565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-96991-1 - DL	MW-23S	Total/NA	Water	8260C	
480-96991-1 MS	MW-23S	Total/NA	Water	8260C	
480-96991-1 MSD	MW-23S	Total/NA	Water	8260C	
480-96991-2 - DL	MW-23D	Total/NA	Water	8260C	
480-96991-3 - DL	MW-1DD	Total/NA	Water	8260C	
480-96991-4 - DL	MW-1D	Total/NA	Water	8260C	
480-96991-5 - DL	IW-01S	Total/NA	Water	8260C	
480-96991-7	GM-9	Total/NA	Water	8260C	
480-96991-10 - DL	MW-14R	Total/NA	Water	8260C	
480-96991-12 - DL	DUP-1	Total/NA	Water	8260C	
LCS 480-293565/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-293565/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 293608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-96991-2 MS - DL	MW-23D	Total/NA	Water	8260C	
480-96991-2 MSD - DL	MW-23D	Total/NA	Water	8260C	
480-96991-9 - DL	MW-9	Total/NA	Water	8260C	
LCS 480-293608/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-293608/7	Method Blank	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: MW-23S
Lab Sample ID: 480-96991-1
Date Collected: 03/22/16 15:25
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	293392	03/31/16 11:28	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	50	293565	03/31/16 22:19	SWO	TAL BUF

Client Sample ID: MW-23D
Lab Sample ID: 480-96991-2
Date Collected: 03/22/16 15:35
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	293392	03/31/16 11:52	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	20	293565	03/31/16 22:42	SWO	TAL BUF

Client Sample ID: MW-1DD
Lab Sample ID: 480-96991-3
Date Collected: 03/22/16 16:25
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	293392	03/31/16 12:16	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	10	293565	03/31/16 23:06	SWO	TAL BUF

Client Sample ID: MW-1D
Lab Sample ID: 480-96991-4
Date Collected: 03/22/16 16:30
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	293392	03/31/16 12:39	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	50	293565	03/31/16 23:29	SWO	TAL BUF

Client Sample ID: IW-01S
Lab Sample ID: 480-96991-5
Date Collected: 03/22/16 17:15
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	293392	03/31/16 13:03	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	50	293565	03/31/16 23:52	SWO	TAL BUF

Client Sample ID: MW-1
Lab Sample ID: 480-96991-6
Date Collected: 03/22/16 17:20
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	293392	03/31/16 13:27	SMY	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: GM-9

Lab Sample ID: 480-96991-7

Date Collected: 03/22/16 17:55
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	293565	04/01/16 00:16	SWO	TAL BUF

Client Sample ID: MW-13

Lab Sample ID: 480-96991-8

Date Collected: 03/22/16 18:00
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	293392	03/31/16 14:13	SMY	TAL BUF

Client Sample ID: MW-9

Lab Sample ID: 480-96991-9

Date Collected: 03/23/16 08:45
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	293392	03/31/16 14:36	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	40	293608	04/01/16 14:29	SMY	TAL BUF

Client Sample ID: MW-14R

Lab Sample ID: 480-96991-10

Date Collected: 03/23/16 09:45
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	293392	03/31/16 15:00	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	20	293565	04/01/16 01:04	SWO	TAL BUF

Client Sample ID: MP-20

Lab Sample ID: 480-96991-11

Date Collected: 03/23/16 09:45
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	293392	03/31/16 15:23	SMY	TAL BUF

Client Sample ID: DUP-1

Lab Sample ID: 480-96991-12

Date Collected: 03/22/16 00:00
Matrix: Water
Date Received: 03/24/16 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	293392	03/31/16 15:46	SMY	TAL BUF
Total/NA	Analysis	8260C	DL	50	293565	04/01/16 01:28	SWO	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Client Sample ID: TRIP BLANK
Date Collected: 03/22/16 00:00
Date Received: 03/24/16 02:15

Lab Sample ID: 480-96991-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	293392	03/31/16 16:09	SMY	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-96991-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-96991-1	MW-23S	Water	03/22/16 15:25	03/24/16 02:15
480-96991-2	MW-23D	Water	03/22/16 15:35	03/24/16 02:15
480-96991-3	MW-1DD	Water	03/22/16 16:25	03/24/16 02:15
480-96991-4	MW-1D	Water	03/22/16 16:30	03/24/16 02:15
480-96991-5	IW-01S	Water	03/22/16 17:15	03/24/16 02:15
480-96991-6	MW-1	Water	03/22/16 17:20	03/24/16 02:15
480-96991-7	GM-9	Water	03/22/16 17:55	03/24/16 02:15
480-96991-8	MW-13	Water	03/22/16 18:00	03/24/16 02:15
480-96991-9	MW-9	Water	03/23/16 08:45	03/24/16 02:15
480-96991-10	MW-14R	Water	03/23/16 09:45	03/24/16 02:15
480-96991-11	MP-20	Water	03/23/16 09:45	03/24/16 02:15
480-96991-12	DUP-1	Water	03/22/16 00:00	03/24/16 02:15
480-96991-13	TRIP BLANK	Water	03/22/16 00:00	03/24/16 02:15

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

480501-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: BO + MM	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-80805-19830.1
Client Contact: Aaron Bobar	Phone: 518-250-7300	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 2
Company: ARCADIS U.S. Inc				Job #:

Address: 855 Route 146 Suite 210	Due Date Requested:	Analysis Requested
City: Clifton Park	TAT Requested (days):	
State, Zip: NY, 12065		
Phone: 518-250-7300	PO #: 00266417.0000	
Email: aaron.bobar@arcadis-us.com	WO #:	
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440	
Site:	SSOW#:	

480-96991 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-23S	3/22/16	1525	G	Water	N	N		3	
MW-23D (MS)MSD)	3/22/16	1535	G	Water	N	Y		3	
[redacted] MW-1DD	3/22/16	1625	G	Water	N	N		3	
MW-1D	3/22/16	1630	G	Water	N	N		3	
IW-01S	3/22/16	1715	G	Water	N	N		3	
MW-1	3/22/16	1720	G	Water	N	N		3	
GM-9	3/22/16	1755	G	Water	N	N		3	
MW-13	3/22/16	1800	G	Water	N	N		3	
MW-9	3/23/16	0945	G	Water	N	N		3	
MW-14R	3/23/16	0945	G	Water	N	N		3	
MP-20	3/23/16	0945	G	Water	N	N		3	

Albany 480501

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3/23/16 1427	Arcadis		3-23-16 1427	TA ALB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3-23-16 1800	TA ALB		3-24-16 0215	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		0.4 #1

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4/5/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

480501-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: BQ + MM	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-80805-19830.2
Client Contact: Aaron Bobar	Phone: 518-250-7300	E-Mail: melissa.deyo@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days):			
State, Zip: NY, 12065				
Phone: 518-250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	Total Number of containers	Special Instructions/Note:
	Preservation Code:						A		
DUP-1	3/22/16	—	G	Water	N	N	3	3	
				Water					
				Water					
				~~Water~~					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					

Albany 480501

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/23/16 1427	Arcadis		3-23-16 1427	TA ALB
2		3-23-16 1800	TA ALB		3-24-16 0215	TAB
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.4 #1

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-96991-1

Login Number: 96991

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX D

ISCO Injection Monitoring Data – 2015 ISCO Source Area Pilot Program

Injection Pilot Injection and Monitoring Data

Sodium Permanganate Mixing Log

Crown Dykman

66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: CG/MR

Date	Time	Total Volume Injected (gal)	Water (gal)	40% permanganate (gallons)	Color	pH (s.u)	Cond. (mS/cm)	Notes/Comments
12/3/2015	12:00	0	364	35	purple	7.45	38.33	
12/3/2015	16:20	399	431	40	purple	7.23	39.23	
12/3/2015	7:25	870	325	32	purple	7.27	40.26	
12/4/2015	9:25	1227	460	40	purple	7.15	30.12	
12/4/2015	14:30	1727	460	40	purple	7.03	29.67	
12/4/2015	17:50	2227	271	30	purple	7.16	29.69	
12/7/2015	7:30	2528	440	32	purple	7.11	27.34	
12/7/2015	1125	3000	420	30	purple	7.05	26.45	
12/7/2015	15:50	3450	420	30	purple	7.11	25.78	
12/7/2015	18:55	3900	417	30	purple	7.12	26.22	
12/8/2015	7:55	4347	422	31	purple	7.19	26.73	
12/8/2015	12:00	4800	460	40	purple	7.16	28.34	
12/8/2015	16:05	5300	460	40	purple	7.03	29.56	
12/8/2015	19:25	5800	424	33	purple	7.23	28.17	
12/9/2015	7:30	6257	415	28	purple	7.26	27.66	
12/9/2015	11:45	6700	420	30	purple	7.13	27.11	
12/9/2015	16:05	7150	420	30	purple	7.17	26.93	
12/9/2015	18:50	7600	420	29	purple	7.09	26.87	
12/10/2015	8:00	8049	356	25	purple	7.05	25.32	
12/10/2015	11:05	8425	405	25	purple	7.21	24.88	
12/10/2015	14:10	8850	264	20	purple	7.15	26.22	
12/10/2015	18:20	9114	225	0	clear	7.18	6.045	
12/11/2015	10:00	9339						

Sodium Permanganate Monitoring Log
Crown Dykman (Site # 130054)
Glen Cove, NY

Arcadis Personnel: CG/MR

Performance Monitoring

Date	Time	Minutes	Total Injected Volume (gal)	MW-26							MW-28							IW-01S						
				Depth of well (ft bTOC): 13.02							Depth of well (ft bTOC): 14.02							Depth of well (ft bTOC): 17.41						
				11 to 13							12 to 14							15 TO 17						
				pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color
12/3/2015	9:00	0.00	0	6.51	0.538	18.61	-86.6	23.9	6.57	clear	6.37	0.776	18.16	-56.9	9.4	6.95	clear	7.13	0.649	16.97	29.01	14.3	4.93	clear
12/3/2015	16:17	437.00	420	6.38	0.525	17.96	-46.1	8.3	6.51	clear	6.26	0.720	18.11	-7.9	11.0	6.67	clear	7.11	0.621	16.92	121	19.2	4.53	clear
12/4/2015	13:45	1725.00	1470	6.51	0.551	18.2	-59.3	9.8	6.50	clear	6.42	0.700	18.23	-41.9	7.0	6.82	clear	7.17	0.626	17.21	-33.6	4.4	4.59	clear
12/7/2015	10:19	5839.00	2800	6.62	0.565	17.88	-64.3	8.8	6.49	clear	6.52	0.712	17.92	-56.6	7.1	6.71	clear	7.07	0.634	17.14	-37.4	4.9	4.59	clear
12/7/2015	16:29	6209.00	3600	6.44	0.569	17.71	-37.6	23.7	6.39	clear	6.35	0.653	17.85	-55.8	2.3	6.65	clear	7.02	0.656	17.35	-28.3	3.9	4.42	clear
12/8/2015	14:08	7508.00	5050	6.66	0.665	17.64	-43.3	5.3	6.19	clear	6.45	0.576	17.64	-65.1	1.2	6.35	clear	7.35	0.633	17.15	-25.5	3.5	4.25	clear
12/8/2015	17:05	7685.00	6000	6.70	0.653	17.69	-35.7	7.8	6.18	clear	6.74	0.613	17.61	-58.2	4.5	6.34	clear	7.23	0.636	17.16	-23.3	4.8	4.24	clear
12/9/2015	14:22	8962.00	7200	6.71	0.642	17.74	-52.9	6.7	6.18	clear	6.82	0.677	17.53	-54.4	6.2	6.33	clear	7.11	0.643	17.08	-31.1	5.5	4.23	clear
12/10/2015	9:10	10090.00	8200	6.67	0.651	17.70	-43.2	5.3	6.26	clear	6.72	0.779	17.48	23.5	8.2	6.36	clear	7.15	0.633	17.12	-24.4	6.3	4.28	clear
12/10/2015	15:44	10484.00	8900	6.61	0.661	17.74	-68.2	3.4	6.2	clear	6.55	0.934	17.43	393.5	13.5	6.34	red	7.09	0.637	17.15	-26.7	6.8	4.24	clear
12/11/2015	13:15	11775.00	9339	6.65	0.647	17.59	-80.2	3.3	6.42	clear	6.96	1.540	17.13	359.1	66.02	6.68	red	--	--	--	--	--	--	--

Sodium Permanganate Monitoring Log
Crown Dykman (Site # 130054)
Glen Cove, NY

Arcadis Personnel: CG/MR

Date	Time	Minutes	Total Injected Volume (gal)	IW-01D							MW-10S							MW-10D						
				Depth of well (ft bTOC): 22.98							Depth of well (ft bTOC): 13.08							Depth of well (ft bTOC): 20.42						
				21 TO 23							11 TO 13							18 TO 20						
				pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color
12/3/2015	9:00	0.00	0	6.86	0.479	17.24	130.70	11.70	5.02	clear	6.63	0.589	17.28	64.96	12	5.15	clear	6.86	0.711	17.54	-1.2	8.5	4.91	clear
12/3/2015	16:17	437.00	420	6.95	0.482	17.41	136.5	11.6	4.57	clear	6.45	0.571	17.34	64.3	9.9	4.78	clear	6.66	0.728	17.63	48.3	9.5	4.70	clear
12/4/2015	13:45	1725.00	1470	6.83	0.517	17.3	40	3	4.82	clear	6.97	0.544	17.44	-30.6	2.2	5.03	clear	6.91	0.693	17.61	-71.2	2.7	5.18	clear
12/7/2015	10:19	5839.00	2800	7.01	0.567	17.24	-13.2	5	4.69	clear	6.64	0.547	17.26	-55.7	4.9	4.86	clear	6.87	0.704	17.6	-36	5	4.71	clear
12/7/2015	16:29	6209.00	3600	7.05	0.575	17.21	-16.2	3.8	4.5	clear	6.78	0.559	17.19	-44.7	2.2	4.69	clear	6.95	0.683	17.5	-31.3	6.7	4.59	clear
12/8/2015	14:08	7508.00	5050	7.02	0.533	17.36	25.3	4.8	4.35	clear	6.61	0.579	17.26	-104.7	1.4	4.52	clear	6.96	0.682	17.57	-65.3	6.4	4.38	clear
12/8/2015	17:05	7685.00	6000	7.00	0.535	17.35	18.9	6.3	4.34	clear	6.65	0.523	17.27	-34.8	2.1	4.5	clear	6.85	0.680	17.45	-45.2	6.7	4.37	clear
12/9/2015	14:22	8962.00	7200	6.95	0.523	17.18	-2.9	7.2	4.33	clear	6.68	0.510	17.31	-35.6	2.7	4.48	clear	6.77	0.674	17.52	19.2	4.3	4.36	clear
12/10/2015	9:10	10090.00	8200	6.86	0.523	17.16	34.6	9.2	4.36	clear	6.51	0.534	17.29	11.3	5.6	4.58	clear	6.74	0.675	17.50	34.2	8.7	4.45	clear
12/10/2015	15:44	10484.00	8900	6.76	0.525	17.18	352.3	58.0	4.33	brown	6.40	0.566	17.28	352.1	17.9	4.51	brown	6.71	0.676	17.52	322.4	28.9	4.38	brown
12/11/2015	13:15	11775.00	9339	6.86	0.545	17.38	342	26.5	4.64	brown	6.52	0.525	17.19	324.20	15.20	4.89	brown	6.72	0.642	17.56	278.3	16.1	4.66	brown

Sodium PermanganateMonitoring Log
Crown Dykman
66 Herb Hill Rd, Glen Cove, New York

Arcadis Personnel: CG/MR

Performance Monitoring

Date	Time	Total Injected Volume (gal)	MW-21S							MW-21D							MW-1							MW-1D							MW-1DD						
			Depth of well (ft bTOC):							Depth of well (ft bTOC): 29.85							Depth of well (ft bTOC):							Depth of well (ft bTOC): 28.03							Depth of well (ft bTOC): 32.6						
			pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color	pH (s.u.)	Cond. (mS/cm)	Temp (Farenheit)	ORP (mv)	DO (%)	DTW	Color
12/7/2015	10:19	0								6.61	0.617	16.5	-52.9	5.9	5.89	clear								6.92	0.434	17.25	-12.4	5.1	4.47	clear	6.72	0.489	17.23	-15.2	6.7	4.91	clear
12/11/2015	14:05	9339								6.56	0.692	16.45	-68.8	7.2	4.73	clear								6.82	0.468	17.01	-31.6	7.4	4.43	clear	6.66	0.471	17.16	4.2	8.5	4.82	clear

Injection Pilot Daily Field Reports

Daily Field Report

Project Name: Crown Dykman | **Page** 1 of 2

Project Number: 00266417.0000 | **Date** 12/1/2015

Site Location: 66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: Christopher Glidden / Marcia MacKenzie

Subcontractor(s): N/A

Equipment on-site: Manchester Injection Skid, field vehicles

Weather/Unusual Conditions: Cloudy 41 degrees

Scope of Work: Todays tasks include setting up injection skid inside dry cleaner facility, taking delivery of sodium permanganate, layflat hosing and back flow prevention device

Time	Description of Activities
6:45	CG onsite. CG parks trailer and await arrival of MM
7:10	MM arrives onsite to assist in set up of injection skid
7:30	CG/MM go through scope of work and await dry cleaning supervisor to arrive onsite
8:00	CG/MM speak to dry cleaner supervisor and he escorts field team to work location
8:10	CG/MM begin moving furniture and storage items from storage room where IW-2 and IW-3 are
	situated into room where overhead door is located in preparation for skid set up
9:00	CG/MM finish moving material into loading dock room
9:10	CG speaks with Rusty next door who informs team that overhead access to IW-2 and IW-3 location
	is blocked off with shelving. CG/MM re-evaluate location for setup
9:20	CG/MM begin moving furniture and storage items back into room where IW-2 and IW-3 are
	situated so field team can setup in room with overhead door
10:00	CG/MM hav cleared an area large enough to set up 10 x 14 secondary containment
10:10	CG/MM offsite to retrieve poly and PVC for set up of injection skid
11:20	CG/MM back onsite to set up secondary containment in the shipping and receiving room
11:50	CG/MM have completed set up on secondary containment. CG hooks truck up to trailer and
	moves trailer over to loading dock door to begin unloading trailer into receiving room
13:00	CG/MM complete the unload of equipment. Conway arrives to unload two permanganate totes
	and (3) 55 gallon drums of permanganate
13:35	Conway completes permanganate drop and leaves the site
13:40	CG/MM begin setting up tank, fittings and hosing in preparation for ISCO injections
16:20	CG/MM move permanganate drums off pallet into containment
16:35	CG/MM begin working on wellhead manifold connections

Signature:

ARCADIS

Project Name: Crown Dykman **Page** Page 2 of 2

Time	Description of Activities
16:55	CG/MM compile list of items needed to begin injection on 12/2/15
17:15	CG/MM offsite
	`

Signature:

Daily Field Report

Project Name:	Crown Dykman	**Page**	1 of 1
Project Number:	00266417.0000	**Date**	12/2/2015
Site Location:	66 Herb Hill Road, Glen Cove, New York		
ARCADIS Personnel:	Christopher Glidden / Marcia MacKenzie		
Subcontractor(s):	N/A		
Equipment on-site:	Manchester Injection Skid, field vehicles, C185 air compressor		
Weather/Unusual Conditions:	Cloudy 41 degrees		
Scope of Work:	Todays tasks include continuation of injection skid setup inside dry cleaner facility, taking delivery of layflat hosing and potentially beginning injection		

Time	Description of Activities
7:00	CG arrives at sunbelt to obtain C185 air compressor
7:20	CG completes paperwork and mobilizes compressor to site
7:55	CG onsite with compressor. MM onsite
8:20	CG/MM continue with skid setup
10:30	CG/MM receive delivery of layflat hose from McMaster-Carr
11:00	CG/MM attempt to connect backflow prevention device to hydrant. Fitting will not connect to the threads
11:15	CG contacts Parratt Wolff to find out what kind of connection type is on backflow preventer Bill marrow states national hose thread is what came with preventer
11:45	CG contacts water department to find out what kind of thread type is on the hydrant. The water department informs CG that a hydrant permit and deposit are required to tap into the hydrant
13:00	CG meets with water department and asks town to excuse the fee and deposit as the work is begin completed under the discretion of the state
13:15	Water department writes permit to access hydrant on Herb Hill Rd and contacts fire department to find out what kind of threads are on the hydrant. The town Fire Department states that New York Corp threads are on the hydrant
14:00	CG/MM go over to the fire department to determine where to find a New York Corp thread attachment for the hydrant to install the backflow prevention device
14:20	CG talks with Richie at the New York fire device and safety shop in Port Washington who states he can have a fitting ready for Arcadis the morning of 12/3/15
15:00	CG drops off MM at the site to pickup her truck
15:15	CG/MM secure work area and are offsite for the day

Signature: 

Daily Field Report

Project Name:	Crown Dykman	**Page**	1 of 1
Project Number:	00266417.0000	**Date**	12/3/2015
Site Location:	66 Herb Hill Road, Glen Cove, New York		
ARCADIS Personnel:	Christopher Glidden / Mike Redman		
Subcontractor(s):	N/A		
Equipment on-site:	Manchester Injection Skid, field vehicles, C185 air compressor		

Weather/Unusual Conditions: Cloudy 41 degrees

Scope of Work: Todays tasks include picking up New York Corp fitting for hydrant, baseline monitoring and begin ISCO activities

Time	Description of Activities
7:00	CG/MR onsite to begin baseline monitoring
7:20	CG/MR start setting up water line to run water from the hydrant to the dry cleaner unit
9:00	CG/MR complete baseline monitoring in preparation for ISCO activities
9:30	CG/MR offsite to retrieve New York Corp thread
10:30	CG/MR back onsite with fitting and begin preparation for injection of permanganate
11:05	CG/MR begin transferring permanganate concentrate into mixing tank
11:20	CG/MR begin transferring water from the hydrant into the mixing tank
11:35	CG/MR have solution in tank and begin mixing by way of air lifting
11:45	CG/MR begin injection on IW-2 and IW-3
11:50	CG/MR watch over flows on both wellheads for daylighting and monitor flow rates
13:30	CG/MR stop injection to obtain lunch
14:35	CG/MR begin pumping again on IW-2 and IW-3
15:35	Tank 1 injection is complete. CG/MR begin preparring another batch of permanganate solution
16:10	CG/MR have mixed another batch of permanganate solution and begin injection of Tank 2
16:17	CG/MR begin round of performance monitoring
17:45	CG/MR observe no daylighting of solution at either wellhead and injection continues to occur
	under atmospheric pressure
18:30	CG/MR complete injection of Tank 2 and begin preparring permanganate solution for injection
19:10	CG/MR have completed preparation of permangante solution and begin injection of Tank 3
20:00	CG/MR stop injection and wrap up equipment and material for the day
20:15	CG/MR offsite

Signature: 

Daily Field Report

Project Name: Crown Dykman | **Page** 1 of 1

Project Number: 00266417.0000 | **Date** 12/4/2015

Site Location: 66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: Christopher Glidden / Mike Redman

Subcontractor(s): N/A

Equipment on-site: Manchester Injection Skid, field vehicles, C185 air compressor

Weather/Unusual Conditions: Cloudy 41 degrees

Scope of Work: Todays tasks include continuation of permanganante injection, performance monitoring and continual observation for daylighting inside dry cleaner facillity and in sewer system

Time	Description of Activities
7:05	CG/MR onsite to continue injection of permanganante from Tank 3
7:10	CG/MR start pumping on IW-2 and IW-3 pulling solution from batch 3
8:35	CG/MR complete injection of batch 3. CG/MR begin preparring batch 4 solution
9:20	CG/MR start injection of batch 4 on IW-2 and IW-3
11:40	CG/MR complete injection of batch 4. CG/MR stop to go offsite and retrieve lunch
12:40	CG/MR obtain diesel for air compressor
13:20	CG/MR back onsite to begin preparation of batch 5
13:45	CG/MR complete one round of performance monitoring on MW-26, MW-28, IW-01S, IW-01D,
	MW-10S and MW-10D
14:30	CG/MR complete performance monitoring and begin injection of batch 5 on IW-2 and IW-3
17:20	CG/MR complete injection of batch 5 and start preparring batch 6 (partial). CG/MR decide to
	prepare ~300 gallon batch so no solution is left over the weekend in the tank
17:50	CG/MR complete preparation of batch 6 and start injecting on IW-2 and IW-3
20:05	CG/MR complete injection of batch 6 (partial)
20:15	CG/MR secure equipment for the weekend and are offsite

Signature:

Daily Field Report

Project Name: Crown Dykman | **Page** 1 of 1

Project Number: 00266417.0000 | **Date** 12/7/2015

Site Location: 66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: Christopher Glidden / Mike Redman

Subcontractor(s): N/A

Equipment on-site: Manchester Injection Skid, field vehicles, C185 air compressor

Weather/Unusual Conditions: Sunny 50 degrees

Scope of Work: Todays tasks include continuation of permanganante injection, performance monitoring and continual observation for daylighting inside dry cleaner facility and in sewer system

Time	Description of Activities
6:30	MR/CG - Onsite, reconnect hosing to hydrant
7:00	MR/CG - Fix influent/effluent air supply on pump.
7:25	MR/CG - Start injection. Pump start pumping on IW-2 and IW-3 pulling solution from batch 7
10:30	MR/CG - Complete a round of performance monitoring
10:45	MR/CG - Complete batch 7 and begin prep batch 8 for injection into IW-2 & IW-3
11:20	MR/CG - Start injection. Pump start pumping on IW-2 and IW-3 pulling solution from batch 8
14:45	MR/CG - Complete batch 8 and begin prep batch 9 for injection into IW-2 & IW-3
15:45	MR/CG - Start injection. Pump start pumping on IW-2 and IW-3 pulling solution from batch 9
18:20	MR/CG - Complete batch 9 and begin prep batch 10 for injection into IW-2 & IW-3
18:30	MR/CG - Start injection. Mixed water with remaining concentration inside of tote for batch 10
21:30	MR/CG - Complete batch 10 injection. Disconnect hosing and leave Site

Signature:

Daily Field Report

Project Name: Crown Dykman | **Page** 1 of 1

Project Number: 00266417.0000 | **Date** 12/8/2015

Site Location: 66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: Christopher Glidden / Mike Redman

Subcontractor(s): N/A

Equipment on-site: Manchester Injection Skid, field vehicles, C185 air compressor

Weather/Unusual Conditions: Sunny 55 degrees

Scope of Work: Todays tasks include continuation of permanganante injection, performance monitoring and continual observation for daylighting inside dry cleaner facility and in sewer system

Time	Description of Activities
6:45	CG/MR onsite to continue injection of permanganante with batch 11
7:50	CG/MR start pumping on IW-2 and IW-3 pulling solution from batch 11
11:25	CG/MR complete injection of batch 11. CG/MR begin preparing batch 12 solution
11:55	CG/MR start injection of batch 12 on IW-2 and IW-3
15:20	CG/MR complete injection of batch 12. CG/MR begin preparing batch 13 solution
15:25	CG/MR complete one round of performance monitoring
16:00	CG/MR start injection of batch 13 on IW-2 and IW-3
18:45	CG/MR stop injection to batch 13 and begin preparring batch 14 for injection at IW-2 and IW-3
19:20	CG/MR complete preparation of batch 14 and start injecting on IW-2 and IW-3
22:00	CG/MR Off site for the night

Signature:

Daily Field Report

Project Name: Crown Dykman | **Page** 1 of 1

Project Number: 00266417.0000 | **Date** 12/9/2015

Site Location: 66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: Christopher Glidden / Mike Redman

Subcontractor(s): N/A

Equipment on-site: Manchester Injection Skid, field vehicles, C185 air compressor

Weather/Unusual Conditions: Cloudy 48 degrees

Scope of Work: Todays tasks include continuation of permanganante injection, performance monitoring and continual observation for daylighting inside dry cleaner facility and in sewer system

Time	Description of Activities
6:45	CG/MR set up hosing for injection to wells IW-2 & IW-3 and mix batch 15 of solution.
7:25	CG/MR start pumping on IW-2 and IW-3 pulling solution from batch 15
10:45	CG/MR complete injection of batch 14. CG/MR begin preparing batch 16 solution
11:45	CG/MR start injection of batch 16 on IW-2 and IW-3
13:50	CG/MR complete one round of performance monitoring
15:25	CG/MR complete injection of batch 16. CG/MR begin preparing batch 16 solution
16:00	CG/MR start injection of batch 17 on IW-2 and IW-3
18:00	CG/MR stop injection to batch 17 and begin preparation of batch 18 into wells IW-2 and IW-3
18:45	CG/MR start injection of batch 18 to wells IW-2 and IW-3
21:35	CG/MR complete injection to batch 18. Disconnect hosing and clean up the Site
22:00	CG/MR Off site for the night
;	
;	

Signature:

Daily Field Report

Project Name: Crown Dykman | **Page** 1 of 1

Project Number: 00266417.0000 | **Date** 12/10/2015

Site Location: 66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: Christopher Glidden / Mike Redman

Subcontractor(s): N/A

Equipment on-site: Manchester Injection Skid, field vehicles, C185 air compressor

Weather/Unusual Conditions: Partially Cloudy 58 degrees

Scope of Work: Todays tasks include continuation of permanganante injection, performance monitoring and continual observation for daylighting inside dry cleaner facility and in sewer system

Time	Description of Activities
6:30	CG/MR set up hosing for injection to wells IW-2 & IW-3 and mix batch 19 of solution.
8:00	CG/MR start pumping on IW-2 and IW-3 pulling solution from batch 19
10:35	CG/MR complete injection of batch 19. CG/MR begin preparing batch 20 solution
11:00	CG/MR start injection of batch 20 on IW-2 and IW-3
12:45	CG/MR complete one round of performance monitoring
13:35	CG/MR complete injection of batch 20. CG/MR begin preparing batch 21 solution
14:05	CG/MR start injection of batch 21 on IW-2 and IW-3
17:25	CG/MR stop injection to batch 21 and begin preparation of batch 22 into wells IW-2 and IW-3
18:15	CG/MR start injection of batch 22 to wells IW-2 and IW-3
21:40	CG/MR complete injection of batch 22. Put away equipment
22:00	CG/MR leave site for the night

Signature:

Daily Field Report

Project Name: Crown Dykman | **Page** 1 of 1

Project Number: 00266417.0000 | **Date** 12/11/2015

Site Location: 66 Herb Hill Road, Glen Cove, New York

ARCADIS Personnel: Christopher Glidden / Mike Redman

Subcontractor(s): N/A

Equipment on-site: Manchester Injection Skid, field vehicles, C185 air compressor

Weather/Unusual Conditions: Partly sunny 52 degrees

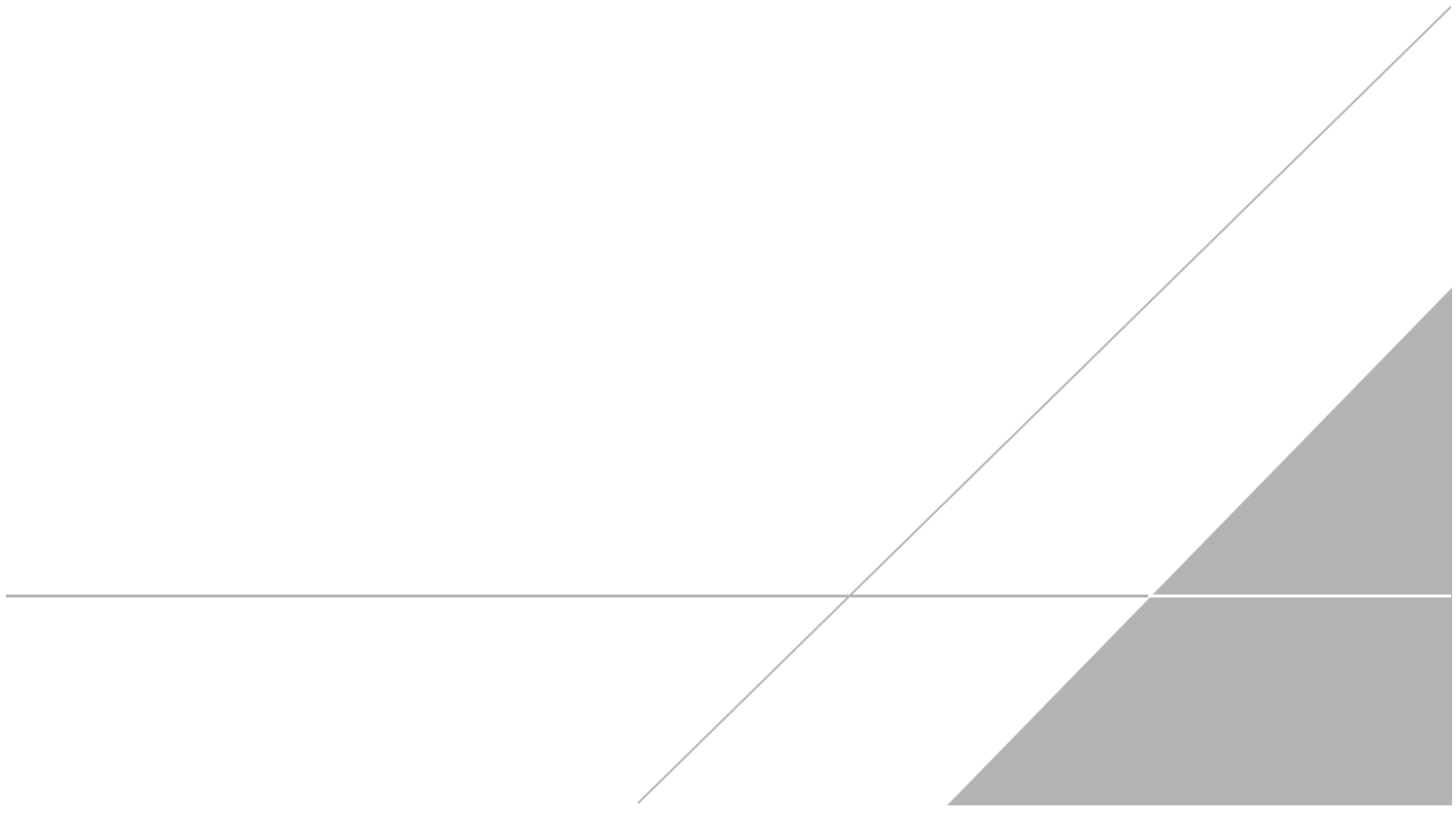
Scope of Work: Todays tasks include flushing of lines, permanganate drums and totes, and post injection monitoring. Injection skid breakdown and demob.

Time	Description of Activities
7:00	MR onsite to begin flushing and breakdown of injection skid
7:05	CG drops off air compressor at sunbelt
7:10	MR begins hooking up water in preparation for clean permanganate totes and drums
7:40	CG onsite to assist MR in clean up
8:00	CG/MR transfer approximately 60 gallons of water into (3) permanganate drums to rinse
8:10	CG/MR finish mixing water in drums with residue and begin pumping rinsate into IW-01S
9:20	CG/MR finish transferring rinsate into IW-01S. CG/MR spray nutruelizer into drums and roll drums
	to ensure neutralizer is contacting all sidewalls of the drums
9:45	CG/MR move totes outside and begin transferring water into totes (20 gallons each)
10:05	CG/MR transfer water from totes into IW-01S.
10:35	CG/MR finish transferring rinsate in IW-01S. CG/MR spray neutralizer into totes until sidewalls
	are clear
11:00	CG/MR begin breaking down hosings and wellhead connections
11:50	CG/MR offsite for lunch
13:00	CG/MR back onsite to continue breakdown and monitoring
13:15	CG/MR begin post injection monitoring on all accessible wells
14:35	CG/MR complete post injection monitoring and begin loading up trailer with equipment
15:10	CG/MR breakdown secondary containment
16:05	CG/MR do final walkthrough of the site to make sure no equipment is left beind
16:15	CG/MR offsite

Signature:

APPENDIX E

Laboratory Analytical Reports – 2017 VOC and PFAS, and 2018 1,4-Dioxane Data



Synoptic Sampling Round;
October-November 2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-126895-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Authorized for release by:
11/16/2017 3:53:30 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Job ID: 480-126895-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-126895-1

Receipt
The samples were received on 11/1/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475225 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The following samples was diluted due to the nature of the sample matrix: MW-7 (480-126895-4) and MW-23D (480-126895-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-192959.
Method code 3535_PFC, waters

Method(s) 3535: The following samples: MW-7 (480-126895-4) and MW-23D (480-126895-5) were decanted prior to preparation due to sediment being present in the samples.
preparation batch 320-192959
Method code 3535_PFC, waters

Method(s) 3535: Due to client's request, we extracted the sample duplicate (DU) and the sample matrix (MS) without the sample matrix duplicate (MSD), which is not our standard procedure.
preparation batch 320-192959
Method code: 3535_PFC.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Client Sample ID: EB-01 — Lab Sample ID: 480-126895-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.54	J B	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.34	J B	1.9	0.16	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EB-02 — Lab Sample ID: 480-126895-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.38	J B	1.9	0.33	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.28	J B	1.9	0.16	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EB-03 — Lab Sample ID: 480-126895-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.59	J B	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.56	J	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.30	J B	1.9	0.17	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 480-126895-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.37	J	1.0	0.25	ug/L	1		8260C	Total/NA
Chloroform	0.54	J	1.0	0.23	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	210		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	260		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	4.3		1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	130		1.0	0.20	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	14	B	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	25		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	23		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	20		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	60		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	6.3		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	6.5		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	26		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.5	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.0		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	150	B	2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.51	J B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-23D — Lab Sample ID: 480-126895-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	910		10	2.1	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether	3.3	J	10	1.7	ug/L	10		8260C	Total/NA
Methylene Chloride	11	J B	50	10	ug/L	10		8260C	Total/NA
Tetrachloroethene	480		10	1.4	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	5.1	J	10	2.3	ug/L	10		8260C	Total/NA
Trichloroethene	230		10	2.0	ug/L	10		8260C	Total/NA
Vinyl chloride	11		10	1.8	ug/L	10		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	20	B	1.9	0.33	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	20		1.9	0.46	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Client Sample ID: MW-23D (Continued) — Lab Sample ID: 480-126895-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	19		1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	17		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	65		1.9	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	8.8		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	7.7		1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	19		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.4	B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.0		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	130	B	1.9	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.2	J B	1.9	0.33	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-23S — Lab Sample ID: 480-126895-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.79	J	1.0	0.25	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	380		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	320		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	2.5		1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	140		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	3.6		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	14		2.0	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	26		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	24		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	16		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	51		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.5		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	4.7		2.0	0.30	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.1	J	2.0	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorotridecanoic Acid (PFTriA)	1.6	J	2.0	1.3	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	22		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	94		2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.1	J B	2.0	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-126895-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Client Sample ID: EB-01

Lab Sample ID: 480-126895-1

Date Collected: 10/31/17 09:20

Matrix: Water

Date Received: 11/01/17 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.54**	**J B**	1.9	0.34	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.47	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.56	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.24	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.82	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.26	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.30	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.3	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorohexanesulfonic acid (PFHxS)	**0.34**	**J B**	1.9	0.16	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.52	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/06/17 08:43	11/10/17 23:50	1
Perfluorooctane Sulfonamide (FOSA)	ND		1.9	0.34	ng/L		11/06/17 08:43	11/10/17 23:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*48*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C4 PFBA	*49*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C2 PFHxA	*51*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C4 PFOA	*46*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C5 PFNA	*51*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C2 PFDA	*54*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C2 PFUnA	*55*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C2 PFDoA	*49*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
18O2 PFHxS	*49*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C4 PFOS	*51*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C4-PFHpA	*53*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C5 PFPeA	*50*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C3-PFBS	*50*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*
13C2-PFTeDA	*59*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:50*	*1*

Client Sample ID: EB-02

Lab Sample ID: 480-126895-2

Date Collected: 10/31/17 09:30

Matrix: Water

Date Received: 11/01/17 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.38**	**J B**	1.9	0.33	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.46	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.55	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.24	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.80	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.26	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.29	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		11/06/17 08:43	11/10/17 23:58	1

Client Sample ID: EB-02

Date Collected: 10/31/17 09:30
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.2	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.27	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorohexanesulfonic acid (PFHxS)	**0.28**	**J B**	1.9	0.16	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		11/06/17 08:43	11/10/17 23:58	1
Perfluorooctane Sulfonamide (FOSA)	ND		1.9	0.33	ng/L		11/06/17 08:43	11/10/17 23:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*80*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C4 PFBA	*76*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C2 PFHxA	*84*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C4 PFOA	*75*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C5 PFNA	*84*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C2 PFDA	*86*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C2 PFUnA	*84*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C2 PFDoA	*77*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
18O2 PFHxS	*81*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C4 PFOS	*81*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C4-PFHpA	*84*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C5 PFPeA	*83*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C3-PFBS	*83*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*
13C2-PFTeDA	*87*		*25 - 150*	*11/06/17 08:43*	*11/10/17 23:58*	*1*

Client Sample ID: EB-03

Date Collected: 10/31/17 09:40
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.59**	**J B**	1.9	0.34	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.48	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.57	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.24	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.83	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.26	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.30	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.54	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.3	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorotetradecanoic acid (PFTeA)	**0.56**	**J**	1.9	0.28	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorohexanesulfonic acid (PFHxS)	**0.30**	**J B**	1.9	0.17	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.19	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.53	ng/L		11/06/17 08:43	11/11/17 00:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/06/17 08:43	11/11/17 00:06	1

Client Sample ID: EB-03

Lab Sample ID: 480-126895-3

Date Collected: 10/31/17 09:40

Matrix: Water

Date Received: 11/01/17 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonamide (FOSA)	ND		1.9	0.34	ng/L		11/06/17 08:43	11/11/17 00:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*74*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C4 PFBA	*67*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C2 PFHxA	*69*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C4 PFOA	*64*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C5 PFNA	*74*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C2 PFDA	*84*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C2 PFUnA	*84*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C2 PFDoA	*70*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
18O2 PFHxS	*69*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C4 PFOS	*70*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C4-PFHpA	*70*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C5 PFPeA	*71*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C3-PFBS	*74*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*
13C2-PFTeDA	*75*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:06*	*1*

Client Sample ID: MW-7

Lab Sample ID: 480-126895-4

Date Collected: 10/31/17 11:20

Matrix: Water

Date Received: 11/01/17 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 11:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 11:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 11:20	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 11:20	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 11:20	1
1,1-Dichloroethene	**0.37**	**J**	1.0	0.25	ug/L			11/11/17 11:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 11:20	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 11:20	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 11:20	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 11:20	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 11:20	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 11:20	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 11:20	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 11:20	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 11:20	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 11:20	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 11:20	1
Acetone	ND		25	2.7	ug/L			11/11/17 11:20	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 11:20	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 11:20	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 11:20	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 11:20	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 11:20	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 11:20	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 11:20	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 11:20	1

Client Sample ID: MW-7
Date Collected: 10/31/17 11:20
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	**0.54**	**J**	1.0	0.23	ug/L			11/11/17 11:20	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 11:20	1
cis-1,2-Dichloroethene	**210**		1.0	0.21	ug/L			11/11/17 11:20	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 11:20	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 11:20	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 11:20	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 11:20	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 11:20	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 11:20	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 11:20	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 11:20	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 11:20	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 11:20	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 11:20	1
Tetrachloroethene	**260**		1.0	0.14	ug/L			11/11/17 11:20	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 11:20	1
trans-1,2-Dichloroethene	**4.3**		1.0	0.23	ug/L			11/11/17 11:20	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 11:20	1
Trichloroethene	**130**		1.0	0.20	ug/L			11/11/17 11:20	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 11:20	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 11:20	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 11:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*11/11/17 11:20*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 11:20*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/11/17 11:20*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*11/11/17 11:20*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**14**	**B**	2.0	0.35	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluoropentanoic acid (PFPeA)	**25**		2.0	0.48	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorohexanoic acid (PFHxA)	**23**		2.0	0.57	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluoroheptanoic acid (PFHpA)	**20**		2.0	0.25	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorooctanoic acid (PFOA)	**60**		2.0	0.84	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorononanoic acid (PFNA)	**6.3**		2.0	0.27	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorodecanoic acid (PFDA)	**6.5**		2.0	0.31	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorobutanesulfonic acid (PFBS)	**26**		2.0	0.20	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorohexanesulfonic acid (PFHxS)	**9.5**	**B**	2.0	0.17	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	**2.0**		2.0	0.19	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorooctanesulfonic acid (PFOS)	**150**	**B**	2.0	0.53	ng/L		11/06/17 08:43	11/11/17 00:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/06/17 08:43	11/11/17 00:14	1

Client Sample ID: MW-7 — **Lab Sample ID: 480-126895-4**
Date Collected: 10/31/17 11:20 — **Matrix: Water**
Date Received: 11/01/17 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonamide (FOSA)	0.51	J B	2.0	0.35	ng/L		11/06/17 08:43	11/11/17 00:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*76*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C4 PFBA	*54*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C2 PFHxA	*71*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C4 PFOA	*72*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C5 PFNA	*80*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C2 PFDA	*83*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C2 PFUnA	*81*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C2 PFDoA	*74*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
18O2 PFHxS	*77*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C4 PFOS	*79*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C4-PFHpA	*79*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C5 PFPeA	*67*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C3-PFBS	*75*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*
13C2-PFTeDA	*84*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:14*	*1*

Client Sample ID: MW-23D — **Lab Sample ID: 480-126895-5**
Date Collected: 10/31/17 13:10 — **Matrix: Water**
Date Received: 11/01/17 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	1.9	ug/L			11/11/17 10:28	10
1,1,2,2-Tetrachloroethane	ND		10	1.9	ug/L			11/11/17 10:28	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	1.5	ug/L			11/11/17 10:28	10
1,1,2-Trichloroethane	ND		10	1.9	ug/L			11/11/17 10:28	10
1,1-Dichloroethane	ND		10	2.4	ug/L			11/11/17 10:28	10
1,1-Dichloroethene	ND		10	2.5	ug/L			11/11/17 10:28	10
1,2,4-Trichlorobenzene	ND		10	2.0	ug/L			11/11/17 10:28	10
1,2-Dibromo-3-Chloropropane	ND		100	9.4	ug/L			11/11/17 10:28	10
1,2-Dibromoethane	ND		10	2.1	ug/L			11/11/17 10:28	10
1,2-Dichlorobenzene	ND		10	1.9	ug/L			11/11/17 10:28	10
1,2-Dichloroethane	ND		10	2.0	ug/L			11/11/17 10:28	10
1,2-Dichloropropane	ND		10	2.5	ug/L			11/11/17 10:28	10
1,3-Dichlorobenzene	ND		10	1.8	ug/L			11/11/17 10:28	10
1,4-Dichlorobenzene	ND		10	1.7	ug/L			11/11/17 10:28	10
2-Butanone (MEK)	ND		500	26	ug/L			11/11/17 10:28	10
2-Hexanone	ND		100	13	ug/L			11/11/17 10:28	10
4-Methyl-2-pentanone (MIBK)	ND		100	8.1	ug/L			11/11/17 10:28	10
Acetone	ND		250	27	ug/L			11/11/17 10:28	10
Benzene	ND		10	2.0	ug/L			11/11/17 10:28	10
Bromodichloromethane	ND		10	1.7	ug/L			11/11/17 10:28	10
Bromoform	ND		10	2.9	ug/L			11/11/17 10:28	10
Bromomethane	ND		10	3.5	ug/L			11/11/17 10:28	10
Carbon disulfide	ND		10	2.2	ug/L			11/11/17 10:28	10
Carbon tetrachloride	ND		10	1.8	ug/L			11/11/17 10:28	10
Chlorobenzene	ND		10	1.8	ug/L			11/11/17 10:28	10
Chloroethane	ND		10	3.6	ug/L			11/11/17 10:28	10

Client Sample ID: MW-23D
Date Collected: 10/31/17 13:10
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		10	2.3	ug/L			11/11/17 10:28	10
Chloromethane	ND		10	3.6	ug/L			11/11/17 10:28	10
cis-1,2-Dichloroethene	**910**		10	2.1	ug/L			11/11/17 10:28	10
cis-1,3-Dichloropropene	ND		10	1.7	ug/L			11/11/17 10:28	10
Cyclohexane	ND		50	1.3	ug/L			11/11/17 10:28	10
Dibromochloromethane	ND		10	2.5	ug/L			11/11/17 10:28	10
Dichlorodifluoromethane	ND		10	1.7	ug/L			11/11/17 10:28	10
Ethylbenzene	ND		10	1.9	ug/L			11/11/17 10:28	10
Isopropylbenzene	ND		10	3.3	ug/L			11/11/17 10:28	10
Methyl acetate	ND		100	5.8	ug/L			11/11/17 10:28	10
Methyl tert-butyl ether	**3.3**	**J**	10	1.7	ug/L			11/11/17 10:28	10
Methylcyclohexane	ND		50	0.90	ug/L			11/11/17 10:28	10
Methylene Chloride	**11**	**J B**	50	10	ug/L			11/11/17 10:28	10
Styrene	ND		10	2.8	ug/L			11/11/17 10:28	10
Tetrachloroethene	**480**		10	1.4	ug/L			11/11/17 10:28	10
Toluene	ND		10	1.7	ug/L			11/11/17 10:28	10
trans-1,2-Dichloroethene	**5.1**	**J**	10	2.3	ug/L			11/11/17 10:28	10
trans-1,3-Dichloropropene	ND		10	1.7	ug/L			11/11/17 10:28	10
Trichloroethene	**230**		10	2.0	ug/L			11/11/17 10:28	10
Trichlorofluoromethane	ND		10	2.1	ug/L			11/11/17 10:28	10
Vinyl chloride	**11**		10	1.8	ug/L			11/11/17 10:28	10
Xylenes, Total	ND		30	5.8	ug/L			11/11/17 10:28	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*11/11/17 10:28*	*10*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*11/11/17 10:28*	*10*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*11/11/17 10:28*	*10*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/11/17 10:28*	*10*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**20**	**B**	1.9	0.33	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluoropentanoic acid (PFPeA)	**20**		1.9	0.46	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorohexanoic acid (PFHxA)	**19**		1.9	0.55	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluoroheptanoic acid (PFHpA)	**17**		1.9	0.24	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorooctanoic acid (PFOA)	**65**		1.9	0.81	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorononanoic acid (PFNA)	**8.8**		1.9	0.26	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorodecanoic acid (PFDA)	**7.7**		1.9	0.29	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.2	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.27	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorobutanesulfonic acid (PFBS)	**19**		1.9	0.19	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorohexanesulfonic acid (PFHxS)	**8.4**	**B**	1.9	0.16	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluoroheptanesulfonic Acid (PFHpS)	**2.0**		1.9	0.18	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorooctanesulfonic acid (PFOS)	**130**	**B**	1.9	0.51	ng/L		11/06/17 08:43	11/11/17 00:22	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		11/06/17 08:43	11/11/17 00:22	1

Client Sample ID: MW-23D

Date Collected: 10/31/17 13:10
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-5
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonamide (FOSA)	1.2	J B	1.9	0.33	ng/L		11/06/17 08:43	11/11/17 00:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*78*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C4 PFBA	*52*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C2 PFHxA	*74*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C4 PFOA	*76*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C5 PFNA	*84*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C2 PFDA	*85*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C2 PFUnA	*87*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C2 PFDoA	*75*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
18O2 PFHxS	*82*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C4 PFOS	*85*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C4-PFHpA	*78*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C5 PFPeA	*71*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C3-PFBS	*83*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*
13C2-PFTeDA	*85*		*25 - 150*	*11/06/17 08:43*	*11/11/17 00:22*	*1*

Client Sample ID: MW-23S

Date Collected: 10/31/17 14:50
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 01:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/12/17 01:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/12/17 01:17	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 01:17	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/12/17 01:17	1
1,1-Dichloroethene	0.79	J	1.0	0.25	ug/L			11/12/17 01:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/12/17 01:17	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/12/17 01:17	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/12/17 01:17	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/12/17 01:17	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/12/17 01:17	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/12/17 01:17	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/12/17 01:17	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/12/17 01:17	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/12/17 01:17	1
2-Hexanone	ND		10	1.3	ug/L			11/12/17 01:17	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/12/17 01:17	1
Acetone	ND		25	2.7	ug/L			11/12/17 01:17	1
Benzene	ND		1.0	0.20	ug/L			11/12/17 01:17	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/12/17 01:17	1
Bromoform	ND		1.0	0.29	ug/L			11/12/17 01:17	1
Bromomethane	ND		1.0	0.35	ug/L			11/12/17 01:17	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/12/17 01:17	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/12/17 01:17	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/12/17 01:17	1
Chloroethane	ND		1.0	0.36	ug/L			11/12/17 01:17	1

Client Sample ID: MW-23S
Date Collected: 10/31/17 14:50
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.23	ug/L			11/12/17 01:17	1
Chloromethane	ND		1.0	0.36	ug/L			11/12/17 01:17	1
cis-1,2-Dichloroethene	**380**		1.0	0.21	ug/L			11/12/17 01:17	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 01:17	1
Cyclohexane	ND		5.0	0.13	ug/L			11/12/17 01:17	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/12/17 01:17	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/12/17 01:17	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/12/17 01:17	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/12/17 01:17	1
Methyl acetate	ND		10	0.58	ug/L			11/12/17 01:17	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/12/17 01:17	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/12/17 01:17	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/12/17 01:17	1
Styrene	ND		1.0	0.28	ug/L			11/12/17 01:17	1
Tetrachloroethene	**320**		1.0	0.14	ug/L			11/12/17 01:17	1
Toluene	ND		1.0	0.17	ug/L			11/12/17 01:17	1
trans-1,2-Dichloroethene	**2.5**		1.0	0.23	ug/L			11/12/17 01:17	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 01:17	1
Trichloroethene	**140**		1.0	0.20	ug/L			11/12/17 01:17	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/12/17 01:17	1
Vinyl chloride	**3.6**		1.0	0.18	ug/L			11/12/17 01:17	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/12/17 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*11/12/17 01:17*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/12/17 01:17*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*11/12/17 01:17*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/12/17 01:17*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**14**		2.0	0.34	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluoropentanoic acid (PFPeA)	**26**		2.0	0.48	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorohexanoic acid (PFHxA)	**24**		2.0	0.57	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluoroheptanoic acid (PFHpA)	**16**		2.0	0.25	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorooctanoic acid (PFOA)	**51**		2.0	0.84	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorononanoic acid (PFNA)	**5.5**		2.0	0.27	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorodecanoic acid (PFDA)	**4.7**		2.0	0.30	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluoroundecanoic acid (PFUnA)	**1.1**	**J**	2.0	1.1	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorotridecanoic Acid (PFTriA)	**1.6**	**J**	2.0	1.3	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorobutanesulfonic acid (PFBS)	**22**		2.0	0.20	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorohexanesulfonic acid (PFHxS)	**11**	**B**	2.0	0.17	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.6**	**J**	2.0	0.19	ng/L		11/06/17 08:49	11/13/17 18:59	1

Client Sample ID: MW-23S

Lab Sample ID: 480-126895-6

Date Collected: 10/31/17 14:50

Matrix: Water

Date Received: 11/01/17 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**94**		2.0	0.53	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		11/06/17 08:49	11/13/17 18:59	1
Perfluorooctane Sulfonamide (FOSA)	**1.1**	**J B**	2.0	0.34	ng/L		11/06/17 08:49	11/13/17 18:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*79*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C4 PFBA	*53*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C2 PFHxA	*78*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C4 PFOA	*80*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C5 PFNA	*86*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C2 PFDA	*88*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C2 PFUnA	*88*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C2 PFDoA	*73*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
18O2 PFHxS	*83*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C4 PFOS	*85*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C4-PFHpA	*80*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C5 PFPeA	*73*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C3-PFBS	*85*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*
13C2-PFTeDA	*85*		*25 - 150*	*11/06/17 08:49*	*11/13/17 18:59*	*1*

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-126895-7

Date Collected: 10/31/17 00:00

Matrix: Water

Date Received: 11/01/17 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 03:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 03:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 03:30	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 03:30	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 03:30	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 03:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 03:30	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 03:30	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 03:30	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 03:30	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 03:30	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 03:30	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 03:30	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 03:30	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 03:30	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 03:30	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 03:30	1
Acetone	ND		25	2.7	ug/L			11/11/17 03:30	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 03:30	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 03:30	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 03:30	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 03:30	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 03:30	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Client Sample ID: TRIP BLANK
Date Collected: 10/31/17 00:00
Date Received: 11/01/17 09:30

Lab Sample ID: 480-126895-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 03:30	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 03:30	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 03:30	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 03:30	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 03:30	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 03:30	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 03:30	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 03:30	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 03:30	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 03:30	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 03:30	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 03:30	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 03:30	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 03:30	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 03:30	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 03:30	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 03:30	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 03:30	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 03:30	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 03:30	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 03:30	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 03:30	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 03:30	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 03:30	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 03:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*11/11/17 03:30*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/11/17 03:30*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*11/11/17 03:30*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/11/17 03:30*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
480-126895-4	MW-7	95	98	106	101
480-126895-5	MW-23D	93	100	111	96
480-126895-6	MW-23S	96	96	110	96
480-126895-6 MS	MW-23S	89	95	110	98
480-126895-6 MSD	MW-23S	88	94	106	97
480-126895-7	TRIP BLANK	96	101	111	98
LCS 490-475094/4	Lab Control Sample	95	93	111	97
LCS 490-475225/3	Lab Control Sample	88	94	107	99
LCSD 490-475225/4	Lab Control Sample Dup	89	93	108	96
MB 490-475094/6	Method Blank	93	103	109	98
MB 490-475225/6	Method Blank	92	98	105	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C8 FOSA	13C4 PFBA	13C2 PFHxA	13C4 PFOA	13C5 PFNA	13C2 PFDA	13C2 PFUnA	13C2 PFDoA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-126895-1	EB-01	48	49	51	46	51	54	55	49
480-126895-2	EB-02	80	76	84	75	84	86	84	77
480-126895-3	EB-03	74	67	69	64	74	84	84	70
480-126895-4	MW-7	76	54	71	72	80	83	81	74
480-126895-5	MW-23D	78	52	74	76	84	85	87	75
480-126895-6	MW-23S	79	53	78	80	86	88	88	73
LCS 320-192959/2-A	Lab Control Sample	60	65	63	59	68	70	68	61
LCS 320-192966/2-A	Lab Control Sample	78	92	89	79	87	88	88	79
LCSD 320-192959/3-A	Lab Control Sample Dup	75	79	78	72	78	87	85	75
LCSD 320-192966/3-A	Lab Control Sample Dup	64	68	67	64	72	68	71	62
MB 320-192959/1-A	Method Blank	93	104	104	94	106	110	104	92
MB 320-192966/1-A	Method Blank	58	56	64	58	63	63	63	56

		Percent Isotope Dilution Recovery (Acceptance Limits)					
		18O2 PFHxS	13C4 PFOS	13C4-PFHpA	13C5 PFPeA	13C3-PFBS	13C2-PFTeDA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-126895-1	EB-01	49	51	53	50	50	59
480-126895-2	EB-02	81	81	84	83	83	87
480-126895-3	EB-03	69	70	70	71	74	75
480-126895-4	MW-7	77	79	79	67	75	84
480-126895-5	MW-23D	82	85	78	71	83	85
480-126895-6	MW-23S	83	85	80	73	85	85
LCS 320-192959/2-A	Lab Control Sample	65	65	66	66	71	73
LCS 320-192966/2-A	Lab Control Sample	84	85	90	90	94	87
LCSD 320-192959/3-A	Lab Control Sample Dup	79	79	82	80	85	86
LCSD 320-192966/3-A	Lab Control Sample Dup	74	71	71	72	74	71
MB 320-192959/1-A	Method Blank	99	99	105	103	104	103
MB 320-192966/1-A	Method Blank	65	63	64	64	63	60

Surrogate Legend

13C8 FOSA = 13C8 FOSA
13C4 PFBA = 13C4 PFBA
13C2 PFHxA = 13C2 PFHxA
13C4 PFOA = 13C4 PFOA
13C5 PFNA = 13C5 PFNA
13C2 PFDA = 13C2 PFDA
13C2 PFUnA = 13C2 PFUnA
13C2 PFDoA = 13C2 PFDoA
18O2 PFHxS = 18O2 PFHxS
13C4 PFOS = 13C4 PFOS
13C4-PFHpA = 13C4-PFHpA
13C5 PFPeA = 13C5 PFPeA
13C3-PFBS = 13C3-PFBS
13C2-PFTeDA = 13C2-PFTeDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-475094/6
Matrix: Water
Analysis Batch: 475094

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 02:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 02:38	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:38	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 02:38	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 02:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 02:38	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 02:38	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 02:38	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 02:38	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 02:38	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 02:38	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:38	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 02:38	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 02:38	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 02:38	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 02:38	1
Acetone	ND		25	2.7	ug/L			11/11/17 02:38	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 02:38	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 02:38	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 02:38	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 02:38	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 02:38	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 02:38	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:38	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 02:38	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 02:38	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 02:38	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 02:38	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:38	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 02:38	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 02:38	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 02:38	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 02:38	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 02:38	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 02:38	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 02:38	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 02:38	1
Methylene Chloride	1.32	J	5.0	1.0	ug/L			11/11/17 02:38	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 02:38	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 02:38	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 02:38	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 02:38	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:38	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 02:38	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 02:38	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 02:38	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 02:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*11/11/17 02:38*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*11/11/17 02:38*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*11/11/17 02:38*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/11/17 02:38*	*1*

Lab Sample ID: LCS 490-475094/4
Matrix: Water
Analysis Batch: 475094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.7		ug/L		118	78 - 135
1,1,2,2-Tetrachloroethane	20.0	18.1		ug/L		90	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.0		ug/L		125	77 - 129
1,1,2-Trichloroethane	20.0	20.6		ug/L		103	80 - 124
1,1-Dichloroethane	20.0	21.2		ug/L		106	78 - 125
1,1-Dichloroethene	20.0	22.0		ug/L		110	79 - 124
1,2,4-Trichlorobenzene	20.0	17.5		ug/L		87	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	17.6		ug/L		88	54 - 125
1,2-Dibromoethane	20.0	20.9		ug/L		104	80 - 129
1,2-Dichlorobenzene	20.0	21.2		ug/L		106	80 - 121
1,2-Dichloroethane	20.0	21.0		ug/L		105	77 - 121
1,2-Dichloropropane	20.0	19.7		ug/L		99	75 - 120
1,3-Dichlorobenzene	20.0	21.5		ug/L		108	80 - 122
1,4-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 120
2-Butanone (MEK)	100	92.2		ug/L		92	62 - 133
2-Hexanone	100	79.2		ug/L		79	60 - 142
4-Methyl-2-pentanone (MIBK)	100	79.9		ug/L		80	60 - 137
Acetone	100	80.1		ug/L		80	54 - 145
Benzene	20.0	20.1		ug/L		101	80 - 121
Bromodichloromethane	20.0	21.9		ug/L		109	75 - 129
Bromoform	20.0	19.6		ug/L		98	46 - 145
Bromomethane	20.0	22.7		ug/L		114	41 - 150
Carbon disulfide	20.0	20.6		ug/L		103	77 - 126
Carbon tetrachloride	20.0	24.4		ug/L		122	64 - 147
Chlorobenzene	20.0	21.4		ug/L		107	80 - 120
Chloroethane	20.0	20.8		ug/L		104	72 - 120
Chloroform	20.0	22.1		ug/L		110	73 - 129
Chloromethane	20.0	17.0		ug/L		85	12 - 150
cis-1,2-Dichloroethene	20.0	21.5		ug/L		107	76 - 125
cis-1,3-Dichloropropene	20.0	19.6		ug/L		98	74 - 140
Cyclohexane	20.0	19.6		ug/L		98	73 - 122
Dibromochloromethane	20.0	22.0		ug/L		110	69 - 133
Dichlorodifluoromethane	20.0	24.4		ug/L		122	37 - 127
Ethylbenzene	20.0	19.6		ug/L		98	80 - 130
Isopropylbenzene	20.0	19.1		ug/L		95	80 - 141
Methyl acetate	40.0	37.1		ug/L		93	64 - 150
Methyl tert-butyl ether	20.0	19.6		ug/L		98	72 - 133
Methylcyclohexane	20.0	21.9		ug/L		109	71 - 129
Methylene Chloride	20.0	23.2		ug/L		116	79 - 123
Styrene	20.0	19.4		ug/L		97	80 - 127
Tetrachloroethene	20.0	22.0		ug/L		110	80 - 126
Toluene	20.0	20.0		ug/L		100	80 - 126
trans-1,2-Dichloroethene	20.0	20.8		ug/L		104	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475094/4
Matrix: Water
Analysis Batch: 475094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.5		ug/L		98	63 - 134
Trichloroethene	20.0	23.9		ug/L		119	80 - 123
Trichlorofluoromethane	20.0	23.7		ug/L		119	65 - 124
Vinyl chloride	20.0	20.3		ug/L		101	68 - 120
Xylenes, Total	40.0	38.3		ug/L		96	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: 480-126895-6 MS
Matrix: Water
Analysis Batch: 475094

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		400	552		ug/L		138	68 - 144
1,1,2,2-Tetrachloroethane	ND		400	404		ug/L		101	56 - 145
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		400	578		ug/L		145	63 - 150
1,1,2-Trichloroethane	ND		400	440		ug/L		110	70 - 130
1,1-Dichloroethane	ND		400	475		ug/L		119	61 - 139
1,1-Dichloroethene	ND		400	525		ug/L		131	54 - 150
1,2,4-Trichlorobenzene	ND		400	340		ug/L		85	47 - 147
1,2-Dibromo-3-Chloropropane	ND		400	378		ug/L		95	38 - 138
1,2-Dibromoethane	ND		400	447		ug/L		112	65 - 137
1,2-Dichlorobenzene	ND		400	456		ug/L		114	70 - 130
1,2-Dichloroethane	ND		400	485		ug/L		121	64 - 136
1,2-Dichloropropane	ND		400	442		ug/L		110	67 - 130
1,3-Dichlorobenzene	ND		400	473		ug/L		118	68 - 131
1,4-Dichlorobenzene	ND		400	472		ug/L		118	70 - 130
2-Butanone (MEK)	ND		2000	1920		ug/L		96	50 - 143
2-Hexanone	ND		2000	1620		ug/L		81	44 - 150
4-Methyl-2-pentanone (MIBK)	ND		2000	1640		ug/L		82	50 - 140
Acetone	ND		2000	1660		ug/L		83	39 - 150
Benzene	ND		400	460		ug/L		115	55 - 147
Bromodichloromethane	ND		400	493		ug/L		123	70 - 140
Bromoform	ND		400	428		ug/L		107	53 - 150
Bromomethane	ND		400	444		ug/L		111	30 - 150
Carbon disulfide	ND		400	473		ug/L		118	35 - 150
Carbon tetrachloride	ND		400	572		ug/L		143	56 - 150
Chlorobenzene	ND		400	476		ug/L		119	70 - 130
Chloroethane	ND		400	483		ug/L		121	58 - 141
Chloroform	ND		400	513		ug/L		128	66 - 138
Chloromethane	ND		400	391		ug/L		98	10 - 150
cis-1,2-Dichloroethene	390		400	807		ug/L		105	68 - 131
cis-1,3-Dichloropropene	ND		400	411		ug/L		103	70 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-126895-6 MS
Matrix: Water
Analysis Batch: 475094

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	ND		400	450		ug/L		113	48 - 150
Dibromochloromethane	ND		400	466		ug/L		116	66 - 140
Dichlorodifluoromethane	ND		400	580		ug/L		145	10 - 150
Ethylbenzene	ND		400	429		ug/L		107	65 - 139
Isopropylbenzene	ND		400	407		ug/L		102	70 - 137
Methyl acetate	ND		800	787		ug/L		98	42 - 136
Methyl tert-butyl ether	ND		400	413		ug/L		103	55 - 141
Methylcyclohexane	ND		400	468		ug/L		117	59 - 150
Methylene Chloride	22	J B	400	513		ug/L		123	64 - 130
Styrene	ND		400	418		ug/L		104	70 - 130
Tetrachloroethene	320		400	731		ug/L		103	57 - 138
Toluene	ND		400	442		ug/L		110	64 - 136
trans-1,2-Dichloroethene	ND		400	473		ug/L		118	59 - 143
trans-1,3-Dichloropropene	ND		400	401		ug/L		100	63 - 142
Trichloroethene	130		400	649		ug/L		129	63 - 135
Trichlorofluoromethane	ND	F1	400	591		ug/L		148	44 - 150
Vinyl chloride	ND		400	462		ug/L		116	57 - 150
Xylenes, Total	ND		800	830		ug/L		104	69 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: 480-126895-6 MSD
Matrix: Water
Analysis Batch: 475094

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		400	532		ug/L		133	68 - 144	4	17
1,1,2,2-Tetrachloroethane	ND		400	392		ug/L		98	56 - 145	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		400	576		ug/L		144	63 - 150	0	18
1,1,2-Trichloroethane	ND		400	433		ug/L		108	70 - 130	1	15
1,1-Dichloroethane	ND		400	460		ug/L		115	61 - 139	3	17
1,1-Dichloroethene	ND		400	506		ug/L		127	54 - 150	4	17
1,2,4-Trichlorobenzene	ND		400	360		ug/L		90	47 - 147	6	19
1,2-Dibromo-3-Chloropropane	ND		400	370		ug/L		92	38 - 138	2	24
1,2-Dibromoethane	ND		400	444		ug/L		111	65 - 137	1	15
1,2-Dichlorobenzene	ND		400	443		ug/L		111	70 - 130	3	15
1,2-Dichloroethane	ND		400	456		ug/L		114	64 - 136	6	17
1,2-Dichloropropane	ND		400	424		ug/L		106	67 - 130	4	17
1,3-Dichlorobenzene	ND		400	464		ug/L		116	68 - 131	2	15
1,4-Dichlorobenzene	ND		400	467		ug/L		117	70 - 130	1	15
2-Butanone (MEK)	ND		2000	1890		ug/L		95	50 - 143	1	19
2-Hexanone	ND		2000	1590		ug/L		80	44 - 150	2	15
4-Methyl-2-pentanone (MIBK)	ND		2000	1700		ug/L		85	50 - 140	3	17

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-126895-6 MSD
Matrix: Water
Analysis Batch: 475094

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		2000	1670		ug/L		84	39 - 150	1	21
Benzene	ND		400	440		ug/L		110	55 - 147	5	17
Bromodichloromethane	ND		400	466		ug/L		117	70 - 140	5	18
Bromoform	ND		400	415		ug/L		104	53 - 150	3	16
Bromomethane	ND		400	470		ug/L		117	30 - 150	6	50
Carbon disulfide	ND		400	468		ug/L		117	35 - 150	1	21
Carbon tetrachloride	ND		400	551		ug/L		138	56 - 150	4	19
Chlorobenzene	ND		400	459		ug/L		115	70 - 130	4	14
Chloroethane	ND		400	495		ug/L		124	58 - 141	2	20
Chloroform	ND		400	475		ug/L		119	66 - 138	8	18
Chloromethane	ND		400	378		ug/L		95	10 - 150	3	31
cis-1,2-Dichloroethene	390		400	789		ug/L		100	68 - 131	2	17
cis-1,3-Dichloropropene	ND		400	413		ug/L		103	70 - 133	1	15
Cyclohexane	ND		400	440		ug/L		110	48 - 150	2	16
Dibromochloromethane	ND		400	453		ug/L		113	66 - 140	3	15
Dichlorodifluoromethane	ND		400	586		ug/L		147	10 - 150	1	18
Ethylbenzene	ND		400	422		ug/L		106	65 - 139	1	15
Isopropylbenzene	ND		400	398		ug/L		100	70 - 137	2	16
Methyl acetate	ND		800	769		ug/L		96	42 - 136	2	31
Methyl tert-butyl ether	ND		400	417		ug/L		104	55 - 141	1	16
Methylcyclohexane	ND		400	456		ug/L		114	59 - 150	3	19
Methylene Chloride	22	J B	400	497		ug/L		119	64 - 130	3	17
Styrene	ND		400	411		ug/L		103	70 - 130	2	24
Tetrachloroethene	320		400	729		ug/L		102	57 - 138	0	16
Toluene	ND		400	443		ug/L		111	64 - 136	0	15
trans-1,2-Dichloroethene	ND		400	451		ug/L		113	59 - 143	5	16
trans-1,3-Dichloropropene	ND		400	401		ug/L		100	63 - 142	0	14
Trichloroethene	130		400	621		ug/L		122	63 - 135	4	17
Trichlorofluoromethane	ND	F1	400	619	F1	ug/L		155	44 - 150	5	18
Vinyl chloride	ND		400	465		ug/L		116	57 - 150	1	17
Xylenes, Total	ND		800	813		ug/L		102	69 - 132	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 17:26	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 17:26	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 17:26	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 17:26	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 17:26	1
Acetone	ND		25	2.7	ug/L			11/11/17 17:26	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 17:26	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 17:26	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 17:26	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 17:26	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 17:26	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 17:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 17:26	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 17:26	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 17:26	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 17:26	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 17:26	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 17:26	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 17:26	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/11/17 17:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 17:26*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/11/17 17:26*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		11/11/17 17:26	1

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.7		ug/L		119	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.3		ug/L		102	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.9	*	ug/L		130	77 - 129
1,1,2-Trichloroethane	20.0	22.0		ug/L		110	80 - 124
1,1-Dichloroethane	20.0	21.5		ug/L		108	78 - 125
1,1-Dichloroethene	20.0	22.3		ug/L		112	79 - 124
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		92	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	22.2		ug/L		111	80 - 129
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121
1,2-Dichloroethane	20.0	22.7		ug/L		114	77 - 121
1,2-Dichloropropane	20.0	20.9		ug/L		105	75 - 120
1,3-Dichlorobenzene	20.0	23.0		ug/L		115	80 - 122
1,4-Dichlorobenzene	20.0	23.3		ug/L		116	80 - 120
2-Butanone (MEK)	100	88.0		ug/L		88	62 - 133
2-Hexanone	100	86.0		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.4		ug/L		85	60 - 137
Acetone	100	87.4		ug/L		87	54 - 145
Benzene	20.0	20.6		ug/L		103	80 - 121
Bromodichloromethane	20.0	23.1		ug/L		115	75 - 129
Bromoform	20.0	21.2		ug/L		106	46 - 145
Bromomethane	20.0	21.4		ug/L		107	41 - 150
Carbon disulfide	20.0	21.4		ug/L		107	77 - 126
Carbon tetrachloride	20.0	25.5		ug/L		128	64 - 147
Chlorobenzene	20.0	23.1		ug/L		115	80 - 120
Chloroethane	20.0	20.7		ug/L		103	72 - 120
Chloroform	20.0	23.4		ug/L		117	73 - 129
Chloromethane	20.0	16.4		ug/L		82	12 - 150
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	76 - 125
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	74 - 140
Cyclohexane	20.0	19.7		ug/L		99	73 - 122
Dibromochloromethane	20.0	22.2		ug/L		111	69 - 133
Dichlorodifluoromethane	20.0	23.0		ug/L		115	37 - 127
Ethylbenzene	20.0	20.3		ug/L		101	80 - 130
Isopropylbenzene	20.0	19.1		ug/L		95	80 - 141
Methyl acetate	40.0	39.5		ug/L		99	64 - 150
Methyl tert-butyl ether	20.0	20.8		ug/L		104	72 - 133
Methylcyclohexane	20.0	21.5		ug/L		108	71 - 129
Methylene Chloride	20.0	21.7		ug/L		108	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	20.0	22.8		ug/L		114	80 - 126
Toluene	20.0	20.8		ug/L		104	80 - 126
trans-1,2-Dichloroethene	20.0	21.3		ug/L		107	79 - 126
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	63 - 134
Trichloroethene	20.0	23.9		ug/L		120	80 - 123
Trichlorofluoromethane	20.0	24.8		ug/L		124	65 - 124
Vinyl chloride	20.0	20.2		ug/L		101	68 - 120
Xylenes, Total	40.0	39.9		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	24.2		ug/L		121	78 - 135	2	15
1,1,2,2-Tetrachloroethane	20.0	20.6		ug/L		103	69 - 131	2	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	26.3	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	80 - 124	1	13
1,1-Dichloroethane	20.0	21.9		ug/L		110	78 - 125	2	17
1,1-Dichloroethene	20.0	23.7		ug/L		118	79 - 124	6	20
1,2,4-Trichlorobenzene	20.0	18.7		ug/L		94	63 - 133	1	15
1,2-Dibromo-3-Chloropropane	20.0	19.5		ug/L		98	54 - 125	2	19
1,2-Dibromoethane	20.0	21.5		ug/L		108	80 - 129	3	13
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121	0	12
1,2-Dichloroethane	20.0	23.2		ug/L		116	77 - 121	2	13
1,2-Dichloropropane	20.0	21.4		ug/L		107	75 - 120	2	15
1,3-Dichlorobenzene	20.0	23.1		ug/L		116	80 - 122	1	13
1,4-Dichlorobenzene	20.0	23.2		ug/L		116	80 - 120	0	12
2-Butanone (MEK)	100	95.9		ug/L		96	62 - 133	9	19
2-Hexanone	100	86.1		ug/L		86	60 - 142	0	17
4-Methyl-2-pentanone (MIBK)	100	87.1		ug/L		87	60 - 137	2	21
Acetone	100	90.2		ug/L		90	54 - 145	3	23
Benzene	20.0	21.0		ug/L		105	80 - 121	2	12
Bromodichloromethane	20.0	23.4		ug/L		117	75 - 129	1	14
Bromoform	20.0	21.2		ug/L		106	46 - 145	0	14
Bromomethane	20.0	22.0		ug/L		110	41 - 150	3	19
Carbon disulfide	20.0	21.8		ug/L		109	77 - 126	2	16
Carbon tetrachloride	20.0	25.4		ug/L		127	64 - 147	0	16
Chlorobenzene	20.0	22.3		ug/L		111	80 - 120	3	12
Chloroethane	20.0	21.7		ug/L		108	72 - 120	5	15
Chloroform	20.0	23.8		ug/L		119	73 - 129	2	14

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane			20.0	16.4		ug/L		82	12 - 150	0	20
cis-1,2-Dichloroethene			20.0	22.1		ug/L		111	76 - 125	1	15
cis-1,3-Dichloropropene			20.0	20.9		ug/L		104	74 - 140	2	15
Cyclohexane			20.0	19.9		ug/L		99	73 - 122	1	16
Dibromochloromethane			20.0	22.8		ug/L		114	69 - 133	3	13
Dichlorodifluoromethane			20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene			20.0	20.2		ug/L		101	80 - 130	0	12
Isopropylbenzene			20.0	19.0		ug/L		95	80 - 141	1	13
Methyl acetate			40.0	40.4		ug/L		101	64 - 150	2	18
Methyl tert-butyl ether			20.0	21.4		ug/L		107	72 - 133	3	16
Methylcyclohexane			20.0	21.5		ug/L		107	71 - 129	0	17
Methylene Chloride			20.0	23.3		ug/L		116	79 - 123	7	15
Styrene			20.0	20.2		ug/L		101	80 - 127	0	12
Tetrachloroethene			20.0	22.5		ug/L		112	80 - 126	1	17
Toluene			20.0	20.8		ug/L		104	80 - 126	0	13
trans-1,2-Dichloroethene			20.0	21.4		ug/L		107	79 - 126	0	15
trans-1,3-Dichloropropene			20.0	20.7		ug/L		103	63 - 134	0	13
Trichloroethene			20.0	23.7		ug/L		118	80 - 123	1	14
Trichlorofluoromethane			20.0	24.5		ug/L		122	65 - 124	1	22
Vinyl chloride			20.0	20.4		ug/L		102	68 - 120	1	15
Xylenes, Total			40.0	39.5		ug/L		99	80 - 132	1	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-192959/1-A
Matrix: Water
Analysis Batch: 194036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 192959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.430	J	2.0	0.35	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorohexanesulfonic acid (PFHxS)	0.427	J	2.0	0.17	ng/L		11/06/17 08:43	11/10/17 21:44	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-192959/1-A
Matrix: Water
Analysis Batch: 194036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 192959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorooctanesulfonic acid (PFOS)	0.542	J	2.0	0.54	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/06/17 08:43	11/10/17 21:44	1
Perfluorooctane Sulfonamide (FOSA)	0.679	J	2.0	0.35	ng/L		11/06/17 08:43	11/10/17 21:44	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*93*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C4 PFBA	*104*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C2 PFHxA	*104*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C4 PFOA	*94*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C5 PFNA	*106*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C2 PFDA	*110*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C2 PFUnA	*104*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C2 PFDoA	*92*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
18O2 PFHxS	*99*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C4 PFOS	*99*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C4-PFHpA	*105*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C5 PFPeA	*103*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C3-PFBS	*104*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*
13C2-PFTeDA	*103*		*25 - 150*	*11/06/17 08:43*	*11/10/17 21:44*	*1*

Lab Sample ID: LCS 320-192959/2-A
Matrix: Water
Analysis Batch: 194036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 192959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	39.0		ng/L		97	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	38.4		ng/L		96	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	40.6		ng/L		101	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	38.3		ng/L		96	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	40.0		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	40.0	38.1		ng/L		95	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	38.4		ng/L		96	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	37.5		ng/L		94	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	42.5		ng/L		106	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	44.4		ng/L		111	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	34.2		ng/L		85	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	35.1		ng/L		99	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.8		ng/L		96	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.2		ng/L		103	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	35.9		ng/L		97	74 - 134

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-192959/2-A
Matrix: Water
Analysis Batch: 194036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 192959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorodecanesulfonic acid (PFDS)	38.6	37.4		ng/L		97	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	39.9		ng/L		100	82 - 142

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C8 FOSA	*60*		*25 - 150*
13C4 PFBA	*65*		*25 - 150*
13C2 PFHxA	*63*		*25 - 150*
13C4 PFOA	*59*		*25 - 150*
13C5 PFNA	*68*		*25 - 150*
13C2 PFDA	*70*		*25 - 150*
13C2 PFUnA	*68*		*25 - 150*
13C2 PFDoA	*61*		*25 - 150*
18O2 PFHxS	*65*		*25 - 150*
13C4 PFOS	*65*		*25 - 150*
13C4-PFHpA	*66*		*25 - 150*
13C5 PFPeA	*66*		*25 - 150*
13C3-PFBS	*71*		*25 - 150*
13C2-PFTeDA	*73*		*25 - 150*

Lab Sample ID: LCSD 320-192959/3-A
Matrix: Water
Analysis Batch: 194036

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 192959

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	40.8		ng/L		102	78 - 138	5	30
Perfluoropentanoic acid (PFPeA)	40.0	38.3		ng/L		96	66 - 136	0	30
Perfluorohexanoic acid (PFHxA)	40.0	40.2		ng/L		101	76 - 136	1	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.3		ng/L		103	78 - 138	8	30
Perfluorooctanoic acid (PFOA)	40.0	40.9		ng/L		102	70 - 130	2	30
Perfluorononanoic acid (PFNA)	40.0	40.2		ng/L		101	77 - 137	6	30
Perfluorodecanoic acid (PFDA)	40.0	37.5		ng/L		94	74 - 134	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.4		ng/L		94	68 - 128	0	30
Perfluorododecanoic acid (PFDoA)	40.0	44.3		ng/L		111	72 - 132	4	30
Perfluorotridecanoic Acid (PFTriA)	40.0	47.0		ng/L		117	56 - 163	6	30
Perfluorotetradecanoic acid (PFTeA)	40.0	36.5		ng/L		91	63 - 123	7	30
Perfluorobutanesulfonic acid (PFBS)	35.4	37.2		ng/L		105	79 - 139	6	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.0		ng/L		102	77 - 137	6	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.1		ng/L		108	83 - 143	5	30
Perfluorooctanesulfonic acid (PFOS)	37.1	37.3		ng/L		100	74 - 134	4	30
Perfluorodecanesulfonic acid (PFDS)	38.6	39.4		ng/L		102	75 - 135	5	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-192959/3-A
Matrix: Water
Analysis Batch: 194036

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 192959

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctane Sulfonamide (FOSA)			40.0	52.4		ng/L		131	82 - 142	27	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C8 FOSA	*75*		*25 - 150*
13C4 PFBA	*79*		*25 - 150*
13C2 PFHxA	*78*		*25 - 150*
13C4 PFOA	*72*		*25 - 150*
13C5 PFNA	*78*		*25 - 150*
13C2 PFDA	*87*		*25 - 150*
13C2 PFUnA	*85*		*25 - 150*
13C2 PFDoA	*75*		*25 - 150*
18O2 PFHxS	*79*		*25 - 150*
13C4 PFOS	*79*		*25 - 150*
13C4-PFHpA	*82*		*25 - 150*
13C5 PFPeA	*80*		*25 - 150*
13C3-PFBS	*85*		*25 - 150*
13C2-PFTeDA	*86*		*25 - 150*

Lab Sample ID: MB 320-192966/1-A
Matrix: Water
Analysis Batch: 194032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 192966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorohexanesulfonic acid (PFHxS)	0.305	J	2.0	0.17	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/06/17 08:49	11/10/17 14:58	1
Perfluorooctane Sulfonamide (FOSA)	0.452	J	2.0	0.35	ng/L		11/06/17 08:49	11/10/17 14:58	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*58*		*25 - 150*	*11/06/17 08:49*	*11/10/17 14:58*	*1*
13C4 PFBA	*56*		*25 - 150*	*11/06/17 08:49*	*11/10/17 14:58*	*1*
13C2 PFHxA	*64*		*25 - 150*	*11/06/17 08:49*	*11/10/17 14:58*	*1*
13C4 PFOA	*58*		*25 - 150*	*11/06/17 08:49*	*11/10/17 14:58*	*1*
13C5 PFNA	*63*		*25 - 150*	*11/06/17 08:49*	*11/10/17 14:58*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-192966/1-A
Matrix: Water
Analysis Batch: 194032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 192966

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	63		25 - 150	11/06/17 08:49	11/10/17 14:58	1
13C2 PFUnA	63		25 - 150	11/06/17 08:49	11/10/17 14:58	1
13C2 PFDoA	56		25 - 150	11/06/17 08:49	11/10/17 14:58	1
18O2 PFHxS	65		25 - 150	11/06/17 08:49	11/10/17 14:58	1
13C4 PFOS	63		25 - 150	11/06/17 08:49	11/10/17 14:58	1
13C4-PFHpA	64		25 - 150	11/06/17 08:49	11/10/17 14:58	1
13C5 PFPeA	64		25 - 150	11/06/17 08:49	11/10/17 14:58	1
13C3-PFBS	63		25 - 150	11/06/17 08:49	11/10/17 14:58	1
13C2-PFTeDA	60		25 - 150	11/06/17 08:49	11/10/17 14:58	1

Lab Sample ID: LCS 320-192966/2-A
Matrix: Water
Analysis Batch: 194470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 192966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.5		ng/L		96	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	38.2		ng/L		96	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	39.3		ng/L		98	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	37.4		ng/L		94	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	39.3		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	40.0	38.7		ng/L		97	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	38.0		ng/L		95	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	35.5		ng/L		89	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	39.4		ng/L		99	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	42.0		ng/L		105	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	34.8		ng/L		87	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	34.0		ng/L		96	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.5	B	ng/L		95	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.8		ng/L		102	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	35.0		ng/L		94	74 - 134
Perfluorodecanesulfonic acid (PFDS)	38.6	35.5		ng/L		92	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	40.1	B	ng/L		100	82 - 142

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	78		25 - 150
13C4 PFBA	92		25 - 150
13C2 PFHxA	89		25 - 150
13C4 PFOA	79		25 - 150
13C5 PFNA	87		25 - 150
13C2 PFDA	88		25 - 150
13C2 PFUnA	88		25 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-192966/2-A
Matrix: Water
Analysis Batch: 194470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 192966

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFDoA	79		25 - 150
18O2 PFHxS	84		25 - 150
13C4 PFOS	85		25 - 150
13C4-PFHpA	90		25 - 150
13C5 PFPeA	90		25 - 150
13C3-PFBS	94		25 - 150
13C2-PFTeDA	87		25 - 150

Lab Sample ID: LCSD 320-192966/3-A
Matrix: Water
Analysis Batch: 194032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 192966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	40.0		ng/L		100	78 - 138	4	30
Perfluoropentanoic acid (PFPeA)	40.0	38.1		ng/L		95	66 - 136	0	30
Perfluorohexanoic acid (PFHxA)	40.0	42.5		ng/L		106	76 - 136	8	30
Perfluoroheptanoic acid (PFHpA)	40.0	42.5		ng/L		106	78 - 138	13	30
Perfluorooctanoic acid (PFOA)	40.0	40.5		ng/L		101	70 - 130	3	30
Perfluorononanoic acid (PFNA)	40.0	38.6		ng/L		97	77 - 137	0	30
Perfluorodecanoic acid (PFDA)	40.0	41.4		ng/L		103	74 - 134	8	30
Perfluoroundecanoic acid (PFUnA)	40.0	35.0		ng/L		87	68 - 128	2	30
Perfluorododecanoic acid (PFDoA)	40.0	44.4		ng/L		111	72 - 132	12	30
Perfluorotridecanoic Acid (PFTriA)	40.0	43.7		ng/L		109	56 - 163	4	30
Perfluorotetradecanoic acid (PFTeA)	40.0	35.8		ng/L		89	63 - 123	3	30
Perfluorobutanesulfonic acid (PFBS)	35.4	36.9		ng/L		104	79 - 139	8	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.6		ng/L		98	77 - 137	3	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.1		ng/L		105	83 - 143	3	30
Perfluorooctanesulfonic acid (PFOS)	37.1	36.4		ng/L		98	74 - 134	4	30
Perfluorodecanesulfonic acid (PFDS)	38.6	38.6		ng/L		100	75 - 135	9	30
Perfluorooctane Sulfonamide (FOSA)	40.0	40.2		ng/L		101	82 - 142	0	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C8 FOSA	64		25 - 150
13C4 PFBA	68		25 - 150
13C2 PFHxA	67		25 - 150
13C4 PFOA	64		25 - 150
13C5 PFNA	72		25 - 150
13C2 PFDA	68		25 - 150
13C2 PFUnA	71		25 - 150
13C2 PFDoA	62		25 - 150
18O2 PFHxS	74		25 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-192966/3-A
Matrix: Water
Analysis Batch: 194032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 192966

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFOS	71		25 - 150
13C4-PFHpA	71		25 - 150
13C5 PFPeA	72		25 - 150
13C3-PFBS	74		25 - 150
13C2-PFTeDA	71		25 - 150

GC/MS VOA

Analysis Batch: 475094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126895-4	MW-7	Total/NA	Water	8260C	
480-126895-5	MW-23D	Total/NA	Water	8260C	
480-126895-7	TRIP BLANK	Total/NA	Water	8260C	
MB 490-475094/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475094/4	Lab Control Sample	Total/NA	Water	8260C	
480-126895-6 MS	MW-23S	Total/NA	Water	8260C	
480-126895-6 MSD	MW-23S	Total/NA	Water	8260C	

Analysis Batch: 475225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126895-6	MW-23S	Total/NA	Water	8260C	
MB 490-475225/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475225/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475225/4	Lab Control Sample Dup	Total/NA	Water	8260C	

LCMS

Prep Batch: 192959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126895-1	EB-01	Total/NA	Water	3535	
480-126895-2	EB-02	Total/NA	Water	3535	
480-126895-3	EB-03	Total/NA	Water	3535	
480-126895-4	MW-7	Total/NA	Water	3535	
480-126895-5	MW-23D	Total/NA	Water	3535	
MB 320-192959/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-192959/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-192959/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Prep Batch: 192966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126895-6	MW-23S	Total/NA	Water	3535	
MB 320-192966/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-192966/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-192966/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 194032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-192966/1-A	Method Blank	Total/NA	Water	537 (modified)	192966
LCSD 320-192966/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	192966

Analysis Batch: 194036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126895-1	EB-01	Total/NA	Water	537 (modified)	192959
480-126895-2	EB-02	Total/NA	Water	537 (modified)	192959
480-126895-3	EB-03	Total/NA	Water	537 (modified)	192959
480-126895-4	MW-7	Total/NA	Water	537 (modified)	192959
480-126895-5	MW-23D	Total/NA	Water	537 (modified)	192959
MB 320-192959/1-A	Method Blank	Total/NA	Water	537 (modified)	192959
LCS 320-192959/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	192959
LCSD 320-192959/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	192959

LCMS (Continued)

Analysis Batch: 194470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126895-6	MW-23S	Total/NA	Water	537 (modified)	192966
LCS 320-192966/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	192966

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Client Sample ID: EB-01

Lab Sample ID: 480-126895-1

Date Collected: 10/31/17 09:20

Matrix: Water

Date Received: 11/01/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			192959	11/06/17 08:43	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194036	11/10/17 23:50	JRB	TAL SAC

Client Sample ID: EB-02

Lab Sample ID: 480-126895-2

Date Collected: 10/31/17 09:30

Matrix: Water

Date Received: 11/01/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			192959	11/06/17 08:43	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194036	11/10/17 23:58	JRB	TAL SAC

Client Sample ID: EB-03

Lab Sample ID: 480-126895-3

Date Collected: 10/31/17 09:40

Matrix: Water

Date Received: 11/01/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			192959	11/06/17 08:43	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194036	11/11/17 00:06	JRB	TAL SAC

Client Sample ID: MW-7

Lab Sample ID: 480-126895-4

Date Collected: 10/31/17 11:20

Matrix: Water

Date Received: 11/01/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475094	11/11/17 11:20	S1S	TAL NSH
Total/NA	Prep	3535			192959	11/06/17 08:43	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194036	11/11/17 00:14	JRB	TAL SAC

Client Sample ID: MW-23D

Lab Sample ID: 480-126895-5

Date Collected: 10/31/17 13:10

Matrix: Water

Date Received: 11/01/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	475094	11/11/17 10:28	S1S	TAL NSH
Total/NA	Prep	3535			192959	11/06/17 08:43	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194036	11/11/17 00:22	JRB	TAL SAC

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Client Sample ID: MW-23S

Lab Sample ID: 480-126895-6

Date Collected: 10/31/17 14:50
Matrix: Water
Date Received: 11/01/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/12/17 01:17	S1S	TAL NSH
Total/NA	Prep	3535			192966	11/06/17 08:49	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194470	11/13/17 18:59	JRB	TAL SAC

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-126895-7

Date Collected: 10/31/17 00:00
Matrix: Water
Date Received: 11/01/17 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475094	11/11/17 03:30	S1S	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	01-01-18
Arizona	State Program	9	AZ0473	05-05-18
Arkansas DEQ	State Program	6	88-0737	04-25-18
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FL)/453.07(A2LA)	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	12-31-17
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18
New York	NELAP	2	11342	03-31-18
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-18
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-27-18
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-28-18
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18
Virginia	NELAP	3	460152	06-14-18
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-17

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17 *
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-28-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126895-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-126895-1	EB-01	Water	10/31/17 09:20	11/01/17 09:30
480-126895-2	EB-02	Water	10/31/17 09:30	11/01/17 09:30
480-126895-3	EB-03	Water	10/31/17 09:40	11/01/17 09:30
480-126895-4	MW-7	Water	10/31/17 11:20	11/01/17 09:30
480-126895-5	MW-23D	Water	10/31/17 13:10	11/01/17 09:30
480-126895-6	MW-23S	Water	10/31/17 14:50	11/01/17 09:30
480-126895-7	TRIP BLANK	Water	10/31/17 00:00	11/01/17 09:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Aubrey Thomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.1
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 10
Company: ARCADIS U.S. Inc				Job #:

Address: 855 Route 146 Suite 210	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Clifton Park	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn A, D - Nitric, E - NaHS, F - MeO, G - Amc, H - Asc, I - Ice, J - DI W, K - EDTA, L - EDA, M - Hexane, anhydrate, Z - other (specify)
State, Zip: NY, 12065	PO #: 00266417.0000		
Phone: (518) 250-7300	WO #:		480-126895 COC
Email: aaron.bobar@arcadis-us.com	Project #: 48008440		Other:
Project Name: Crown Dykman - Glen Cove, NY	SSOW#:		
Site: Crown Dykman			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Wewater, Sesolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
EB-01	10-31-17	0920	G	Water	N	N		X	2	
EB-02		0930	G	Water	N	N		X	2	
EB-03		0940	G	Water	N	N		X	2	
MW-7		1120	G	Water	N	N	X	X	5	
MW-23D		1310	G	Water	N	N	X	X	5	
MW-23S		1450	G	Water	N	N	X	X	5	
Trip Blank	[illegible]	-	-	Water	N	N	X		2	
				Water						
				Water						
				Water						
				Water						

10-31-17

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10-31-17	Company: Arcadis	Received by:	Date/Time: 10/31/17 1605	Company: TA
Relinquished by:	Date/Time: 10/31 1720	Company: TAN/C.	Received by:	Date/Time: 11/1/17 0430	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0 IR1

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Aubrey Thomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.1
Client Contact: Aaron Bobar	Phone: (518) 346-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 10
Company: ARCADIS U.S. Inc				Job #:

Address: 855 Route 146 Suite 210	Due Date Requested:	Analysis Requested
City: Clifton Park	TAT Requested (days): Standard	480-126895 Chain of Custody
State, Zip: NY, 12065	PO #: 00266417.0000	Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - Di Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Phone: (518) 250-7300	WO #:	
Email: aaron.bobar@arcadis-us.com	Project #: 48008440	Other:
Project Name: Crown Dykman - Glen Cove, NY	SSOW#:	
Site: Crown Dykman		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
EB-01	10-31-17	0920	G	Water	N	N		X	2	
EB-02		0930	G	Water	N	N		X	2	
EB-03		0940	G	Water	N	N		X	2	
MW-7		1120	G	Water	N	N	X	X	5	
MW-23D		1310	G	Water	N	N	X	X	5	
MW-23S		1450	G	Water	N	N	X	X	5	
~~Trip Blank~~	~~10-31-17~~	–	–	Water	N	N	X		2	
				Water						
				Water						
				Water						
				Water						

10-31-17

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10-31-17	Company: Arcadis	Received by:	Date/Time: 10/31/17 1605	Company: TA
Relinquished by:	Date/Time: 10/31 1790	Company: TA/C.	Received by:	Date/Time: 11/01/17 940	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.0

Ver: 08/04/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

480-126895 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 11/10/17 0950

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 3769 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.5 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO..NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO..NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..# es

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-126895

America IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L	
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-126895-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/13/2017		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-7 (480-126895-4)	10/31/17	11:20 Eastern		Water			X	3	@8x
MW-23D (480-126895-5)	10/31/17	13:10 Eastern		Water			X	3	@8x
MW-23S (480-126895-6)	10/31/17	14:50 Eastern		Water			X	3	@10x
TRIP BLANK (480-126895-7)	10/31/17	Eastern		Water			X	2	TB @1x

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 11/9/17 1700	Company	Received by:	Date/Time: 11-10-17 9:50	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5

Ver: 09/20/2016

11/16/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

Sar

480-126895 Field Sheet

J

Tracking # 7706 3678 2631 5.0.

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes:

Therm. ID: AK-2 / AK-3 / HACCP /Other

Ice X Wet X Dry Other

Cooler Custody Seal: 850119

Sample Custody Seal: —

Cooler ID:

Temp: Observed 1.0 °C

Corrected: —

From: Temp Blank ☒ Sample ☐

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: AA Date: 11/01/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

WBE

ORIGIN ID:TSSA (21 643-2367
TESTAMERICA NYC

231 W. 29TH STREET,
SUITE 904
NEW YORK, NY 10001
UNITED STATES US

SHIP DATE: 31OCT17
ACTWGT: 40.00 LB
CAD: 101905570/INET3920
DIMS: 26x18x16 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING SAC
TESTAMERICA
880 RIVERSIDE PKWY

WEST SACRAMENTO CA 95605
(906) 373-5600 REF

INV:
PO DEPT

FedEx Express

WED - 01 NOV 3:00P
STANDARD OVERNIGHT

TRK# 0201 7706 3678 2631

95605
CA-US SMF

XH BLUA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
850119

Custody S

DATE 10/27/17
SIGNATURE

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-126895-1

Login Number: 126895

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-126895-1

Login Number: 126895
List Number: 2
Creator: Her, David A

List Source: TestAmerica Sacramento
List Creation: 11/03/17 04:44 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	850119
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-126962-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Melissa Deyo

Authorized for release by:
11/17/2017 4:46:12 PM

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Job ID: 480-126962-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-126962-1

Receipt
The samples were received on 11/2/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method(s) 8260C: The method blank for analytical batch 490-475086 contained Methylene Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method(s) 537 (modified): The following sample listed below was diluted due to the nature of the sample matrix.
MW-17R (480-126962-1).

Method(s) 537 (modified): In the following sample the peak identified for Perfluorobutanoic acid (PFBA) by the data system exhibited chromatographic interferences that could not be resolved. There is reason to suspect results may be a high bias.

MW-17R (480-126962-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: The following samples: MW-17R (480-126962-1) and MW-16R (480-126962-2) were decanted and centrifuged prior to preparation due to sediment being present.

Prep Batch: 320-193303
Method Code: 3535_PFC

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-193303.

Method Code: 3535_PFC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Client Sample ID: MW-17R — Lab Sample ID: 480-126962-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.22	J	1.0	0.19	ug/L	1		8260C	Total/NA
1,2-Dichloropropane	1.3		1.0	0.25	ug/L	1		8260C	Total/NA
1,4-Dichlorobenzene	0.76	J	1.0	0.17	ug/L	1		8260C	Total/NA
Acetone	6.3	J	25	2.7	ug/L	1		8260C	Total/NA
Benzene	3.8		1.0	0.20	ug/L	1		8260C	Total/NA
Chloroethane	14		1.0	0.36	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	58		1.0	0.21	ug/L	1		8260C	Total/NA
Cyclohexane	0.71	J	5.0	0.13	ug/L	1		8260C	Total/NA
Ethylbenzene	3.6		1.0	0.19	ug/L	1		8260C	Total/NA
Isopropylbenzene	27		1.0	0.33	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	12		1.0	0.17	ug/L	1		8260C	Total/NA
Methylcyclohexane	2.4	J	5.0	0.090	ug/L	1		8260C	Total/NA
Toluene	0.18	J	1.0	0.17	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.8		1.0	0.23	ug/L	1		8260C	Total/NA
Vinyl chloride	73		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	72		1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	61		1.8	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	61		1.8	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	51		1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	150		1.8	0.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	19		1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	13		1.8	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	20	B	1.8	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	7.1		1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	450		1.8	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	6.3		1.8	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	91	CI	18	1.8	ng/L	10		537 (modified)	Total/NA

Client Sample ID: MW-16R — Lab Sample ID: 480-126962-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	0.21	J	1.0	0.17	ug/L	1		8260C	Total/NA
Acetone	5.2	J	25	2.7	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.4		1.0	0.21	ug/L	1		8260C	Total/NA
Cyclohexane	0.20	J	5.0	0.13	ug/L	1		8260C	Total/NA
Ethylbenzene	11		1.0	0.19	ug/L	1		8260C	Total/NA
Isopropylbenzene	12		1.0	0.33	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.59	J	5.0	0.090	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.60	J	1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	0.43	J	1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	0.47	J	1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	17		1.9	0.33	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	130		1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	110		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	96		1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	190		1.9	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	22		1.9	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	23		1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.8	J	1.9	1.0	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Client Sample ID: MW-16R (Continued) — Lab Sample ID: 480-126962-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	220		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	19	B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	6.7		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	320		1.9	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	3.0		1.9	0.33	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 480-126962-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.2		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.53	J	1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	0.94	J	1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	0.39	J	1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	4.1		1.8	0.31	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.5		1.8	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.5		1.8	0.51	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.0		1.8	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	7.0		1.8	0.75	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.77	J	1.8	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.76	J	1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	11		1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.6	B	1.8	0.15	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.52	J	1.8	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	17		1.8	0.48	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-126962-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-17R
Date Collected: 11/01/17 10:35
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 04:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 04:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 04:18	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 04:18	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 04:18	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 04:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 04:18	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 04:18	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 04:18	1
1,2-Dichlorobenzene	**0.22**	**J**	1.0	0.19	ug/L			11/11/17 04:18	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 04:18	1
1,2-Dichloropropane	**1.3**		1.0	0.25	ug/L			11/11/17 04:18	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 04:18	1
1,4-Dichlorobenzene	**0.76**	**J**	1.0	0.17	ug/L			11/11/17 04:18	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 04:18	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 04:18	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 04:18	1
Acetone	**6.3**	**J**	25	2.7	ug/L			11/11/17 04:18	1
Benzene	**3.8**		1.0	0.20	ug/L			11/11/17 04:18	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 04:18	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 04:18	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 04:18	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 04:18	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 04:18	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 04:18	1
Chloroethane	**14**		1.0	0.36	ug/L			11/11/17 04:18	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 04:18	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 04:18	1
cis-1,2-Dichloroethene	**58**		1.0	0.21	ug/L			11/11/17 04:18	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 04:18	1
Cyclohexane	**0.71**	**J**	5.0	0.13	ug/L			11/11/17 04:18	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 04:18	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 04:18	1
Ethylbenzene	**3.6**		1.0	0.19	ug/L			11/11/17 04:18	1
Isopropylbenzene	**27**		1.0	0.33	ug/L			11/11/17 04:18	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 04:18	1
Methyl tert-butyl ether	**12**		1.0	0.17	ug/L			11/11/17 04:18	1
Methylcyclohexane	**2.4**	**J**	5.0	0.090	ug/L			11/11/17 04:18	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 04:18	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 04:18	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 04:18	1
Toluene	**0.18**	**J**	1.0	0.17	ug/L			11/11/17 04:18	1
trans-1,2-Dichloroethene	**1.8**		1.0	0.23	ug/L			11/11/17 04:18	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 04:18	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 04:18	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 04:18	1
Vinyl chloride	**73**		1.0	0.18	ug/L			11/11/17 04:18	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 04:18	1

Client Sample ID: MW-17R

Date Collected: 11/01/17 10:35
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		11/11/17 04:18	1
4-Bromofluorobenzene (Surr)	125		70 - 130		11/11/17 04:18	1
Dibromofluoromethane (Surr)	107		70 - 130		11/11/17 04:18	1
Toluene-d8 (Surr)	109		70 - 130		11/11/17 04:18	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**72**		1.8	0.32	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluoropentanoic acid (PFPeA)	**61**		1.8	0.45	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorohexanoic acid (PFHxA)	**61**		1.8	0.54	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluoroheptanoic acid (PFHpA)	**51**		1.8	0.23	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorooctanoic acid (PFOA)	**150**		1.8	0.78	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorononanoic acid (PFNA)	**19**		1.8	0.25	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorodecanoic acid (PFDA)	**13**		1.8	0.29	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.0	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.51	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.8	1.2	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.27	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorohexanesulfonic acid (PFHxS)	**20**	**B**	1.8	0.16	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluoroheptanesulfonic Acid (PFHpS)	**7.1**		1.8	0.18	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorooctanesulfonic acid (PFOS)	**450**		1.8	0.50	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.30	ng/L		11/07/17 14:16	11/12/17 01:18	1
Perfluorooctane Sulfonamide (FOSA)	**6.3**		1.8	0.32	ng/L		11/07/17 14:16	11/12/17 01:18	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	97		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C2 PFHxA	89		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C4 PFOA	95		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C5 PFNA	109		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C2 PFDA	116		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C2 PFUnA	116		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C2 PFDoA	97		25 - 150	11/07/17 14:16	11/12/17 01:18	1
18O2 PFHxS	101		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C4 PFOS	107		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C4-PFHpA	99		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C5 PFPeA	78		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C3-PFBS	99		25 - 150	11/07/17 14:16	11/12/17 01:18	1
13C2-PFTeDA	99		25 - 150	11/07/17 14:16	11/12/17 01:18	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**91**	**CI**	18	1.8	ng/L		11/07/17 14:16	11/16/17 10:34	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	95		25 - 150	11/07/17 14:16	11/16/17 10:34	10

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Client Sample ID: MW-16R
Date Collected: 11/01/17 13:25
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 04:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 04:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 04:43	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 04:43	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 04:43	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 04:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 04:43	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 04:43	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 04:43	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 04:43	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 04:43	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 04:43	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 04:43	1
1,4-Dichlorobenzene	**0.21**	**J**	1.0	0.17	ug/L			11/11/17 04:43	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 04:43	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 04:43	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 04:43	1
Acetone	**5.2**	**J**	25	2.7	ug/L			11/11/17 04:43	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 04:43	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 04:43	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 04:43	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 04:43	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 04:43	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 04:43	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 04:43	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 04:43	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 04:43	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 04:43	1
cis-1,2-Dichloroethene	**2.4**		1.0	0.21	ug/L			11/11/17 04:43	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 04:43	1
Cyclohexane	**0.20**	**J**	5.0	0.13	ug/L			11/11/17 04:43	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 04:43	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 04:43	1
Ethylbenzene	**11**		1.0	0.19	ug/L			11/11/17 04:43	1
Isopropylbenzene	**12**		1.0	0.33	ug/L			11/11/17 04:43	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 04:43	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 04:43	1
Methylcyclohexane	**0.59**	**J**	5.0	0.090	ug/L			11/11/17 04:43	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 04:43	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 04:43	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 04:43	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 04:43	1
trans-1,2-Dichloroethene	**0.60**	**J**	1.0	0.23	ug/L			11/11/17 04:43	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 04:43	1
Trichloroethene	**0.43**	**J**	1.0	0.20	ug/L			11/11/17 04:43	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 04:43	1
Vinyl chloride	**0.47**	**J**	1.0	0.18	ug/L			11/11/17 04:43	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 04:43	1

Client Sample ID: MW-16R

Date Collected: 11/01/17 13:25
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		11/11/17 04:43	1
4-Bromofluorobenzene (Surr)	122		70 - 130		11/11/17 04:43	1
Dibromofluoromethane (Surr)	106		70 - 130		11/11/17 04:43	1
Toluene-d8 (Surr)	109		70 - 130		11/11/17 04:43	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**17**		1.9	0.33	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluoropentanoic acid (PFPeA)	**130**		1.9	0.46	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorohexanoic acid (PFHxA)	**110**		1.9	0.54	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluoroheptanoic acid (PFHpA)	**96**		1.9	0.23	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorooctanoic acid (PFOA)	**190**		1.9	0.80	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorononanoic acid (PFNA)	**22**		1.9	0.25	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorodecanoic acid (PFDA)	**23**		1.9	0.29	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluoroundecanoic acid (PFUnA)	**1.8**	**J**	1.9	1.0	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.2	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.27	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorobutanesulfonic acid (PFBS)	**220**		1.9	0.19	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorohexanesulfonic acid (PFHxS)	**19**	**B**	1.9	0.16	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluoroheptanesulfonic Acid (PFHpS)	**6.7**		1.9	0.18	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorooctanesulfonic acid (PFOS)	**320**		1.9	0.51	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.30	ng/L		11/07/17 14:16	11/12/17 01:26	1
Perfluorooctane Sulfonamide (FOSA)	**3.0**		1.9	0.33	ng/L		11/07/17 14:16	11/12/17 01:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	101		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C4 PFBA	56		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C2 PFHxA	91		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C4 PFOA	96		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C5 PFNA	112		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C2 PFDA	112		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C2 PFUnA	114		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C2 PFDoA	92		25 - 150	11/07/17 14:16	11/12/17 01:26	1
18O2 PFHxS	101		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C4 PFOS	104		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C4-PFHpA	96		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C5 PFPeA	87		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C3-PFBS	103		25 - 150	11/07/17 14:16	11/12/17 01:26	1
13C2-PFTeDA	89		25 - 150	11/07/17 14:16	11/12/17 01:26	1

Client Sample ID: MW-19

Date Collected: 11/01/17 15:05
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 05:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 05:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 05:08	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 05:08	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 05:08	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 05:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 05:08	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 05:08	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 05:08	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 05:08	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 05:08	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 05:08	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 05:08	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 05:08	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 05:08	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 05:08	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 05:08	1
Acetone	ND		25	2.7	ug/L			11/11/17 05:08	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 05:08	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 05:08	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 05:08	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 05:08	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 05:08	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 05:08	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 05:08	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 05:08	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 05:08	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 05:08	1
cis-1,2-Dichloroethene	**11**		1.0	0.21	ug/L			11/11/17 05:08	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 05:08	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 05:08	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 05:08	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 05:08	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 05:08	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 05:08	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 05:08	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 05:08	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 05:08	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 05:08	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 05:08	1
Tetrachloroethene	**1.2**		1.0	0.14	ug/L			11/11/17 05:08	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 05:08	1
trans-1,2-Dichloroethene	**0.53**	**J**	1.0	0.23	ug/L			11/11/17 05:08	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 05:08	1
Trichloroethene	**0.94**	**J**	1.0	0.20	ug/L			11/11/17 05:08	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 05:08	1
Vinyl chloride	**0.39**	**J**	1.0	0.18	ug/L			11/11/17 05:08	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 05:08	1

Client Sample ID: MW-19

Lab Sample ID: 480-126962-3

Date Collected: 11/01/17 15:05

Matrix: Water

Date Received: 11/02/17 09:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		11/11/17 05:08	1
4-Bromofluorobenzene (Surr)	112		70 - 130		11/11/17 05:08	1
Dibromofluoromethane (Surr)	107		70 - 130		11/11/17 05:08	1
Toluene-d8 (Surr)	110		70 - 130		11/11/17 05:08	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.1**		1.8	0.31	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluoropentanoic acid (PFPeA)	**4.5**		1.8	0.43	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorohexanoic acid (PFHxA)	**3.5**		1.8	0.51	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluoroheptanoic acid (PFHpA)	**3.0**		1.8	0.22	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorooctanoic acid (PFOA)	**7.0**		1.8	0.75	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorononanoic acid (PFNA)	**0.77**	**J**	1.8	0.24	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorodecanoic acid (PFDA)	**0.76**	**J**	1.8	0.27	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.97	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.49	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.8	1.1	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.26	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorobutanesulfonic acid (PFBS)	**11**		1.8	0.18	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorohexanesulfonic acid (PFHxS)	**3.6**	**B**	1.8	0.15	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluoroheptanesulfonic Acid (PFHpS)	**0.52**	**J**	1.8	0.17	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorooctanesulfonic acid (PFOS)	**17**		1.8	0.48	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.28	ng/L		11/07/17 14:16	11/12/17 01:33	1
Perfluorooctane Sulfonamide (FOSA)	ND		1.8	0.31	ng/L		11/07/17 14:16	11/12/17 01:33	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	100		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C4 PFBA	69		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C2 PFHxA	88		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C4 PFOA	96		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C5 PFNA	107		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C2 PFDA	109		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C2 PFUnA	109		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C2 PFDoA	90		25 - 150	11/07/17 14:16	11/12/17 01:33	1
18O2 PFHxS	99		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C4 PFOS	104		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C4-PFHpA	91		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C5 PFPeA	89		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C3-PFBS	96		25 - 150	11/07/17 14:16	11/12/17 01:33	1
13C2-PFTeDA	93		25 - 150	11/07/17 14:16	11/12/17 01:33	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-126962-4

Date Collected: 11/01/17 00:00

Matrix: Water

Date Received: 11/02/17 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:36	1

Client Sample ID: TRIP BLANK
Date Collected: 11/01/17 00:00
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 02:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 02:36	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:36	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 02:36	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 02:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 02:36	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 02:36	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 02:36	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 02:36	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 02:36	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 02:36	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:36	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 02:36	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 02:36	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 02:36	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 02:36	1
Acetone	ND		25	2.7	ug/L			11/11/17 02:36	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 02:36	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 02:36	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 02:36	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 02:36	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 02:36	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 02:36	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:36	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 02:36	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 02:36	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 02:36	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 02:36	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:36	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 02:36	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 02:36	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 02:36	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 02:36	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 02:36	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 02:36	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 02:36	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 02:36	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 02:36	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 02:36	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 02:36	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 02:36	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 02:36	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:36	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 02:36	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 02:36	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 02:36	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*11/11/17 02:36*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Client Sample ID: TRIP BLANK
Date Collected: 11/01/17 00:00
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130		11/11/17 02:36	1
Dibromofluoromethane (Surr)	105		70 - 130		11/11/17 02:36	1
Toluene-d8 (Surr)	108		70 - 130		11/11/17 02:36	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
480-126962-1	MW-17R	107	125	107	109
480-126962-2	MW-16R	106	122	106	109
480-126962-3	MW-19	105	112	107	110
480-126962-4	TRIP BLANK	107	111	105	108
LCS 490-475086/3	Lab Control Sample	105	110	104	110
LCSD 490-475086/4	Lab Control Sample Dup	106	111	103	109
MB 490-475086/6	Method Blank	107	112	106	109

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	3C8 FOSA (25-150)	3C4 PFBA (25-150)	3C2 PFHxA (25-150)	3C4 PFOA (25-150)	3C5 PFNA (25-150)	3C2 PFDA (25-150)	3C2 PFUnA (25-150)	3C2 PFDoA (25-150)
480-126962-1	MW-17R	97		89	95	109	116	116	97
480-126962-1 - DL	MW-17R		95						
480-126962-2	MW-16R	101	56	91	96	112	112	114	92
480-126962-3	MW-19	100	69	88	96	107	109	109	90
LCS 320-193303/2-A	Lab Control Sample	96	106	106	95	103	107	105	95
LCSD 320-193303/3-A	Lab Control Sample Dup	95	79	100	93	103	99	102	91
MB 320-193303/1-A	Method Blank	98	107	109	98	108	110	107	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	18O2 PFHxS (25-150)	13C4 PFOS (25-150)	13C4-PFHpA (25-150)	13C5 PFPeA (25-150)	13C3-PFBS (25-150)	13C2-PFTeDA (25-150)		
480-126962-1	MW-17R	101	107	99	78	99	99		
480-126962-1 - DL	MW-17R								
480-126962-2	MW-16R	101	104	96	87	103	89		
480-126962-3	MW-19	99	104	91	89	96	93		
LCS 320-193303/2-A	Lab Control Sample	101	102	104	105	102	104		
LCSD 320-193303/3-A	Lab Control Sample Dup	98	100	101	101	103	100		
MB 320-193303/1-A	Method Blank	103	104	112	106	109	101		

Surrogate Legend

13C8 FOSA = 13C8 FOSA
13C4 PFBA = 13C4 PFBA
13C2 PFHxA = 13C2 PFHxA
13C4 PFOA = 13C4 PFOA
13C5 PFNA = 13C5 PFNA
13C2 PFDA = 13C2 PFDA
13C2 PFUnA = 13C2 PFUnA
13C2 PFDoA = 13C2 PFDoA
18O2 PFHxS = 18O2 PFHxS
13C4 PFOS = 13C4 PFOS
13C4-PFHpA = 13C4-PFHpA
13C5 PFPeA = 13C5 PFPeA
13C3-PFBS = 13C3-PFBS
13C2-PFTeDA = 13C2-PFTeDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-475086/6
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 02:10	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 02:10	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 02:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 02:10	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 02:10	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 02:10	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 02:10	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 02:10	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:10	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 02:10	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 02:10	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 02:10	1
Acetone	ND		25	2.7	ug/L			11/11/17 02:10	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 02:10	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 02:10	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 02:10	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 02:10	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 02:10	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:10	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 02:10	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 02:10	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 02:10	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 02:10	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 02:10	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 02:10	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 02:10	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 02:10	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 02:10	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 02:10	1
Methylene Chloride	1.57	J	5.0	1.0	ug/L			11/11/17 02:10	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 02:10	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 02:10	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 02:10	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 02:10	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 02:10	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 02:10	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 02:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*11/11/17 02:10*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*11/11/17 02:10*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/11/17 02:10*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/11/17 02:10*	*1*

Lab Sample ID: LCS 490-475086/3
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.5		ug/L		108	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.8		ug/L		104	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.7		ug/L		108	77 - 129
1,1,2-Trichloroethane	20.0	20.3		ug/L		101	80 - 124
1,1-Dichloroethane	20.0	19.7		ug/L		99	78 - 125
1,1-Dichloroethene	20.0	19.8		ug/L		99	79 - 124
1,2,4-Trichlorobenzene	20.0	17.9		ug/L		90	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	20.0		ug/L		100	80 - 129
1,2-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 121
1,2-Dichloroethane	20.0	21.5		ug/L		108	77 - 121
1,2-Dichloropropane	20.0	19.1		ug/L		96	75 - 120
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 122
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 120
2-Butanone (MEK)	100	93.1		ug/L		93	62 - 133
2-Hexanone	100	99.7		ug/L		100	60 - 142
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	60 - 137
Acetone	100	111		ug/L		111	54 - 145
Benzene	20.0	19.2		ug/L		96	80 - 121
Bromodichloromethane	20.0	20.2		ug/L		101	75 - 129
Bromoform	20.0	18.0		ug/L		90	46 - 145
Bromomethane	20.0	16.9		ug/L		85	41 - 150
Carbon disulfide	20.0	18.2		ug/L		91	77 - 126
Carbon tetrachloride	20.0	21.6		ug/L		108	64 - 147
Chlorobenzene	20.0	19.8		ug/L		99	80 - 120
Chloroethane	20.0	19.4		ug/L		97	72 - 120
Chloroform	20.0	20.6		ug/L		103	73 - 129
Chloromethane	20.0	20.4		ug/L		102	12 - 150
cis-1,2-Dichloroethene	20.0	19.3		ug/L		96	76 - 125
cis-1,3-Dichloropropene	20.0	20.1		ug/L		101	74 - 140
Cyclohexane	20.0	19.0		ug/L		95	73 - 122
Dibromochloromethane	20.0	21.0		ug/L		105	69 - 133
Dichlorodifluoromethane	20.0	24.4		ug/L		122	37 - 127
Ethylbenzene	20.0	19.9		ug/L		99	80 - 130
Isopropylbenzene	20.0	18.5		ug/L		93	80 - 141
Methyl acetate	40.0	40.9		ug/L		102	64 - 150
Methyl tert-butyl ether	20.0	18.2		ug/L		91	72 - 133
Methylcyclohexane	20.0	19.0		ug/L		95	71 - 129
Methylene Chloride	20.0	19.8		ug/L		99	79 - 123
Styrene	20.0	18.1		ug/L		91	80 - 127
Tetrachloroethene	20.0	20.1		ug/L		100	80 - 126
Toluene	20.0	21.2		ug/L		106	80 - 126
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475086/3
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.0		ug/L		95	63 - 134
Trichloroethene	20.0	19.7		ug/L		98	80 - 123
Trichlorofluoromethane	20.0	21.4		ug/L		107	65 - 124
Vinyl chloride	20.0	19.1		ug/L		96	68 - 120
Xylenes, Total	40.0	37.5		ug/L		94	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 490-475086/4
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	22.3		ug/L		112	78 - 135	4	15
1,1,2,2-Tetrachloroethane	20.0	21.6		ug/L		108	69 - 131	4	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.7		ug/L		114	77 - 129	5	16
1,1,2-Trichloroethane	20.0	20.7		ug/L		103	80 - 124	2	13
1,1-Dichloroethane	20.0	20.4		ug/L		102	78 - 125	4	17
1,1-Dichloroethene	20.0	20.6		ug/L		103	79 - 124	4	20
1,2,4-Trichlorobenzene	20.0	19.4		ug/L		97	63 - 133	8	15
1,2-Dibromo-3-Chloropropane	20.0	18.9		ug/L		95	54 - 125	2	19
1,2-Dibromoethane	20.0	20.4		ug/L		102	80 - 129	2	13
1,2-Dichlorobenzene	20.0	21.3		ug/L		106	80 - 121	5	12
1,2-Dichloroethane	20.0	22.1		ug/L		110	77 - 121	2	13
1,2-Dichloropropane	20.0	19.4		ug/L		97	75 - 120	2	15
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	80 - 122	5	13
1,4-Dichlorobenzene	20.0	20.9		ug/L		105	80 - 120	3	12
2-Butanone (MEK)	100	97.6		ug/L		98	62 - 133	5	19
2-Hexanone	100	105		ug/L		105	60 - 142	5	17
4-Methyl-2-pentanone (MIBK)	100	113		ug/L		113	60 - 137	3	21
Acetone	100	119		ug/L		119	54 - 145	6	23
Benzene	20.0	19.8		ug/L		99	80 - 121	3	12
Bromodichloromethane	20.0	20.8		ug/L		104	75 - 129	3	14
Bromoform	20.0	18.9		ug/L		94	46 - 145	5	14
Bromomethane	20.0	17.8		ug/L		89	41 - 150	5	19
Carbon disulfide	20.0	18.8		ug/L		94	77 - 126	3	16
Carbon tetrachloride	20.0	22.4		ug/L		112	64 - 147	3	16
Chlorobenzene	20.0	20.5		ug/L		102	80 - 120	3	12
Chloroethane	20.0	20.5		ug/L		102	72 - 120	5	15
Chloroform	20.0	21.0		ug/L		105	73 - 129	2	14
Chloromethane	20.0	21.6		ug/L		108	12 - 150	6	20
cis-1,2-Dichloroethene	20.0	20.3		ug/L		101	76 - 125	5	15
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	74 - 140	3	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475086/4
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane			20.0	20.0		ug/L		100	73 - 122	5	16
Dibromochloromethane			20.0	21.6		ug/L		108	69 - 133	3	13
Dichlorodifluoromethane			20.0	25.4		ug/L		127	37 - 127	4	16
Ethylbenzene			20.0	20.6		ug/L		103	80 - 130	3	12
Isopropylbenzene			20.0	19.4		ug/L		97	80 - 141	4	13
Methyl acetate			40.0	40.2		ug/L		100	64 - 150	2	18
Methyl tert-butyl ether			20.0	18.9		ug/L		95	72 - 133	4	16
Methylcyclohexane			20.0	20.4		ug/L		102	71 - 129	7	17
Methylene Chloride			20.0	20.4		ug/L		102	79 - 123	3	15
Styrene			20.0	18.6		ug/L		93	80 - 127	3	12
Tetrachloroethene			20.0	21.0		ug/L		105	80 - 126	5	17
Toluene			20.0	21.8		ug/L		109	80 - 126	3	13
trans-1,2-Dichloroethene			20.0	20.9		ug/L		105	79 - 126	5	15
trans-1,3-Dichloropropene			20.0	20.0		ug/L		100	63 - 134	5	13
Trichloroethene			20.0	20.5		ug/L		103	80 - 123	4	14
Trichlorofluoromethane			20.0	22.1		ug/L		110	65 - 124	3	22
Vinyl chloride			20.0	19.9		ug/L		99	68 - 120	4	15
Xylenes, Total			40.0	39.2		ug/L		98	80 - 132	4	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*109*		*70 - 130*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-193303/1-A
Matrix: Water
Analysis Batch: 194176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193303

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorohexanesulfonic acid (PFHxS)	0.295	J	2.0	0.17	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/07/17 14:16	11/11/17 23:35	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-193303/1-A
Matrix: Water
Analysis Batch: 194176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193303

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/07/17 14:16	11/11/17 23:35	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/07/17 14:16	11/11/17 23:35	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*98*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C4 PFBA	*107*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C2 PFHxA	*109*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C4 PFOA	*98*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C5 PFNA	*108*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C2 PFDA	*110*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C2 PFUnA	*107*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C2 PFDoA	*93*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
18O2 PFHxS	*103*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C4 PFOS	*104*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C4-PFHpA	*112*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C5 PFPeA	*106*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C3-PFBS	*109*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*
13C2-PFTeDA	*101*		*25 - 150*	*11/07/17 14:16*	*11/11/17 23:35*	*1*

Lab Sample ID: LCS 320-193303/2-A
Matrix: Water
Analysis Batch: 194176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193303

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.0		ng/L		95	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	37.2		ng/L		93	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	37.3		ng/L		93	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	37.8		ng/L		94	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	38.5		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	40.0	38.8		ng/L		97	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	37.2		ng/L		93	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	35.3		ng/L		88	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	38.5		ng/L		96	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	41.8		ng/L		104	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	37.0		ng/L		93	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	36.3		ng/L		103	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.5		ng/L		92	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.2		ng/L		100	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	34.4		ng/L		93	74 - 134
Perfluorodecanesulfonic acid (PFDS)	38.6	35.3		ng/L		92	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	38.3		ng/L		96	82 - 142

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	96		25 - 150
13C4 PFBA	106		25 - 150
13C2 PFHxA	106		25 - 150
13C4 PFOA	95		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	107		25 - 150
13C2 PFUnA	105		25 - 150
13C2 PFDoA	95		25 - 150
18O2 PFHxS	101		25 - 150
13C4 PFOS	102		25 - 150
13C4-PFHpA	104		25 - 150
13C5 PFPeA	105		25 - 150
13C3-PFBS	102		25 - 150
13C2-PFTeDA	104		25 - 150

Lab Sample ID: LCSD 320-193303/3-A
Matrix: Water
Analysis Batch: 194176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 193303

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	37.7		ng/L		94	78 - 138	1	30
Perfluoropentanoic acid (PFPeA)			40.0	35.0		ng/L		88	66 - 136	6	30
Perfluorohexanoic acid (PFHxA)			40.0	38.5		ng/L		96	76 - 136	3	30
Perfluoroheptanoic acid (PFHpA)			40.0	38.9		ng/L		97	78 - 138	3	30
Perfluorooctanoic acid (PFOA)			40.0	37.5		ng/L		94	70 - 130	3	30
Perfluorononanoic acid (PFNA)			40.0	36.9		ng/L		92	77 - 137	5	30
Perfluorodecanoic acid (PFDA)			40.0	39.5		ng/L		99	74 - 134	6	30
Perfluoroundecanoic acid (PFUnA)			40.0	35.9		ng/L		90	68 - 128	2	30
Perfluorododecanoic acid (PFDoA)			40.0	39.0		ng/L		98	72 - 132	1	30
Perfluorotridecanoic Acid (PFTriA)			40.0	42.6		ng/L		106	56 - 163	2	30
Perfluorotetradecanoic acid (PFTeA)			40.0	35.6		ng/L		89	63 - 123	4	30
Perfluorobutanesulfonic acid (PFBS)			35.4	34.0		ng/L		96	79 - 139	7	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	32.7		ng/L		90	77 - 137	2	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	36.3		ng/L		95	83 - 143	5	30
Perfluorooctanesulfonic acid (PFOS)			37.1	33.2		ng/L		90	74 - 134	3	30
Perfluorodecanesulfonic acid (PFDS)			38.6	34.5		ng/L		90	75 - 135	2	30
Perfluorooctane Sulfonamide (FOSA)			40.0	37.9		ng/L		95	82 - 142	1	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C8 FOSA	95		25 - 150
13C4 PFBA	79		25 - 150
13C2 PFHxA	100		25 - 150
13C4 PFOA	93		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	99		25 - 150
13C2 PFUnA	102		25 - 150
13C2 PFDoA	91		25 - 150

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-193303/3-A
Matrix: Water
Analysis Batch: 194176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 193303

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
18O2 PFHxS	98		25 - 150
13C4 PFOS	100		25 - 150
13C4-PFHpA	101		25 - 150
13C5 PFPeA	101		25 - 150
13C3-PFBS	103		25 - 150
13C2-PFTeDA	100		25 - 150

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

GC/MS VOA

Analysis Batch: 475086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126962-1	MW-17R	Total/NA	Water	8260C	
480-126962-2	MW-16R	Total/NA	Water	8260C	
480-126962-3	MW-19	Total/NA	Water	8260C	
480-126962-4	TRIP BLANK	Total/NA	Water	8260C	
MB 490-475086/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475086/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475086/4	Lab Control Sample Dup	Total/NA	Water	8260C	

LCMS

Prep Batch: 193303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126962-1 - DL	MW-17R	Total/NA	Water	3535	
480-126962-1	MW-17R	Total/NA	Water	3535	
480-126962-2	MW-16R	Total/NA	Water	3535	
480-126962-3	MW-19	Total/NA	Water	3535	
MB 320-193303/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-193303/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-193303/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 194176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126962-1	MW-17R	Total/NA	Water	537 (modified)	193303
480-126962-2	MW-16R	Total/NA	Water	537 (modified)	193303
480-126962-3	MW-19	Total/NA	Water	537 (modified)	193303
MB 320-193303/1-A	Method Blank	Total/NA	Water	537 (modified)	193303
LCS 320-193303/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	193303
LCSD 320-193303/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	193303

Analysis Batch: 195041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-126962-1 - DL	MW-17R	Total/NA	Water	537 (modified)	193303

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Client Sample ID: MW-17R
Date Collected: 11/01/17 10:35
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475086	11/11/17 04:18	AK1	TAL NSH
Total/NA	Prep	3535			193303	11/07/17 14:16	TWL	TAL SAC
Total/NA	Analysis	537 (modified)		1	194176	11/12/17 01:18	JRB	TAL SAC
Total/NA	Prep	3535	DL		193303	11/07/17 14:16	TWL	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10	195041	11/16/17 10:34	TTP	TAL SAC

Client Sample ID: MW-16R
Date Collected: 11/01/17 13:25
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475086	11/11/17 04:43	AK1	TAL NSH
Total/NA	Prep	3535			193303	11/07/17 14:16	TWL	TAL SAC
Total/NA	Analysis	537 (modified)		1	194176	11/12/17 01:26	JRB	TAL SAC

Client Sample ID: MW-19
Date Collected: 11/01/17 15:05
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475086	11/11/17 05:08	AK1	TAL NSH
Total/NA	Prep	3535			193303	11/07/17 14:16	TWL	TAL SAC
Total/NA	Analysis	537 (modified)		1	194176	11/12/17 01:33	JRB	TAL SAC

Client Sample ID: TRIP BLANK
Date Collected: 11/01/17 00:00
Date Received: 11/02/17 09:30

Lab Sample ID: 480-126962-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475086	11/11/17 02:36	AK1	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-18

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11666	04-01-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctane Sulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic Acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-126962-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-126962-1	MW-17R	Water	11/01/17 10:35	11/02/17 09:30
480-126962-2	MW-16R	Water	11/01/17 13:25	11/02/17 09:30
480-126962-3	MW-19	Water	11/01/17 15:05	11/02/17 09:30
480-126962-4	TRIP BLANK	Water	11/01/17 00:00	11/02/17 09:30

Buffalo

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: AThomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.2
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 2 of 10
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standeerd			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric
E - NaH
F - MeO
G - Am
H - As
I - Ice
J - DI
K - EI
L - E
M - Hexane
N - None
O - AsNaO2
cahydrate
ecify)
Other:

480-126962 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8250C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-17R	11-1-17	1035	G	Water	N	N	X	X	5	
MW-16R	11-1-17	1325	G	Water	N	N	X	X	5	
MW-19	11-1-17	1505	G	Water	N	N	X	X	5	
Trip Blank	—	—	—	Water	N	N	X		2	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

11-1-17

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	11-1-17 1550	Arcadis	[signature]	11/1/17 1557	TA
2	[signature]	11/1/17 1720	TAN YC	[signature]	11/2/17 0930	—
3						

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 7.8 #1

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: A Thomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.2
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 2 of 10
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

480-126962 Chain of Custody

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-17R	11-1-17	1035	G	Water	N	N	X	X	5	
MW-16R	11-1-17	1325	G	Water	N	N	X	X	5	
MW-19	11-1-17	1505	G	Water	N	N	X	X	5	
Trip Blank	—	—	—	Water	N	N	X		2	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

11-1-17

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	11-1-17 1550	Arcadis	[signature]	11/1/17 1557	TA
[signature]	11/1/17 1700	TANY	[signature]	11/2/17 915	TA WS

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.5

Ver: 08/04/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

480-126962 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 11/10/17 0950

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 3769 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.5 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO..NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES..NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO..NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES..NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO...# es

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-126962

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L	3.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-126962-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/14/2017		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-17R (480-126962-1)	11/1/17	10:35 Eastern		Water			X	3	
MW-16R (480-126962-2)	11/1/17	13:25 Eastern		Water			X	3	
MW-19 (480-126962-3)	11/1/17	15:05 Eastern		Water			X	3	
TRIP BLANK (480-126962-4)	11/1/17	Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/9/17 1300	Company	Received by:	Date/Time: 11-10-17 9:50	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5

Ver: 09/20/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sam

480-126962 Field Sheet

Job

Tracking # 7706 4690 8506

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes:

Therm. ID: AK-2 / AK-3 / HACCP /Other

Ice X Wet X Dry Other

Cooler Custody Seal: —

Sample Custody Seal:

Cooler ID:

Temp: Observed 5.5

Corrected: —

From: Temp Blank ☐ Sample ☒

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: DH Date: 11/2/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

W 138


ORIGIN ID:TSSA (212) 643-2367
TESTAMERICA NYC

231 W. 29TH STREET,
SUITE 904
NEW YORK, NY 10001
UNITED STATES US

SHIP DATE: 01NOV17
ACTWGT: 40.00 LB
CAD: 101905570/INET3920
DIMS: 26x18x16 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING SAC
TESTAMERICA
880 RIVERSIDE PKWY

WEST SACRAMENTO CA 95605
(906) 373-5600 REF
INV
PO DEPT

FedEx Express

THU - 02 NOV 3:00P
STANDARD OVERNIGHT

TRK# 0201 7706 4690 3306

XH BLUA

95605
CA-US SMF

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-126962-1

Login Number: 126962
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-126962-1

Login Number: 126962
List Number: 2
Creator: Her, David A

List Source: TestAmerica Sacramento
List Creation: 11/03/17 05:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127058-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Melissa Deyo

Authorized for release by:
11/17/2017 3:09:17 PM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Job ID: 480-127058-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127058-1

Receipt
The samples were received on 11/3/2017 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475225 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: The following samples: MW-4R (480-127058-2), DUP-1 (480-127058-5) and MW-22(R)2 (480-127058-6) were decanted prior to preparation due to sediment that could clog the solid phase extraction columns.

3535_PFC; waters; Batch 194430

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: MW-1D — Lab Sample ID: 480-127058-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.33	J	1.0	0.24	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.77	J	1.0	0.25	ug/L	1		8260C	Total/NA
Chloroform	0.27	J	1.0	0.23	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	350		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	40		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	3.6		1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	65		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	4.8		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	15		1.7	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	25		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	24		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	17		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	52		1.7	0.72	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	7.0		1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	4.7		1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	16		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.7	B	1.7	0.14	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.4	J	1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	100		1.7	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.99	J	1.7	0.29	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-4R — Lab Sample ID: 480-127058-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.94	J	1.0	0.21	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	6.4		2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	5.0		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	6.3		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.1		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	25		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.8	J	2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.73	J	2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.8	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.95	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	56		2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.39	J	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-1 — Lab Sample ID: 480-127058-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	45		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	11		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.30	J	1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	3.1		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	17		1.7	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	35		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	36		1.7	0.49	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: MW-1 (Continued) — Lab Sample ID: 480-127058-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	30		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	86		1.7	0.71	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	14		1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	13		1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.1	J	1.7	0.92	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.65	J	1.7	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	19		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11	B	1.7	0.14	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	3.7		1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	230		1.7	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.7		1.7	0.29	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-1DD — Lab Sample ID: 480-127058-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	140		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	65		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.3		1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	38		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	4.1		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	8.4		1.7	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	10		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	12		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	12		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	65		1.7	0.71	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.7		1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.5	J	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.5		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.3	B	1.7	0.14	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	J	1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	94		1.7	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.92	J	1.7	0.29	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DUP-1 — Lab Sample ID: 480-127058-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.69	J	1.0	0.21	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	6.4		2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	6.2		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.9		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.1		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	25		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.8	J	2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.69	J	2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.6		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.8	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.86	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	53		2.0	0.54	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: DUP-1 (Continued) — Lab Sample ID: 480-127058-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctane Sulfonamide (FOSA)	0.46	J	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-22(R)2 — Lab Sample ID: 480-127058-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.36	J	1.0	0.24	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.32	J	1.0	0.25	ug/L	1		8260C	Total/NA
1,2-Dichloroethane	0.25	J	1.0	0.20	ug/L	1		8260C	Total/NA
Benzene	0.47	J	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	260		1.0	0.21	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.29	J	5.0	0.090	ug/L	1		8260C	Total/NA
Tetrachloroethene	17		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	5.5		1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	23		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	61		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	18		1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	16		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	14		1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.5		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	36		1.9	0.82	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.6		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.7		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.7		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.8	B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.9		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	140		1.9	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.83	J	1.9	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RINSE WATER-1 — Lab Sample ID: 480-127058-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.84	J	1.7	0.30	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.73	J	1.7	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.63	J	1.7	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.36	J	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.3	J	1.7	0.74	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.41	J	1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.58	J B	1.7	0.15	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.88	J	1.7	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	2.2		1.7	0.30	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-127058-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: MW-1D
Date Collected: 11/02/17 10:50
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 18:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 18:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 18:45	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 18:45	1
1,1-Dichloroethane	**0.33**	**J**	1.0	0.24	ug/L			11/11/17 18:45	1
1,1-Dichloroethene	**0.77**	**J**	1.0	0.25	ug/L			11/11/17 18:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 18:45	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 18:45	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 18:45	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 18:45	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 18:45	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 18:45	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 18:45	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 18:45	1
2-Butanone (MEK)	ND	F1	50	2.6	ug/L			11/11/17 18:45	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 18:45	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 18:45	1
Acetone	ND		25	2.7	ug/L			11/11/17 18:45	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 18:45	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 18:45	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 18:45	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 18:45	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 18:45	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 18:45	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 18:45	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 18:45	1
Chloroform	**0.27**	**J**	1.0	0.23	ug/L			11/11/17 18:45	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 18:45	1
cis-1,2-Dichloroethene	**350**		1.0	0.21	ug/L			11/11/17 18:45	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 18:45	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 18:45	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 18:45	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 18:45	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 18:45	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 18:45	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 18:45	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 18:45	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 18:45	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 18:45	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 18:45	1
Tetrachloroethene	**40**		1.0	0.14	ug/L			11/11/17 18:45	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 18:45	1
trans-1,2-Dichloroethene	**3.6**		1.0	0.23	ug/L			11/11/17 18:45	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 18:45	1
Trichloroethene	**65**		1.0	0.20	ug/L			11/11/17 18:45	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 18:45	1
Vinyl chloride	**4.8**		1.0	0.18	ug/L			11/11/17 18:45	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 18:45	1

Client Sample ID: MW-1D

Date Collected: 11/02/17 10:50
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		11/11/17 18:45	1
4-Bromofluorobenzene (Surr)	101		70 - 130		11/11/17 18:45	1
Dibromofluoromethane (Surr)	108		70 - 130		11/11/17 18:45	1
Toluene-d8 (Surr)	99		70 - 130		11/11/17 18:45	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**15**		1.7	0.29	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluoropentanoic acid (PFPeA)	**25**		1.7	0.41	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorohexanoic acid (PFHxA)	**24**		1.7	0.49	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluoroheptanoic acid (PFHpA)	**17**		1.7	0.21	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorooctanoic acid (PFOA)	**52**		1.7	0.72	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorononanoic acid (PFNA)	**7.0**		1.7	0.23	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorodecanoic acid (PFDA)	**4.7**		1.7	0.26	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.93	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.46	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.7	1.1	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.24	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorobutanesulfonic acid (PFBS)	**16**		1.7	0.17	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorohexanesulfonic acid (PFHxS)	**7.7**	**B**	1.7	0.14	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.4**	**J**	1.7	0.16	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorooctanesulfonic acid (PFOS)	**100**		1.7	0.45	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.27	ng/L		11/13/17 17:06	11/15/17 02:32	1
Perfluorooctane Sulfonamide (FOSA)	**0.99**	**J**	1.7	0.29	ng/L		11/13/17 17:06	11/15/17 02:32	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	93		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C4 PFBA	65		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C2 PFHxA	90		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C4 PFOA	93		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C5 PFNA	101		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C2 PFDA	107		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C2 PFUnA	102		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C2 PFDoA	83		25 - 150	11/13/17 17:06	11/15/17 02:32	1
18O2 PFHxS	96		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C4 PFOS	99		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C4-PFHpA	93		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C5 PFPeA	87		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C3-PFBS	99		25 - 150	11/13/17 17:06	11/15/17 02:32	1
13C2-PFTeDA	91		25 - 150	11/13/17 17:06	11/15/17 02:32	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: MW-4R
Date Collected: 11/02/17 13:00
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 19:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 19:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 19:11	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 19:11	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 19:11	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 19:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 19:11	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 19:11	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 19:11	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 19:11	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 19:11	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 19:11	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 19:11	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 19:11	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 19:11	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 19:11	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 19:11	1
Acetone	ND		25	2.7	ug/L			11/11/17 19:11	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 19:11	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 19:11	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 19:11	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 19:11	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 19:11	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 19:11	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 19:11	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 19:11	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 19:11	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 19:11	1
cis-1,2-Dichloroethene	**0.94**	**J**	1.0	0.21	ug/L			11/11/17 19:11	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 19:11	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 19:11	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 19:11	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 19:11	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 19:11	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 19:11	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 19:11	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 19:11	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 19:11	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 19:11	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 19:11	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 19:11	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 19:11	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 19:11	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 19:11	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 19:11	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 19:11	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 19:11	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 19:11	1

Client Sample ID: MW-4R

Date Collected: 11/02/17 13:00
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		11/11/17 19:11	1
4-Bromofluorobenzene (Surr)	99		70 - 130		11/11/17 19:11	1
Dibromofluoromethane (Surr)	111		70 - 130		11/11/17 19:11	1
Toluene-d8 (Surr)	97		70 - 130		11/11/17 19:11	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.4**		2.0	0.35	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluoropentanoic acid (PFPeA)	**5.0**		2.0	0.48	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorohexanoic acid (PFHxA)	**6.3**		2.0	0.57	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluoroheptanoic acid (PFHpA)	**5.1**		2.0	0.25	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorooctanoic acid (PFOA)	**25**		2.0	0.84	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorononanoic acid (PFNA)	**1.8**	**J**	2.0	0.27	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorodecanoic acid (PFDA)	**0.73**	**J**	2.0	0.31	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorobutanesulfonic acid (PFBS)	**2.8**		2.0	0.20	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorohexanesulfonic acid (PFHxS)	**5.8**	**B**	2.0	0.17	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluoroheptanesulfonic Acid (PFHpS)	**0.95**	**J**	2.0	0.19	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorooctanesulfonic acid (PFOS)	**56**		2.0	0.53	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/13/17 17:06	11/15/17 02:56	1
Perfluorooctane Sulfonamide (FOSA)	**0.39**	**J**	2.0	0.35	ng/L		11/13/17 17:06	11/15/17 02:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	84		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C4 PFBA	62		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C2 PFHxA	83		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C4 PFOA	87		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C5 PFNA	95		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C2 PFDA	103		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C2 PFUnA	94		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C2 PFDoA	83		25 - 150	11/13/17 17:06	11/15/17 02:56	1
18O2 PFHxS	91		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C4 PFOS	91		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C4-PFHpA	92		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C5 PFPeA	82		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C3-PFBS	95		25 - 150	11/13/17 17:06	11/15/17 02:56	1
13C2-PFTeDA	83		25 - 150	11/13/17 17:06	11/15/17 02:56	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: MW-1
Date Collected: 11/02/17 12:35
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 19:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 19:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 19:37	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 19:37	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 19:37	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 19:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 19:37	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 19:37	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 19:37	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 19:37	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 19:37	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 19:37	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 19:37	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 19:37	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 19:37	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 19:37	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 19:37	1
Acetone	ND		25	2.7	ug/L			11/11/17 19:37	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 19:37	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 19:37	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 19:37	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 19:37	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 19:37	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 19:37	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 19:37	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 19:37	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 19:37	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 19:37	1
cis-1,2-Dichloroethene	**45**		1.0	0.21	ug/L			11/11/17 19:37	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 19:37	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 19:37	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 19:37	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 19:37	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 19:37	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 19:37	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 19:37	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 19:37	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 19:37	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 19:37	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 19:37	1
Tetrachloroethene	**11**		1.0	0.14	ug/L			11/11/17 19:37	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 19:37	1
trans-1,2-Dichloroethene	**0.30**	**J**	1.0	0.23	ug/L			11/11/17 19:37	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 19:37	1
Trichloroethene	**11**		1.0	0.20	ug/L			11/11/17 19:37	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 19:37	1
Vinyl chloride	**3.1**		1.0	0.18	ug/L			11/11/17 19:37	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 19:37	1

Client Sample ID: MW-1

Date Collected: 11/02/17 12:35
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		11/11/17 19:37	1
4-Bromofluorobenzene (Surr)	99		70 - 130		11/11/17 19:37	1
Dibromofluoromethane (Surr)	106		70 - 130		11/11/17 19:37	1
Toluene-d8 (Surr)	98		70 - 130		11/11/17 19:37	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**17**		1.7	0.29	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluoropentanoic acid (PFPeA)	**35**		1.7	0.41	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorohexanoic acid (PFHxA)	**36**		1.7	0.49	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluoroheptanoic acid (PFHpA)	**30**		1.7	0.21	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorooctanoic acid (PFOA)	**86**		1.7	0.71	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorononanoic acid (PFNA)	**14**		1.7	0.23	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorodecanoic acid (PFDA)	**13**		1.7	0.26	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluoroundecanoic acid (PFUnA)	**1.1**	**J**	1.7	0.92	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorododecanoic acid (PFDoA)	**0.65**	**J**	1.7	0.46	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.7	1.1	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.24	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorobutanesulfonic acid (PFBS)	**19**		1.7	0.17	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorohexanesulfonic acid (PFHxS)	**11**	**B**	1.7	0.14	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluoroheptanesulfonic Acid (PFHpS)	**3.7**		1.7	0.16	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorooctanesulfonic acid (PFOS)	**230**		1.7	0.45	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.27	ng/L		11/13/17 17:06	11/15/17 03:04	1
Perfluorooctane Sulfonamide (FOSA)	**1.7**		1.7	0.29	ng/L		11/13/17 17:06	11/15/17 03:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	100		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C4 PFBA	64		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C2 PFHxA	93		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C4 PFOA	94		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C5 PFNA	113		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C2 PFDA	122		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C2 PFUnA	114		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C2 PFDoA	95		25 - 150	11/13/17 17:06	11/15/17 03:04	1
18O2 PFHxS	97		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C4 PFOS	103		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C4-PFHpA	99		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C5 PFPeA	89		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C3-PFBS	111		25 - 150	11/13/17 17:06	11/15/17 03:04	1
13C2-PFTeDA	93		25 - 150	11/13/17 17:06	11/15/17 03:04	1

Client Sample ID: MW-1DD
Date Collected: 11/02/17 13:55
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 20:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 20:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 20:03	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 20:03	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 20:03	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 20:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 20:03	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 20:03	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 20:03	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 20:03	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 20:03	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 20:03	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 20:03	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 20:03	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 20:03	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 20:03	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 20:03	1
Acetone	ND		25	2.7	ug/L			11/11/17 20:03	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 20:03	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 20:03	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 20:03	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 20:03	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 20:03	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 20:03	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 20:03	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 20:03	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 20:03	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 20:03	1
cis-1,2-Dichloroethene	**140**		1.0	0.21	ug/L			11/11/17 20:03	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 20:03	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 20:03	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 20:03	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 20:03	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 20:03	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 20:03	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 20:03	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 20:03	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 20:03	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 20:03	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 20:03	1
Tetrachloroethene	**65**		1.0	0.14	ug/L			11/11/17 20:03	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 20:03	1
trans-1,2-Dichloroethene	**1.3**		1.0	0.23	ug/L			11/11/17 20:03	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 20:03	1
Trichloroethene	**38**		1.0	0.20	ug/L			11/11/17 20:03	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 20:03	1
Vinyl chloride	**4.1**		1.0	0.18	ug/L			11/11/17 20:03	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 20:03	1

Client Sample ID: MW-1DD

Date Collected: 11/02/17 13:55
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		11/11/17 20:03	1
4-Bromofluorobenzene (Surr)	97		70 - 130		11/11/17 20:03	1
Dibromofluoromethane (Surr)	107		70 - 130		11/11/17 20:03	1
Toluene-d8 (Surr)	99		70 - 130		11/11/17 20:03	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**8.4**		1.7	0.29	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluoropentanoic acid (PFPeA)	**10**		1.7	0.41	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorohexanoic acid (PFHxA)	**12**		1.7	0.49	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluoroheptanoic acid (PFHpA)	**12**		1.7	0.21	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorooctanoic acid (PFOA)	**65**		1.7	0.71	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorononanoic acid (PFNA)	**2.7**		1.7	0.23	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorodecanoic acid (PFDA)	**1.5**	**J**	1.7	0.26	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.92	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.46	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.7	1.1	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.24	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorobutanesulfonic acid (PFBS)	**6.5**		1.7	0.17	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorohexanesulfonic acid (PFHxS)	**7.3**	**B**	1.7	0.14	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.6**	**J**	1.7	0.16	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorooctanesulfonic acid (PFOS)	**94**		1.7	0.45	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.27	ng/L		11/13/17 17:06	11/15/17 03:12	1
Perfluorooctane Sulfonamide (FOSA)	**0.92**	**J**	1.7	0.29	ng/L		11/13/17 17:06	11/15/17 03:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	94		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C4 PFBA	59		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C2 PFHxA	89		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C4 PFOA	94		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C5 PFNA	106		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C2 PFDA	108		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C2 PFUnA	102		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C2 PFDoA	90		25 - 150	11/13/17 17:06	11/15/17 03:12	1
18O2 PFHxS	99		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C4 PFOS	100		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C4-PFHpA	96		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C5 PFPeA	87		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C3-PFBS	96		25 - 150	11/13/17 17:06	11/15/17 03:12	1
13C2-PFTeDA	85		25 - 150	11/13/17 17:06	11/15/17 03:12	1

Client Sample ID: DUP-1
Date Collected: 11/02/17 00:00
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 20:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 20:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 20:29	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 20:29	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 20:29	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 20:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 20:29	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 20:29	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 20:29	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 20:29	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 20:29	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 20:29	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 20:29	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 20:29	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 20:29	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 20:29	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 20:29	1
Acetone	ND		25	2.7	ug/L			11/11/17 20:29	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 20:29	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 20:29	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 20:29	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 20:29	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 20:29	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 20:29	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 20:29	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 20:29	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 20:29	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 20:29	1
cis-1,2-Dichloroethene	**0.69**	**J**	1.0	0.21	ug/L			11/11/17 20:29	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 20:29	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 20:29	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 20:29	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 20:29	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 20:29	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 20:29	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 20:29	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 20:29	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 20:29	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 20:29	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 20:29	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 20:29	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 20:29	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 20:29	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 20:29	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 20:29	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 20:29	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 20:29	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 20:29	1

Client Sample ID: DUP-1

Date Collected: 11/02/17 00:00
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		11/11/17 20:29	1
4-Bromofluorobenzene (Surr)	97		70 - 130		11/11/17 20:29	1
Dibromofluoromethane (Surr)	109		70 - 130		11/11/17 20:29	1
Toluene-d8 (Surr)	96		70 - 130		11/11/17 20:29	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.4**		2.0	0.35	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluoropentanoic acid (PFPeA)	**6.2**		2.0	0.49	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorohexanoic acid (PFHxA)	**5.9**		2.0	0.58	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluoroheptanoic acid (PFHpA)	**5.1**		2.0	0.25	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorooctanoic acid (PFOA)	**25**		2.0	0.84	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorononanoic acid (PFNA)	**1.8**	**J**	2.0	0.27	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorodecanoic acid (PFDA)	**0.69**	**J**	2.0	0.31	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorobutanesulfonic acid (PFBS)	**2.6**		2.0	0.20	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorohexanesulfonic acid (PFHxS)	**5.8**	**B**	2.0	0.17	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluoroheptanesulfonic Acid (PFHpS)	**0.86**	**J**	2.0	0.19	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorooctanesulfonic acid (PFOS)	**53**		2.0	0.54	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/13/17 17:06	11/15/17 03:20	1
Perfluorooctane Sulfonamide (FOSA)	**0.46**	**J**	2.0	0.35	ng/L		11/13/17 17:06	11/15/17 03:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	87		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C4 PFBA	64		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C2 PFHxA	86		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C4 PFOA	91		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C5 PFNA	96		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C2 PFDA	100		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C2 PFUnA	93		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C2 PFDoA	79		25 - 150	11/13/17 17:06	11/15/17 03:20	1
18O2 PFHxS	91		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C4 PFOS	94		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C4-PFHpA	92		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C5 PFPeA	86		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C3-PFBS	98		25 - 150	11/13/17 17:06	11/15/17 03:20	1
13C2-PFTeDA	82		25 - 150	11/13/17 17:06	11/15/17 03:20	1

Client Sample ID: MW-22(R)2

Date Collected: 11/02/17 15:30
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 20:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 20:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 20:55	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 20:55	1
1,1-Dichloroethane	**0.36**	**J**	1.0	0.24	ug/L			11/11/17 20:55	1
1,1-Dichloroethene	**0.32**	**J**	1.0	0.25	ug/L			11/11/17 20:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 20:55	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 20:55	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 20:55	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 20:55	1
1,2-Dichloroethane	**0.25**	**J**	1.0	0.20	ug/L			11/11/17 20:55	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 20:55	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 20:55	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 20:55	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 20:55	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 20:55	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 20:55	1
Acetone	ND		25	2.7	ug/L			11/11/17 20:55	1
Benzene	**0.47**	**J**	1.0	0.20	ug/L			11/11/17 20:55	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 20:55	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 20:55	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 20:55	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 20:55	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 20:55	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 20:55	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 20:55	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 20:55	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 20:55	1
cis-1,2-Dichloroethene	**260**		1.0	0.21	ug/L			11/11/17 20:55	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 20:55	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 20:55	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 20:55	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 20:55	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 20:55	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 20:55	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 20:55	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 20:55	1
Methylcyclohexane	**0.29**	**J**	5.0	0.090	ug/L			11/11/17 20:55	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 20:55	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 20:55	1
Tetrachloroethene	**17**		1.0	0.14	ug/L			11/11/17 20:55	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 20:55	1
trans-1,2-Dichloroethene	**5.5**		1.0	0.23	ug/L			11/11/17 20:55	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 20:55	1
Trichloroethene	**23**		1.0	0.20	ug/L			11/11/17 20:55	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 20:55	1
Vinyl chloride	**61**		1.0	0.18	ug/L			11/11/17 20:55	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 20:55	1

Client Sample ID: MW-22(R)2

Date Collected: 11/02/17 15:30
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		11/11/17 20:55	1
4-Bromofluorobenzene (Surr)	99		70 - 130		11/11/17 20:55	1
Dibromofluoromethane (Surr)	108		70 - 130		11/11/17 20:55	1
Toluene-d8 (Surr)	96		70 - 130		11/11/17 20:55	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**18**		1.9	0.34	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluoropentanoic acid (PFPeA)	**16**		1.9	0.47	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorohexanoic acid (PFHxA)	**14**		1.9	0.56	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluoroheptanoic acid (PFHpA)	**9.5**		1.9	0.24	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorooctanoic acid (PFOA)	**36**		1.9	0.82	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorononanoic acid (PFNA)	**5.6**		1.9	0.26	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorodecanoic acid (PFDA)	**2.7**		1.9	0.30	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.3	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorobutanesulfonic acid (PFBS)	**5.7**		1.9	0.19	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorohexanesulfonic acid (PFHxS)	**6.8**	**B**	1.9	0.16	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.9**		1.9	0.18	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorooctanesulfonic acid (PFOS)	**140**		1.9	0.52	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/13/17 17:06	11/15/17 03:35	1
Perfluorooctane Sulfonamide (FOSA)	**0.83**	**J**	1.9	0.34	ng/L		11/13/17 17:06	11/15/17 03:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	98		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C4 PFBA	63		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C2 PFHxA	91		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C4 PFOA	94		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C5 PFNA	109		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C2 PFDA	113		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C2 PFUnA	105		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C2 PFDoA	90		25 - 150	11/13/17 17:06	11/15/17 03:35	1
18O2 PFHxS	101		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C4 PFOS	104		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C4-PFHpA	97		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C5 PFPeA	90		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C3-PFBS	111		25 - 150	11/13/17 17:06	11/15/17 03:35	1
13C2-PFTeDA	101		25 - 150	11/13/17 17:06	11/15/17 03:35	1

Client Sample ID: RINSE WATER-1

Lab Sample ID: 480-127058-7

Date Collected: 11/02/17 14:20

Matrix: Water

Date Received: 11/03/17 10:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.84**	**J**	1.7	0.30	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluoropentanoic acid (PFPeA)	**0.73**	**J**	1.7	0.43	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorohexanoic acid (PFHxA)	**0.63**	**J**	1.7	0.50	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluoroheptanoic acid (PFHpA)	**0.36**	**J**	1.7	0.22	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorooctanoic acid (PFOA)	**1.3**	**J**	1.7	0.74	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.23	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.27	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.96	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.48	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.7	1.1	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.25	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorobutanesulfonic acid (PFBS)	**0.41**	**J**	1.7	0.17	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorohexanesulfonic acid (PFHxS)	**0.58**	**J B**	1.7	0.15	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.17	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorooctanesulfonic acid (PFOS)	**0.88**	**J**	1.7	0.47	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.28	ng/L		11/13/17 17:06	11/15/17 03:43	1
Perfluorooctane Sulfonamide (FOSA)	**2.2**		1.7	0.30	ng/L		11/13/17 17:06	11/15/17 03:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*97*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C4 PFBA	*107*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C2 PFHxA	*105*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C4 PFOA	*90*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C5 PFNA	*100*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C2 PFDA	*103*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C2 PFUnA	*101*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C2 PFDoA	*90*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
18O2 PFHxS	*99*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C4 PFOS	*99*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C4-PFHpA	*103*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C5 PFPeA	*104*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C3-PFBS	*106*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*
13C2-PFTeDA	*95*		*25 - 150*	*11/13/17 17:06*	*11/15/17 03:43*	*1*

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-127058-8

Date Collected: 11/02/17 00:00

Matrix: Water

Date Received: 11/03/17 10:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 17:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 17:52	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:52	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 17:52	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 17:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 17:52	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: TRIP BLANK
Date Collected: 11/02/17 00:00
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 17:52	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 17:52	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 17:52	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 17:52	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 17:52	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:52	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 17:52	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 17:52	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 17:52	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 17:52	1
Acetone	ND		25	2.7	ug/L			11/11/17 17:52	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 17:52	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 17:52	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 17:52	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 17:52	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 17:52	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 17:52	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:52	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 17:52	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 17:52	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 17:52	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 17:52	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:52	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 17:52	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 17:52	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 17:52	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 17:52	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 17:52	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 17:52	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 17:52	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 17:52	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 17:52	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 17:52	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 17:52	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 17:52	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 17:52	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:52	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 17:52	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 17:52	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 17:52	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*11/11/17 17:52*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/11/17 17:52*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*11/11/17 17:52*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*11/11/17 17:52*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
480-127058-1	MW-1D	91	101	108	99
480-127058-1 MS	MW-1D	96	93	108	97
480-127058-1 MSD	MW-1D	95	93	108	97
480-127058-2	MW-4R	94	99	111	97
480-127058-3	MW-1	93	99	106	98
480-127058-4	MW-1DD	95	97	107	99
480-127058-5	DUP-1	94	97	109	96
480-127058-6	MW-22(R)2	97	99	108	96
480-127058-8	TRIP BLANK	91	101	108	102
LCS 490-475225/3	Lab Control Sample	88	94	107	99
LCSD 490-475225/4	Lab Control Sample Dup	89	93	108	96
MB 490-475225/6	Method Blank	92	98	105	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	3C8 FOSA (25-150)	3C4 PFBA (25-150)	3C2 PFHxA (25-150)	3C4 PFOA (25-150)	3C5 PFNA (25-150)	3C2 PFDA (25-150)	3C2 PFUnA (25-150)	3C2 PFDoA (25-150)
480-127058-1	MW-1D	93	65	90	93	101	107	102	83
480-127058-1 MS	MW-1D	90	64	87	86	96	103	96	89
480-127058-1 MSD	MW-1D	94	66	89	88	106	106	99	86
480-127058-2	MW-4R	84	62	83	87	95	103	94	83
480-127058-3	MW-1	100	64	93	94	113	122	114	95
480-127058-4	MW-1DD	94	59	89	94	106	108	102	90
480-127058-5	DUP-1	87	64	86	91	96	100	93	79
480-127058-6	MW-22(R)2	98	63	91	94	109	113	105	90
480-127058-7	RINSE WATER-1	97	107	105	90	100	103	101	90
LCS 320-194430/2-A	Lab Control Sample	85	106	97	88	99	104	100	86
MB 320-194430/1-A	Method Blank	87	104	100	89	101	94	96	86

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	18O2 PFHxS (25-150)	13C4 PFOS (25-150)	13C4-PFHpA (25-150)	13C5 PFPeA (25-150)	13C3-PFBS (25-150)	13C2-PFTeDA (25-150)		
480-127058-1	MW-1D	96	99	93	87	99	91		
480-127058-1 MS	MW-1D	90	99	94	85	101	88		
480-127058-1 MSD	MW-1D	91	100	96	89	106	85		
480-127058-2	MW-4R	91	91	92	82	95	83		
480-127058-3	MW-1	97	103	99	89	111	93		
480-127058-4	MW-1DD	99	100	96	87	96	85		
480-127058-5	DUP-1	91	94	92	86	98	82		
480-127058-6	MW-22(R)2	101	104	97	90	111	101		
480-127058-7	RINSE WATER-1	99	99	103	104	106	95		
LCS 320-194430/2-A	Lab Control Sample	97	98	98	103	103	94		
MB 320-194430/1-A	Method Blank	96	95	100	102	101	97		

Surrogate Legend

13C8 FOSA = 13C8 FOSA
13C4 PFBA = 13C4 PFBA
13C2 PFHxA = 13C2 PFHxA
13C4 PFOA = 13C4 PFOA
13C5 PFNA = 13C5 PFNA
13C2 PFDA = 13C2 PFDA
13C2 PFUnA = 13C2 PFUnA
13C2 PFDoA = 13C2 PFDoA
18O2 PFHxS = 18O2 PFHxS
13C4 PFOS = 13C4 PFOS
13C4-PFHpA = 13C4-PFHpA
13C5 PFPeA = 13C5 PFPeA
13C3-PFBS = 13C3-PFBS
13C2-PFTeDA = 13C2-PFTeDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 17:26	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 17:26	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 17:26	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 17:26	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 17:26	1
Acetone	ND		25	2.7	ug/L			11/11/17 17:26	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 17:26	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 17:26	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 17:26	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 17:26	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 17:26	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 17:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 17:26	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 17:26	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 17:26	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 17:26	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 17:26	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 17:26	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 17:26	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 17:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/11/17 17:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 17:26*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/11/17 17:26*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/11/17 17:26*	*1*

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.7		ug/L		119	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.3		ug/L		102	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.9	*	ug/L		130	77 - 129
1,1,2-Trichloroethane	20.0	22.0		ug/L		110	80 - 124
1,1-Dichloroethane	20.0	21.5		ug/L		108	78 - 125
1,1-Dichloroethene	20.0	22.3		ug/L		112	79 - 124
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		92	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	22.2		ug/L		111	80 - 129
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121
1,2-Dichloroethane	20.0	22.7		ug/L		114	77 - 121
1,2-Dichloropropane	20.0	20.9		ug/L		105	75 - 120
1,3-Dichlorobenzene	20.0	23.0		ug/L		115	80 - 122
1,4-Dichlorobenzene	20.0	23.3		ug/L		116	80 - 120
2-Butanone (MEK)	100	88.0		ug/L		88	62 - 133
2-Hexanone	100	86.0		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.4		ug/L		85	60 - 137
Acetone	100	87.4		ug/L		87	54 - 145
Benzene	20.0	20.6		ug/L		103	80 - 121
Bromodichloromethane	20.0	23.1		ug/L		115	75 - 129
Bromoform	20.0	21.2		ug/L		106	46 - 145
Bromomethane	20.0	21.4		ug/L		107	41 - 150
Carbon disulfide	20.0	21.4		ug/L		107	77 - 126
Carbon tetrachloride	20.0	25.5		ug/L		128	64 - 147
Chlorobenzene	20.0	23.1		ug/L		115	80 - 120
Chloroethane	20.0	20.7		ug/L		103	72 - 120
Chloroform	20.0	23.4		ug/L		117	73 - 129
Chloromethane	20.0	16.4		ug/L		82	12 - 150
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	76 - 125
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	74 - 140
Cyclohexane	20.0	19.7		ug/L		99	73 - 122
Dibromochloromethane	20.0	22.2		ug/L		111	69 - 133
Dichlorodifluoromethane	20.0	23.0		ug/L		115	37 - 127
Ethylbenzene	20.0	20.3		ug/L		101	80 - 130
Isopropylbenzene	20.0	19.1		ug/L		95	80 - 141
Methyl acetate	40.0	39.5		ug/L		99	64 - 150
Methyl tert-butyl ether	20.0	20.8		ug/L		104	72 - 133
Methylcyclohexane	20.0	21.5		ug/L		108	71 - 129
Methylene Chloride	20.0	21.7		ug/L		108	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.8		ug/L		114	80 - 126
Toluene	20.0	20.8		ug/L		104	80 - 126
trans-1,2-Dichloroethene	20.0	21.3		ug/L		107	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	63 - 134
Trichloroethene	20.0	23.9		ug/L		120	80 - 123
Trichlorofluoromethane	20.0	24.8		ug/L		124	65 - 124
Vinyl chloride	20.0	20.2		ug/L		101	68 - 120
Xylenes, Total	40.0	39.9		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	24.2		ug/L		121	78 - 135	2	15
1,1,2,2-Tetrachloroethane	20.0	20.6		ug/L		103	69 - 131	2	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	26.3	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	80 - 124	1	13
1,1-Dichloroethane	20.0	21.9		ug/L		110	78 - 125	2	17
1,1-Dichloroethene	20.0	23.7		ug/L		118	79 - 124	6	20
1,2,4-Trichlorobenzene	20.0	18.7		ug/L		94	63 - 133	1	15
1,2-Dibromo-3-Chloropropane	20.0	19.5		ug/L		98	54 - 125	2	19
1,2-Dibromoethane	20.0	21.5		ug/L		108	80 - 129	3	13
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121	0	12
1,2-Dichloroethane	20.0	23.2		ug/L		116	77 - 121	2	13
1,2-Dichloropropane	20.0	21.4		ug/L		107	75 - 120	2	15
1,3-Dichlorobenzene	20.0	23.1		ug/L		116	80 - 122	1	13
1,4-Dichlorobenzene	20.0	23.2		ug/L		116	80 - 120	0	12
2-Butanone (MEK)	100	95.9		ug/L		96	62 - 133	9	19
2-Hexanone	100	86.1		ug/L		86	60 - 142	0	17
4-Methyl-2-pentanone (MIBK)	100	87.1		ug/L		87	60 - 137	2	21
Acetone	100	90.2		ug/L		90	54 - 145	3	23
Benzene	20.0	21.0		ug/L		105	80 - 121	2	12
Bromodichloromethane	20.0	23.4		ug/L		117	75 - 129	1	14
Bromoform	20.0	21.2		ug/L		106	46 - 145	0	14
Bromomethane	20.0	22.0		ug/L		110	41 - 150	3	19
Carbon disulfide	20.0	21.8		ug/L		109	77 - 126	2	16
Carbon tetrachloride	20.0	25.4		ug/L		127	64 - 147	0	16
Chlorobenzene	20.0	22.3		ug/L		111	80 - 120	3	12
Chloroethane	20.0	21.7		ug/L		108	72 - 120	5	15
Chloroform	20.0	23.8		ug/L		119	73 - 129	2	14
Chloromethane	20.0	16.4		ug/L		82	12 - 150	0	20
cis-1,2-Dichloroethene	20.0	22.1		ug/L		111	76 - 125	1	15
cis-1,3-Dichloropropene	20.0	20.9		ug/L		104	74 - 140	2	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane			20.0	19.9		ug/L		99	73 - 122	1	16
Dibromochloromethane			20.0	22.8		ug/L		114	69 - 133	3	13
Dichlorodifluoromethane			20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene			20.0	20.2		ug/L		101	80 - 130	0	12
Isopropylbenzene			20.0	19.0		ug/L		95	80 - 141	1	13
Methyl acetate			40.0	40.4		ug/L		101	64 - 150	2	18
Methyl tert-butyl ether			20.0	21.4		ug/L		107	72 - 133	3	16
Methylcyclohexane			20.0	21.5		ug/L		107	71 - 129	0	17
Methylene Chloride			20.0	23.3		ug/L		116	79 - 123	7	15
Styrene			20.0	20.2		ug/L		101	80 - 127	0	12
Tetrachloroethene			20.0	22.5		ug/L		112	80 - 126	1	17
Toluene			20.0	20.8		ug/L		104	80 - 126	0	13
trans-1,2-Dichloroethene			20.0	21.4		ug/L		107	79 - 126	0	15
trans-1,3-Dichloropropene			20.0	20.7		ug/L		103	63 - 134	0	13
Trichloroethene			20.0	23.7		ug/L		118	80 - 123	1	14
Trichlorofluoromethane			20.0	24.5		ug/L		122	65 - 124	1	22
Vinyl chloride			20.0	20.4		ug/L		102	68 - 120	1	15
Xylenes, Total			40.0	39.5		ug/L		99	80 - 132	1	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: 480-127058-1 MS
Matrix: Water
Analysis Batch: 475225

Client Sample ID: MW-1D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		20.0	25.5		ug/L		127	68 - 144
1,1,2,2-Tetrachloroethane	ND		20.0	19.0		ug/L		95	56 - 145
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	20.0	25.9		ug/L		130	63 - 150
1,1,2-Trichloroethane	ND		20.0	21.8		ug/L		109	70 - 130
1,1-Dichloroethane	0.33	J	20.0	22.3		ug/L		110	61 - 139
1,1-Dichloroethene	0.77	J	20.0	25.7		ug/L		125	54 - 150
1,2,4-Trichlorobenzene	ND		20.0	18.3		ug/L		91	47 - 147
1,2-Dibromo-3-Chloropropane	ND		20.0	19.4		ug/L		97	38 - 138
1,2-Dibromoethane	ND		20.0	21.9		ug/L		109	65 - 137
1,2-Dichlorobenzene	ND		20.0	22.1		ug/L		110	70 - 130
1,2-Dichloroethane	ND		20.0	22.9		ug/L		114	64 - 136
1,2-Dichloropropane	ND		20.0	21.5		ug/L		107	67 - 130
1,3-Dichlorobenzene	ND		20.0	22.3		ug/L		111	68 - 131
1,4-Dichlorobenzene	ND		20.0	22.6		ug/L		113	70 - 130
2-Butanone (MEK)	ND	F1	100	155	F1	ug/L		155	50 - 143
2-Hexanone	ND		100	87.0		ug/L		87	44 - 150
4-Methyl-2-pentanone (MIBK)	ND		100	89.7		ug/L		90	50 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-127058-1 MS
Matrix: Water
Analysis Batch: 475225

Client Sample ID: MW-1D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		100	92.0		ug/L		92	39 - 150
Benzene	ND		20.0	21.9		ug/L		109	55 - 147
Bromodichloromethane	ND		20.0	23.3		ug/L		117	70 - 140
Bromoform	ND		20.0	20.7		ug/L		103	53 - 150
Bromomethane	ND		20.0	23.1		ug/L		116	30 - 150
Carbon disulfide	ND		20.0	22.1		ug/L		111	35 - 150
Carbon tetrachloride	ND		20.0	26.5		ug/L		132	56 - 150
Chlorobenzene	ND		20.0	22.6		ug/L		113	70 - 130
Chloroethane	ND		20.0	23.0		ug/L		115	58 - 141
Chloroform	0.27	J	20.0	23.7		ug/L		117	66 - 138
Chloromethane	ND		20.0	16.8		ug/L		84	10 - 150
cis-1,2-Dichloroethene	350		20.0	358	4	ug/L		18	68 - 131
cis-1,3-Dichloropropene	ND		20.0	20.5		ug/L		102	70 - 133
Cyclohexane	ND		20.0	21.9		ug/L		110	48 - 150
Dibromochloromethane	ND		20.0	22.2		ug/L		111	66 - 140
Dichlorodifluoromethane	ND		20.0	21.7		ug/L		109	10 - 150
Ethylbenzene	ND		20.0	21.2		ug/L		106	65 - 139
Isopropylbenzene	ND		20.0	20.7		ug/L		103	70 - 137
Methyl acetate	ND		40.0	39.3		ug/L		98	42 - 136
Methyl tert-butyl ether	ND		20.0	21.3		ug/L		107	55 - 141
Methylcyclohexane	ND		20.0	23.8		ug/L		119	59 - 150
Methylene Chloride	ND		20.0	22.0		ug/L		110	64 - 130
Styrene	ND		20.0	20.1		ug/L		101	70 - 130
Tetrachloroethene	40		20.0	61.7		ug/L		110	57 - 138
Toluene	ND		20.0	21.4		ug/L		107	64 - 136
trans-1,2-Dichloroethene	3.6		20.0	25.1		ug/L		108	59 - 143
trans-1,3-Dichloropropene	ND		20.0	20.6		ug/L		103	63 - 142
Trichloroethene	65		20.0	83.3		ug/L		91	63 - 135
Trichlorofluoromethane	ND		20.0	29.8		ug/L		149	44 - 150
Vinyl chloride	4.8		20.0	25.6		ug/L		104	57 - 150
Xylenes, Total	ND		40.0	40.8		ug/L		102	69 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: 480-127058-1 MSD
Matrix: Water
Analysis Batch: 475225

Client Sample ID: MW-1D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		20.0	25.5		ug/L		127	68 - 144	0	17
1,1,2,2-Tetrachloroethane	ND		20.0	20.1		ug/L		100	56 - 145	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	20.0	26.2		ug/L		131	63 - 150	1	18
1,1,2-Trichloroethane	ND		20.0	22.1		ug/L		111	70 - 130	1	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-127058-1 MSD
Matrix: Water
Analysis Batch: 475225

Client Sample ID: MW-1D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.33	J	20.0	22.7		ug/L		112	61 - 139	2	17
1,1-Dichloroethene	0.77	J	20.0	24.4		ug/L		118	54 - 150	5	17
1,2,4-Trichlorobenzene	ND		20.0	19.0		ug/L		95	47 - 147	4	19
1,2-Dibromo-3-Chloropropane	ND		20.0	18.5		ug/L		93	38 - 138	5	24
1,2-Dibromoethane	ND		20.0	22.2		ug/L		111	65 - 137	1	15
1,2-Dichlorobenzene	ND		20.0	22.5		ug/L		113	70 - 130	2	15
1,2-Dichloroethane	ND		20.0	23.1		ug/L		115	64 - 136	1	17
1,2-Dichloropropane	ND		20.0	21.4		ug/L		107	67 - 130	0	17
1,3-Dichlorobenzene	ND		20.0	22.7		ug/L		114	68 - 131	2	15
1,4-Dichlorobenzene	ND		20.0	23.2		ug/L		116	70 - 130	2	15
2-Butanone (MEK)	ND	F1	100	164	F1	ug/L		164	50 - 143	6	19
2-Hexanone	ND		100	90.3		ug/L		90	44 - 150	4	15
4-Methyl-2-pentanone (MIBK)	ND		100	91.9		ug/L		92	50 - 140	2	17
Acetone	ND		100	88.8		ug/L		89	39 - 150	4	21
Benzene	ND		20.0	22.0		ug/L		110	55 - 147	0	17
Bromodichloromethane	ND		20.0	23.5		ug/L		118	70 - 140	1	18
Bromoform	ND		20.0	22.1		ug/L		110	53 - 150	7	16
Bromomethane	ND		20.0	24.6		ug/L		123	30 - 150	6	50
Carbon disulfide	ND		20.0	22.2		ug/L		111	35 - 150	0	21
Carbon tetrachloride	ND		20.0	26.3		ug/L		132	56 - 150	1	19
Chlorobenzene	ND		20.0	23.2		ug/L		116	70 - 130	3	14
Chloroethane	ND		20.0	21.7		ug/L		109	58 - 141	6	20
Chloroform	0.27	J	20.0	24.2		ug/L		120	66 - 138	2	18
Chloromethane	ND		20.0	17.5		ug/L		87	10 - 150	4	31
cis-1,2-Dichloroethene	350		20.0	365	4	ug/L		52	68 - 131	2	17
cis-1,3-Dichloropropene	ND		20.0	21.4		ug/L		107	70 - 133	5	15
Cyclohexane	ND		20.0	22.0		ug/L		110	48 - 150	1	16
Dibromochloromethane	ND		20.0	22.5		ug/L		112	66 - 140	1	15
Dichlorodifluoromethane	ND		20.0	23.0		ug/L		115	10 - 150	6	18
Ethylbenzene	ND		20.0	21.7		ug/L		108	65 - 139	2	15
Isopropylbenzene	ND		20.0	21.2		ug/L		106	70 - 137	3	16
Methyl acetate	ND		40.0	40.3		ug/L		101	42 - 136	2	31
Methyl tert-butyl ether	ND		20.0	21.4		ug/L		107	55 - 141	0	16
Methylcyclohexane	ND		20.0	24.4		ug/L		122	59 - 150	3	19
Methylene Chloride	ND		20.0	22.5		ug/L		112	64 - 130	2	17
Styrene	ND		20.0	20.8		ug/L		104	70 - 130	3	24
Tetrachloroethene	40		20.0	63.2		ug/L		118	57 - 138	2	16
Toluene	ND		20.0	22.0		ug/L		110	64 - 136	3	15
trans-1,2-Dichloroethene	3.6		20.0	25.7		ug/L		111	59 - 143	2	16
trans-1,3-Dichloropropene	ND		20.0	21.0		ug/L		105	63 - 142	2	14
Trichloroethene	65		20.0	88.8		ug/L		118	63 - 135	6	17
Trichlorofluoromethane	ND		20.0	29.8		ug/L		149	44 - 150	0	18
Vinyl chloride	4.8		20.0	25.9		ug/L		106	57 - 150	1	17
Xylenes, Total	ND		40.0	41.8		ug/L		105	69 - 132	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-127058-1 MSD
Matrix: Water
Analysis Batch: 475225

Client Sample ID: MW-1D
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-194430/1-A
Matrix: Water
Analysis Batch: 194735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 194430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorohexanesulfonic acid (PFHxS)	0.291	J	2.0	0.17	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/13/17 17:06	11/15/17 00:42	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/13/17 17:06	11/15/17 00:42	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	*87*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C4 PFBA	*104*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C2 PFHxA	*100*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C4 PFOA	*89*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C5 PFNA	*101*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C2 PFDA	*94*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C2 PFUnA	*96*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C2 PFDoA	*86*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
18O2 PFHxS	*96*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C4 PFOS	*95*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C4-PFHpA	*100*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C5 PFPeA	*102*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C3-PFBS	*101*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*
13C2-PFTeDA	*97*		*25 - 150*	*11/13/17 17:06*	*11/15/17 00:42*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-194430/2-A
Matrix: Water
Analysis Batch: 194735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.3		ng/L		108	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	41.6		ng/L		104	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	45.3		ng/L		113	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	42.1		ng/L		105	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	44.2		ng/L		110	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.5		ng/L		101	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	40.2		ng/L		101	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	39.6		ng/L		99	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	45.0		ng/L		112	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	48.2		ng/L		121	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	41.1		ng/L		103	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	38.0		ng/L		108	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.3		ng/L		103	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	42.0		ng/L		110	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	38.2		ng/L		103	74 - 134
Perfluorodecanesulfonic acid (PFDS)	38.6	38.5		ng/L		100	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	43.4		ng/L		109	82 - 142

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C8 FOSA	*85*		*25 - 150*
13C4 PFBA	*106*		*25 - 150*
13C2 PFHxA	*97*		*25 - 150*
13C4 PFOA	*88*		*25 - 150*
13C5 PFNA	*99*		*25 - 150*
13C2 PFDA	*104*		*25 - 150*
13C2 PFUnA	*100*		*25 - 150*
13C2 PFDoA	*86*		*25 - 150*
18O2 PFHxS	*97*		*25 - 150*
13C4 PFOS	*98*		*25 - 150*
13C4-PFHpA	*98*		*25 - 150*
13C5 PFPeA	*103*		*25 - 150*
13C3-PFBS	*103*		*25 - 150*
13C2-PFTeDA	*94*		*25 - 150*

Lab Sample ID: 480-127058-1 MS
Matrix: Water
Analysis Batch: 194735

Client Sample ID: MW-1D
Prep Type: Total/NA
Prep Batch: 194430

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	15		33.6	55.0		ng/L		119	78 - 138
Perfluoropentanoic acid (PFPeA)	25		33.6	57.7		ng/L		99	66 - 136

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-127058-1 MS
Matrix: Water
Analysis Batch: 194735

Client Sample ID: MW-1D
Prep Type: Total/NA
Prep Batch: 194430

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid (PFHxA)	24		33.6	62.7		ng/L		114	76 - 136
Perfluoroheptanoic acid (PFHpA)	17		33.6	49.8		ng/L		99	78 - 138
Perfluorooctanoic acid (PFOA)	52		33.6	91.7		ng/L		117	70 - 130
Perfluorononanoic acid (PFNA)	7.0		33.6	41.5		ng/L		103	77 - 137
Perfluorodecanoic acid (PFDA)	4.7		33.6	39.1		ng/L		102	74 - 134
Perfluoroundecanoic acid (PFUnA)	ND		33.6	33.6		ng/L		100	68 - 128
Perfluorododecanoic acid (PFDoA)	ND		33.6	33.9		ng/L		101	72 - 132
Perfluorotridecanoic Acid (PFTriA)	ND		33.6	33.7		ng/L		100	56 - 163
Perfluorotetradecanoic acid (PFTeA)	ND		33.6	32.3		ng/L		96	63 - 123
Perfluorobutanesulfonic acid (PFBS)	16		29.7	45.0		ng/L		97	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	7.7	B	30.6	39.3		ng/L		103	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	1.4	J	32.0	35.3		ng/L		106	83 - 143
Perfluorooctanesulfonic acid (PFOS)	100		31.2	131		ng/L		94	74 - 134
Perfluorodecanesulfonic acid (PFDS)	ND		32.4	28.5		ng/L		88	75 - 135
Perfluorooctane Sulfonamide (FOSA)	0.99	J	33.6	35.9		ng/L		104	82 - 142

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C8 FOSA	*90*		*25 - 150*
13C4 PFBA	*64*		*25 - 150*
13C2 PFHxA	*87*		*25 - 150*
13C4 PFOA	*86*		*25 - 150*
13C5 PFNA	*96*		*25 - 150*
13C2 PFDA	*103*		*25 - 150*
13C2 PFUnA	*96*		*25 - 150*
13C2 PFDoA	*89*		*25 - 150*
18O2 PFHxS	*90*		*25 - 150*
13C4 PFOS	*99*		*25 - 150*
13C4-PFHpA	*94*		*25 - 150*
13C5 PFPeA	*85*		*25 - 150*
13C3-PFBS	*101*		*25 - 150*
13C2-PFTeDA	*88*		*25 - 150*

Lab Sample ID: 480-127058-1 MSD
Matrix: Water
Analysis Batch: 194735

Client Sample ID: MW-1D
Prep Type: Total/NA
Prep Batch: 194430

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	15		32.4	46.9		ng/L		99	78 - 138	16	30
Perfluoropentanoic acid (PFPeA)	25		32.4	55.1		ng/L		94	66 - 136	5	30
Perfluorohexanoic acid (PFHxA)	24		32.4	67.8		ng/L		134	76 - 136	8	30
Perfluoroheptanoic acid (PFHpA)	17		32.4	48.9		ng/L		99	78 - 138	2	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-127058-1 MSD
Matrix: Water
Analysis Batch: 194735

Client Sample ID: MW-1D
Prep Type: Total/NA
Prep Batch: 194430

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	52		32.4	89.1		ng/L		113	70 - 130	3	30
Perfluorononanoic acid (PFNA)	7.0		32.4	38.8		ng/L		98	77 - 137	7	30
Perfluorodecanoic acid (PFDA)	4.7		32.4	37.2		ng/L		100	74 - 134	5	30
Perfluoroundecanoic acid (PFUnA)	ND		32.4	30.8		ng/L		95	68 - 128	9	30
Perfluorododecanoic acid (PFDoA)	ND		32.4	33.9		ng/L		105	72 - 132	0	30
Perfluorotridecanoic Acid (PFTriA)	ND		32.4	34.9		ng/L		108	56 - 163	4	30
Perfluorotetradecanoic acid (PFTeA)	ND		32.4	32.3		ng/L		100	63 - 123	0	30
Perfluorobutanesulfonic acid (PFBS)	16		28.6	44.5		ng/L		99	79 - 139	1	30
Perfluorohexanesulfonic acid (PFHxS)	7.7	B	29.5	38.8		ng/L		106	77 - 137	1	30
Perfluoroheptanesulfonic Acid (PFHpS)	1.4	J	30.8	35.1		ng/L		110	83 - 143	0	30
Perfluorooctanesulfonic acid (PFOS)	100		30.1	130		ng/L		93	74 - 134	1	30
Perfluorodecanesulfonic acid (PFDS)	ND		31.2	28.1		ng/L		90	75 - 135	1	30
Perfluorooctane Sulfonamide (FOSA)	0.99	J	32.4	34.8		ng/L		104	82 - 142	3	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C8 FOSA	*94*		*25 - 150*
13C4 PFBA	*66*		*25 - 150*
13C2 PFHxA	*89*		*25 - 150*
13C4 PFOA	*88*		*25 - 150*
13C5 PFNA	*106*		*25 - 150*
13C2 PFDA	*106*		*25 - 150*
13C2 PFUnA	*99*		*25 - 150*
13C2 PFDoA	*86*		*25 - 150*
18O2 PFHxS	*91*		*25 - 150*
13C4 PFOS	*100*		*25 - 150*
13C4-PFHpA	*96*		*25 - 150*
13C5 PFPeA	*89*		*25 - 150*
13C3-PFBS	*106*		*25 - 150*
13C2-PFTeDA	*85*		*25 - 150*

GC/MS VOA

Analysis Batch: 475225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127058-1	MW-1D	Total/NA	Water	8260C	
480-127058-2	MW-4R	Total/NA	Water	8260C	
480-127058-3	MW-1	Total/NA	Water	8260C	
480-127058-4	MW-1DD	Total/NA	Water	8260C	
480-127058-5	DUP-1	Total/NA	Water	8260C	
480-127058-6	MW-22(R)2	Total/NA	Water	8260C	
480-127058-8	TRIP BLANK	Total/NA	Water	8260C	
MB 490-475225/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475225/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475225/4	Lab Control Sample Dup	Total/NA	Water	8260C	
480-127058-1 MS	MW-1D	Total/NA	Water	8260C	
480-127058-1 MSD	MW-1D	Total/NA	Water	8260C	

LCMS

Prep Batch: 194430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127058-1	MW-1D	Total/NA	Water	3535	
480-127058-2	MW-4R	Total/NA	Water	3535	
480-127058-3	MW-1	Total/NA	Water	3535	
480-127058-4	MW-1DD	Total/NA	Water	3535	
480-127058-5	DUP-1	Total/NA	Water	3535	
480-127058-6	MW-22(R)2	Total/NA	Water	3535	
480-127058-7	RINSE WATER-1	Total/NA	Water	3535	
MB 320-194430/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-194430/2-A	Lab Control Sample	Total/NA	Water	3535	
480-127058-1 MS	MW-1D	Total/NA	Water	3535	
480-127058-1 MSD	MW-1D	Total/NA	Water	3535	

Analysis Batch: 194735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127058-1	MW-1D	Total/NA	Water	537 (modified)	194430
480-127058-2	MW-4R	Total/NA	Water	537 (modified)	194430
480-127058-3	MW-1	Total/NA	Water	537 (modified)	194430
480-127058-4	MW-1DD	Total/NA	Water	537 (modified)	194430
480-127058-5	DUP-1	Total/NA	Water	537 (modified)	194430
480-127058-6	MW-22(R)2	Total/NA	Water	537 (modified)	194430
480-127058-7	RINSE WATER-1	Total/NA	Water	537 (modified)	194430
MB 320-194430/1-A	Method Blank	Total/NA	Water	537 (modified)	194430
LCS 320-194430/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	194430
480-127058-1 MS	MW-1D	Total/NA	Water	537 (modified)	194430
480-127058-1 MSD	MW-1D	Total/NA	Water	537 (modified)	194430

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: MW-1D
Date Collected: 11/02/17 10:50
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 18:45	S1S	TAL NSH
Total/NA	Prep	3535			194430	11/13/17 17:06	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	194735	11/15/17 02:32	ABH	TAL SAC

Client Sample ID: MW-4R
Date Collected: 11/02/17 13:00
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 19:11	S1S	TAL NSH
Total/NA	Prep	3535			194430	11/13/17 17:06	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	194735	11/15/17 02:56	ABH	TAL SAC

Client Sample ID: MW-1
Date Collected: 11/02/17 12:35
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 19:37	S1S	TAL NSH
Total/NA	Prep	3535			194430	11/13/17 17:06	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	194735	11/15/17 03:04	ABH	TAL SAC

Client Sample ID: MW-1DD
Date Collected: 11/02/17 13:55
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 20:03	S1S	TAL NSH
Total/NA	Prep	3535			194430	11/13/17 17:06	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	194735	11/15/17 03:12	ABH	TAL SAC

Client Sample ID: DUP-1
Date Collected: 11/02/17 00:00
Date Received: 11/03/17 10:00

Lab Sample ID: 480-127058-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 20:29	S1S	TAL NSH
Total/NA	Prep	3535			194430	11/13/17 17:06	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	194735	11/15/17 03:20	ABH	TAL SAC

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Client Sample ID: MW-22(R)2

Lab Sample ID: 480-127058-6

Date Collected: 11/02/17 15:30
Matrix: Water
Date Received: 11/03/17 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 20:55	S1S	TAL NSH
Total/NA	Prep	3535			194430	11/13/17 17:06	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	194735	11/15/17 03:35	ABH	TAL SAC

Client Sample ID: RINSE WATER-1

Lab Sample ID: 480-127058-7

Date Collected: 11/02/17 14:20
Matrix: Water
Date Received: 11/03/17 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			194430	11/13/17 17:06	JER	TAL SAC
Total/NA	Analysis	537 (modified)		1	194735	11/15/17 03:43	ABH	TAL SAC

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-127058-8

Date Collected: 11/02/17 00:00
Matrix: Water
Date Received: 11/03/17 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 17:52	S1S	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-18

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11666	04-01-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctane Sulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic Acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127058-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127058-1	MW-1D	Water	11/02/17 10:50	11/03/17 10:00
480-127058-2	MW-4R	Water	11/02/17 13:00	11/03/17 10:00
480-127058-3	MW-1	Water	11/02/17 12:35	11/03/17 10:00
480-127058-4	MW-1DD	Water	11/02/17 13:55	11/03/17 10:00
480-127058-5	DUP-1	Water	11/02/17 00:00	11/03/17 10:00
480-127058-6	MW-22(R)2	Water	11/02/17 15:30	11/03/17 10:00
480-127058-7	RINSE WATER-1	Water	11/02/17 14:20	11/03/17 10:00
480-127058-8	TRIP BLANK	Water	11/02/17 00:00	11/03/17 10:00

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica

Client Information	Sampler: Aubrey Thomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.3
Client Contact: Aaron Bobar	Phone: (518) 396-07296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 3 of 10
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146, Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-1D	11-2-17	1050	G	Water	N	Y	X	X	15	
MW-4R	11-2-17	1300	G	Water	N	N	X	X	5	
MW-1	11-2-17	1235	G	Water	N	N	X	X	5	
MW-1DD	11-2-17	1355	G	Water	N	N	X	X	5	
DUP-1	11-2-17	—	G	Water	N	N	X	X	5	
MW-22(R)S	11-2-17	1530	G	Water	N	N	X	X	5	
RINSE WATER-1	11-2-17	1420	G	Water	N	N		X	2	
TRIP BLANK	~~11-2~~ —	—	—	Water	N	N	X		3	
				Water						
				Water						
				Water						

11-2-17

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3
Other:

480-127058 COC

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	11-2-17 1545	Arcadis	[signature]	11/2/17 1540	TA
[signature]	11/2/17 1720	TAKC	[signature]	11/3/17 [illegible]	[signature]

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.5 #1

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Aubrey Thomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.3
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 3 of 10
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

480-127058 Chain of Custody

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containe	Special Instructions/Note:
			Preservation Code:		X	X	A	N	X	
MW-1D	11-2-17	1050	G	Water	N	Y	X	X	5	
MW-4R	11-2-17	1300	G	Water	N	N	X	X	5	
MW-1	11-2-17	1235	G	Water	N	N	X	X	5	
MW-1DD	11-2-17	1355	G	Water	N	N	X	X	5	
DUP-1	11-2-17	-	G	Water	N	N	X	X	5	
MW-22(RTS	11-2-17	1530	G	Water	N	N	X	X	5	
RINSE WATER-1	11-2-17	1420	G	Water	N	N		X	2	
TRIP BLANK	~~11-2-17~~ -	-	-	Water	N	N	X		3	
				Water						
				Water						
				Water						

11-2-17

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	11-2-17 545	Arcadis	[signature]	11/2/17 1540	FedEx
2	[signature]	11/2/17 1720	ARCADIS	[signature]	11/3/17 430 AA	TAL
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 3.1

Ver: 08/04/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

480-127058 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 11/10/17 0950

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 3769 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.5 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO..NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA


Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO...# es

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

11/17/2017

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-127058

TestAmerica — THE ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L	
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	New York
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/15/2017		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440		
Site:	SSOW#:		

Page 1 of 1

Job #: 480-127058-1

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-1D (480-127058-1)	11/2/17	10:50 Eastern		Water			X	3	
MW-1D (480-127058-1MS)	11/2/17	10:50 Eastern	MS	Water			X	3	
MW-1D (480-127058-1MSD)	11/2/17	10:50 Eastern	MSD	Water			X	3	
MW-4R (480-127058-2)	11/2/17	13:00 Eastern		Water			X	3	
MW-1 (480-127058-3)	11/2/17	12:35 Eastern		Water			X	3	
MW-1DD (480-127058-4)	11/2/17	13:55 Eastern		Water			X	3	
DUP-1 (480-127058-5)	11/2/17	Eastern		Water			X	3	
MW-22(R)2 (480-127058-6)	11/2/17	15:30 Eastern		Water			X	3	
TRIP BLANK (480-127058-8)	11/2/17	Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 11/9/17 1700	Company: TA	Received by:	Date/Time: 11-9-17 9:50	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No	Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.5	

Ver: 09/20/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

Samp

480-127058 Field Sheet

Job:_

Tracking # 770658585364 S.O.

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes:_____

Therm. ID: (AK-2) / AK-3 / HACCP /Other_____

Ice X Wet X Dry_____ Other_____

Cooler Custody Seal: —

Sample Custody Seal: —

Cooler ID: —

Temp: Observed 3.1°C

Corrected: —

From: Temp Blank ☐ Sample ☒

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: AA Date: 11/3/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

HD


(212) 643-2367
SHIP DATE: 02N
ACTWGT: 40.00
CAD: 101905570
DIMS: 26x18x16
BILL THIRD PAR
23 29TH S T,
SUITE 904
NEW YORK, NY 10001
UNITED STATES US
TO SAMPLE RECEIVING SAC
TESTAMERICA
880 RIVERSIDE PKWY
WEST SACRAMENTO CA 95605
(906) 373-5600
REF
INV
PO
DEPT
FRI - 0
STANDARD
TRK#
0201
7706 5858 5364
XH BLUA
CA-

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127058-1

Login Number: 127058
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127058-1

Login Number: 127058
List Number: 2
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 11/04/17 06:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127094-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Melissa Deyo

Authorized for release by:
11/20/2017 8:24:32 AM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Job ID: 480-127094-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127094-1

Receipt
The samples were received on 11/4/2017 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475225 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475277 recovered outside control limits for the following analytes: Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 490-474930 recovered outside control limits for the following analytes: Dichlorodifluoromethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The method blank for analytical batch 490-474930 contained Methylene Chloride above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction or re-analysis of samples was not performed.

Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: MW-22(R)D (480-127094-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: The following samples: MW-22(R)D (480-127094-1), MW-21S (480-127094-2), MW-21S (480-127094-2[MS]) and MW-21S (480-127094-2[MSD]) were decanted prior to preparation due to sediment.

Prep batch 320-194293

Method code 3535_PFC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Client Sample ID: MW-22(R)D — Lab Sample ID: 480-127094-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2200		20	4.2	ug/L	20		8260C	Total/NA
Cyclohexane	4.7	J	100	2.6	ug/L	20		8260C	Total/NA
Methylene Chloride	33	J B	100	20	ug/L	20		8260C	Total/NA
trans-1,2-Dichloroethene	33		20	4.6	ug/L	20		8260C	Total/NA
Vinyl chloride	66		20	3.6	ug/L	20		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	20		1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	17		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	10		1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.2		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	42		1.9	0.82	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.0		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.2	J	1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	7.4		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.1	B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.0	J	1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	86		1.9	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.1	J B	1.9	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-21S — Lab Sample ID: 480-127094-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.39	J	1.0	0.23	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	57		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	58		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.32	J	1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	22		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	8.3		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	26		2.2	0.39	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	74		2.2	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	66		2.2	0.64	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	48		2.2	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	110		2.2	0.94	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	29		2.2	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	87		2.2	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	7.6		2.2	1.2	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	2.4		2.2	0.61	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	35		2.2	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.8	B	2.2	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	3.7		2.2	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	480		2.2	0.60	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	4.5	B	2.2	0.39	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIP BLANKS — Lab Sample ID: 480-127094-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-22(R)D
Date Collected: 11/03/17 09:35
Date Received: 11/04/17 09:00

Lab Sample ID: 480-127094-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	3.8	ug/L			11/10/17 21:31	20
1,1,2,2-Tetrachloroethane	ND		20	3.8	ug/L			11/10/17 21:31	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	3.0	ug/L			11/10/17 21:31	20
1,1,2-Trichloroethane	ND		20	3.8	ug/L			11/10/17 21:31	20
1,1-Dichloroethane	ND		20	4.8	ug/L			11/10/17 21:31	20
1,1-Dichloroethene	ND		20	5.0	ug/L			11/10/17 21:31	20
1,2,4-Trichlorobenzene	ND		20	4.0	ug/L			11/10/17 21:31	20
1,2-Dibromo-3-Chloropropane	ND		200	19	ug/L			11/10/17 21:31	20
1,2-Dibromoethane	ND		20	4.2	ug/L			11/10/17 21:31	20
1,2-Dichlorobenzene	ND		20	3.8	ug/L			11/10/17 21:31	20
1,2-Dichloroethane	ND		20	4.0	ug/L			11/10/17 21:31	20
1,2-Dichloropropane	ND		20	5.0	ug/L			11/10/17 21:31	20
1,3-Dichlorobenzene	ND		20	3.6	ug/L			11/10/17 21:31	20
1,4-Dichlorobenzene	ND		20	3.4	ug/L			11/10/17 21:31	20
2-Butanone (MEK)	ND		1000	53	ug/L			11/10/17 21:31	20
2-Hexanone	ND		200	26	ug/L			11/10/17 21:31	20
4-Methyl-2-pentanone (MIBK)	ND		200	16	ug/L			11/10/17 21:31	20
Acetone	ND		500	53	ug/L			11/10/17 21:31	20
Benzene	ND		20	4.0	ug/L			11/10/17 21:31	20
Bromodichloromethane	ND		20	3.4	ug/L			11/10/17 21:31	20
Bromoform	ND		20	5.8	ug/L			11/10/17 21:31	20
Bromomethane	ND		20	7.0	ug/L			11/10/17 21:31	20
Carbon disulfide	ND		20	4.4	ug/L			11/10/17 21:31	20
Carbon tetrachloride	ND		20	3.6	ug/L			11/10/17 21:31	20
Chlorobenzene	ND		20	3.6	ug/L			11/10/17 21:31	20
Chloroethane	ND		20	7.2	ug/L			11/10/17 21:31	20
Chloroform	ND		20	4.6	ug/L			11/10/17 21:31	20
Chloromethane	ND		20	7.2	ug/L			11/10/17 21:31	20
cis-1,2-Dichloroethene	**2200**		20	4.2	ug/L			11/10/17 21:31	20
cis-1,3-Dichloropropene	ND		20	3.4	ug/L			11/10/17 21:31	20
Cyclohexane	**4.7**	**J**	100	2.6	ug/L			11/10/17 21:31	20
Dibromochloromethane	ND		20	5.0	ug/L			11/10/17 21:31	20
Dichlorodifluoromethane	ND	*	20	3.4	ug/L			11/10/17 21:31	20
Ethylbenzene	ND		20	3.8	ug/L			11/10/17 21:31	20
Isopropylbenzene	ND		20	6.6	ug/L			11/10/17 21:31	20
Methyl acetate	ND		200	12	ug/L			11/10/17 21:31	20
Methyl tert-butyl ether	ND		20	3.4	ug/L			11/10/17 21:31	20
Methylcyclohexane	ND		100	1.8	ug/L			11/10/17 21:31	20
Methylene Chloride	**33**	**J B**	100	20	ug/L			11/10/17 21:31	20
Styrene	ND		20	5.6	ug/L			11/10/17 21:31	20
Tetrachloroethene	ND		20	2.8	ug/L			11/10/17 21:31	20
Toluene	ND		20	3.4	ug/L			11/10/17 21:31	20
trans-1,2-Dichloroethene	**33**		20	4.6	ug/L			11/10/17 21:31	20
trans-1,3-Dichloropropene	ND		20	3.4	ug/L			11/10/17 21:31	20
Trichloroethene	ND		20	4.0	ug/L			11/10/17 21:31	20
Trichlorofluoromethane	ND		20	4.2	ug/L			11/10/17 21:31	20
Vinyl chloride	**66**		20	3.6	ug/L			11/10/17 21:31	20
Xylenes, Total	ND		60	12	ug/L			11/10/17 21:31	20

Client Sample ID: MW-22(R)D

Date Collected: 11/03/17 09:35
Date Received: 11/04/17 09:00

Lab Sample ID: 480-127094-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		11/10/17 21:31	20
4-Bromofluorobenzene (Surr)	113		70 - 130		11/10/17 21:31	20
Dibromofluoromethane (Surr)	105		70 - 130		11/10/17 21:31	20
Toluene-d8 (Surr)	109		70 - 130		11/10/17 21:31	20

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**20**		1.9	0.34	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluoropentanoic acid (PFPeA)	**17**		1.9	0.47	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorohexanoic acid (PFHxA)	**10**		1.9	0.56	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluoroheptanoic acid (PFHpA)	**8.2**		1.9	0.24	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorooctanoic acid (PFOA)	**42**		1.9	0.82	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorononanoic acid (PFNA)	**3.0**		1.9	0.26	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorodecanoic acid (PFDA)	**1.2**	**J**	1.9	0.30	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.3	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorobutanesulfonic acid (PFBS)	**7.4**		1.9	0.19	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorohexanesulfonic acid (PFHxS)	**6.1**	**B**	1.9	0.16	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.0**	**J**	1.9	0.18	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorooctanesulfonic acid (PFOS)	**86**		1.9	0.52	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/13/17 10:03	11/14/17 18:55	1
Perfluorooctane Sulfonamide (FOSA)	**1.1**	**J B**	1.9	0.34	ng/L		11/13/17 10:03	11/14/17 18:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	81		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C4 PFBA	60		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C2 PFHxA	80		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C4 PFOA	83		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C5 PFNA	92		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C2 PFDA	97		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C2 PFUnA	86		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C2 PFDoA	76		25 - 150	11/13/17 10:03	11/14/17 18:55	1
18O2 PFHxS	83		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C4 PFOS	84		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C4-PFHpA	85		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C5 PFPeA	80		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C3-PFBS	91		25 - 150	11/13/17 10:03	11/14/17 18:55	1
13C2-PFTeDA	89		25 - 150	11/13/17 10:03	11/14/17 18:55	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Client Sample ID: MW-21S
Date Collected: 11/03/17 11:40
Date Received: 11/04/17 09:00

Lab Sample ID: 480-127094-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 06:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/12/17 06:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/12/17 06:56	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 06:56	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/12/17 06:56	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/12/17 06:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/12/17 06:56	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/12/17 06:56	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/12/17 06:56	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/12/17 06:56	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/12/17 06:56	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/12/17 06:56	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/12/17 06:56	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/12/17 06:56	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/12/17 06:56	1
2-Hexanone	ND		10	1.3	ug/L			11/12/17 06:56	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/12/17 06:56	1
Acetone	ND		25	2.7	ug/L			11/12/17 06:56	1
Benzene	ND		1.0	0.20	ug/L			11/12/17 06:56	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/12/17 06:56	1
Bromoform	ND		1.0	0.29	ug/L			11/12/17 06:56	1
Bromomethane	ND		1.0	0.35	ug/L			11/12/17 06:56	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/12/17 06:56	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/12/17 06:56	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/12/17 06:56	1
Chloroethane	ND		1.0	0.36	ug/L			11/12/17 06:56	1
Chloroform	**0.39**	**J**	1.0	0.23	ug/L			11/12/17 06:56	1
Chloromethane	ND		1.0	0.36	ug/L			11/12/17 06:56	1
cis-1,2-Dichloroethene	**57**		1.0	0.21	ug/L			11/12/17 06:56	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 06:56	1
Cyclohexane	ND		5.0	0.13	ug/L			11/12/17 06:56	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/12/17 06:56	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/12/17 06:56	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/12/17 06:56	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/12/17 06:56	1
Methyl acetate	ND		10	0.58	ug/L			11/12/17 06:56	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/12/17 06:56	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/12/17 06:56	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/12/17 06:56	1
Styrene	ND		1.0	0.28	ug/L			11/12/17 06:56	1
Tetrachloroethene	**58**		1.0	0.14	ug/L			11/12/17 06:56	1
Toluene	ND		1.0	0.17	ug/L			11/12/17 06:56	1
trans-1,2-Dichloroethene	**0.32**	**J**	1.0	0.23	ug/L			11/12/17 06:56	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 06:56	1
Trichloroethene	**22**		1.0	0.20	ug/L			11/12/17 06:56	1
Trichlorofluoromethane	ND	*	1.0	0.21	ug/L			11/12/17 06:56	1
Vinyl chloride	**8.3**		1.0	0.18	ug/L			11/12/17 06:56	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/12/17 06:56	1

Client Sample ID: MW-21S

Date Collected: 11/03/17 11:40
Date Received: 11/04/17 09:00

Lab Sample ID: 480-127094-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		11/12/17 06:56	1
4-Bromofluorobenzene (Surr)	98		70 - 130		11/12/17 06:56	1
Dibromofluoromethane (Surr)	110		70 - 130		11/12/17 06:56	1
Toluene-d8 (Surr)	98		70 - 130		11/12/17 06:56	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**26**		2.2	0.39	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluoropentanoic acid (PFPeA)	**74**		2.2	0.54	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorohexanoic acid (PFHxA)	**66**		2.2	0.64	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluoroheptanoic acid (PFHpA)	**48**		2.2	0.28	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorooctanoic acid (PFOA)	**110**		2.2	0.94	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorononanoic acid (PFNA)	**29**		2.2	0.30	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorodecanoic acid (PFDA)	**87**		2.2	0.34	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluoroundecanoic acid (PFUnA)	**7.6**		2.2	1.2	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorododecanoic acid (PFDoA)	**2.4**		2.2	0.61	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.2	1.4	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.2	0.32	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorobutanesulfonic acid (PFBS)	**35**		2.2	0.22	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorohexanesulfonic acid (PFHxS)	**8.8**	**B**	2.2	0.19	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	**3.7**		2.2	0.21	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorooctanesulfonic acid (PFOS)	**480**		2.2	0.60	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.2	0.35	ng/L		11/13/17 10:03	11/14/17 19:03	1
Perfluorooctane Sulfonamide (FOSA)	**4.5**	**B**	2.2	0.39	ng/L		11/13/17 10:03	11/14/17 19:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	88		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C4 PFBA	67		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C2 PFHxA	84		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C4 PFOA	84		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C5 PFNA	97		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C2 PFDA	110		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C2 PFUnA	102		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C2 PFDoA	89		25 - 150	11/13/17 10:03	11/14/17 19:03	1
18O2 PFHxS	85		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C4 PFOS	89		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C4-PFHpA	87		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C5 PFPeA	85		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C3-PFBS	98		25 - 150	11/13/17 10:03	11/14/17 19:03	1
13C2-PFTeDA	94		25 - 150	11/13/17 10:03	11/14/17 19:03	1

Client Sample ID: TRIP BLANKS
Date Collected: 11/03/17 00:00
Date Received: 11/04/17 09:00

Lab Sample ID: 480-127094-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 18:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 18:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 18:19	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 18:19	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 18:19	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 18:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 18:19	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 18:19	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 18:19	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 18:19	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 18:19	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 18:19	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 18:19	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 18:19	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 18:19	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 18:19	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 18:19	1
Acetone	ND		25	2.7	ug/L			11/11/17 18:19	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 18:19	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 18:19	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 18:19	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 18:19	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 18:19	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 18:19	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 18:19	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 18:19	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 18:19	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 18:19	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 18:19	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 18:19	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 18:19	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 18:19	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 18:19	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 18:19	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 18:19	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 18:19	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 18:19	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 18:19	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 18:19	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 18:19	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 18:19	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 18:19	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 18:19	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 18:19	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 18:19	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 18:19	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 18:19	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 18:19	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Client Sample ID: TRIP BLANKS
Date Collected: 11/03/17 00:00
Date Received: 11/04/17 09:00

Lab Sample ID: 480-127094-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		11/11/17 18:19	1
4-Bromofluorobenzene (Surr)	100		70 - 130		11/11/17 18:19	1
Dibromofluoromethane (Surr)	108		70 - 130		11/11/17 18:19	1
Toluene-d8 (Surr)	100		70 - 130		11/11/17 18:19	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
480-127094-1	MW-22(R)D	105	113	105	109
480-127094-2	MW-21S	100	98	110	98
480-127094-2 MS	MW-21S	98	91	109	96
480-127094-2 MSD	MW-21S	100	89	108	99
480-127094-3	TRIP BLANKS	95	100	108	100
LCS 490-474930/3	Lab Control Sample	106	110	103	110
LCS 490-475225/3	Lab Control Sample	88	94	107	99
LCS 490-475277/3	Lab Control Sample	92	91	108	96
LCSD 490-474930/4	Lab Control Sample Dup	106	110	104	110
LCSD 490-475225/4	Lab Control Sample Dup	89	93	108	96
LCSD 490-475277/4	Lab Control Sample Dup	97	91	109	100
MB 490-474930/6	Method Blank	107	110	106	109
MB 490-475225/6	Method Blank	92	98	105	100
MB 490-475277/6	Method Blank	99	96	110	96

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	3C8 FOSA (25-150)	3C4 PFBA (25-150)	3C2 PFHxA (25-150)	3C4 PFOA (25-150)	3C5 PFNA (25-150)	3C2 PFDA (25-150)	3C2 PFUnA (25-150)	3C2 PFDoA (25-150)
480-127094-1	MW-22(R)D	81	60	80	83	92	97	86	76
480-127094-2	MW-21S	88	67	84	84	97	110	102	89
480-127094-2 MS	MW-21S	87	66	83	84	94	109	100	90
480-127094-2 MSD	MW-21S	88	66	86	85	94	107	105	91
LCS 320-194293/2-A	Lab Control Sample	90	108	102	89	101	102	98	87
LCSD 320-194293/3-A	Lab Control Sample Dup	88	103	98	90	97	97	98	88
MB 320-194293/1-A	Method Blank	89	104	95	89	97	103	99	91

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	18O2 PFHxS (25-150)	13C4 PFOS (25-150)	13C4-PFHpA (25-150)	13C5 PFPeA (25-150)	13C3-PFBS (25-150)	13C2-PFTeDA (25-150)		
480-127094-1	MW-22(R)D	83	84	85	80	91	89		
480-127094-2	MW-21S	85	89	87	85	98	94		
480-127094-2 MS	MW-21S	85	89	88	82	93	93		
480-127094-2 MSD	MW-21S	88	90	87	85	92	92		
LCS 320-194293/2-A	Lab Control Sample	94	96	102	102	99	94		
LCSD 320-194293/3-A	Lab Control Sample Dup	89	89	96	101	104	100		
MB 320-194293/1-A	Method Blank	93	92	99	102	97	103		

Surrogate Legend

13C8 FOSA = 13C8 FOSA
13C4 PFBA = 13C4 PFBA
13C2 PFHxA = 13C2 PFHxA
13C4 PFOA = 13C4 PFOA
13C5 PFNA = 13C5 PFNA
13C2 PFDA = 13C2 PFDA
13C2 PFUnA = 13C2 PFUnA
13C2 PFDoA = 13C2 PFDoA
18O2 PFHxS = 18O2 PFHxS
13C4 PFOS = 13C4 PFOS
13C4-PFHpA = 13C4-PFHpA
13C5 PFPeA = 13C5 PFPeA
13C3-PFBS = 13C3-PFBS
13C2-PFTeDA = 13C2-PFTeDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-474930/6
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/10/17 13:28	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 13:28	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 13:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 13:28	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 13:28	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 13:28	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 13:28	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 13:28	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:28	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 13:28	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 13:28	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 13:28	1
Acetone	ND		25	2.7	ug/L			11/10/17 13:28	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 13:28	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 13:28	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 13:28	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 13:28	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 13:28	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:28	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 13:28	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 13:28	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 13:28	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/10/17 13:28	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 13:28	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 13:28	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 13:28	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 13:28	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 13:28	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 13:28	1
Methylene Chloride	1.07	J	5.0	1.0	ug/L			11/10/17 13:28	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 13:28	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/10/17 13:28	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 13:28	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Trichloroethene	ND		1.0	0.20	ug/L			11/10/17 13:28	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/10/17 13:28	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 13:28	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 13:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*11/10/17 13:28*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*11/10/17 13:28*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/10/17 13:28*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/10/17 13:28*	*1*

Lab Sample ID: LCS 490-474930/3
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	22.1		ug/L		111	78 - 135
1,1,2,2-Tetrachloroethane	20.0	22.1		ug/L		111	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.8		ug/L		114	77 - 129
1,1,2-Trichloroethane	20.0	20.4		ug/L		102	80 - 124
1,1-Dichloroethane	20.0	20.5		ug/L		103	78 - 125
1,1-Dichloroethene	20.0	20.5		ug/L		103	79 - 124
1,2,4-Trichlorobenzene	20.0	19.0		ug/L		95	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/L		94	54 - 125
1,2-Dibromoethane	20.0	20.2		ug/L		101	80 - 129
1,2-Dichlorobenzene	20.0	20.8		ug/L		104	80 - 121
1,2-Dichloroethane	20.0	22.2		ug/L		111	77 - 121
1,2-Dichloropropane	20.0	19.9		ug/L		100	75 - 120
1,3-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 122
1,4-Dichlorobenzene	20.0	21.0		ug/L		105	80 - 120
2-Butanone (MEK)	100	98.7		ug/L		99	62 - 133
2-Hexanone	100	103		ug/L		103	60 - 142
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	60 - 137
Acetone	100	115		ug/L		115	54 - 145
Benzene	20.0	20.0		ug/L		100	80 - 121
Bromodichloromethane	20.0	20.6		ug/L		103	75 - 129
Bromoform	20.0	18.5		ug/L		93	46 - 145
Bromomethane	20.0	18.4		ug/L		92	41 - 150
Carbon disulfide	20.0	18.8		ug/L		94	77 - 126
Carbon tetrachloride	20.0	22.7		ug/L		113	64 - 147
Chlorobenzene	20.0	20.5		ug/L		102	80 - 120
Chloroethane	20.0	20.3		ug/L		102	72 - 120
Chloroform	20.0	21.2		ug/L		106	73 - 129
Chloromethane	20.0	21.8		ug/L		109	12 - 150
cis-1,2-Dichloroethene	20.0	20.0		ug/L		100	76 - 125
cis-1,3-Dichloropropene	20.0	21.3		ug/L		107	74 - 140
Cyclohexane	20.0	20.5		ug/L		102	73 - 122
Dibromochloromethane	20.0	21.6		ug/L		108	69 - 133
Dichlorodifluoromethane	20.0	25.5		ug/L		127	37 - 127
Ethylbenzene	20.0	20.6		ug/L		103	80 - 130
Isopropylbenzene	20.0	19.4		ug/L		97	80 - 141
Methyl acetate	40.0	42.8		ug/L		107	64 - 150
Methyl tert-butyl ether	20.0	19.4		ug/L		97	72 - 133
Methylcyclohexane	20.0	20.6		ug/L		103	71 - 129
Methylene Chloride	20.0	20.1		ug/L		101	79 - 123
Styrene	20.0	18.7		ug/L		93	80 - 127
Tetrachloroethene	20.0	21.0		ug/L		105	80 - 126
Toluene	20.0	22.0		ug/L		110	80 - 126
trans-1,2-Dichloroethene	20.0	20.9		ug/L		105	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-474930/3
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	63 - 134
Trichloroethene	20.0	20.1		ug/L		100	80 - 123
Trichlorofluoromethane	20.0	22.2		ug/L		111	65 - 124
Vinyl chloride	20.0	19.9		ug/L		99	68 - 120
Xylenes, Total	40.0	39.4		ug/L		99	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 490-474930/4
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	22.4		ug/L		112	78 - 135	1	15
1,1,2,2-Tetrachloroethane	20.0	22.1		ug/L		111	69 - 131	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.0		ug/L		115	77 - 129	1	16
1,1,2-Trichloroethane	20.0	20.7		ug/L		103	80 - 124	1	13
1,1-Dichloroethane	20.0	20.5		ug/L		102	78 - 125	0	17
1,1-Dichloroethene	20.0	21.1		ug/L		106	79 - 124	3	20
1,2,4-Trichlorobenzene	20.0	19.3		ug/L		97	63 - 133	2	15
1,2-Dibromo-3-Chloropropane	20.0	18.9		ug/L		94	54 - 125	0	19
1,2-Dibromoethane	20.0	20.7		ug/L		103	80 - 129	2	13
1,2-Dichlorobenzene	20.0	21.1		ug/L		106	80 - 121	2	12
1,2-Dichloroethane	20.0	22.6		ug/L		113	77 - 121	2	13
1,2-Dichloropropane	20.0	19.8		ug/L		99	75 - 120	0	15
1,3-Dichlorobenzene	20.0	20.9		ug/L		104	80 - 122	1	13
1,4-Dichlorobenzene	20.0	20.6		ug/L		103	80 - 120	2	12
2-Butanone (MEK)	100	94.7		ug/L		95	62 - 133	4	19
2-Hexanone	100	102		ug/L		102	60 - 142	1	17
4-Methyl-2-pentanone (MIBK)	100	111		ug/L		111	60 - 137	1	21
Acetone	100	111		ug/L		111	54 - 145	3	23
Benzene	20.0	20.1		ug/L		100	80 - 121	0	12
Bromodichloromethane	20.0	20.8		ug/L		104	75 - 129	1	14
Bromoform	20.0	18.8		ug/L		94	46 - 145	2	14
Bromomethane	20.0	18.7		ug/L		93	41 - 150	1	19
Carbon disulfide	20.0	19.0		ug/L		95	77 - 126	1	16
Carbon tetrachloride	20.0	22.7		ug/L		113	64 - 147	0	16
Chlorobenzene	20.0	20.3		ug/L		101	80 - 120	1	12
Chloroethane	20.0	20.7		ug/L		103	72 - 120	2	15
Chloroform	20.0	21.3		ug/L		106	73 - 129	0	14
Chloromethane	20.0	21.8		ug/L		109	12 - 150	0	20
cis-1,2-Dichloroethene	20.0	19.9		ug/L		100	76 - 125	1	15
cis-1,3-Dichloropropene	20.0	21.3		ug/L		107	74 - 140	0	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-474930/4
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane			20.0	20.1		ug/L		100	73 - 122	2	16
Dibromochloromethane			20.0	21.5		ug/L		107	69 - 133	0	13
Dichlorodifluoromethane			20.0	25.6	*	ug/L		128	37 - 127	0	16
Ethylbenzene			20.0	20.6		ug/L		103	80 - 130	0	12
Isopropylbenzene			20.0	19.2		ug/L		96	80 - 141	1	13
Methyl acetate			40.0	44.0		ug/L		110	64 - 150	3	18
Methyl tert-butyl ether			20.0	19.6		ug/L		98	72 - 133	1	16
Methylcyclohexane			20.0	20.3		ug/L		102	71 - 129	2	17
Methylene Chloride			20.0	20.6		ug/L		103	79 - 123	2	15
Styrene			20.0	18.8		ug/L		94	80 - 127	1	12
Tetrachloroethene			20.0	20.8		ug/L		104	80 - 126	1	17
Toluene			20.0	21.7		ug/L		109	80 - 126	1	13
trans-1,2-Dichloroethene			20.0	21.3		ug/L		107	79 - 126	2	15
trans-1,3-Dichloropropene			20.0	20.2		ug/L		101	63 - 134	2	13
Trichloroethene			20.0	20.0		ug/L		100	80 - 123	0	14
Trichlorofluoromethane			20.0	22.1		ug/L		111	65 - 124	0	22
Vinyl chloride			20.0	20.0		ug/L		100	68 - 120	1	15
Xylenes, Total			40.0	39.4		ug/L		99	80 - 132	0	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 17:26	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 17:26	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 17:26	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 17:26	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 17:26	1
Acetone	ND		25	2.7	ug/L			11/11/17 17:26	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 17:26	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 17:26	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 17:26	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 17:26	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 17:26	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 17:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 17:26	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 17:26	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 17:26	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 17:26	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 17:26	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 17:26	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 17:26	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/11/17 17:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 17:26*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/11/17 17:26*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/11/17 17:26*	*1*

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.7		ug/L		119	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.3		ug/L		102	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.9	*	ug/L		130	77 - 129
1,1,2-Trichloroethane	20.0	22.0		ug/L		110	80 - 124
1,1-Dichloroethane	20.0	21.5		ug/L		108	78 - 125

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	22.3		ug/L		112	79 - 124
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		92	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	22.2		ug/L		111	80 - 129
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121
1,2-Dichloroethane	20.0	22.7		ug/L		114	77 - 121
1,2-Dichloropropane	20.0	20.9		ug/L		105	75 - 120
1,3-Dichlorobenzene	20.0	23.0		ug/L		115	80 - 122
1,4-Dichlorobenzene	20.0	23.3		ug/L		116	80 - 120
2-Butanone (MEK)	100	88.0		ug/L		88	62 - 133
2-Hexanone	100	86.0		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.4		ug/L		85	60 - 137
Acetone	100	87.4		ug/L		87	54 - 145
Benzene	20.0	20.6		ug/L		103	80 - 121
Bromodichloromethane	20.0	23.1		ug/L		115	75 - 129
Bromoform	20.0	21.2		ug/L		106	46 - 145
Bromomethane	20.0	21.4		ug/L		107	41 - 150
Carbon disulfide	20.0	21.4		ug/L		107	77 - 126
Carbon tetrachloride	20.0	25.5		ug/L		128	64 - 147
Chlorobenzene	20.0	23.1		ug/L		115	80 - 120
Chloroethane	20.0	20.7		ug/L		103	72 - 120
Chloroform	20.0	23.4		ug/L		117	73 - 129
Chloromethane	20.0	16.4		ug/L		82	12 - 150
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	76 - 125
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	74 - 140
Cyclohexane	20.0	19.7		ug/L		99	73 - 122
Dibromochloromethane	20.0	22.2		ug/L		111	69 - 133
Dichlorodifluoromethane	20.0	23.0		ug/L		115	37 - 127
Ethylbenzene	20.0	20.3		ug/L		101	80 - 130
Isopropylbenzene	20.0	19.1		ug/L		95	80 - 141
Methyl acetate	40.0	39.5		ug/L		99	64 - 150
Methyl tert-butyl ether	20.0	20.8		ug/L		104	72 - 133
Methylcyclohexane	20.0	21.5		ug/L		108	71 - 129
Methylene Chloride	20.0	21.7		ug/L		108	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.8		ug/L		114	80 - 126
Toluene	20.0	20.8		ug/L		104	80 - 126
trans-1,2-Dichloroethene	20.0	21.3		ug/L		107	79 - 126
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	63 - 134
Trichloroethene	20.0	23.9		ug/L		120	80 - 123
Trichlorofluoromethane	20.0	24.8		ug/L		124	65 - 124
Vinyl chloride	20.0	20.2		ug/L		101	68 - 120
Xylenes, Total	40.0	39.9		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	24.2		ug/L		121	78 - 135	2	15
1,1,2,2-Tetrachloroethane			20.0	20.6		ug/L		103	69 - 131	2	15
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	26.3	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane			20.0	21.8		ug/L		109	80 - 124	1	13
1,1-Dichloroethane			20.0	21.9		ug/L		110	78 - 125	2	17
1,1-Dichloroethene			20.0	23.7		ug/L		118	79 - 124	6	20
1,2,4-Trichlorobenzene			20.0	18.7		ug/L		94	63 - 133	1	15
1,2-Dibromo-3-Chloropropane			20.0	19.5		ug/L		98	54 - 125	2	19
1,2-Dibromoethane			20.0	21.5		ug/L		108	80 - 129	3	13
1,2-Dichlorobenzene			20.0	22.4		ug/L		112	80 - 121	0	12
1,2-Dichloroethane			20.0	23.2		ug/L		116	77 - 121	2	13
1,2-Dichloropropane			20.0	21.4		ug/L		107	75 - 120	2	15
1,3-Dichlorobenzene			20.0	23.1		ug/L		116	80 - 122	1	13
1,4-Dichlorobenzene			20.0	23.2		ug/L		116	80 - 120	0	12
2-Butanone (MEK)			100	95.9		ug/L		96	62 - 133	9	19
2-Hexanone			100	86.1		ug/L		86	60 - 142	0	17
4-Methyl-2-pentanone (MIBK)			100	87.1		ug/L		87	60 - 137	2	21
Acetone			100	90.2		ug/L		90	54 - 145	3	23
Benzene			20.0	21.0		ug/L		105	80 - 121	2	12
Bromodichloromethane			20.0	23.4		ug/L		117	75 - 129	1	14
Bromoform			20.0	21.2		ug/L		106	46 - 145	0	14
Bromomethane			20.0	22.0		ug/L		110	41 - 150	3	19
Carbon disulfide			20.0	21.8		ug/L		109	77 - 126	2	16
Carbon tetrachloride			20.0	25.4		ug/L		127	64 - 147	0	16
Chlorobenzene			20.0	22.3		ug/L		111	80 - 120	3	12
Chloroethane			20.0	21.7		ug/L		108	72 - 120	5	15
Chloroform			20.0	23.8		ug/L		119	73 - 129	2	14
Chloromethane			20.0	16.4		ug/L		82	12 - 150	0	20
cis-1,2-Dichloroethene			20.0	22.1		ug/L		111	76 - 125	1	15
cis-1,3-Dichloropropene			20.0	20.9		ug/L		104	74 - 140	2	15
Cyclohexane			20.0	19.9		ug/L		99	73 - 122	1	16
Dibromochloromethane			20.0	22.8		ug/L		114	69 - 133	3	13
Dichlorodifluoromethane			20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene			20.0	20.2		ug/L		101	80 - 130	0	12
Isopropylbenzene			20.0	19.0		ug/L		95	80 - 141	1	13
Methyl acetate			40.0	40.4		ug/L		101	64 - 150	2	18
Methyl tert-butyl ether			20.0	21.4		ug/L		107	72 - 133	3	16
Methylcyclohexane			20.0	21.5		ug/L		107	71 - 129	0	17
Methylene Chloride			20.0	23.3		ug/L		116	79 - 123	7	15
Styrene			20.0	20.2		ug/L		101	80 - 127	0	12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			20.0	22.5		ug/L		112	80 - 126	1	17
Toluene			20.0	20.8		ug/L		104	80 - 126	0	13
trans-1,2-Dichloroethene			20.0	21.4		ug/L		107	79 - 126	0	15
trans-1,3-Dichloropropene			20.0	20.7		ug/L		103	63 - 134	0	13
Trichloroethene			20.0	23.7		ug/L		118	80 - 123	1	14
Trichlorofluoromethane			20.0	24.5		ug/L		122	65 - 124	1	22
Vinyl chloride			20.0	20.4		ug/L		102	68 - 120	1	15
Xylenes, Total			40.0	39.5		ug/L		99	80 - 132	1	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 490-475277/6
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/12/17 06:30	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/12/17 06:30	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/12/17 06:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/12/17 06:30	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/12/17 06:30	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/12/17 06:30	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/12/17 06:30	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/12/17 06:30	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/12/17 06:30	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/12/17 06:30	1
2-Hexanone	ND		10	1.3	ug/L			11/12/17 06:30	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/12/17 06:30	1
Acetone	ND		25	2.7	ug/L			11/12/17 06:30	1
Benzene	ND		1.0	0.20	ug/L			11/12/17 06:30	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Bromoform	ND		1.0	0.29	ug/L			11/12/17 06:30	1
Bromomethane	ND		1.0	0.35	ug/L			11/12/17 06:30	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/12/17 06:30	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/12/17 06:30	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/12/17 06:30	1
Chloroethane	ND		1.0	0.36	ug/L			11/12/17 06:30	1
Chloroform	ND		1.0	0.23	ug/L			11/12/17 06:30	1
Chloromethane	ND		1.0	0.36	ug/L			11/12/17 06:30	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475277/6
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/12/17 06:30	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Cyclohexane	ND		5.0	0.13	ug/L			11/12/17 06:30	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/12/17 06:30	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/12/17 06:30	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/12/17 06:30	1
Methyl acetate	ND		10	0.58	ug/L			11/12/17 06:30	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/12/17 06:30	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/12/17 06:30	1
Styrene	ND		1.0	0.28	ug/L			11/12/17 06:30	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/12/17 06:30	1
Toluene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/12/17 06:30	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Trichloroethene	ND		1.0	0.20	ug/L			11/12/17 06:30	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/12/17 06:30	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/12/17 06:30	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/12/17 06:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/12/17 06:30*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/12/17 06:30*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*11/12/17 06:30*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/12/17 06:30*	*1*

Lab Sample ID: LCS 490-475277/3
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	22.2		ug/L		111	78 - 135
1,1,2,2-Tetrachloroethane	20.0	18.3		ug/L		92	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.1		ug/L		115	77 - 129
1,1,2-Trichloroethane	20.0	19.9		ug/L		100	80 - 124
1,1-Dichloroethane	20.0	20.3		ug/L		101	78 - 125
1,1-Dichloroethene	20.0	21.4		ug/L		107	79 - 124
1,2,4-Trichlorobenzene	20.0	17.0		ug/L		85	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	17.6		ug/L		88	54 - 125
1,2-Dibromoethane	20.0	20.4		ug/L		102	80 - 129
1,2-Dichlorobenzene	20.0	20.5		ug/L		102	80 - 121
1,2-Dichloroethane	20.0	22.0		ug/L		110	77 - 121
1,2-Dichloropropane	20.0	19.8		ug/L		99	75 - 120
1,3-Dichlorobenzene	20.0	20.9		ug/L		105	80 - 122
1,4-Dichlorobenzene	20.0	21.1		ug/L		106	80 - 120
2-Butanone (MEK)	100	96.1		ug/L		96	62 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475277/3
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	100	82.1		ug/L		82	60 - 142
4-Methyl-2-pentanone (MIBK)	100	83.3		ug/L		83	60 - 137
Acetone	100	89.1		ug/L		89	54 - 145
Benzene	20.0	20.0		ug/L		100	80 - 121
Bromodichloromethane	20.0	22.1		ug/L		111	75 - 129
Bromoform	20.0	20.2		ug/L		101	46 - 145
Bromomethane	20.0	21.8		ug/L		109	41 - 150
Carbon disulfide	20.0	19.8		ug/L		99	77 - 126
Carbon tetrachloride	20.0	23.2		ug/L		116	64 - 147
Chlorobenzene	20.0	21.3		ug/L		106	80 - 120
Chloroethane	20.0	21.0		ug/L		105	72 - 120
Chloroform	20.0	22.1		ug/L		111	73 - 129
Chloromethane	20.0	16.7		ug/L		83	12 - 150
cis-1,2-Dichloroethene	20.0	21.1		ug/L		106	76 - 125
cis-1,3-Dichloropropene	20.0	19.0		ug/L		95	74 - 140
Cyclohexane	20.0	18.3		ug/L		91	73 - 122
Dibromochloromethane	20.0	20.6		ug/L		103	69 - 133
Dichlorodifluoromethane	20.0	22.9		ug/L		114	37 - 127
Ethylbenzene	20.0	19.5		ug/L		97	80 - 130
Isopropylbenzene	20.0	19.0		ug/L		95	80 - 141
Methyl acetate	40.0	38.7		ug/L		97	64 - 150
Methyl tert-butyl ether	20.0	19.7		ug/L		98	72 - 133
Methylcyclohexane	20.0	21.0		ug/L		105	71 - 129
Methylene Chloride	20.0	22.1		ug/L		110	79 - 123
Styrene	20.0	19.0		ug/L		95	80 - 127
Tetrachloroethene	20.0	21.4		ug/L		107	80 - 126
Toluene	20.0	19.6		ug/L		98	80 - 126
trans-1,2-Dichloroethene	20.0	19.6		ug/L		98	79 - 126
trans-1,3-Dichloropropene	20.0	18.9		ug/L		95	63 - 134
Trichloroethene	20.0	22.8		ug/L		114	80 - 123
Trichlorofluoromethane	20.0	26.1	*	ug/L		131	65 - 124
Vinyl chloride	20.0	19.4		ug/L		97	68 - 120
Xylenes, Total	40.0	37.8		ug/L		95	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 490-475277/4
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	22.4		ug/L		112	78 - 135	1	15
1,1,2,2-Tetrachloroethane	20.0	16.8		ug/L		84	69 - 131	8	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475277/4
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.8		ug/L		114	77 - 129	1	16
1,1,2-Trichloroethane	20.0	19.9		ug/L		99	80 - 124	0	13
1,1-Dichloroethane	20.0	20.0		ug/L		100	78 - 125	1	17
1,1-Dichloroethene	20.0	21.1		ug/L		106	79 - 124	1	20
1,2,4-Trichlorobenzene	20.0	16.8		ug/L		84	63 - 133	1	15
1,2-Dibromo-3-Chloropropane	20.0	17.8		ug/L		89	54 - 125	1	19
1,2-Dibromoethane	20.0	20.4		ug/L		102	80 - 129	0	13
1,2-Dichlorobenzene	20.0	20.2		ug/L		101	80 - 121	1	12
1,2-Dichloroethane	20.0	21.5		ug/L		107	77 - 121	3	13
1,2-Dichloropropane	20.0	19.9		ug/L		100	75 - 120	1	15
1,3-Dichlorobenzene	20.0	20.4		ug/L		102	80 - 122	3	13
1,4-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120	2	12
2-Butanone (MEK)	100	92.2		ug/L		92	62 - 133	4	19
2-Hexanone	100	83.1		ug/L		83	60 - 142	1	17
4-Methyl-2-pentanone (MIBK)	100	82.3		ug/L		82	60 - 137	1	21
Acetone	100	90.4		ug/L		90	54 - 145	1	23
Benzene	20.0	19.6		ug/L		98	80 - 121	2	12
Bromodichloromethane	20.0	22.1		ug/L		111	75 - 129	0	14
Bromoform	20.0	20.7		ug/L		103	46 - 145	2	14
Bromomethane	20.0	22.2		ug/L		111	41 - 150	2	19
Carbon disulfide	20.0	19.5		ug/L		98	77 - 126	1	16
Carbon tetrachloride	20.0	23.2		ug/L		116	64 - 147	0	16
Chlorobenzene	20.0	20.8		ug/L		104	80 - 120	2	12
Chloroethane	20.0	21.0		ug/L		105	72 - 120	0	15
Chloroform	20.0	21.9		ug/L		109	73 - 129	1	14
Chloromethane	20.0	16.1		ug/L		80	12 - 150	4	20
cis-1,2-Dichloroethene	20.0	20.3		ug/L		101	76 - 125	4	15
cis-1,3-Dichloropropene	20.0	18.5		ug/L		93	74 - 140	3	15
Cyclohexane	20.0	18.5		ug/L		92	73 - 122	1	16
Dibromochloromethane	20.0	20.5		ug/L		103	69 - 133	0	13
Dichlorodifluoromethane	20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene	20.0	19.1		ug/L		95	80 - 130	2	12
Isopropylbenzene	20.0	19.0		ug/L		95	80 - 141	0	13
Methyl acetate	40.0	37.8		ug/L		94	64 - 150	2	18
Methyl tert-butyl ether	20.0	19.9		ug/L		99	72 - 133	1	16
Methylcyclohexane	20.0	20.9		ug/L		104	71 - 129	1	17
Methylene Chloride	20.0	21.7		ug/L		108	79 - 123	2	15
Styrene	20.0	18.8		ug/L		94	80 - 127	1	12
Tetrachloroethene	20.0	21.1		ug/L		105	80 - 126	1	17
Toluene	20.0	19.5		ug/L		98	80 - 126	0	13
trans-1,2-Dichloroethene	20.0	19.2		ug/L		96	79 - 126	2	15
trans-1,3-Dichloropropene	20.0	18.7		ug/L		94	63 - 134	1	13
Trichloroethene	20.0	23.4		ug/L		117	80 - 123	3	14
Trichlorofluoromethane	20.0	26.0	*	ug/L		130	65 - 124	0	22
Vinyl chloride	20.0	19.1		ug/L		96	68 - 120	1	15
Xylenes, Total	40.0	37.0		ug/L		93	80 - 132	2	11

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475277/4
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: 480-127094-2 MS
Matrix: Water
Analysis Batch: 475277

Client Sample ID: MW-21S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		20.0	23.7		ug/L		119	68 - 144
1,1,2,2-Tetrachloroethane	ND		20.0	19.6		ug/L		98	56 - 145
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20.0	23.7		ug/L		118	63 - 150
1,1,2-Trichloroethane	ND		20.0	20.7		ug/L		104	70 - 130
1,1-Dichloroethane	ND		20.0	20.6		ug/L		103	61 - 139
1,1-Dichloroethene	ND		20.0	21.5		ug/L		108	54 - 150
1,2,4-Trichlorobenzene	ND		20.0	16.1		ug/L		81	47 - 147
1,2-Dibromo-3-Chloropropane	ND		20.0	18.3		ug/L		91	38 - 138
1,2-Dibromoethane	ND		20.0	21.1		ug/L		105	65 - 137
1,2-Dichlorobenzene	ND		20.0	20.7		ug/L		104	70 - 130
1,2-Dichloroethane	ND		20.0	22.8		ug/L		114	64 - 136
1,2-Dichloropropane	ND		20.0	20.6		ug/L		103	67 - 130
1,3-Dichlorobenzene	ND		20.0	20.8		ug/L		104	68 - 131
1,4-Dichlorobenzene	ND		20.0	21.2		ug/L		106	70 - 130
2-Butanone (MEK)	ND		100	109		ug/L		109	50 - 143
2-Hexanone	ND		100	87.4		ug/L		87	44 - 150
4-Methyl-2-pentanone (MIBK)	ND		100	87.5		ug/L		88	50 - 140
Acetone	ND		100	92.1		ug/L		92	39 - 150
Benzene	ND		20.0	20.3		ug/L		101	55 - 147
Bromodichloromethane	ND		20.0	23.1		ug/L		116	70 - 140
Bromoform	ND		20.0	21.1		ug/L		105	53 - 150
Bromomethane	ND		20.0	18.7		ug/L		93	30 - 150
Carbon disulfide	ND		20.0	20.3		ug/L		102	35 - 150
Carbon tetrachloride	ND		20.0	24.3		ug/L		121	56 - 150
Chlorobenzene	ND		20.0	21.4		ug/L		107	70 - 130
Chloroethane	ND		20.0	20.9		ug/L		105	58 - 141
Chloroform	0.39	J	20.0	23.6		ug/L		116	66 - 138
Chloromethane	ND		20.0	15.3		ug/L		77	10 - 150
cis-1,2-Dichloroethene	57		20.0	74.6		ug/L		89	68 - 131
cis-1,3-Dichloropropene	ND		20.0	18.4		ug/L		92	70 - 133
Cyclohexane	ND		20.0	19.3		ug/L		96	48 - 150
Dibromochloromethane	ND		20.0	21.7		ug/L		108	66 - 140
Dichlorodifluoromethane	ND		20.0	18.8		ug/L		94	10 - 150
Ethylbenzene	ND		20.0	20.0		ug/L		100	65 - 139
Isopropylbenzene	ND		20.0	19.3		ug/L		96	70 - 137
Methyl acetate	ND		40.0	35.4		ug/L		88	42 - 136
Methyl tert-butyl ether	ND		20.0	20.2		ug/L		101	55 - 141

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-127094-2 MS
Matrix: Water
Analysis Batch: 475277

Client Sample ID: MW-21S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	ND		20.0	21.2		ug/L		106	59 - 150
Methylene Chloride	ND		20.0	21.6		ug/L		108	64 - 130
Styrene	ND		20.0	17.8		ug/L		89	70 - 130
Tetrachloroethene	58		20.0	78.5		ug/L		100	57 - 138
Toluene	ND		20.0	19.9		ug/L		100	64 - 136
trans-1,2-Dichloroethene	0.32	J	20.0	20.8		ug/L		102	59 - 143
trans-1,3-Dichloropropene	ND		20.0	18.7		ug/L		93	63 - 142
Trichloroethene	22		20.0	45.2		ug/L		117	63 - 135
Trichlorofluoromethane	ND	*	20.0	27.0		ug/L		135	44 - 150
Vinyl chloride	8.3		20.0	27.8		ug/L		98	57 - 150
Xylenes, Total	ND		40.0	39.5		ug/L		99	69 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: 480-127094-2 MSD
Matrix: Water
Analysis Batch: 475277

Client Sample ID: MW-21S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		20.0	24.5		ug/L		123	68 - 144	3	17
1,1,2,2-Tetrachloroethane	ND		20.0	19.4		ug/L		97	56 - 145	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20.0	23.8		ug/L		119	63 - 150	1	18
1,1,2-Trichloroethane	ND		20.0	21.6		ug/L		108	70 - 130	4	15
1,1-Dichloroethane	ND		20.0	21.5		ug/L		107	61 - 139	4	17
1,1-Dichloroethene	ND		20.0	22.5		ug/L		113	54 - 150	5	17
1,2,4-Trichlorobenzene	ND		20.0	17.4		ug/L		87	47 - 147	8	19
1,2-Dibromo-3-Chloropropane	ND		20.0	18.8		ug/L		94	38 - 138	3	24
1,2-Dibromoethane	ND		20.0	21.6		ug/L		108	65 - 137	2	15
1,2-Dichlorobenzene	ND		20.0	21.5		ug/L		107	70 - 130	3	15
1,2-Dichloroethane	ND		20.0	22.4		ug/L		112	64 - 136	2	17
1,2-Dichloropropane	ND		20.0	20.7		ug/L		103	67 - 130	0	17
1,3-Dichlorobenzene	ND		20.0	21.4		ug/L		107	68 - 131	3	15
1,4-Dichlorobenzene	ND		20.0	22.1		ug/L		110	70 - 130	4	15
2-Butanone (MEK)	ND		100	113		ug/L		113	50 - 143	3	19
2-Hexanone	ND		100	91.5		ug/L		92	44 - 150	5	15
4-Methyl-2-pentanone (MIBK)	ND		100	91.2		ug/L		91	50 - 140	4	17
Acetone	ND		100	93.3		ug/L		93	39 - 150	1	21
Benzene	ND		20.0	21.0		ug/L		105	55 - 147	4	17
Bromodichloromethane	ND		20.0	23.0		ug/L		115	70 - 140	1	18
Bromoform	ND		20.0	21.4		ug/L		107	53 - 150	2	16
Bromomethane	ND		20.0	20.8		ug/L		104	30 - 150	11	50
Carbon disulfide	ND		20.0	20.9		ug/L		105	35 - 150	3	21
Carbon tetrachloride	ND		20.0	25.4		ug/L		127	56 - 150	5	19

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-127094-2 MSD
Matrix: Water
Analysis Batch: 475277

Client Sample ID: MW-21S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	ND		20.0	22.3		ug/L		112	70 - 130	4	14
Chloroethane	ND		20.0	21.5		ug/L		107	58 - 141	3	20
Chloroform	0.39	J	20.0	23.8		ug/L		117	66 - 138	1	18
Chloromethane	ND		20.0	16.1		ug/L		80	10 - 150	5	31
cis-1,2-Dichloroethene	57		20.0	76.7		ug/L		99	68 - 131	3	17
cis-1,3-Dichloropropene	ND		20.0	19.5		ug/L		98	70 - 133	6	15
Cyclohexane	ND		20.0	20.1		ug/L		100	48 - 150	4	16
Dibromochloromethane	ND		20.0	22.4		ug/L		112	66 - 140	3	15
Dichlorodifluoromethane	ND		20.0	20.4		ug/L		102	10 - 150	8	18
Ethylbenzene	ND		20.0	21.0		ug/L		105	65 - 139	5	15
Isopropylbenzene	ND		20.0	20.2		ug/L		101	70 - 137	5	16
Methyl acetate	ND		40.0	34.2		ug/L		85	42 - 136	3	31
Methyl tert-butyl ether	ND		20.0	21.1		ug/L		106	55 - 141	5	16
Methylcyclohexane	ND		20.0	22.7		ug/L		114	59 - 150	7	19
Methylene Chloride	ND		20.0	22.4		ug/L		112	64 - 130	4	17
Styrene	ND		20.0	18.0		ug/L		90	70 - 130	1	24
Tetrachloroethene	58		20.0	80.5		ug/L		110	57 - 138	3	16
Toluene	ND		20.0	21.2		ug/L		106	64 - 136	6	15
trans-1,2-Dichloroethene	0.32	J	20.0	21.3		ug/L		105	59 - 143	2	16
trans-1,3-Dichloropropene	ND		20.0	19.3		ug/L		97	63 - 142	3	14
Trichloroethene	22		20.0	44.4		ug/L		113	63 - 135	2	17
Trichlorofluoromethane	ND	*	20.0	28.1		ug/L		140	44 - 150	4	18
Vinyl chloride	8.3		20.0	28.8		ug/L		103	57 - 150	3	17
Xylenes, Total	ND		40.0	40.1		ug/L		100	69 - 132	2	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-194293/1-A
Matrix: Water
Analysis Batch: 194694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 194293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/13/17 10:03	11/14/17 17:05	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-194293/1-A
Matrix: Water
Analysis Batch: 194694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 194293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorohexanesulfonic acid (PFHxS)	0.272	J	2.0	0.17	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/13/17 10:03	11/14/17 17:05	1
Perfluorooctane Sulfonamide (FOSA)	0.370	J	2.0	0.35	ng/L		11/13/17 10:03	11/14/17 17:05	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*89*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C4 PFBA	*104*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C2 PFHxA	*95*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C4 PFOA	*89*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C5 PFNA	*97*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C2 PFDA	*103*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C2 PFUnA	*99*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C2 PFDoA	*91*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
18O2 PFHxS	*93*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C4 PFOS	*92*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C4-PFHpA	*99*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C5 PFPeA	*102*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C3-PFBS	*97*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*
13C2-PFTeDA	*103*		*25 - 150*	*11/13/17 10:03*	*11/14/17 17:05*	*1*

Lab Sample ID: LCS 320-194293/2-A
Matrix: Water
Analysis Batch: 194694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	40.4		ng/L		101	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	38.8		ng/L		97	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	38.9		ng/L		97	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	40.0		ng/L		100	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	41.6		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	40.0	39.5		ng/L		99	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	40.3		ng/L		101	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	39.1		ng/L		98	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	42.5		ng/L		106	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	46.8		ng/L		117	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	39.9		ng/L		100	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	36.3		ng/L		103	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.4		ng/L		95	77 - 137

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-194293/2-A
Matrix: Water
Analysis Batch: 194694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.6		ng/L		101	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	36.1		ng/L		97	74 - 134
Perfluorodecanesulfonic acid (PFDS)	38.6	36.4		ng/L		94	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	41.3		ng/L		103	82 - 142

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C8 FOSA	*90*		*25 - 150*
13C4 PFBA	*108*		*25 - 150*
13C2 PFHxA	*102*		*25 - 150*
13C4 PFOA	*89*		*25 - 150*
13C5 PFNA	*101*		*25 - 150*
13C2 PFDA	*102*		*25 - 150*
13C2 PFUnA	*98*		*25 - 150*
13C2 PFDoA	*87*		*25 - 150*
18O2 PFHxS	*94*		*25 - 150*
13C4 PFOS	*96*		*25 - 150*
13C4-PFHpA	*102*		*25 - 150*
13C5 PFPeA	*102*		*25 - 150*
13C3-PFBS	*99*		*25 - 150*
13C2-PFTeDA	*94*		*25 - 150*

Lab Sample ID: LCSD 320-194293/3-A
Matrix: Water
Analysis Batch: 194694

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 194293

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	41.6		ng/L		104	78 - 138	3	30
Perfluoropentanoic acid (PFPeA)	40.0	38.5		ng/L		96	66 - 136	1	30
Perfluorohexanoic acid (PFHxA)	40.0	40.3		ng/L		101	76 - 136	4	30
Perfluoroheptanoic acid (PFHpA)	40.0	40.6		ng/L		102	78 - 138	1	30
Perfluorooctanoic acid (PFOA)	40.0	39.8		ng/L		100	70 - 130	4	30
Perfluorononanoic acid (PFNA)	40.0	38.7		ng/L		97	77 - 137	2	30
Perfluorodecanoic acid (PFDA)	40.0	39.9		ng/L		100	74 - 134	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	38.0		ng/L		95	68 - 128	3	30
Perfluorododecanoic acid (PFDoA)	40.0	40.8		ng/L		102	72 - 132	4	30
Perfluorotridecanoic Acid (PFTriA)	40.0	47.1		ng/L		118	56 - 163	1	30
Perfluorotetradecanoic acid (PFTeA)	40.0	39.0		ng/L		98	63 - 123	2	30
Perfluorobutanesulfonic acid (PFBS)	35.4	34.4		ng/L		97	79 - 139	5	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.0		ng/L		99	77 - 137	4	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	41.5		ng/L		109	83 - 143	7	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-194293/3-A
Matrix: Water
Analysis Batch: 194694

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 194293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)			37.1	36.4		ng/L		98	74 - 134	1	30
Perfluorodecanesulfonic acid (PFDS)			38.6	38.1		ng/L		99	75 - 135	5	30
Perfluorooctane Sulfonamide (FOSA)			40.0	42.2		ng/L		106	82 - 142	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C8 FOSA	*88*		*25 - 150*
13C4 PFBA	*103*		*25 - 150*
13C2 PFHxA	*98*		*25 - 150*
13C4 PFOA	*90*		*25 - 150*
13C5 PFNA	*97*		*25 - 150*
13C2 PFDA	*97*		*25 - 150*
13C2 PFUnA	*98*		*25 - 150*
13C2 PFDoA	*88*		*25 - 150*
18O2 PFHxS	*89*		*25 - 150*
13C4 PFOS	*89*		*25 - 150*
13C4-PFHpA	*96*		*25 - 150*
13C5 PFPeA	*101*		*25 - 150*
13C3-PFBS	*104*		*25 - 150*
13C2-PFTeDA	*100*		*25 - 150*

Lab Sample ID: 480-127094-2 MS
Matrix: Water
Analysis Batch: 194694

Client Sample ID: MW-21S
Prep Type: Total/NA
Prep Batch: 194293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	26		43.6	72.5		ng/L		107	78 - 138
Perfluoropentanoic acid (PFPeA)	74		43.6	120		ng/L		107	66 - 136
Perfluorohexanoic acid (PFHxA)	66		43.6	116		ng/L		116	76 - 136
Perfluoroheptanoic acid (PFHpA)	48		43.6	86.6		ng/L		89	78 - 138
Perfluorooctanoic acid (PFOA)	110		43.6	154		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	29		43.6	71.3		ng/L		96	77 - 137
Perfluorodecanoic acid (PFDA)	87		43.6	131		ng/L		101	74 - 134
Perfluoroundecanoic acid (PFUnA)	7.6		43.6	48.5		ng/L		94	68 - 128
Perfluorododecanoic acid (PFDoA)	2.4		43.6	46.1		ng/L		100	72 - 132
Perfluorotridecanoic Acid (PFTriA)	ND		43.6	49.6		ng/L		114	56 - 163
Perfluorotetradecanoic acid (PFTeA)	ND		43.6	41.5		ng/L		95	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35		38.5	77.0		ng/L		109	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	8.8	B	39.7	46.3		ng/L		95	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	3.7		41.5	46.3		ng/L		103	83 - 143
Perfluorooctanesulfonic acid (PFOS)	480		40.5	517	4	ng/L		96	74 - 134

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-127094-2 MS
Matrix: Water
Analysis Batch: 194694

Client Sample ID: MW-21S
Prep Type: Total/NA
Prep Batch: 194293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorodecanesulfonic acid (PFDS)	ND		42.0	40.2		ng/L		96	75 - 135
Perfluorooctane Sulfonamide (FOSA)	4.5	B	43.6	49.5		ng/L		103	82 - 142

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C8 FOSA	*87*		*25 - 150*
13C4 PFBA	*66*		*25 - 150*
13C2 PFHxA	*83*		*25 - 150*
13C4 PFOA	*84*		*25 - 150*
13C5 PFNA	*94*		*25 - 150*
13C2 PFDA	*109*		*25 - 150*
13C2 PFUnA	*100*		*25 - 150*
13C2 PFDoA	*90*		*25 - 150*
18O2 PFHxS	*85*		*25 - 150*
13C4 PFOS	*89*		*25 - 150*
13C4-PFHpA	*88*		*25 - 150*
13C5 PFPeA	*82*		*25 - 150*
13C3-PFBS	*93*		*25 - 150*
13C2-PFTeDA	*93*		*25 - 150*

Lab Sample ID: 480-127094-2 MSD
Matrix: Water
Analysis Batch: 194694

Client Sample ID: MW-21S
Prep Type: Total/NA
Prep Batch: 194293

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	26		41.1	70.3		ng/L		108	78 - 138	3	30
Perfluoropentanoic acid (PFPeA)	74		41.1	116		ng/L		103	66 - 136	4	30
Perfluorohexanoic acid (PFHxA)	66		41.1	108		ng/L		103	76 - 136	7	30
Perfluoroheptanoic acid (PFHpA)	48		41.1	89.2		ng/L		101	78 - 138	3	30
Perfluorooctanoic acid (PFOA)	110		41.1	151		ng/L		93	70 - 130	2	30
Perfluorononanoic acid (PFNA)	29		41.1	73.3		ng/L		107	77 - 137	3	30
Perfluorodecanoic acid (PFDA)	87		41.1	134		ng/L		114	74 - 134	2	30
Perfluoroundecanoic acid (PFUnA)	7.6		41.1	49.0		ng/L		101	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)	2.4		41.1	46.8		ng/L		108	72 - 132	2	30
Perfluorotridecanoic Acid (PFTriA)	ND		41.1	46.6		ng/L		114	56 - 163	6	30
Perfluorotetradecanoic acid (PFTeA)	ND		41.1	40.6		ng/L		99	63 - 123	2	30
Perfluorobutanesulfonic acid (PFBS)	35		36.3	78.1		ng/L		118	79 - 139	1	30
Perfluorohexanesulfonic acid (PFHxS)	8.8	B	37.4	46.4		ng/L		101	77 - 137	0	30
Perfluoroheptanesulfonic Acid (PFHpS)	3.7		39.1	48.2		ng/L		114	83 - 143	4	30
Perfluorooctanesulfonic acid (PFOS)	480		38.1	514	4	ng/L		97	74 - 134	0	30
Perfluorodecanesulfonic acid (PFDS)	ND		39.6	39.6		ng/L		100	75 - 135	2	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-127094-2 MSD
Matrix: Water
Analysis Batch: 194694

Client Sample ID: MW-21S
Prep Type: Total/NA
Prep Batch: 194293

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctane Sulfonamide (FOSA)	4.5	B	41.1	48.5		ng/L		107	82 - 142	2	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C8 FOSA	*88*		*25 - 150*
13C4 PFBA	*66*		*25 - 150*
13C2 PFHxA	*86*		*25 - 150*
13C4 PFOA	*85*		*25 - 150*
13C5 PFNA	*94*		*25 - 150*
13C2 PFDA	*107*		*25 - 150*
13C2 PFUnA	*105*		*25 - 150*
13C2 PFDoA	*91*		*25 - 150*
18O2 PFHxS	*88*		*25 - 150*
13C4 PFOS	*90*		*25 - 150*
13C4-PFHpA	*87*		*25 - 150*
13C5 PFPeA	*85*		*25 - 150*
13C3-PFBS	*92*		*25 - 150*
13C2-PFTeDA	*92*		*25 - 150*

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

GC/MS VOA

Analysis Batch: 474930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127094-1	MW-22(R)D	Total/NA	Water	8260C	
MB 490-474930/6	Method Blank	Total/NA	Water	8260C	
LCS 490-474930/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-474930/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127094-3	TRIP BLANKS	Total/NA	Water	8260C	
MB 490-475225/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475225/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475225/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127094-2	MW-21S	Total/NA	Water	8260C	
MB 490-475277/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475277/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475277/4	Lab Control Sample Dup	Total/NA	Water	8260C	
480-127094-2 MS	MW-21S	Total/NA	Water	8260C	
480-127094-2 MSD	MW-21S	Total/NA	Water	8260C	

LCMS

Prep Batch: 194293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127094-1	MW-22(R)D	Total/NA	Water	3535	
480-127094-2	MW-21S	Total/NA	Water	3535	
MB 320-194293/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-194293/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-194293/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
480-127094-2 MS	MW-21S	Total/NA	Water	3535	
480-127094-2 MSD	MW-21S	Total/NA	Water	3535	

Analysis Batch: 194694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127094-1	MW-22(R)D	Total/NA	Water	537 (modified)	194293
480-127094-2	MW-21S	Total/NA	Water	537 (modified)	194293
MB 320-194293/1-A	Method Blank	Total/NA	Water	537 (modified)	194293
LCS 320-194293/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	194293
LCSD 320-194293/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	194293
480-127094-2 MS	MW-21S	Total/NA	Water	537 (modified)	194293
480-127094-2 MSD	MW-21S	Total/NA	Water	537 (modified)	194293

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Client Sample ID: MW-22(R)D

Lab Sample ID: 480-127094-1
Date Collected: 11/03/17 09:35
Matrix: Water
Date Received: 11/04/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	474930	11/10/17 21:31	P1B	TAL NSH
Total/NA	Prep	3535			194293	11/13/17 10:03	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194694	11/14/17 18:55	ABH	TAL SAC

Client Sample ID: MW-21S

Lab Sample ID: 480-127094-2
Date Collected: 11/03/17 11:40
Matrix: Water
Date Received: 11/04/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475277	11/12/17 06:56	AK1	TAL NSH
Total/NA	Prep	3535			194293	11/13/17 10:03	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	194694	11/14/17 19:03	ABH	TAL SAC

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-127094-3
Date Collected: 11/03/17 00:00
Matrix: Water
Date Received: 11/04/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 18:19	S1S	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	01-01-18
Arizona	State Program	9	AZ0473	05-05-18
Arkansas DEQ	State Program	6	88-0737	04-25-18
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FL)/453.07(A2LA)	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	12-31-17
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18
New York	NELAP	2	11342	03-31-18
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-18
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-27-18
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-28-18
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18
Virginia	NELAP	3	460152	06-14-18
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-17

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17 *
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-28-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127094-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127094-1	MW-22(R)D	Water	11/03/17 09:35	11/04/17 09:00
480-127094-2	MW-21S	Water	11/03/17 11:40	11/04/17 09:00
480-127094-3	TRIP BLANKS	Water	11/03/17 00:00	11/04/17 09:00

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Athomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.4
Client Contact: Aaron Bobar	Phone: (518) 396 7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 4 of 10
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065	PO #: 00266417.0000			
Phone: (518) 250-7300	WO #:			
Email: aaron.bobar@arcadis-us.com	Project #: 48008440			
Project Name: Crown Dykman - Glen Cove, NY	SSOW#:			
Site: Crown Dykman				

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic A
I - Ice
J - DI Water
K - EDTA
L - EDA
W - pH 4-5
Z - other (specify)
Other:

480-127094 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-22(R)D	11-3-17	0935	G	Water	N	Y	X	X	5	
MW-21S	11-3-17	1140	G	Water	N	Y	X	X	15	
Trip Blanks	-	-	-	Water	N	N	X		2	
				Water						
				Water						
	11-3-17			Water						
				Water						
				Water						
				Water						
				Water						
				Water						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11-3-17 1330	Arcadis		11/3/17 15:31	
2	D Woody	11/3/17 1700	TAN YC		11/4/17 0940	
3						

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.0 #1

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Athomas	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.4
Client Contact: Aaron Bobar	Phone: (518) 396 7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 4 of 10
Company: ARCADIS U.S. Inc		Analysis Requested		Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			Preservation Codes:
City: Clifton Park	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			Other:
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-22(R)D	11-3-17	0935	G	Water	N	N	X	X	5	
MW-21S	11-3-17	1140	G	Water	N	Y	X	X	15	
Trip Blanks	—	—	—	Water	N	N	X		2	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

11-3-17

480-127094 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		11-3-17 1330	Arcadis		11/3/17 15:31	
2	D Woody	11/3/17 1720	TANYC		11/04/17 930	TAnyc
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0-7

Ver: 08/04/2016

11/20/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

480-127094 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 11/10/17 0950

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 3769 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.5 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO..NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES..NO...NA

b. Was there any observable headspace present in any VOA vial? YES..NO..NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES..NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES..NO...NA

16. Was residual chlorine present? YES...NO..NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..# es

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-127094

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L	COC No: 480-38775.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	State of Origin: New York
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Page: Page 1 of 1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/15/2017		Job #: 480-127094-1
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-22(R)D (480-127094-1)	11/3/17	09:35 Eastern		Water			X	3	
MW-21S (480-127094-2)	11/3/17	11:40 Eastern		Water			X	3	
MW-21S (480-127094-2MS)	11/3/17	11:40 Eastern	MS	Water			X	3	
MW-21S (480-127094-2MSD)	11/3/17	11:40 Eastern	MSD	Water			X	3	
TRIP BLANKS (480-127094-3)	11/3/17	Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 11/9/17 1900	Company	Received by:	Date/Time: 11-10-17 9:50	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5

Ver: 09/20/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Samp

480-127094 Field Sheet

Job:

Tracking # 770668166976 P.O

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Notes:

Therm. ID: AK-2 / AK-3 / HACCP /Other

Ice X Wet X Dry Other

Cooler Custody Seal: —

Sample Custody Seal: —

Cooler ID: —

Temp: Observed 0.7°C

Corrected: —

From: Temp Blank ~~X~~ AA Sample X

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	X
CoC is complete w/o discrepancies?	X	☐	☐
Samples received within holding time?	X	☐	☐
Sample preservatives verified?	☐	☐	X
Cooler compromised/tampered with?	☐	X	☐
Samples compromised/tampered with?	☐	X	☐
COC and Samples w/o discrepancies?	X	☐	☐
Sample containers have legible labels?	X	☐	☐
Containers are not broken or leaking?	X	☐	☐
Sample date/times are provided.	X	☐	☐
Appropriate containers are used?	X	☐	☐
Sample bottles are completely filled?	X	☐	☐
Zero headspace?*	☐	☐	X
Multiphasic samples are not present?	X	☐	☐

Initials: AA Date: 11/04/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")


ORIGIN ID:TSSA (212) 643-2367
TESTAMERICA NYC
231 W 29TH STREET
SUITE 904
NEW YORK NY 10001
UNITED STATES US
SHIP DATE: 03NOV17
ACTWGT: 10.00 LB
CAD: 101905570/INET3920
BILL THIRD PARTY
TO SAMPLE RECEIVING SAC
TESTAMERICA
880 RIVERSIDE PKWY
WEST SACRAMENTO CA 95605
(906) 373-5600
INV
PO
REF
549J3FB77104C
FedEx Express
SATURDAY 12:00P
PRIORITY OVERNIGHT
TRK# 0201 7706 6816 6976
95605
CA-US SMF
XO BLUA

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127094-1

Login Number: 127094
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127094-1

Login Number: 127094
List Number: 2
Creator: Turpen, Troy

List Source: TestAmerica Sacramento
List Creation: 11/07/17 01:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127162-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Melissa Deyo

Authorized for release by:
11/22/2017 9:57:26 AM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Job ID: 480-127162-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127162-1

Receipt
The samples were received on 11/7/2017 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475225 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The following samples was diluted due to the nature of the sample matrix: MW-10S (480-127162-1), MW-10D (480-127162-3), MW-18 (480-127162-4) and MW-11 (480-127162-6). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-474935 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane, Dichlorodifluoromethane and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: MW-8 (480-127162-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method(s) 537 (modified): The following samples were diluted to bring the concentration of Perfluorooctanesulfonic acid (PFOS) within the calibration range: MW-8 (480-127162-5) and MW-11 (480-127162-6). Elevated reporting limits (RLs) are provided.

Method(s) 537 (modified): The peak identified by the data system exhibited chromatographic interference that could not be resolved for Perfluorobutanoic acid (PFBA). There is reason to suspect there my be a high bias in the following samples: MW-10D (480-127162-3), MW-8 (480-127162-5) and MW-11 (480-127162-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: The following samples: MW-10D (480-127162-3), MW-18 (480-127162-4), MW-8 (480-127162-5) and MW-11 (480-127162-6) were decanted prior to preparation due to containing excess sediment that had the potential to clog the solid-phase column.

Prep Batch: 320-194884
Method Code: 3535_PFC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Client Sample ID: MW-10S — Lab Sample ID: 480-127162-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	550		5.0	1.1	ug/L	5		8260C	Total/NA
Tetrachloroethene	560		5.0	0.70	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	2.9	J	5.0	1.2	ug/L	5		8260C	Total/NA
Trichloroethene	210		5.0	1.0	ug/L	5		8260C	Total/NA
Vinyl chloride	33		5.0	0.90	ug/L	5		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	21		2.1	0.36	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	14		2.1	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	15		2.1	0.60	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	13		2.1	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	38		2.1	0.88	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.0		2.1	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	9.5		2.1	0.32	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.1	J	2.1	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.8		2.1	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.3	B	2.1	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.2	J	2.1	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	120		2.1	0.56	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.1	J	2.1	0.36	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-5R — Lab Sample ID: 480-127162-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.31	J	1.0	0.24	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.38	J	1.0	0.25	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.1		1.0	0.21	ug/L	1		8260C	Total/NA
Trichloroethene	0.26	J	1.0	0.20	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	28		2.1	0.36	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	30		2.1	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	41		2.1	0.60	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	44		2.1	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	120		2.1	0.88	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.8		2.1	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.55	J	2.1	0.32	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.6	J	2.1	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	53		2.1	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	25	B	2.1	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.1		2.1	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	52		2.1	0.56	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-10D — Lab Sample ID: 480-127162-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.2	J	5.0	1.3	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	830		5.0	1.1	ug/L	5		8260C	Total/NA
Tetrachloroethene	400		5.0	0.70	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	5.1		5.0	1.2	ug/L	5		8260C	Total/NA
Trichloroethene	420		5.0	1.0	ug/L	5		8260C	Total/NA
Vinyl chloride	4.3	J	5.0	0.90	ug/L	5		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	32	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Client Sample ID: MW-10D (Continued) — Lab Sample ID: 480-127162-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	5.6		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	11		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	7.4		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	31		2.0	0.85	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.2		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.2	J	2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.5		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.5	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.92	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	75		2.0	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.66	J	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-18 — Lab Sample ID: 480-127162-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	940		5.0	1.1	ug/L	5		8260C	Total/NA
Tetrachloroethene	78		5.0	0.70	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	5.6		5.0	1.2	ug/L	5		8260C	Total/NA
Trichloroethene	520		5.0	1.0	ug/L	5		8260C	Total/NA
Vinyl chloride	40		5.0	0.90	ug/L	5		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	20		2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	24		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	23		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	17		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	49		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	7.5		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	12		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.3	J	2.0	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	15		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.8	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.3	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	150		2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.81	J	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-8 — Lab Sample ID: 480-127162-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	86		10	2.1	ug/L	10		8260C	Total/NA
Ethylbenzene	120		10	1.9	ug/L	10		8260C	Total/NA
Isopropylbenzene	66		10	3.3	ug/L	10		8260C	Total/NA
Methylcyclohexane	9.8	J	50	0.90	ug/L	10		8260C	Total/NA
Methylene Chloride	10	J	50	10	ug/L	10		8260C	Total/NA
Toluene	58		10	1.7	ug/L	10		8260C	Total/NA
Vinyl chloride	13		10	1.8	ug/L	10		8260C	Total/NA
Xylenes, Total	1100		30	5.8	ug/L	10		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	190	CI	2.1	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	13		2.1	0.60	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	13		2.1	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	93		2.1	0.88	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-8 (Continued) — Lab Sample ID: 480-127162-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	16		2.1	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	6.7		2.1	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	13		2.1	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	20	B	2.1	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	13		2.1	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	3.9		2.1	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	1700		21	5.6	ng/L	10		537 (modified)	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 480-127162-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	21		5.0	1.0	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	650		5.0	1.1	ug/L	5		8260C	Total/NA
Ethylbenzene	47		5.0	0.95	ug/L	5		8260C	Total/NA
Isopropylbenzene	15		5.0	1.7	ug/L	5		8260C	Total/NA
Methyl tert-butyl ether	63		5.0	0.85	ug/L	5		8260C	Total/NA
Tetrachloroethene	3.2	J	5.0	0.70	ug/L	5		8260C	Total/NA
Toluene	36		5.0	0.85	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	9.6		5.0	1.2	ug/L	5		8260C	Total/NA
Vinyl chloride	370		5.0	0.90	ug/L	5		8260C	Total/NA
Xylenes, Total	210		15	2.9	ug/L	5		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	450	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	18		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	16		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	120		2.0	0.85	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	26		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	6.9		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	14		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	28	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	13		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.2	J	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	1800		20	5.4	ng/L	10		537 (modified)	Total/NA

Client Sample ID: TRIP BLANKS — Lab Sample ID: 480-127162-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-10S

Date Collected: 11/06/17 12:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 22:40	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			11/11/17 22:40	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	5.0	0.75	ug/L			11/11/17 22:40	5
1,1,2-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 22:40	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			11/11/17 22:40	5
1,1-Dichloroethene	ND		5.0	1.3	ug/L			11/11/17 22:40	5
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/L			11/11/17 22:40	5
1,2-Dibromo-3-Chloropropane	ND		50	4.7	ug/L			11/11/17 22:40	5
1,2-Dibromoethane	ND		5.0	1.1	ug/L			11/11/17 22:40	5
1,2-Dichlorobenzene	ND		5.0	0.95	ug/L			11/11/17 22:40	5
1,2-Dichloroethane	ND		5.0	1.0	ug/L			11/11/17 22:40	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			11/11/17 22:40	5
1,3-Dichlorobenzene	ND		5.0	0.90	ug/L			11/11/17 22:40	5
1,4-Dichlorobenzene	ND		5.0	0.85	ug/L			11/11/17 22:40	5
2-Butanone (MEK)	ND		250	13	ug/L			11/11/17 22:40	5
2-Hexanone	ND		50	6.4	ug/L			11/11/17 22:40	5
4-Methyl-2-pentanone (MIBK)	ND		50	4.1	ug/L			11/11/17 22:40	5
Acetone	ND		130	13	ug/L			11/11/17 22:40	5
Benzene	ND		5.0	1.0	ug/L			11/11/17 22:40	5
Bromodichloromethane	ND		5.0	0.85	ug/L			11/11/17 22:40	5
Bromoform	ND		5.0	1.5	ug/L			11/11/17 22:40	5
Bromomethane	ND		5.0	1.8	ug/L			11/11/17 22:40	5
Carbon disulfide	ND		5.0	1.1	ug/L			11/11/17 22:40	5
Carbon tetrachloride	ND		5.0	0.90	ug/L			11/11/17 22:40	5
Chlorobenzene	ND		5.0	0.90	ug/L			11/11/17 22:40	5
Chloroethane	ND		5.0	1.8	ug/L			11/11/17 22:40	5
Chloroform	ND		5.0	1.2	ug/L			11/11/17 22:40	5
Chloromethane	ND		5.0	1.8	ug/L			11/11/17 22:40	5
cis-1,2-Dichloroethene	**550**		5.0	1.1	ug/L			11/11/17 22:40	5
cis-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 22:40	5
Cyclohexane	ND		25	0.65	ug/L			11/11/17 22:40	5
Dibromochloromethane	ND		5.0	1.3	ug/L			11/11/17 22:40	5
Dichlorodifluoromethane	ND		5.0	0.85	ug/L			11/11/17 22:40	5
Ethylbenzene	ND		5.0	0.95	ug/L			11/11/17 22:40	5
Isopropylbenzene	ND		5.0	1.7	ug/L			11/11/17 22:40	5
Methyl acetate	ND		50	2.9	ug/L			11/11/17 22:40	5
Methyl tert-butyl ether	ND		5.0	0.85	ug/L			11/11/17 22:40	5
Methylcyclohexane	ND		25	0.45	ug/L			11/11/17 22:40	5
Methylene Chloride	ND		25	5.0	ug/L			11/11/17 22:40	5
Styrene	ND		5.0	1.4	ug/L			11/11/17 22:40	5
Tetrachloroethene	**560**		5.0	0.70	ug/L			11/11/17 22:40	5
Toluene	ND		5.0	0.85	ug/L			11/11/17 22:40	5
trans-1,2-Dichloroethene	**2.9**	**J**	5.0	1.2	ug/L			11/11/17 22:40	5
trans-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 22:40	5
Trichloroethene	**210**		5.0	1.0	ug/L			11/11/17 22:40	5
Trichlorofluoromethane	ND		5.0	1.1	ug/L			11/11/17 22:40	5
Vinyl chloride	**33**		5.0	0.90	ug/L			11/11/17 22:40	5
Xylenes, Total	ND		15	2.9	ug/L			11/11/17 22:40	5

Client Sample ID: MW-10S

Date Collected: 11/06/17 12:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		11/11/17 22:40	5
4-Bromofluorobenzene (Surr)	94		70 - 130		11/11/17 22:40	5
Dibromofluoromethane (Surr)	110		70 - 130		11/11/17 22:40	5
Toluene-d8 (Surr)	97		70 - 130		11/11/17 22:40	5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**21**		2.1	0.36	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluoropentanoic acid (PFPeA)	**14**		2.1	0.51	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorohexanoic acid (PFHxA)	**15**		2.1	0.60	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluoroheptanoic acid (PFHpA)	**13**		2.1	0.26	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorooctanoic acid (PFOA)	**38**		2.1	0.88	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorononanoic acid (PFNA)	**5.0**		2.1	0.28	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorodecanoic acid (PFDA)	**9.5**		2.1	0.32	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluoroundecanoic acid (PFUnA)	**1.1**	**J**	2.1	1.1	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.57	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.1	1.3	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.1	0.30	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorobutanesulfonic acid (PFBS)	**9.8**		2.1	0.21	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorohexanesulfonic acid (PFHxS)	**7.3**	**B**	2.1	0.18	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.2**	**J**	2.1	0.20	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorooctanesulfonic acid (PFOS)	**120**		2.1	0.56	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.33	ng/L		11/15/17 12:46	11/17/17 10:14	1
Perfluorooctane Sulfonamide (FOSA)	**1.1**	**J**	2.1	0.36	ng/L		11/15/17 12:46	11/17/17 10:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	94		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C4 PFBA	62		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C2 PFHxA	84		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C4 PFOA	89		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C5 PFNA	98		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C2 PFDA	108		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C2 PFUnA	101		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C2 PFDoA	86		25 - 150	11/15/17 12:46	11/17/17 10:14	1
18O2 PFHxS	93		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C4 PFOS	96		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C4-PFHpA	92		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C5 PFPeA	86		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C3-PFBS	89		25 - 150	11/15/17 12:46	11/17/17 10:14	1
13C2-PFTeDA	86		25 - 150	11/15/17 12:46	11/17/17 10:14	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Client Sample ID: MW-5R
Date Collected: 11/06/17 12:05
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 21:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 21:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 21:22	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 21:22	1
1,1-Dichloroethane	**0.31**	**J**	1.0	0.24	ug/L			11/11/17 21:22	1
1,1-Dichloroethene	**0.38**	**J**	1.0	0.25	ug/L			11/11/17 21:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 21:22	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 21:22	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 21:22	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 21:22	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 21:22	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 21:22	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 21:22	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 21:22	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 21:22	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 21:22	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 21:22	1
Acetone	ND		25	2.7	ug/L			11/11/17 21:22	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 21:22	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 21:22	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 21:22	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 21:22	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 21:22	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 21:22	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 21:22	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 21:22	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 21:22	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 21:22	1
cis-1,2-Dichloroethene	**1.1**		1.0	0.21	ug/L			11/11/17 21:22	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 21:22	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 21:22	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 21:22	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 21:22	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 21:22	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 21:22	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 21:22	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 21:22	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 21:22	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 21:22	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 21:22	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 21:22	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 21:22	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 21:22	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 21:22	1
Trichloroethene	**0.26**	**J**	1.0	0.20	ug/L			11/11/17 21:22	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 21:22	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 21:22	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 21:22	1

Client Sample ID: MW-5R

Date Collected: 11/06/17 12:05
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		11/11/17 21:22	1
4-Bromofluorobenzene (Surr)	99		70 - 130		11/11/17 21:22	1
Dibromofluoromethane (Surr)	110		70 - 130		11/11/17 21:22	1
Toluene-d8 (Surr)	97		70 - 130		11/11/17 21:22	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**28**		2.1	0.36	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluoropentanoic acid (PFPeA)	**30**		2.1	0.50	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorohexanoic acid (PFHxA)	**41**		2.1	0.60	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluoroheptanoic acid (PFHpA)	**44**		2.1	0.26	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorooctanoic acid (PFOA)	**120**		2.1	0.88	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorononanoic acid (PFNA)	**5.8**		2.1	0.28	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorodecanoic acid (PFDA)	**0.55**	**J**	2.1	0.32	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluoroundecanoic acid (PFUnA)	**1.6**	**J**	2.1	1.1	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.57	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.1	1.3	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.1	0.30	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorobutanesulfonic acid (PFBS)	**53**		2.1	0.21	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorohexanesulfonic acid (PFHxS)	**25**	**B**	2.1	0.18	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluoroheptanesulfonic Acid (PFHpS)	**2.1**		2.1	0.20	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorooctanesulfonic acid (PFOS)	**52**		2.1	0.56	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.33	ng/L		11/15/17 12:46	11/17/17 10:22	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.1	0.36	ng/L		11/15/17 12:46	11/17/17 10:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	86		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C4 PFBA	43		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C2 PFHxA	75		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C4 PFOA	81		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C5 PFNA	99		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C2 PFDA	98		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C2 PFUnA	92		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C2 PFDoA	77		25 - 150	11/15/17 12:46	11/17/17 10:22	1
18O2 PFHxS	94		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C4 PFOS	93		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C4-PFHpA	80		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C5 PFPeA	69		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C3-PFBS	88		25 - 150	11/15/17 12:46	11/17/17 10:22	1
13C2-PFTeDA	76		25 - 150	11/15/17 12:46	11/17/17 10:22	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Client Sample ID: MW-10D
Date Collected: 11/06/17 13:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 23:06	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			11/11/17 23:06	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	5.0	0.75	ug/L			11/11/17 23:06	5
1,1,2-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 23:06	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			11/11/17 23:06	5
1,1-Dichloroethene	**2.2**	**J**	5.0	1.3	ug/L			11/11/17 23:06	5
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/L			11/11/17 23:06	5
1,2-Dibromo-3-Chloropropane	ND		50	4.7	ug/L			11/11/17 23:06	5
1,2-Dibromoethane	ND		5.0	1.1	ug/L			11/11/17 23:06	5
1,2-Dichlorobenzene	ND		5.0	0.95	ug/L			11/11/17 23:06	5
1,2-Dichloroethane	ND		5.0	1.0	ug/L			11/11/17 23:06	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			11/11/17 23:06	5
1,3-Dichlorobenzene	ND		5.0	0.90	ug/L			11/11/17 23:06	5
1,4-Dichlorobenzene	ND		5.0	0.85	ug/L			11/11/17 23:06	5
2-Butanone (MEK)	ND		250	13	ug/L			11/11/17 23:06	5
2-Hexanone	ND		50	6.4	ug/L			11/11/17 23:06	5
4-Methyl-2-pentanone (MIBK)	ND		50	4.1	ug/L			11/11/17 23:06	5
Acetone	ND		130	13	ug/L			11/11/17 23:06	5
Benzene	ND		5.0	1.0	ug/L			11/11/17 23:06	5
Bromodichloromethane	ND		5.0	0.85	ug/L			11/11/17 23:06	5
Bromoform	ND		5.0	1.5	ug/L			11/11/17 23:06	5
Bromomethane	ND		5.0	1.8	ug/L			11/11/17 23:06	5
Carbon disulfide	ND		5.0	1.1	ug/L			11/11/17 23:06	5
Carbon tetrachloride	ND		5.0	0.90	ug/L			11/11/17 23:06	5
Chlorobenzene	ND		5.0	0.90	ug/L			11/11/17 23:06	5
Chloroethane	ND		5.0	1.8	ug/L			11/11/17 23:06	5
Chloroform	ND		5.0	1.2	ug/L			11/11/17 23:06	5
Chloromethane	ND		5.0	1.8	ug/L			11/11/17 23:06	5
cis-1,2-Dichloroethene	**830**		5.0	1.1	ug/L			11/11/17 23:06	5
cis-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 23:06	5
Cyclohexane	ND		25	0.65	ug/L			11/11/17 23:06	5
Dibromochloromethane	ND		5.0	1.3	ug/L			11/11/17 23:06	5
Dichlorodifluoromethane	ND		5.0	0.85	ug/L			11/11/17 23:06	5
Ethylbenzene	ND		5.0	0.95	ug/L			11/11/17 23:06	5
Isopropylbenzene	ND		5.0	1.7	ug/L			11/11/17 23:06	5
Methyl acetate	ND		50	2.9	ug/L			11/11/17 23:06	5
Methyl tert-butyl ether	ND		5.0	0.85	ug/L			11/11/17 23:06	5
Methylcyclohexane	ND		25	0.45	ug/L			11/11/17 23:06	5
Methylene Chloride	ND		25	5.0	ug/L			11/11/17 23:06	5
Styrene	ND		5.0	1.4	ug/L			11/11/17 23:06	5
Tetrachloroethene	**400**		5.0	0.70	ug/L			11/11/17 23:06	5
Toluene	ND		5.0	0.85	ug/L			11/11/17 23:06	5
trans-1,2-Dichloroethene	**5.1**		5.0	1.2	ug/L			11/11/17 23:06	5
trans-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 23:06	5
Trichloroethene	**420**		5.0	1.0	ug/L			11/11/17 23:06	5
Trichlorofluoromethane	ND		5.0	1.1	ug/L			11/11/17 23:06	5
Vinyl chloride	**4.3**	**J**	5.0	0.90	ug/L			11/11/17 23:06	5
Xylenes, Total	ND		15	2.9	ug/L			11/11/17 23:06	5

Client Sample ID: MW-10D

Date Collected: 11/06/17 13:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-3

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*11/11/17 23:06*	*5*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 23:06*	*5*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*11/11/17 23:06*	*5*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/11/17 23:06*	*5*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**32**	**CI**	2.0	0.35	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluoropentanoic acid (PFPeA)	**5.6**		2.0	0.49	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorohexanoic acid (PFHxA)	**11**		2.0	0.58	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluoroheptanoic acid (PFHpA)	**7.4**		2.0	0.25	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorooctanoic acid (PFOA)	**31**		2.0	0.85	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorononanoic acid (PFNA)	**2.2**		2.0	0.27	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorodecanoic acid (PFDA)	**1.2**	**J**	2.0	0.31	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorobutanesulfonic acid (PFBS)	**6.5**		2.0	0.20	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorohexanesulfonic acid (PFHxS)	**6.5**	**B**	2.0	0.17	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	**0.92**	**J**	2.0	0.19	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorooctanesulfonic acid (PFOS)	**75**		2.0	0.54	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/15/17 12:46	11/17/17 10:30	1
Perfluorooctane Sulfonamide (FOSA)	**0.66**	**J**	2.0	0.35	ng/L		11/15/17 12:46	11/17/17 10:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*95*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C4 PFBA	*63*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C2 PFHxA	*84*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C4 PFOA	*88*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C5 PFNA	*98*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C2 PFDA	*106*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C2 PFUnA	*103*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C2 PFDoA	*89*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
18O2 PFHxS	*96*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C4 PFOS	*98*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C4-PFHpA	*92*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C5 PFPeA	*87*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C3-PFBS	*96*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*
13C2-PFTeDA	*90*		*25 - 150*	*11/15/17 12:46*	*11/17/17 10:30*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Client Sample ID: MW-18
Date Collected: 11/06/17 14:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 23:32	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			11/11/17 23:32	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	5.0	0.75	ug/L			11/11/17 23:32	5
1,1,2-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 23:32	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			11/11/17 23:32	5
1,1-Dichloroethene	ND		5.0	1.3	ug/L			11/11/17 23:32	5
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/L			11/11/17 23:32	5
1,2-Dibromo-3-Chloropropane	ND		50	4.7	ug/L			11/11/17 23:32	5
1,2-Dibromoethane	ND		5.0	1.1	ug/L			11/11/17 23:32	5
1,2-Dichlorobenzene	ND		5.0	0.95	ug/L			11/11/17 23:32	5
1,2-Dichloroethane	ND		5.0	1.0	ug/L			11/11/17 23:32	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			11/11/17 23:32	5
1,3-Dichlorobenzene	ND		5.0	0.90	ug/L			11/11/17 23:32	5
1,4-Dichlorobenzene	ND		5.0	0.85	ug/L			11/11/17 23:32	5
2-Butanone (MEK)	ND		250	13	ug/L			11/11/17 23:32	5
2-Hexanone	ND		50	6.4	ug/L			11/11/17 23:32	5
4-Methyl-2-pentanone (MIBK)	ND		50	4.1	ug/L			11/11/17 23:32	5
Acetone	ND		130	13	ug/L			11/11/17 23:32	5
Benzene	ND		5.0	1.0	ug/L			11/11/17 23:32	5
Bromodichloromethane	ND		5.0	0.85	ug/L			11/11/17 23:32	5
Bromoform	ND		5.0	1.5	ug/L			11/11/17 23:32	5
Bromomethane	ND		5.0	1.8	ug/L			11/11/17 23:32	5
Carbon disulfide	ND		5.0	1.1	ug/L			11/11/17 23:32	5
Carbon tetrachloride	ND		5.0	0.90	ug/L			11/11/17 23:32	5
Chlorobenzene	ND		5.0	0.90	ug/L			11/11/17 23:32	5
Chloroethane	ND		5.0	1.8	ug/L			11/11/17 23:32	5
Chloroform	ND		5.0	1.2	ug/L			11/11/17 23:32	5
Chloromethane	ND		5.0	1.8	ug/L			11/11/17 23:32	5
cis-1,2-Dichloroethene	**940**		5.0	1.1	ug/L			11/11/17 23:32	5
cis-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 23:32	5
Cyclohexane	ND		25	0.65	ug/L			11/11/17 23:32	5
Dibromochloromethane	ND		5.0	1.3	ug/L			11/11/17 23:32	5
Dichlorodifluoromethane	ND		5.0	0.85	ug/L			11/11/17 23:32	5
Ethylbenzene	ND		5.0	0.95	ug/L			11/11/17 23:32	5
Isopropylbenzene	ND		5.0	1.7	ug/L			11/11/17 23:32	5
Methyl acetate	ND		50	2.9	ug/L			11/11/17 23:32	5
Methyl tert-butyl ether	ND		5.0	0.85	ug/L			11/11/17 23:32	5
Methylcyclohexane	ND		25	0.45	ug/L			11/11/17 23:32	5
Methylene Chloride	ND		25	5.0	ug/L			11/11/17 23:32	5
Styrene	ND		5.0	1.4	ug/L			11/11/17 23:32	5
Tetrachloroethene	**78**		5.0	0.70	ug/L			11/11/17 23:32	5
Toluene	ND		5.0	0.85	ug/L			11/11/17 23:32	5
trans-1,2-Dichloroethene	**5.6**		5.0	1.2	ug/L			11/11/17 23:32	5
trans-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 23:32	5
Trichloroethene	**520**		5.0	1.0	ug/L			11/11/17 23:32	5
Trichlorofluoromethane	ND		5.0	1.1	ug/L			11/11/17 23:32	5
Vinyl chloride	**40**		5.0	0.90	ug/L			11/11/17 23:32	5
Xylenes, Total	ND		15	2.9	ug/L			11/11/17 23:32	5

Client Sample ID: MW-18

Date Collected: 11/06/17 14:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		11/11/17 23:32	5
4-Bromofluorobenzene (Surr)	97		70 - 130		11/11/17 23:32	5
Dibromofluoromethane (Surr)	108		70 - 130		11/11/17 23:32	5
Toluene-d8 (Surr)	97		70 - 130		11/11/17 23:32	5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**20**		2.0	0.35	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluoropentanoic acid (PFPeA)	**24**		2.0	0.48	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorohexanoic acid (PFHxA)	**23**		2.0	0.57	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluoroheptanoic acid (PFHpA)	**17**		2.0	0.25	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorooctanoic acid (PFOA)	**49**		2.0	0.84	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorononanoic acid (PFNA)	**7.5**		2.0	0.27	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorodecanoic acid (PFDA)	**12**		2.0	0.31	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluoroundecanoic acid (PFUnA)	**1.3**	**J**	2.0	1.1	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorobutanesulfonic acid (PFBS)	**15**		2.0	0.20	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorohexanesulfonic acid (PFHxS)	**6.8**	**B**	2.0	0.17	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.3**	**J**	2.0	0.19	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorooctanesulfonic acid (PFOS)	**150**		2.0	0.53	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/15/17 12:46	11/17/17 10:38	1
Perfluorooctane Sulfonamide (FOSA)	**0.81**	**J**	2.0	0.35	ng/L		11/15/17 12:46	11/17/17 10:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	99		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C4 PFBA	65		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C2 PFHxA	86		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C4 PFOA	92		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C5 PFNA	102		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C2 PFDA	104		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C2 PFUnA	98		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C2 PFDoA	91		25 - 150	11/15/17 12:46	11/17/17 10:38	1
18O2 PFHxS	98		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C4 PFOS	99		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C4-PFHpA	92		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C5 PFPeA	89		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C3-PFBS	99		25 - 150	11/15/17 12:46	11/17/17 10:38	1
13C2-PFTeDA	90		25 - 150	11/15/17 12:46	11/17/17 10:38	1

Client Sample ID: MW-8
Date Collected: 11/06/17 14:10
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	1.9	ug/L			11/10/17 18:48	10
1,1,2,2-Tetrachloroethane	ND		10	1.9	ug/L			11/10/17 18:48	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	10	1.5	ug/L			11/10/17 18:48	10
1,1,2-Trichloroethane	ND		10	1.9	ug/L			11/10/17 18:48	10
1,1-Dichloroethane	ND		10	2.4	ug/L			11/10/17 18:48	10
1,1-Dichloroethene	ND		10	2.5	ug/L			11/10/17 18:48	10
1,2,4-Trichlorobenzene	ND		10	2.0	ug/L			11/10/17 18:48	10
1,2-Dibromo-3-Chloropropane	ND		100	9.4	ug/L			11/10/17 18:48	10
1,2-Dibromoethane	ND		10	2.1	ug/L			11/10/17 18:48	10
1,2-Dichlorobenzene	ND		10	1.9	ug/L			11/10/17 18:48	10
1,2-Dichloroethane	ND		10	2.0	ug/L			11/10/17 18:48	10
1,2-Dichloropropane	ND		10	2.5	ug/L			11/10/17 18:48	10
1,3-Dichlorobenzene	ND		10	1.8	ug/L			11/10/17 18:48	10
1,4-Dichlorobenzene	ND		10	1.7	ug/L			11/10/17 18:48	10
2-Butanone (MEK)	ND		500	26	ug/L			11/10/17 18:48	10
2-Hexanone	ND		100	13	ug/L			11/10/17 18:48	10
4-Methyl-2-pentanone (MIBK)	ND		100	8.1	ug/L			11/10/17 18:48	10
Acetone	ND		250	27	ug/L			11/10/17 18:48	10
Benzene	ND		10	2.0	ug/L			11/10/17 18:48	10
Bromodichloromethane	ND		10	1.7	ug/L			11/10/17 18:48	10
Bromoform	ND		10	2.9	ug/L			11/10/17 18:48	10
Bromomethane	ND		10	3.5	ug/L			11/10/17 18:48	10
Carbon disulfide	ND		10	2.2	ug/L			11/10/17 18:48	10
Carbon tetrachloride	ND		10	1.8	ug/L			11/10/17 18:48	10
Chlorobenzene	ND		10	1.8	ug/L			11/10/17 18:48	10
Chloroethane	ND		10	3.6	ug/L			11/10/17 18:48	10
Chloroform	ND		10	2.3	ug/L			11/10/17 18:48	10
Chloromethane	ND		10	3.6	ug/L			11/10/17 18:48	10
cis-1,2-Dichloroethene	**86**		10	2.1	ug/L			11/10/17 18:48	10
cis-1,3-Dichloropropene	ND		10	1.7	ug/L			11/10/17 18:48	10
Cyclohexane	ND		50	1.3	ug/L			11/10/17 18:48	10
Dibromochloromethane	ND		10	2.5	ug/L			11/10/17 18:48	10
Dichlorodifluoromethane	ND	*	10	1.7	ug/L			11/10/17 18:48	10
Ethylbenzene	**120**		10	1.9	ug/L			11/10/17 18:48	10
Isopropylbenzene	**66**		10	3.3	ug/L			11/10/17 18:48	10
Methyl acetate	ND		100	5.8	ug/L			11/10/17 18:48	10
Methyl tert-butyl ether	ND		10	1.7	ug/L			11/10/17 18:48	10
Methylcyclohexane	**9.8**	**J**	50	0.90	ug/L			11/10/17 18:48	10
Methylene Chloride	**10**	**J**	50	10	ug/L			11/10/17 18:48	10
Styrene	ND		10	2.8	ug/L			11/10/17 18:48	10
Tetrachloroethene	ND		10	1.4	ug/L			11/10/17 18:48	10
Toluene	**58**		10	1.7	ug/L			11/10/17 18:48	10
trans-1,2-Dichloroethene	ND		10	2.3	ug/L			11/10/17 18:48	10
trans-1,3-Dichloropropene	ND		10	1.7	ug/L			11/10/17 18:48	10
Trichloroethene	ND		10	2.0	ug/L			11/10/17 18:48	10
Trichlorofluoromethane	ND	*	10	2.1	ug/L			11/10/17 18:48	10
Vinyl chloride	**13**		10	1.8	ug/L			11/10/17 18:48	10
Xylenes, Total	**1100**		30	5.8	ug/L			11/10/17 18:48	10

Client Sample ID: MW-8

Date Collected: 11/06/17 14:10
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		11/10/17 18:48	10
4-Bromofluorobenzene (Surr)	88		70 - 130		11/10/17 18:48	10
Dibromofluoromethane (Surr)	113		70 - 130		11/10/17 18:48	10
Toluene-d8 (Surr)	99		70 - 130		11/10/17 18:48	10

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**190**	**CI**	2.1	0.36	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluoropentanoic acid (PFPeA)	ND		2.1	0.51	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorohexanoic acid (PFHxA)	**13**		2.1	0.60	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluoroheptanoic acid (PFHpA)	**13**		2.1	0.26	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorooctanoic acid (PFOA)	**93**		2.1	0.88	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorononanoic acid (PFNA)	**16**		2.1	0.28	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorodecanoic acid (PFDA)	**6.7**		2.1	0.32	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluoroundecanoic acid (PFUnA)	ND		2.1	1.1	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.57	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.1	1.3	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.1	0.30	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorobutanesulfonic acid (PFBS)	**13**		2.1	0.21	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorohexanesulfonic acid (PFHxS)	**20**	**B**	2.1	0.18	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluoroheptanesulfonic Acid (PFHpS)	**13**		2.1	0.20	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.33	ng/L		11/15/17 12:46	11/17/17 10:45	1
Perfluorooctane Sulfonamide (FOSA)	**3.9**		2.1	0.36	ng/L		11/15/17 12:46	11/17/17 10:45	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	81		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C4 PFBA	39		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C2 PFHxA	79		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C4 PFOA	85		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C5 PFNA	97		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C2 PFDA	112		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C2 PFUnA	100		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C2 PFDoA	81		25 - 150	11/15/17 12:46	11/17/17 10:45	1
18O2 PFHxS	117		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C4 PFOS	118		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C4-PFHpA	90		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C5 PFPeA	67		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C3-PFBS	103		25 - 150	11/15/17 12:46	11/17/17 10:45	1
13C2-PFTeDA	79		25 - 150	11/15/17 12:46	11/17/17 10:45	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**1700**		21	5.6	ng/L		11/15/17 12:46	11/20/17 12:22	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	102		25 - 150	11/15/17 12:46	11/20/17 12:22	10

Client Sample ID: MW-11

Date Collected: 11/06/17 15:35
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 23:58	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			11/11/17 23:58	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	5.0	0.75	ug/L			11/11/17 23:58	5
1,1,2-Trichloroethane	ND		5.0	0.95	ug/L			11/11/17 23:58	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			11/11/17 23:58	5
1,1-Dichloroethene	ND		5.0	1.3	ug/L			11/11/17 23:58	5
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/L			11/11/17 23:58	5
1,2-Dibromo-3-Chloropropane	ND		50	4.7	ug/L			11/11/17 23:58	5
1,2-Dibromoethane	ND		5.0	1.1	ug/L			11/11/17 23:58	5
1,2-Dichlorobenzene	ND		5.0	0.95	ug/L			11/11/17 23:58	5
1,2-Dichloroethane	ND		5.0	1.0	ug/L			11/11/17 23:58	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			11/11/17 23:58	5
1,3-Dichlorobenzene	ND		5.0	0.90	ug/L			11/11/17 23:58	5
1,4-Dichlorobenzene	ND		5.0	0.85	ug/L			11/11/17 23:58	5
2-Butanone (MEK)	ND		250	13	ug/L			11/11/17 23:58	5
2-Hexanone	ND		50	6.4	ug/L			11/11/17 23:58	5
4-Methyl-2-pentanone (MIBK)	ND		50	4.1	ug/L			11/11/17 23:58	5
Acetone	ND		130	13	ug/L			11/11/17 23:58	5
Benzene	**21**		5.0	1.0	ug/L			11/11/17 23:58	5
Bromodichloromethane	ND		5.0	0.85	ug/L			11/11/17 23:58	5
Bromoform	ND		5.0	1.5	ug/L			11/11/17 23:58	5
Bromomethane	ND		5.0	1.8	ug/L			11/11/17 23:58	5
Carbon disulfide	ND		5.0	1.1	ug/L			11/11/17 23:58	5
Carbon tetrachloride	ND		5.0	0.90	ug/L			11/11/17 23:58	5
Chlorobenzene	ND		5.0	0.90	ug/L			11/11/17 23:58	5
Chloroethane	ND		5.0	1.8	ug/L			11/11/17 23:58	5
Chloroform	ND		5.0	1.2	ug/L			11/11/17 23:58	5
Chloromethane	ND		5.0	1.8	ug/L			11/11/17 23:58	5
cis-1,2-Dichloroethene	**650**		5.0	1.1	ug/L			11/11/17 23:58	5
cis-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 23:58	5
Cyclohexane	ND		25	0.65	ug/L			11/11/17 23:58	5
Dibromochloromethane	ND		5.0	1.3	ug/L			11/11/17 23:58	5
Dichlorodifluoromethane	ND		5.0	0.85	ug/L			11/11/17 23:58	5
Ethylbenzene	**47**		5.0	0.95	ug/L			11/11/17 23:58	5
Isopropylbenzene	**15**		5.0	1.7	ug/L			11/11/17 23:58	5
Methyl acetate	ND		50	2.9	ug/L			11/11/17 23:58	5
Methyl tert-butyl ether	**63**		5.0	0.85	ug/L			11/11/17 23:58	5
Methylcyclohexane	ND		25	0.45	ug/L			11/11/17 23:58	5
Methylene Chloride	ND		25	5.0	ug/L			11/11/17 23:58	5
Styrene	ND		5.0	1.4	ug/L			11/11/17 23:58	5
Tetrachloroethene	**3.2**	**J**	5.0	0.70	ug/L			11/11/17 23:58	5
Toluene	**36**		5.0	0.85	ug/L			11/11/17 23:58	5
trans-1,2-Dichloroethene	**9.6**		5.0	1.2	ug/L			11/11/17 23:58	5
trans-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/11/17 23:58	5
Trichloroethene	ND		5.0	1.0	ug/L			11/11/17 23:58	5
Trichlorofluoromethane	ND		5.0	1.1	ug/L			11/11/17 23:58	5
Vinyl chloride	**370**		5.0	0.90	ug/L			11/11/17 23:58	5
Xylenes, Total	**210**		15	2.9	ug/L			11/11/17 23:58	5

Client Sample ID: MW-11

Date Collected: 11/06/17 15:35
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		11/11/17 23:58	5
4-Bromofluorobenzene (Surr)	95		70 - 130		11/11/17 23:58	5
Dibromofluoromethane (Surr)	108		70 - 130		11/11/17 23:58	5
Toluene-d8 (Surr)	98		70 - 130		11/11/17 23:58	5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**450**	**CI**	2.0	0.35	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorohexanoic acid (PFHxA)	**18**		2.0	0.58	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluoroheptanoic acid (PFHpA)	**16**		2.0	0.25	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorooctanoic acid (PFOA)	**120**		2.0	0.85	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorononanoic acid (PFNA)	**26**		2.0	0.27	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorodecanoic acid (PFDA)	**6.9**		2.0	0.31	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorobutanesulfonic acid (PFBS)	**14**		2.0	0.20	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorohexanesulfonic acid (PFHxS)	**28**	**B**	2.0	0.17	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluoroheptanesulfonic Acid (PFHpS)	**13**		2.0	0.19	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/15/17 12:46	11/17/17 10:53	1
Perfluorooctane Sulfonamide (FOSA)	**1.2**	**J**	2.0	0.35	ng/L		11/15/17 12:46	11/17/17 10:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	71		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C4 PFBA	31		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C2 PFHxA	78		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C4 PFOA	86		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C5 PFNA	98		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C2 PFDA	105		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C2 PFUnA	79		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C2 PFDoA	95		25 - 150	11/15/17 12:46	11/17/17 10:53	1
18O2 PFHxS	114		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C4 PFOS	112		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C4-PFHpA	85		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C5 PFPeA	63		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C3-PFBS	118		25 - 150	11/15/17 12:46	11/17/17 10:53	1
13C2-PFTeDA	103		25 - 150	11/15/17 12:46	11/17/17 10:53	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**1800**		20	5.4	ng/L		11/15/17 12:46	11/20/17 12:30	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	100		25 - 150	11/15/17 12:46	11/20/17 12:30	10

Client Sample ID: TRIP BLANKS

Date Collected: 11/06/17 00:00
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 15:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 15:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/10/17 15:45	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 15:45	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 15:45	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 15:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 15:45	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 15:45	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 15:45	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 15:45	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 15:45	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 15:45	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 15:45	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 15:45	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 15:45	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 15:45	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 15:45	1
Acetone	ND		25	2.7	ug/L			11/10/17 15:45	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 15:45	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 15:45	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 15:45	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 15:45	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 15:45	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 15:45	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 15:45	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 15:45	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 15:45	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 15:45	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/10/17 15:45	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 15:45	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 15:45	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 15:45	1
Dichlorodifluoromethane	ND	*	1.0	0.17	ug/L			11/10/17 15:45	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 15:45	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 15:45	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 15:45	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 15:45	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 15:45	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/10/17 15:45	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 15:45	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/10/17 15:45	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 15:45	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 15:45	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 15:45	1
Trichloroethene	ND		1.0	0.20	ug/L			11/10/17 15:45	1
Trichlorofluoromethane	ND	*	1.0	0.21	ug/L			11/10/17 15:45	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 15:45	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 15:45	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Client Sample ID: TRIP BLANKS
Date Collected: 11/06/17 00:00
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-7
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		11/10/17 15:45	1
4-Bromofluorobenzene (Surr)	122		70 - 130		11/10/17 15:45	1
Dibromofluoromethane (Surr)	114		70 - 130		11/10/17 15:45	1
Toluene-d8 (Surr)	98		70 - 130		11/10/17 15:45	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
480-127162-1	MW-10S	93	94	110	97
480-127162-2	MW-5R	97	99	110	97
480-127162-3	MW-10D	94	98	107	96
480-127162-4	MW-18	96	97	108	97
480-127162-5	MW-8	95	88	113	99
480-127162-6	MW-11	96	95	108	98
480-127162-7	TRIP BLANKS	96	122	114	98
LCS 490-474935/3	Lab Control Sample	97	94	110	95
LCS 490-475225/3	Lab Control Sample	88	94	107	99
LCSD 490-474935/4	Lab Control Sample Dup	100	89	109	99
LCSD 490-475225/4	Lab Control Sample Dup	89	93	108	96
MB 490-474935/6	Method Blank	94	101	108	99
MB 490-475225/6	Method Blank	92	98	105	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	3C8 FOSA (25-150)	3C4 PFBA (25-150)	3C2 PFHxA (25-150)	3C4 PFOA (25-150)	3C5 PFNA (25-150)	3C2 PFDA (25-150)	3C2 PFUnA (25-150)	3C2 PFDoA (25-150)
480-127162-1	MW-10S	94	62	84	89	98	108	101	86
480-127162-2	MW-5R	86	43	75	81	99	98	92	77
480-127162-3	MW-10D	95	63	84	88	98	106	103	89
480-127162-4	MW-18	99	65	86	92	102	104	98	91
480-127162-5	MW-8	81	39	79	85	97	112	100	81
480-127162-5 - DL	MW-8								
480-127162-6	MW-11	71	31	78	86	98	105	79	95
480-127162-6 - DL	MW-11								
LCS 320-194884/2-A	Lab Control Sample	92	101	102	88	98	102	100	93
LCSD 320-194884/3-A	Lab Control Sample Dup	94	106	101	85	102	102	102	95
MB 320-194884/1-A	Method Blank	92	102	104	87	103	101	109	96

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	18O2 PFHxS (25-150)	13C4 PFOS (25-150)	13C4-PFHpA (25-150)	13C5 PFPeA (25-150)	13C3-PFBS (25-150)	13C2-PFTeDA (25-150)		
480-127162-1	MW-10S	93	96	92	86	89	86		
480-127162-2	MW-5R	94	93	80	69	88	76		
480-127162-3	MW-10D	96	98	92	87	96	90		
480-127162-4	MW-18	98	99	92	89	99	90		
480-127162-5	MW-8	117	118	90	67	103	79		
480-127162-5 - DL	MW-8		102						
480-127162-6	MW-11	114	112	85	63	118	103		
480-127162-6 - DL	MW-11		100						
LCS 320-194884/2-A	Lab Control Sample	106	99	102	101	105	95		
LCSD 320-194884/3-A	Lab Control Sample Dup	104	100	102	100	104	94		
MB 320-194884/1-A	Method Blank	105	102	108	103	104	92		

Surrogate Legend

13C8 FOSA = 13C8 FOSA
13C4 PFBA = 13C4 PFBA
13C2 PFHxA = 13C2 PFHxA
13C4 PFOA = 13C4 PFOA
13C5 PFNA = 13C5 PFNA
13C2 PFDA = 13C2 PFDA
13C2 PFUnA = 13C2 PFUnA
13C2 PFDoA = 13C2 PFDoA
18O2 PFHxS = 18O2 PFHxS
13C4 PFOS = 13C4 PFOS
13C4-PFHpA = 13C4-PFHpA
13C5 PFPeA = 13C5 PFPeA
13C3-PFBS = 13C3-PFBS
13C2-PFTeDA = 13C2-PFTeDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-474935/6
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/10/17 13:34	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 13:34	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 13:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 13:34	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 13:34	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 13:34	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 13:34	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:34	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 13:34	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 13:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 13:34	1
Acetone	ND		25	2.7	ug/L			11/10/17 13:34	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 13:34	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 13:34	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 13:34	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 13:34	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 13:34	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 13:34	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/10/17 13:34	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 13:34	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 13:34	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 13:34	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 13:34	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 13:34	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 13:34	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/10/17 13:34	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 13:34	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/10/17 13:34	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 13:34	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Trichloroethene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/10/17 13:34	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 13:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*11/10/17 13:34*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/10/17 13:34*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*11/10/17 13:34*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/10/17 13:34*	*1*

Lab Sample ID: LCS 490-474935/3
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	24.0		ug/L		120	78 - 135
1,1,2,2-Tetrachloroethane	20.0	19.7		ug/L		98	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.8		ug/L		129	77 - 129
1,1,2-Trichloroethane	20.0	20.9		ug/L		104	80 - 124
1,1-Dichloroethane	20.0	21.0		ug/L		105	78 - 125
1,1-Dichloroethene	20.0	23.2		ug/L		116	79 - 124
1,2,4-Trichlorobenzene	20.0	15.6		ug/L		78	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	17.4		ug/L		87	54 - 125
1,2-Dibromoethane	20.0	21.5		ug/L		107	80 - 129
1,2-Dichlorobenzene	20.0	21.3		ug/L		106	80 - 121
1,2-Dichloroethane	20.0	22.6		ug/L		113	77 - 121
1,2-Dichloropropane	20.0	19.7		ug/L		99	75 - 120
1,3-Dichlorobenzene	20.0	21.5		ug/L		108	80 - 122
1,4-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 120
2-Butanone (MEK)	100	93.9		ug/L		94	62 - 133
2-Hexanone	100	85.7		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.1		ug/L		85	60 - 137
Acetone	100	90.2		ug/L		90	54 - 145
Benzene	20.0	21.1		ug/L		105	80 - 121
Bromodichloromethane	20.0	22.9		ug/L		115	75 - 129
Bromoform	20.0	21.8		ug/L		109	46 - 145
Bromomethane	20.0	23.9		ug/L		119	41 - 150
Carbon disulfide	20.0	22.1		ug/L		110	77 - 126
Carbon tetrachloride	20.0	25.6		ug/L		128	64 - 147
Chlorobenzene	20.0	21.6		ug/L		108	80 - 120
Chloroethane	20.0	21.3		ug/L		107	72 - 120
Chloroform	20.0	22.1		ug/L		111	73 - 129
Chloromethane	20.0	18.3		ug/L		91	12 - 150
cis-1,2-Dichloroethene	20.0	21.4		ug/L		107	76 - 125
cis-1,3-Dichloropropene	20.0	20.3		ug/L		101	74 - 140
Cyclohexane	20.0	20.5		ug/L		102	73 - 122
Dibromochloromethane	20.0	21.9		ug/L		109	69 - 133
Dichlorodifluoromethane	20.0	29.8	*	ug/L		149	37 - 127
Ethylbenzene	20.0	20.1		ug/L		100	80 - 130
Isopropylbenzene	20.0	20.7		ug/L		104	80 - 141
Methyl acetate	40.0	39.8		ug/L		100	64 - 150
Methyl tert-butyl ether	20.0	21.1		ug/L		106	72 - 133
Methylcyclohexane	20.0	23.3		ug/L		117	71 - 129
Methylene Chloride	20.0	22.7		ug/L		114	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.7		ug/L		113	80 - 126
Toluene	20.0	20.4		ug/L		102	80 - 126
trans-1,2-Dichloroethene	20.0	20.6		ug/L		103	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-474935/3
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	63 - 134
Trichloroethene	20.0	23.4		ug/L		117	80 - 123
Trichlorofluoromethane	20.0	26.1	*	ug/L		130	65 - 124
Vinyl chloride	20.0	20.8		ug/L		104	68 - 120
Xylenes, Total	40.0	39.8		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 490-474935/4
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	24.4		ug/L		122	78 - 135	1	15
1,1,2,2-Tetrachloroethane	20.0	17.9		ug/L		90	69 - 131	9	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	26.4	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane	20.0	21.2		ug/L		106	80 - 124	1	13
1,1-Dichloroethane	20.0	21.6		ug/L		108	78 - 125	3	17
1,1-Dichloroethene	20.0	24.3		ug/L		122	79 - 124	5	20
1,2,4-Trichlorobenzene	20.0	17.9		ug/L		89	63 - 133	14	15
1,2-Dibromo-3-Chloropropane	20.0	18.4		ug/L		92	54 - 125	5	19
1,2-Dibromoethane	20.0	21.5		ug/L		108	80 - 129	0	13
1,2-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 121	2	12
1,2-Dichloroethane	20.0	22.8		ug/L		114	77 - 121	1	13
1,2-Dichloropropane	20.0	20.8		ug/L		104	75 - 120	5	15
1,3-Dichlorobenzene	20.0	22.0		ug/L		110	80 - 122	2	13
1,4-Dichlorobenzene	20.0	22.6		ug/L		113	80 - 120	4	12
2-Butanone (MEK)	100	91.1		ug/L		91	62 - 133	3	19
2-Hexanone	100	80.8		ug/L		81	60 - 142	6	17
4-Methyl-2-pentanone (MIBK)	100	82.8		ug/L		83	60 - 137	3	21
Acetone	100	83.5		ug/L		83	54 - 145	8	23
Benzene	20.0	21.2		ug/L		106	80 - 121	0	12
Bromodichloromethane	20.0	22.9		ug/L		114	75 - 129	0	14
Bromoform	20.0	21.8		ug/L		109	46 - 145	0	14
Bromomethane	20.0	23.2		ug/L		116	41 - 150	3	19
Carbon disulfide	20.0	22.0		ug/L		110	77 - 126	0	16
Carbon tetrachloride	20.0	26.0		ug/L		130	64 - 147	2	16
Chlorobenzene	20.0	22.2		ug/L		111	80 - 120	2	12
Chloroethane	20.0	23.3		ug/L		117	72 - 120	9	15
Chloroform	20.0	23.0		ug/L		115	73 - 129	4	14
Chloromethane	20.0	19.0		ug/L		95	12 - 150	4	20
cis-1,2-Dichloroethene	20.0	21.9		ug/L		109	76 - 125	2	15
cis-1,3-Dichloropropene	20.0	20.5		ug/L		102	74 - 140	1	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-474935/4
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane			20.0	21.0		ug/L		105	73 - 122	3	16
Dibromochloromethane			20.0	21.9		ug/L		110	69 - 133	0	13
Dichlorodifluoromethane			20.0	30.6	*	ug/L		153	37 - 127	3	16
Ethylbenzene			20.0	20.4		ug/L		102	80 - 130	2	12
Isopropylbenzene			20.0	21.3		ug/L		107	80 - 141	3	13
Methyl acetate			40.0	40.9		ug/L		102	64 - 150	3	18
Methyl tert-butyl ether			20.0	21.3		ug/L		107	72 - 133	1	16
Methylcyclohexane			20.0	24.1		ug/L		121	71 - 129	3	17
Methylene Chloride			20.0	23.0		ug/L		115	79 - 123	1	15
Styrene			20.0	20.5		ug/L		102	80 - 127	1	12
Tetrachloroethene			20.0	23.2		ug/L		116	80 - 126	2	17
Toluene			20.0	21.0		ug/L		105	80 - 126	3	13
trans-1,2-Dichloroethene			20.0	20.9		ug/L		104	79 - 126	1	15
trans-1,3-Dichloropropene			20.0	20.4		ug/L		102	63 - 134	3	13
Trichloroethene			20.0	23.6		ug/L		118	80 - 123	1	14
Trichlorofluoromethane			20.0	28.2	*	ug/L		141	65 - 124	8	22
Vinyl chloride			20.0	21.3		ug/L		106	68 - 120	2	15
Xylenes, Total			40.0	41.1		ug/L		103	80 - 132	3	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 17:26	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 17:26	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 17:26	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 17:26	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 17:26	1
Acetone	ND		25	2.7	ug/L			11/11/17 17:26	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 17:26	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 17:26	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 17:26	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 17:26	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 17:26	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 17:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 17:26	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 17:26	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 17:26	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 17:26	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 17:26	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 17:26	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 17:26	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/11/17 17:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 17:26*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/11/17 17:26*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/11/17 17:26*	*1*

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.7		ug/L		119	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.3		ug/L		102	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.9	*	ug/L		130	77 - 129
1,1,2-Trichloroethane	20.0	22.0		ug/L		110	80 - 124
1,1-Dichloroethane	20.0	21.5		ug/L		108	78 - 125

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	22.3		ug/L		112	79 - 124
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		92	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	22.2		ug/L		111	80 - 129
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121
1,2-Dichloroethane	20.0	22.7		ug/L		114	77 - 121
1,2-Dichloropropane	20.0	20.9		ug/L		105	75 - 120
1,3-Dichlorobenzene	20.0	23.0		ug/L		115	80 - 122
1,4-Dichlorobenzene	20.0	23.3		ug/L		116	80 - 120
2-Butanone (MEK)	100	88.0		ug/L		88	62 - 133
2-Hexanone	100	86.0		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.4		ug/L		85	60 - 137
Acetone	100	87.4		ug/L		87	54 - 145
Benzene	20.0	20.6		ug/L		103	80 - 121
Bromodichloromethane	20.0	23.1		ug/L		115	75 - 129
Bromoform	20.0	21.2		ug/L		106	46 - 145
Bromomethane	20.0	21.4		ug/L		107	41 - 150
Carbon disulfide	20.0	21.4		ug/L		107	77 - 126
Carbon tetrachloride	20.0	25.5		ug/L		128	64 - 147
Chlorobenzene	20.0	23.1		ug/L		115	80 - 120
Chloroethane	20.0	20.7		ug/L		103	72 - 120
Chloroform	20.0	23.4		ug/L		117	73 - 129
Chloromethane	20.0	16.4		ug/L		82	12 - 150
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	76 - 125
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	74 - 140
Cyclohexane	20.0	19.7		ug/L		99	73 - 122
Dibromochloromethane	20.0	22.2		ug/L		111	69 - 133
Dichlorodifluoromethane	20.0	23.0		ug/L		115	37 - 127
Ethylbenzene	20.0	20.3		ug/L		101	80 - 130
Isopropylbenzene	20.0	19.1		ug/L		95	80 - 141
Methyl acetate	40.0	39.5		ug/L		99	64 - 150
Methyl tert-butyl ether	20.0	20.8		ug/L		104	72 - 133
Methylcyclohexane	20.0	21.5		ug/L		108	71 - 129
Methylene Chloride	20.0	21.7		ug/L		108	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.8		ug/L		114	80 - 126
Toluene	20.0	20.8		ug/L		104	80 - 126
trans-1,2-Dichloroethene	20.0	21.3		ug/L		107	79 - 126
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	63 - 134
Trichloroethene	20.0	23.9		ug/L		120	80 - 123
Trichlorofluoromethane	20.0	24.8		ug/L		124	65 - 124
Vinyl chloride	20.0	20.2		ug/L		101	68 - 120
Xylenes, Total	40.0	39.9		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	24.2		ug/L		121	78 - 135	2	15
1,1,2,2-Tetrachloroethane			20.0	20.6		ug/L		103	69 - 131	2	15
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	26.3	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane			20.0	21.8		ug/L		109	80 - 124	1	13
1,1-Dichloroethane			20.0	21.9		ug/L		110	78 - 125	2	17
1,1-Dichloroethene			20.0	23.7		ug/L		118	79 - 124	6	20
1,2,4-Trichlorobenzene			20.0	18.7		ug/L		94	63 - 133	1	15
1,2-Dibromo-3-Chloropropane			20.0	19.5		ug/L		98	54 - 125	2	19
1,2-Dibromoethane			20.0	21.5		ug/L		108	80 - 129	3	13
1,2-Dichlorobenzene			20.0	22.4		ug/L		112	80 - 121	0	12
1,2-Dichloroethane			20.0	23.2		ug/L		116	77 - 121	2	13
1,2-Dichloropropane			20.0	21.4		ug/L		107	75 - 120	2	15
1,3-Dichlorobenzene			20.0	23.1		ug/L		116	80 - 122	1	13
1,4-Dichlorobenzene			20.0	23.2		ug/L		116	80 - 120	0	12
2-Butanone (MEK)			100	95.9		ug/L		96	62 - 133	9	19
2-Hexanone			100	86.1		ug/L		86	60 - 142	0	17
4-Methyl-2-pentanone (MIBK)			100	87.1		ug/L		87	60 - 137	2	21
Acetone			100	90.2		ug/L		90	54 - 145	3	23
Benzene			20.0	21.0		ug/L		105	80 - 121	2	12
Bromodichloromethane			20.0	23.4		ug/L		117	75 - 129	1	14
Bromoform			20.0	21.2		ug/L		106	46 - 145	0	14
Bromomethane			20.0	22.0		ug/L		110	41 - 150	3	19
Carbon disulfide			20.0	21.8		ug/L		109	77 - 126	2	16
Carbon tetrachloride			20.0	25.4		ug/L		127	64 - 147	0	16
Chlorobenzene			20.0	22.3		ug/L		111	80 - 120	3	12
Chloroethane			20.0	21.7		ug/L		108	72 - 120	5	15
Chloroform			20.0	23.8		ug/L		119	73 - 129	2	14
Chloromethane			20.0	16.4		ug/L		82	12 - 150	0	20
cis-1,2-Dichloroethene			20.0	22.1		ug/L		111	76 - 125	1	15
cis-1,3-Dichloropropene			20.0	20.9		ug/L		104	74 - 140	2	15
Cyclohexane			20.0	19.9		ug/L		99	73 - 122	1	16
Dibromochloromethane			20.0	22.8		ug/L		114	69 - 133	3	13
Dichlorodifluoromethane			20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene			20.0	20.2		ug/L		101	80 - 130	0	12
Isopropylbenzene			20.0	19.0		ug/L		95	80 - 141	1	13
Methyl acetate			40.0	40.4		ug/L		101	64 - 150	2	18
Methyl tert-butyl ether			20.0	21.4		ug/L		107	72 - 133	3	16
Methylcyclohexane			20.0	21.5		ug/L		107	71 - 129	0	17
Methylene Chloride			20.0	23.3		ug/L		116	79 - 123	7	15
Styrene			20.0	20.2		ug/L		101	80 - 127	0	12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			20.0	22.5		ug/L		112	80 - 126	1	17
Toluene			20.0	20.8		ug/L		104	80 - 126	0	13
trans-1,2-Dichloroethene			20.0	21.4		ug/L		107	79 - 126	0	15
trans-1,3-Dichloropropene			20.0	20.7		ug/L		103	63 - 134	0	13
Trichloroethene			20.0	23.7		ug/L		118	80 - 123	1	14
Trichlorofluoromethane			20.0	24.5		ug/L		122	65 - 124	1	22
Vinyl chloride			20.0	20.4		ug/L		102	68 - 120	1	15
Xylenes, Total			40.0	39.5		ug/L		99	80 - 132	1	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-194884/1-A
Matrix: Water
Analysis Batch: 195605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 194884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorohexanesulfonic acid (PFHxS)	0.293	J	2.0	0.17	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/15/17 12:46	11/17/17 08:39	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/15/17 12:46	11/17/17 08:39	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*92*		*25 - 150*	*11/15/17 12:46*	*11/17/17 08:39*	*1*
13C4 PFBA	*102*		*25 - 150*	*11/15/17 12:46*	*11/17/17 08:39*	*1*
13C2 PFHxA	*104*		*25 - 150*	*11/15/17 12:46*	*11/17/17 08:39*	*1*
13C4 PFOA	*87*		*25 - 150*	*11/15/17 12:46*	*11/17/17 08:39*	*1*
13C5 PFNA	*103*		*25 - 150*	*11/15/17 12:46*	*11/17/17 08:39*	*1*
13C2 PFDA	*101*		*25 - 150*	*11/15/17 12:46*	*11/17/17 08:39*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-194884/1-A
Matrix: Water
Analysis Batch: 195605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 194884

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	109		25 - 150	11/15/17 12:46	11/17/17 08:39	1
13C2 PFDoA	96		25 - 150	11/15/17 12:46	11/17/17 08:39	1
18O2 PFHxS	105		25 - 150	11/15/17 12:46	11/17/17 08:39	1
13C4 PFOS	102		25 - 150	11/15/17 12:46	11/17/17 08:39	1
13C4-PFHpA	108		25 - 150	11/15/17 12:46	11/17/17 08:39	1
13C5 PFPeA	103		25 - 150	11/15/17 12:46	11/17/17 08:39	1
13C3-PFBS	104		25 - 150	11/15/17 12:46	11/17/17 08:39	1
13C2-PFTeDA	92		25 - 150	11/15/17 12:46	11/17/17 08:39	1

Lab Sample ID: LCS 320-194884/2-A
Matrix: Water
Analysis Batch: 195605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	40.5		ng/L		101	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	38.7		ng/L		97	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	38.1		ng/L		95	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	40.3		ng/L		101	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	41.3		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	40.0	41.8		ng/L		104	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	41.0		ng/L		102	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	39.1		ng/L		98	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	41.8		ng/L		104	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	38.1		ng/L		95	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	38.8		ng/L		97	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	36.6		ng/L		103	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.7		ng/L		93	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.1		ng/L		105	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	36.9		ng/L		99	74 - 134
Perfluorodecanesulfonic acid (PFDS)	38.6	39.6		ng/L		103	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	40.5		ng/L		101	82 - 142

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	92		25 - 150
13C4 PFBA	101		25 - 150
13C2 PFHxA	102		25 - 150
13C4 PFOA	88		25 - 150
13C5 PFNA	98		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	100		25 - 150
13C2 PFDoA	93		25 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-194884/2-A
Matrix: Water
Analysis Batch: 195605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194884

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	106		25 - 150
13C4 PFOS	99		25 - 150
13C4-PFHpA	102		25 - 150
13C5 PFPeA	101		25 - 150
13C3-PFBS	105		25 - 150
13C2-PFTeDA	95		25 - 150

Lab Sample ID: LCSD 320-194884/3-A
Matrix: Water
Analysis Batch: 195605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 194884

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	40.1		ng/L		100	78 - 138	1	30
Perfluoropentanoic acid (PFPeA)	40.0	40.3		ng/L		101	66 - 136	4	30
Perfluorohexanoic acid (PFHxA)	40.0	40.4		ng/L		101	76 - 136	6	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.5		ng/L		104	78 - 138	3	30
Perfluorooctanoic acid (PFOA)	40.0	41.7		ng/L		104	70 - 130	1	30
Perfluorononanoic acid (PFNA)	40.0	39.4		ng/L		99	77 - 137	6	30
Perfluorodecanoic acid (PFDA)	40.0	42.0		ng/L		105	74 - 134	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	38.9		ng/L		97	68 - 128	0	30
Perfluorododecanoic acid (PFDoA)	40.0	42.1		ng/L		105	72 - 132	1	30
Perfluorotridecanoic Acid (PFTriA)	40.0	39.1		ng/L		98	56 - 163	3	30
Perfluorotetradecanoic acid (PFTeA)	40.0	38.6		ng/L		96	63 - 123	1	30
Perfluorobutanesulfonic acid (PFBS)	35.4	36.4		ng/L		103	79 - 139	0	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.7		ng/L		98	77 - 137	6	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.8		ng/L		105	83 - 143	1	30
Perfluorooctanesulfonic acid (PFOS)	37.1	39.7		ng/L		107	74 - 134	7	30
Perfluorodecanesulfonic acid (PFDS)	38.6	40.3		ng/L		105	75 - 135	2	30
Perfluorooctane Sulfonamide (FOSA)	40.0	41.8		ng/L		105	82 - 142	3	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C8 FOSA	94		25 - 150
13C4 PFBA	106		25 - 150
13C2 PFHxA	101		25 - 150
13C4 PFOA	85		25 - 150
13C5 PFNA	102		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	102		25 - 150
13C2 PFDoA	95		25 - 150
18O2 PFHxS	104		25 - 150
13C4 PFOS	100		25 - 150

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-194884/3-A
Matrix: Water
Analysis Batch: 195605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 194884

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4-PFHpA	102		25 - 150
13C5 PFPeA	100		25 - 150
13C3-PFBS	104		25 - 150
13C2-PFTeDA	94		25 - 150

GC/MS VOA

Analysis Batch: 474935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127162-5	MW-8	Total/NA	Water	8260C	
480-127162-7	TRIP BLANKS	Total/NA	Water	8260C	
MB 490-474935/6	Method Blank	Total/NA	Water	8260C	
LCS 490-474935/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-474935/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127162-1	MW-10S	Total/NA	Water	8260C	
480-127162-2	MW-5R	Total/NA	Water	8260C	
480-127162-3	MW-10D	Total/NA	Water	8260C	
480-127162-4	MW-18	Total/NA	Water	8260C	
480-127162-6	MW-11	Total/NA	Water	8260C	
MB 490-475225/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475225/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475225/4	Lab Control Sample Dup	Total/NA	Water	8260C	

LCMS

Prep Batch: 194884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127162-1	MW-10S	Total/NA	Water	3535	
480-127162-2	MW-5R	Total/NA	Water	3535	
480-127162-3	MW-10D	Total/NA	Water	3535	
480-127162-4	MW-18	Total/NA	Water	3535	
480-127162-5 - DL	MW-8	Total/NA	Water	3535	
480-127162-5	MW-8	Total/NA	Water	3535	
480-127162-6 - DL	MW-11	Total/NA	Water	3535	
480-127162-6	MW-11	Total/NA	Water	3535	
MB 320-194884/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-194884/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-194884/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 195605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127162-1	MW-10S	Total/NA	Water	537 (modified)	194884
480-127162-2	MW-5R	Total/NA	Water	537 (modified)	194884
480-127162-3	MW-10D	Total/NA	Water	537 (modified)	194884
480-127162-4	MW-18	Total/NA	Water	537 (modified)	194884
480-127162-5	MW-8	Total/NA	Water	537 (modified)	194884
480-127162-6	MW-11	Total/NA	Water	537 (modified)	194884
MB 320-194884/1-A	Method Blank	Total/NA	Water	537 (modified)	194884
LCS 320-194884/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	194884
LCSD 320-194884/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	194884

Analysis Batch: 195797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127162-5 - DL	MW-8	Total/NA	Water	537 (modified)	194884
480-127162-6 - DL	MW-11	Total/NA	Water	537 (modified)	194884

Client Sample ID: MW-10S
Date Collected: 11/06/17 12:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	475225	11/11/17 22:40	S1S	TAL NSH
Total/NA	Prep	3535			194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195605	11/17/17 10:14	AAR	TAL SAC

Client Sample ID: MW-5R
Date Collected: 11/06/17 12:05
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 21:22	S1S	TAL NSH
Total/NA	Prep	3535			194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195605	11/17/17 10:22	AAR	TAL SAC

Client Sample ID: MW-10D
Date Collected: 11/06/17 13:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	475225	11/11/17 23:06	S1S	TAL NSH
Total/NA	Prep	3535			194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195605	11/17/17 10:30	AAR	TAL SAC

Client Sample ID: MW-18
Date Collected: 11/06/17 14:15
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	475225	11/11/17 23:32	S1S	TAL NSH
Total/NA	Prep	3535			194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195605	11/17/17 10:38	AAR	TAL SAC

Client Sample ID: MW-8
Date Collected: 11/06/17 14:10
Date Received: 11/07/17 10:30

Lab Sample ID: 480-127162-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	474935	11/10/17 18:48	C1A	TAL NSH
Total/NA	Prep	3535			194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195605	11/17/17 10:45	AAR	TAL SAC
Total/NA	Prep	3535	DL		194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10	195797	11/20/17 12:22	AAR	TAL SAC

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Client Sample ID: MW-11

Lab Sample ID: 480-127162-6

Date Collected: 11/06/17 15:35
Matrix: Water
Date Received: 11/07/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	475225	11/11/17 23:58	S1S	TAL NSH
Total/NA	Prep	3535			194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195605	11/17/17 10:53	AAR	TAL SAC
Total/NA	Prep	3535	DL		194884	11/15/17 12:46	KMK	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10	195797	11/20/17 12:30	AAR	TAL SAC

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-127162-7

Date Collected: 11/06/17 00:00
Matrix: Water
Date Received: 11/07/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	474935	11/10/17 15:45	C1A	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11342	03-31-18

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11666	04-01-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctane Sulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic Acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127162-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127162-1	MW-10S	Water	11/06/17 12:15	11/07/17 10:30
480-127162-2	MW-5R	Water	11/06/17 12:05	11/07/17 10:30
480-127162-3	MW-10D	Water	11/06/17 13:15	11/07/17 10:30
480-127162-4	MW-18	Water	11/06/17 14:15	11/07/17 10:30
480-127162-5	MW-8	Water	11/06/17 14:10	11/07/17 10:30
480-127162-6	MW-11	Water	11/06/17 15:35	11/07/17 10:30
480-127162-7	TRIP BLANKS	Water	11/06/17 00:00	11/07/17 10:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Thomas F. Sousa	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.6
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 6 of 10
Company: ARCADIS U.S. Inc		Analysis Requested		Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			Preservation Codes:
City: Clifton Park	TAT Requested (days): Standard			A - HCL M - Hexane B - NaOH N - None C - Zn D - Nitr E - Nal F - Mel G - Am H - Asc I - Ice J - DI V K - ED L - EDA
State, Zip: NY, 12065				cahydrate
Phone: (518) 250-7300	PO #: 00266417.0000			480-127162 COC acity)
Email: aaron.bobar@arcadis-us.com	WO #:			Other:
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-10S	11-6-17	1215	G	Water	N	N	X	X	5	
MW-5R		1205		Water	N	N	X	X	5	
MW-10D		1315		Water	N	N	X	X	5	
MW-18		1415		Water	N	N	X	X	5	
MW-8		1410		Water	N	N	X	X	5	
MW-11		1535		Water	N	N	X	X	5	
Trip Blanks	-	-	-	Water	N	N	X		2	
				Water						
				Water						
				Water						
	11-6-17			Water						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11-6-17 1551	Arcadis		11/6/17 19:51	
2		11/6 1700	TAN/C		11/7/17 1030	
3		Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

3.0 #7

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Thomas + E. Sousa	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.6
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 6 of 10
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

480-127162 Chain of Custody

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Wewater, Ssolid, Owaste/oil, BTeTissue, AeAir)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-10S	11-6-17	1215	G	Water	N	N	X	X	5	
MW-5R		1205		Water	N	N	X	X	5	
MW-10D		1315		Water	N	N	X	X	5	
MW-18		1415		Water	N	N	X	X	5	
MW-8		1410		Water	N	N	X	X	5	
MW-11		1535		Water	N	N	X	X	5	
Trip Blanks	-	-	-	Water	N	N	X		2	
				Water						
				Water						
				Water						
	11-6-17			Water						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11-6-17 1551	Arcadis		11/6/17 1951	
2		11/6 1700	TAN/C		11/07/17 955	TAN/S
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2-0

Ver: 08/04/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

480-127162 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 11/10/17 0950

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 3769 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.5 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES NO NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES NO NA

6. Were custody papers inside cooler? YES NO NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES NO NA

Were these signed and dated correctly? YES NO NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES NO NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES NO NA

12. Did all container labels and tags agree with custody papers? YES NO NA

13a. Were VOA vials received? YES NO NA

b. Was there any observable headspace present in any VOA vial? YES NO NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES NO NA es 11-10-17 If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES NO NA

b. Did the bottle labels indicate that the correct preservatives were used YES NO NA

16. Was residual chlorine present? YES NO NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES NO NA

18. Did you sign the custody papers in the appropriate place? YES NO NA

19. Were correct containers used for the analysis requested? YES NO NA

20. Was sufficient amount of sample sent in each container? YES NO NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES NO Was a NCM generated? YES NO # es

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-127162

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L	776.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	State of Origin: New York — Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-127162-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/17/2017		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-10S (480-127162-1)	11/6/17	12:15 Eastern		Water			X	3	
MW-5R (480-127162-2)	11/6/17	12:05 Eastern		Water			X	3	
MW-10D (480-127162-3)	11/6/17	13:15 Eastern		Water			X	3	
MW-18 (480-127162-4)	11/6/17	14:15 Eastern		Water			X	3	
MW-8 (480-127162-5)	11/6/17	14:10 Eastern		Water			X	3	
MW-11 (480-127162-6)	11/6/17	15:35 Eastern		Water			X	3	
TRIP BLANKS (480-127162-7)	11/6/17	Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 11/9/17 1100	Company: TAB	Received by:		Date/Time: 11-10-17 9:50	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5

Ver: 09/20/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sar

480-127162 Field Sheet

Job: _____

Tracking # 770661892469 5.0.

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Notes: _____

Therm. ID: AK-2 / (AK-3) / HACCP /Other _____

Ice 1 Wet X Dry _____ Other _____

Cooler Custody Seal: —

Sample Custody Seal: —

Cooler ID: _____

Temp: Observed 2.0°C

Corrected: —

From: Temp Blank ☒ Sample ☐

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: AA Date: 11/07/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127162-1

Login Number: 127162
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127162-1

Login Number: 127162
List Number: 2
Creator: Turpen, Troy

List Source: TestAmerica Sacramento
List Creation: 11/07/17 11:16 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0 °C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127162-1

Login Number: 127162
List Number: 3
Creator: Turpen, Troy

List Source: TestAmerica Sacramento
List Creation: 11/07/17 11:18 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0 °C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127283-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Authorized for release by:
11/24/2017 9:50:01 AM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

LCMS

Qualifier	Qualifier Description
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-127283-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127283-1

Receipt
The samples were received on 11/9/2017 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475225 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: MW-6R (480-127283-1) and MW-25D (480-127283-7).

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-474935 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane, Dichlorodifluoromethane and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: TRIP BLANKS (480-127283-8).

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 490-474930 recovered outside control limits for the following analytes: Dichlorodifluoromethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported: DW-03 (480-127283-2), MW-29 (480-127283-3), MW-2 (480-127283-4), MW-14R (480-127283-5) and MW-15R (480-127283-6).

Method(s) 8260C: The following samples was diluted due to the nature of the sample matrix: DW-03 (480-127283-2), MW-29 (480-127283-3) and MW-14R (480-127283-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples was diluted due to target analytes: MW-6R (480-127283-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following volatile sample was analyzed with significant headspace in the sample Container(s): TRIP BLANKS (480-127283-8). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method(s) 537 (modified): The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias for Perfluorobutanoic acid (PFBA) in the following samples:
MW-6R (480-127283-1), DW-03 (480-127283-2), MW-29 (480-127283-3), MW-2 (480-127283-4), MW-14R (480-127283-5), MW-15R (480-127283-6) and MW-25D (480-127283-7).

Method(s) 537 (modified): The following sample was diluted to bring the concentration of Perfluorooctanesulfonic acid (PFOS) within the calibration range: MW-14R (480-127283-5). Elevated reporting limits (RLs) are provided.

Method(s) 537 (modified): The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias for Perfluoropentanoic acid (PFPeA) in the following samples: MW-29 (480-127283-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: The following samples: MW-6R (480-127283-1), DW-03 (480-127283-2), MW-29 (480-127283-3), MW-2 (480-127283-4), MW-14R (480-127283-5), MW-15R (480-127283-6) and MW-25D (480-127283-7) were decanted prior to preparation due to sediment being present.
Prep batch 320-195067
Method code 3535_PFC, waters

Job ID: 480-127283-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Client Sample ID: MW-6R — Lab Sample ID: 480-127283-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.6		1.0	0.25	ug/L	1		8260C	Total/NA
1,2-Dichloropropane	0.57	J	1.0	0.25	ug/L	1		8260C	Total/NA
1,4-Dichlorobenzene	0.41	J	1.0	0.17	ug/L	1		8260C	Total/NA
Benzene	1.6		1.0	0.20	ug/L	1		8260C	Total/NA
Chloroethane	1.3		1.0	0.36	ug/L	1		8260C	Total/NA
Ethylbenzene	26		1.0	0.19	ug/L	1		8260C	Total/NA
Isopropylbenzene	18		1.0	0.33	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	7.2		1.0	0.17	ug/L	1		8260C	Total/NA
Methylcyclohexane	2.2	J	5.0	0.090	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.9		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	3.3		1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	9.7		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	270		1.0	0.18	ug/L	1		8260C	Total/NA
Xylenes, Total	6.6		3.0	0.58	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	740		10	2.1	ug/L	10		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	170	CI	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	62		1.9	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	61		1.9	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	60		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	150		1.9	0.83	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	17	B	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	15		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.2	J	1.9	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	140		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	23	B	1.9	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	6.9		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	510		1.9	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.31	J	1.9	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	6.1		1.9	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DW-03 — Lab Sample ID: 480-127283-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.6	J	10	2.5	ug/L	10		8260C	Total/NA
Benzene	3.3	J	10	2.0	ug/L	10		8260C	Total/NA
Chloroethane	8.2	J	10	3.6	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	1400		10	2.1	ug/L	10		8260C	Total/NA
Isopropylbenzene	7.9	J	10	3.3	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether	9.7	J	10	1.7	ug/L	10		8260C	Total/NA
Methylcyclohexane	1.5	J	50	0.90	ug/L	10		8260C	Total/NA
Methylene Chloride	14	J B	50	10	ug/L	10		8260C	Total/NA
Tetrachloroethene	1.9	J	10	1.4	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	19		10	2.3	ug/L	10		8260C	Total/NA
Trichloroethene	6.3	J	10	2.0	ug/L	10		8260C	Total/NA
Vinyl chloride	640		10	1.8	ug/L	10		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	120	CI	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	23		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	29		1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	24		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	100		1.9	0.82	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Client Sample ID: DW-03 (Continued) — Lab Sample ID: 480-127283-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	11	B	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	7.1		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.57	J	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	67		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	21	B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	7.4		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	550		1.9	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	2.3		1.9	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-29 — Lab Sample ID: 480-127283-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.7	J	10	2.5	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	900		10	2.1	ug/L	10		8260C	Total/NA
Ethylbenzene	10		10	1.9	ug/L	10		8260C	Total/NA
Isopropylbenzene	8.0	J	10	3.3	ug/L	10		8260C	Total/NA
Methylene Chloride	14	J B	50	10	ug/L	10		8260C	Total/NA
Tetrachloroethene	25		10	1.4	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	18		10	2.3	ug/L	10		8260C	Total/NA
Trichloroethene	52		10	2.0	ug/L	10		8260C	Total/NA
Vinyl chloride	190		10	1.8	ug/L	10		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	490	CI	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	41		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	57		1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	55		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	180		1.9	0.82	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	16	B	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	17		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	96		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	28	B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	7.0		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	590		1.9	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	6.8		1.9	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 480-127283-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.1		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	17		1.0	0.14	ug/L	1		8260C	Total/NA
Trichloroethene	3.5		1.0	0.20	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	2.5	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.5		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.9	J	2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	6.8		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.1	J B	2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.60	J	2.0	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1	J	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.4	J B	2.0	0.17	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Client Sample ID: MW-2 (Continued) — Lab Sample ID: 480-127283-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	15		2.0	0.53	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-14R — Lab Sample ID: 480-127283-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.5	J	5.0	1.3	ug/L	5		8260C	Total/NA
1,2-Dichloropropane	1.5	J	5.0	1.3	ug/L	5		8260C	Total/NA
Benzene	5.1		5.0	1.0	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	1500		5.0	1.1	ug/L	5		8260C	Total/NA
Cyclohexane	0.83	J	25	0.65	ug/L	5		8260C	Total/NA
Ethylbenzene	65		5.0	0.95	ug/L	5		8260C	Total/NA
Isopropylbenzene	34		5.0	1.7	ug/L	5		8260C	Total/NA
Methyl tert-butyl ether	1.4	J	5.0	0.85	ug/L	5		8260C	Total/NA
Methylcyclohexane	2.7	J	25	0.45	ug/L	5		8260C	Total/NA
Methylene Chloride	6.6	J B	25	5.0	ug/L	5		8260C	Total/NA
Toluene	120		5.0	0.85	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	43		5.0	1.2	ug/L	5		8260C	Total/NA
Vinyl chloride	700		5.0	0.90	ug/L	5		8260C	Total/NA
Xylenes, Total	450		15	2.9	ug/L	5		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	410	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	7.2		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	25		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	25		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	130		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	10	B	2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	3.5		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	190		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	52	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	15		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.89	J	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	1200		9.9	2.7	ng/L	5		537 (modified)	Total/NA

Client Sample ID: MW-15R — Lab Sample ID: 480-127283-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.7		1.0	0.21	ug/L	1		8260C	Total/NA
Cyclohexane	0.66	J	5.0	0.13	ug/L	1		8260C	Total/NA
Ethylbenzene	4.6		1.0	0.19	ug/L	1		8260C	Total/NA
Isopropylbenzene	12		1.0	0.33	ug/L	1		8260C	Total/NA
Methylcyclohexane	4.4	J	5.0	0.090	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.38	J	1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.34	J	1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	0.20	J	1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	5.3		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	70	CI	1.9	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	28		1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	29		1.9	0.56	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	29		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	100		1.9	0.82	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-15R (Continued) — Lab Sample ID: 480-127283-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	12	B	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	26		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	8.0		1.9	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	5.5		1.9	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	40		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14	B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	4.6		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	380		1.9	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	3.9		1.9	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	12		1.9	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-25D — Lab Sample ID: 480-127283-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.97	J	1.0	0.24	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.46	J	1.0	0.25	ug/L	1		8260C	Total/NA
1,2-Dichloroethane	1.1		1.0	0.20	ug/L	1		8260C	Total/NA
Benzene	0.98	J	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	150		1.0	0.21	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.4	J	5.0	0.090	ug/L	1		8260C	Total/NA
Tetrachloroethene	3.2		1.0	0.14	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	2.3		1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	3.8		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	330		1.0	0.18	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	33	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	11		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	15		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	11		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	34		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.4	B	2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.4		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.7		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.3	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.1	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	100		2.0	0.53	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIP BLANKS — Lab Sample ID: 480-127283-8

No Detections.

Client Sample ID: EB-04 — Lab Sample ID: 480-127283-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	0.24	J B	2.0	0.17	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Client Sample ID: MW-6R
Date Collected: 11/07/17 16:10
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 02:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/12/17 02:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/12/17 02:09	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 02:09	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/12/17 02:09	1
1,1-Dichloroethene	**1.6**		1.0	0.25	ug/L			11/12/17 02:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/12/17 02:09	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/12/17 02:09	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/12/17 02:09	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/12/17 02:09	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/12/17 02:09	1
1,2-Dichloropropane	**0.57**	**J**	1.0	0.25	ug/L			11/12/17 02:09	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/12/17 02:09	1
1,4-Dichlorobenzene	**0.41**	**J**	1.0	0.17	ug/L			11/12/17 02:09	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/12/17 02:09	1
2-Hexanone	ND		10	1.3	ug/L			11/12/17 02:09	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/12/17 02:09	1
Acetone	ND		25	2.7	ug/L			11/12/17 02:09	1
Benzene	**1.6**		1.0	0.20	ug/L			11/12/17 02:09	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/12/17 02:09	1
Bromoform	ND		1.0	0.29	ug/L			11/12/17 02:09	1
Bromomethane	ND		1.0	0.35	ug/L			11/12/17 02:09	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/12/17 02:09	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/12/17 02:09	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/12/17 02:09	1
Chloroethane	**1.3**		1.0	0.36	ug/L			11/12/17 02:09	1
Chloroform	ND		1.0	0.23	ug/L			11/12/17 02:09	1
Chloromethane	ND		1.0	0.36	ug/L			11/12/17 02:09	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 02:09	1
Cyclohexane	ND		5.0	0.13	ug/L			11/12/17 02:09	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/12/17 02:09	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/12/17 02:09	1
Ethylbenzene	**26**		1.0	0.19	ug/L			11/12/17 02:09	1
Isopropylbenzene	**18**		1.0	0.33	ug/L			11/12/17 02:09	1
Methyl acetate	ND		10	0.58	ug/L			11/12/17 02:09	1
Methyl tert-butyl ether	**7.2**		1.0	0.17	ug/L			11/12/17 02:09	1
Methylcyclohexane	**2.2**	**J**	5.0	0.090	ug/L			11/12/17 02:09	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/12/17 02:09	1
Styrene	ND		1.0	0.28	ug/L			11/12/17 02:09	1
Tetrachloroethene	**2.9**		1.0	0.14	ug/L			11/12/17 02:09	1
Toluene	ND		1.0	0.17	ug/L			11/12/17 02:09	1
trans-1,2-Dichloroethene	**3.3**		1.0	0.23	ug/L			11/12/17 02:09	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 02:09	1
Trichloroethene	**9.7**		1.0	0.20	ug/L			11/12/17 02:09	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/12/17 02:09	1
Vinyl chloride	**270**		1.0	0.18	ug/L			11/12/17 02:09	1
Xylenes, Total	**6.6**		3.0	0.58	ug/L			11/12/17 02:09	1

Client Sample ID: MW-6R

Date Collected: 11/07/17 16:10
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		11/12/17 02:09	1
4-Bromofluorobenzene (Surr)	105		70 - 130		11/12/17 02:09	1
Dibromofluoromethane (Surr)	106		70 - 130		11/12/17 02:09	1
Toluene-d8 (Surr)	95		70 - 130		11/12/17 02:09	1

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	740		10	2.1	ug/L			11/13/17 13:07	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		11/13/17 13:07	10
4-Bromofluorobenzene (Surr)	94		70 - 130		11/13/17 13:07	10
Dibromofluoromethane (Surr)	114		70 - 130		11/13/17 13:07	10
Toluene-d8 (Surr)	98		70 - 130		11/13/17 13:07	10

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	170	CI	1.9	0.34	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluoropentanoic acid (PFPeA)	62		1.9	0.48	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorohexanoic acid (PFHxA)	61		1.9	0.57	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluoroheptanoic acid (PFHpA)	60		1.9	0.24	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorooctanoic acid (PFOA)	150		1.9	0.83	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorononanoic acid (PFNA)	17	B	1.9	0.26	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorodecanoic acid (PFDA)	15		1.9	0.30	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluoroundecanoic acid (PFUnA)	1.2	J	1.9	1.1	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.54	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.3	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorobutanesulfonic acid (PFBS)	140		1.9	0.19	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorohexanesulfonic acid (PFHxS)	23	B	1.9	0.17	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluoroheptanesulfonic Acid (PFHpS)	6.9		1.9	0.19	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorooctanesulfonic acid (PFOS)	510		1.9	0.53	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorodecanesulfonic acid (PFDS)	0.31	J	1.9	0.31	ng/L		11/16/17 10:19	11/18/17 02:15	1
Perfluorooctane Sulfonamide (FOSA)	6.1		1.9	0.34	ng/L		11/16/17 10:19	11/18/17 02:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	98		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C4 PFBA	48		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C2 PFHxA	85		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C4 PFOA	91		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C5 PFNA	104		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C2 PFDA	115		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C2 PFUnA	110		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C2 PFDoA	97		25 - 150	11/16/17 10:19	11/18/17 02:15	1
18O2 PFHxS	100		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C4 PFOS	110		25 - 150	11/16/17 10:19	11/18/17 02:15	1

Client Sample ID: MW-6R

Date Collected: 11/07/17 16:10
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4-PFHpA	88		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C5 PFPeA	80		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C3-PFBS	109		25 - 150	11/16/17 10:19	11/18/17 02:15	1
13C2-PFTeDA	92		25 - 150	11/16/17 10:19	11/18/17 02:15	1

Client Sample ID: DW-03

Date Collected: 11/08/17 08:30
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	1.9	ug/L			11/10/17 20:40	10
1,1,2,2-Tetrachloroethane	ND		10	1.9	ug/L			11/10/17 20:40	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	1.5	ug/L			11/10/17 20:40	10
1,1,2-Trichloroethane	ND		10	1.9	ug/L			11/10/17 20:40	10
1,1-Dichloroethane	ND		10	2.4	ug/L			11/10/17 20:40	10
1,1-Dichloroethene	**2.6**	**J**	10	2.5	ug/L			11/10/17 20:40	10
1,2,4-Trichlorobenzene	ND		10	2.0	ug/L			11/10/17 20:40	10
1,2-Dibromo-3-Chloropropane	ND		100	9.4	ug/L			11/10/17 20:40	10
1,2-Dibromoethane	ND		10	2.1	ug/L			11/10/17 20:40	10
1,2-Dichlorobenzene	ND		10	1.9	ug/L			11/10/17 20:40	10
1,2-Dichloroethane	ND		10	2.0	ug/L			11/10/17 20:40	10
1,2-Dichloropropane	ND		10	2.5	ug/L			11/10/17 20:40	10
1,3-Dichlorobenzene	ND		10	1.8	ug/L			11/10/17 20:40	10
1,4-Dichlorobenzene	ND		10	1.7	ug/L			11/10/17 20:40	10
2-Butanone (MEK)	ND		500	26	ug/L			11/10/17 20:40	10
2-Hexanone	ND		100	13	ug/L			11/10/17 20:40	10
4-Methyl-2-pentanone (MIBK)	ND		100	8.1	ug/L			11/10/17 20:40	10
Acetone	ND		250	27	ug/L			11/10/17 20:40	10
Benzene	**3.3**	**J**	10	2.0	ug/L			11/10/17 20:40	10
Bromodichloromethane	ND		10	1.7	ug/L			11/10/17 20:40	10
Bromoform	ND		10	2.9	ug/L			11/10/17 20:40	10
Bromomethane	ND		10	3.5	ug/L			11/10/17 20:40	10
Carbon disulfide	ND		10	2.2	ug/L			11/10/17 20:40	10
Carbon tetrachloride	ND		10	1.8	ug/L			11/10/17 20:40	10
Chlorobenzene	ND		10	1.8	ug/L			11/10/17 20:40	10
Chloroethane	**8.2**	**J**	10	3.6	ug/L			11/10/17 20:40	10
Chloroform	ND		10	2.3	ug/L			11/10/17 20:40	10
Chloromethane	ND		10	3.6	ug/L			11/10/17 20:40	10
cis-1,2-Dichloroethene	**1400**		10	2.1	ug/L			11/10/17 20:40	10
cis-1,3-Dichloropropene	ND		10	1.7	ug/L			11/10/17 20:40	10
Cyclohexane	ND		50	1.3	ug/L			11/10/17 20:40	10
Dibromochloromethane	ND		10	2.5	ug/L			11/10/17 20:40	10
Dichlorodifluoromethane	ND	*	10	1.7	ug/L			11/10/17 20:40	10
Ethylbenzene	ND		10	1.9	ug/L			11/10/17 20:40	10
Isopropylbenzene	**7.9**	**J**	10	3.3	ug/L			11/10/17 20:40	10
Methyl acetate	ND		100	5.8	ug/L			11/10/17 20:40	10
Methyl tert-butyl ether	**9.7**	**J**	10	1.7	ug/L			11/10/17 20:40	10
Methylcyclohexane	**1.5**	**J**	50	0.90	ug/L			11/10/17 20:40	10
Methylene Chloride	**14**	**J B**	50	10	ug/L			11/10/17 20:40	10

Client Sample ID: DW-03
Date Collected: 11/08/17 08:30
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		10	2.8	ug/L			11/10/17 20:40	10
Tetrachloroethene	**1.9**	**J**	10	1.4	ug/L			11/10/17 20:40	10
Toluene	ND		10	1.7	ug/L			11/10/17 20:40	10
trans-1,2-Dichloroethene	**19**		10	2.3	ug/L			11/10/17 20:40	10
trans-1,3-Dichloropropene	ND		10	1.7	ug/L			11/10/17 20:40	10
Trichloroethene	**6.3**	**J**	10	2.0	ug/L			11/10/17 20:40	10
Trichlorofluoromethane	ND		10	2.1	ug/L			11/10/17 20:40	10
Vinyl chloride	**640**		10	1.8	ug/L			11/10/17 20:40	10
Xylenes, Total	ND		30	5.8	ug/L			11/10/17 20:40	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*11/10/17 20:40*	*10*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*11/10/17 20:40*	*10*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/10/17 20:40*	*10*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/10/17 20:40*	*10*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**120**	**CI**	1.9	0.34	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluoropentanoic acid (PFPeA)	**23**		1.9	0.47	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorohexanoic acid (PFHxA)	**29**		1.9	0.56	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluoroheptanoic acid (PFHpA)	**24**		1.9	0.24	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorooctanoic acid (PFOA)	**100**		1.9	0.82	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorononanoic acid (PFNA)	**11**	**B**	1.9	0.26	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorodecanoic acid (PFDA)	**7.1**		1.9	0.30	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.2	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorotetradecanoic acid (PFTeA)	**0.57**	**J**	1.9	0.28	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorobutanesulfonic acid (PFBS)	**67**		1.9	0.19	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorohexanesulfonic acid (PFHxS)	**21**	**B**	1.9	0.16	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluoroheptanesulfonic Acid (PFHpS)	**7.4**		1.9	0.18	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorooctanesulfonic acid (PFOS)	**550**		1.9	0.52	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/16/17 10:19	11/18/17 02:23	1
Perfluorooctane Sulfonamide (FOSA)	**2.3**		1.9	0.34	ng/L		11/16/17 10:19	11/18/17 02:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*92*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
13C4 PFBA	*46*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
13C2 PFHxA	*81*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
13C4 PFOA	*86*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
13C5 PFNA	*99*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
13C2 PFDA	*108*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
13C2 PFUnA	*105*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
13C2 PFDoA	*96*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*
18O2 PFHxS	*100*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:23*	*1*

Client Sample ID: DW-03

Date Collected: 11/08/17 08:30
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	105		25 - 150	11/16/17 10:19	11/18/17 02:23	1
13C4-PFHpA	87		25 - 150	11/16/17 10:19	11/18/17 02:23	1
13C5 PFPeA	79		25 - 150	11/16/17 10:19	11/18/17 02:23	1
13C3-PFBS	94		25 - 150	11/16/17 10:19	11/18/17 02:23	1
13C2-PFTeDA	92		25 - 150	11/16/17 10:19	11/18/17 02:23	1

Client Sample ID: MW-29

Date Collected: 11/08/17 09:55
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	1.9	ug/L			11/10/17 21:05	10
1,1,2,2-Tetrachloroethane	ND		10	1.9	ug/L			11/10/17 21:05	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	1.5	ug/L			11/10/17 21:05	10
1,1,2-Trichloroethane	ND		10	1.9	ug/L			11/10/17 21:05	10
1,1-Dichloroethane	ND		10	2.4	ug/L			11/10/17 21:05	10
1,1-Dichloroethene	**2.7**	**J**	10	2.5	ug/L			11/10/17 21:05	10
1,2,4-Trichlorobenzene	ND		10	2.0	ug/L			11/10/17 21:05	10
1,2-Dibromo-3-Chloropropane	ND		100	9.4	ug/L			11/10/17 21:05	10
1,2-Dibromoethane	ND		10	2.1	ug/L			11/10/17 21:05	10
1,2-Dichlorobenzene	ND		10	1.9	ug/L			11/10/17 21:05	10
1,2-Dichloroethane	ND		10	2.0	ug/L			11/10/17 21:05	10
1,2-Dichloropropane	ND		10	2.5	ug/L			11/10/17 21:05	10
1,3-Dichlorobenzene	ND		10	1.8	ug/L			11/10/17 21:05	10
1,4-Dichlorobenzene	ND		10	1.7	ug/L			11/10/17 21:05	10
2-Butanone (MEK)	ND		500	26	ug/L			11/10/17 21:05	10
2-Hexanone	ND		100	13	ug/L			11/10/17 21:05	10
4-Methyl-2-pentanone (MIBK)	ND		100	8.1	ug/L			11/10/17 21:05	10
Acetone	ND		250	27	ug/L			11/10/17 21:05	10
Benzene	ND		10	2.0	ug/L			11/10/17 21:05	10
Bromodichloromethane	ND		10	1.7	ug/L			11/10/17 21:05	10
Bromoform	ND		10	2.9	ug/L			11/10/17 21:05	10
Bromomethane	ND		10	3.5	ug/L			11/10/17 21:05	10
Carbon disulfide	ND		10	2.2	ug/L			11/10/17 21:05	10
Carbon tetrachloride	ND		10	1.8	ug/L			11/10/17 21:05	10
Chlorobenzene	ND		10	1.8	ug/L			11/10/17 21:05	10
Chloroethane	ND		10	3.6	ug/L			11/10/17 21:05	10
Chloroform	ND		10	2.3	ug/L			11/10/17 21:05	10
Chloromethane	ND		10	3.6	ug/L			11/10/17 21:05	10
cis-1,2-Dichloroethene	**900**		10	2.1	ug/L			11/10/17 21:05	10
cis-1,3-Dichloropropene	ND		10	1.7	ug/L			11/10/17 21:05	10
Cyclohexane	ND		50	1.3	ug/L			11/10/17 21:05	10
Dibromochloromethane	ND		10	2.5	ug/L			11/10/17 21:05	10
Dichlorodifluoromethane	ND	*	10	1.7	ug/L			11/10/17 21:05	10
Ethylbenzene	**10**		10	1.9	ug/L			11/10/17 21:05	10
Isopropylbenzene	**8.0**	**J**	10	3.3	ug/L			11/10/17 21:05	10
Methyl acetate	ND		100	5.8	ug/L			11/10/17 21:05	10
Methyl tert-butyl ether	ND		10	1.7	ug/L			11/10/17 21:05	10
Methylcyclohexane	ND		50	0.90	ug/L			11/10/17 21:05	10

Client Sample ID: MW-29
Date Collected: 11/08/17 09:55
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**14**	**J B**	50	10	ug/L			11/10/17 21:05	10
Styrene	ND		10	2.8	ug/L			11/10/17 21:05	10
Tetrachloroethene	**25**		10	1.4	ug/L			11/10/17 21:05	10
Toluene	ND		10	1.7	ug/L			11/10/17 21:05	10
trans-1,2-Dichloroethene	**18**		10	2.3	ug/L			11/10/17 21:05	10
trans-1,3-Dichloropropene	ND		10	1.7	ug/L			11/10/17 21:05	10
Trichloroethene	**52**		10	2.0	ug/L			11/10/17 21:05	10
Trichlorofluoromethane	ND		10	2.1	ug/L			11/10/17 21:05	10
Vinyl chloride	**190**		10	1.8	ug/L			11/10/17 21:05	10
Xylenes, Total	ND		30	5.8	ug/L			11/10/17 21:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*11/10/17 21:05*	*10*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*11/10/17 21:05*	*10*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/10/17 21:05*	*10*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/10/17 21:05*	*10*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**490**	**CI**	1.9	0.34	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluoropentanoic acid (PFPeA)	**41**		1.9	0.47	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorohexanoic acid (PFHxA)	**57**		1.9	0.56	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluoroheptanoic acid (PFHpA)	**55**		1.9	0.24	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorooctanoic acid (PFOA)	**180**		1.9	0.82	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorononanoic acid (PFNA)	**16**	**B**	1.9	0.26	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorodecanoic acid (PFDA)	**17**		1.9	0.30	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.3	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorobutanesulfonic acid (PFBS)	**96**		1.9	0.19	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorohexanesulfonic acid (PFHxS)	**28**	**B**	1.9	0.16	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluoroheptanesulfonic Acid (PFHpS)	**7.0**		1.9	0.18	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorooctanesulfonic acid (PFOS)	**590**		1.9	0.52	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/16/17 10:19	11/18/17 02:31	1
Perfluorooctane Sulfonamide (FOSA)	**6.8**		1.9	0.34	ng/L		11/16/17 10:19	11/18/17 02:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*103*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
13C4 PFBA	*39*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
13C2 PFHxA	*81*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
13C4 PFOA	*86*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
13C5 PFNA	*105*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
13C2 PFDA	*114*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
13C2 PFUnA	*111*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
13C2 PFDoA	*100*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*
18O2 PFHxS	*99*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:31*	*1*

Client Sample ID: MW-29

Date Collected: 11/08/17 09:55
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-3
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	108		25 - 150	11/16/17 10:19	11/18/17 02:31	1
13C4-PFHpA	84		25 - 150	11/16/17 10:19	11/18/17 02:31	1
13C5 PFPeA	65		25 - 150	11/16/17 10:19	11/18/17 02:31	1
13C3-PFBS	106		25 - 150	11/16/17 10:19	11/18/17 02:31	1
13C2-PFTeDA	89		25 - 150	11/16/17 10:19	11/18/17 02:31	1

Client Sample ID: MW-2

Date Collected: 11/08/17 08:05
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 18:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 18:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/10/17 18:58	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 18:58	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 18:58	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 18:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 18:58	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 18:58	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 18:58	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 18:58	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 18:58	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 18:58	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 18:58	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 18:58	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 18:58	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 18:58	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 18:58	1
Acetone	ND		25	2.7	ug/L			11/10/17 18:58	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 18:58	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 18:58	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 18:58	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 18:58	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 18:58	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 18:58	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 18:58	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 18:58	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 18:58	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 18:58	1
cis-1,2-Dichloroethene	**1.1**		1.0	0.21	ug/L			11/10/17 18:58	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 18:58	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 18:58	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 18:58	1
Dichlorodifluoromethane	ND	*	1.0	0.17	ug/L			11/10/17 18:58	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 18:58	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 18:58	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 18:58	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 18:58	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 18:58	1

Client Sample ID: MW-2
Date Collected: 11/08/17 08:05
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	1.0	ug/L			11/10/17 18:58	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 18:58	1
Tetrachloroethene	**17**		1.0	0.14	ug/L			11/10/17 18:58	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 18:58	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 18:58	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 18:58	1
Trichloroethene	**3.5**		1.0	0.20	ug/L			11/10/17 18:58	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/10/17 18:58	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 18:58	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*11/10/17 18:58*	*1*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*11/10/17 18:58*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/10/17 18:58*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/10/17 18:58*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.5**	**CI**	2.0	0.35	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluoropentanoic acid (PFPeA)	**2.5**		2.0	0.48	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorohexanoic acid (PFHxA)	**2.2**		2.0	0.57	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluoroheptanoic acid (PFHpA)	**1.9**	**J**	2.0	0.25	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorooctanoic acid (PFOA)	**6.8**		2.0	0.84	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorononanoic acid (PFNA)	**1.1**	**J B**	2.0	0.27	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorotetradecanoic acid (PFTeA)	**0.60**	**J**	2.0	0.29	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorobutanesulfonic acid (PFBS)	**1.1**	**J**	2.0	0.20	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorohexanesulfonic acid (PFHxS)	**1.4**	**J B**	2.0	0.17	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorooctanesulfonic acid (PFOS)	**15**		2.0	0.53	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 10:19	11/18/17 02:39	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/16/17 10:19	11/18/17 02:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*97*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
13C4 PFBA	*81*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
13C2 PFHxA	*93*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
13C4 PFOA	*87*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
13C5 PFNA	*100*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
13C2 PFDA	*102*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
13C2 PFUnA	*98*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
13C2 PFDoA	*86*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*
18O2 PFHxS	*98*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:39*	*1*

Client Sample ID: MW-2

Date Collected: 11/08/17 08:05
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	106		25 - 150	11/16/17 10:19	11/18/17 02:39	1
13C4-PFHpA	100		25 - 150	11/16/17 10:19	11/18/17 02:39	1
13C5 PFPeA	91		25 - 150	11/16/17 10:19	11/18/17 02:39	1
13C3-PFBS	100		25 - 150	11/16/17 10:19	11/18/17 02:39	1
13C2-PFTeDA	89		25 - 150	11/16/17 10:19	11/18/17 02:39	1

Client Sample ID: MW-14R

Date Collected: 11/08/17 10:15
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.95	ug/L			11/10/17 19:49	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			11/10/17 19:49	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.75	ug/L			11/10/17 19:49	5
1,1,2-Trichloroethane	ND		5.0	0.95	ug/L			11/10/17 19:49	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			11/10/17 19:49	5
1,1-Dichloroethene	**1.5**	**J**	5.0	1.3	ug/L			11/10/17 19:49	5
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/L			11/10/17 19:49	5
1,2-Dibromo-3-Chloropropane	ND		50	4.7	ug/L			11/10/17 19:49	5
1,2-Dibromoethane	ND		5.0	1.1	ug/L			11/10/17 19:49	5
1,2-Dichlorobenzene	ND		5.0	0.95	ug/L			11/10/17 19:49	5
1,2-Dichloroethane	ND		5.0	1.0	ug/L			11/10/17 19:49	5
1,2-Dichloropropane	**1.5**	**J**	5.0	1.3	ug/L			11/10/17 19:49	5
1,3-Dichlorobenzene	ND		5.0	0.90	ug/L			11/10/17 19:49	5
1,4-Dichlorobenzene	ND		5.0	0.85	ug/L			11/10/17 19:49	5
2-Butanone (MEK)	ND		250	13	ug/L			11/10/17 19:49	5
2-Hexanone	ND		50	6.4	ug/L			11/10/17 19:49	5
4-Methyl-2-pentanone (MIBK)	ND		50	4.1	ug/L			11/10/17 19:49	5
Acetone	ND		130	13	ug/L			11/10/17 19:49	5
Benzene	**5.1**		5.0	1.0	ug/L			11/10/17 19:49	5
Bromodichloromethane	ND		5.0	0.85	ug/L			11/10/17 19:49	5
Bromoform	ND		5.0	1.5	ug/L			11/10/17 19:49	5
Bromomethane	ND		5.0	1.8	ug/L			11/10/17 19:49	5
Carbon disulfide	ND		5.0	1.1	ug/L			11/10/17 19:49	5
Carbon tetrachloride	ND		5.0	0.90	ug/L			11/10/17 19:49	5
Chlorobenzene	ND		5.0	0.90	ug/L			11/10/17 19:49	5
Chloroethane	ND		5.0	1.8	ug/L			11/10/17 19:49	5
Chloroform	ND		5.0	1.2	ug/L			11/10/17 19:49	5
Chloromethane	ND		5.0	1.8	ug/L			11/10/17 19:49	5
cis-1,2-Dichloroethene	**1500**		5.0	1.1	ug/L			11/10/17 19:49	5
cis-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/10/17 19:49	5
Cyclohexane	**0.83**	**J**	25	0.65	ug/L			11/10/17 19:49	5
Dibromochloromethane	ND		5.0	1.3	ug/L			11/10/17 19:49	5
Dichlorodifluoromethane	ND	*	5.0	0.85	ug/L			11/10/17 19:49	5
Ethylbenzene	**65**		5.0	0.95	ug/L			11/10/17 19:49	5
Isopropylbenzene	**34**		5.0	1.7	ug/L			11/10/17 19:49	5
Methyl acetate	ND		50	2.9	ug/L			11/10/17 19:49	5
Methyl tert-butyl ether	**1.4**	**J**	5.0	0.85	ug/L			11/10/17 19:49	5
Methylcyclohexane	**2.7**	**J**	25	0.45	ug/L			11/10/17 19:49	5

Client Sample ID: MW-14R
Date Collected: 11/08/17 10:15
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**6.6**	**J B**	25	5.0	ug/L			11/10/17 19:49	5
Styrene	ND		5.0	1.4	ug/L			11/10/17 19:49	5
Tetrachloroethene	ND		5.0	0.70	ug/L			11/10/17 19:49	5
Toluene	**120**		5.0	0.85	ug/L			11/10/17 19:49	5
trans-1,2-Dichloroethene	**43**		5.0	1.2	ug/L			11/10/17 19:49	5
trans-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/10/17 19:49	5
Trichloroethene	ND		5.0	1.0	ug/L			11/10/17 19:49	5
Trichlorofluoromethane	ND		5.0	1.1	ug/L			11/10/17 19:49	5
Vinyl chloride	**700**		5.0	0.90	ug/L			11/10/17 19:49	5
Xylenes, Total	**450**		15	2.9	ug/L			11/10/17 19:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*11/10/17 19:49*	*5*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*11/10/17 19:49*	*5*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*11/10/17 19:49*	*5*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/10/17 19:49*	*5*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**410**	**CI**	2.0	0.35	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluoropentanoic acid (PFPeA)	**7.2**		2.0	0.48	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorohexanoic acid (PFHxA)	**25**		2.0	0.57	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluoroheptanoic acid (PFHpA)	**25**		2.0	0.25	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorooctanoic acid (PFOA)	**130**		2.0	0.84	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorononanoic acid (PFNA)	**10**	**B**	2.0	0.27	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorodecanoic acid (PFDA)	**3.5**		2.0	0.31	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorobutanesulfonic acid (PFBS)	**190**		2.0	0.20	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorohexanesulfonic acid (PFHxS)	**52**	**B**	2.0	0.17	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	**15**		2.0	0.19	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 10:19	11/18/17 02:47	1
Perfluorooctane Sulfonamide (FOSA)	**0.89**	**J**	2.0	0.35	ng/L		11/16/17 10:19	11/18/17 02:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*90*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C4 PFBA	*27*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C2 PFHxA	*73*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C4 PFOA	*84*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C5 PFNA	*100*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C2 PFDA	*121*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C2 PFUnA	*109*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C2 PFDoA	*98*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
18O2 PFHxS	*111*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C4 PFOS	*112*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*
13C4-PFHpA	*81*		*25 - 150*	*11/16/17 10:19*	*11/18/17 02:47*	*1*

Client Sample ID: MW-14R

Date Collected: 11/08/17 10:15
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-5
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	58		25 - 150	11/16/17 10:19	11/18/17 02:47	1
13C3-PFBS	113		25 - 150	11/16/17 10:19	11/18/17 02:47	1
13C2-PFTeDA	93		25 - 150	11/16/17 10:19	11/18/17 02:47	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	1200		9.9	2.7	ng/L		11/16/17 10:19	11/21/17 16:37	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	99		25 - 150	11/16/17 10:19	11/21/17 16:37	5

Client Sample ID: MW-15R

Date Collected: 11/08/17 11:25
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 19:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 19:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/10/17 19:24	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 19:24	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 19:24	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 19:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 19:24	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 19:24	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 19:24	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 19:24	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 19:24	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 19:24	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 19:24	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 19:24	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 19:24	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 19:24	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 19:24	1
Acetone	ND		25	2.7	ug/L			11/10/17 19:24	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 19:24	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 19:24	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 19:24	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 19:24	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 19:24	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 19:24	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 19:24	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 19:24	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 19:24	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 19:24	1
cis-1,2-Dichloroethene	3.7		1.0	0.21	ug/L			11/10/17 19:24	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 19:24	1
Cyclohexane	0.66	J	5.0	0.13	ug/L			11/10/17 19:24	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 19:24	1
Dichlorodifluoromethane	ND	*	1.0	0.17	ug/L			11/10/17 19:24	1

Client Sample ID: MW-15R
Date Collected: 11/08/17 11:25
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**4.6**		1.0	0.19	ug/L			11/10/17 19:24	1
Isopropylbenzene	**12**		1.0	0.33	ug/L			11/10/17 19:24	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 19:24	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 19:24	1
Methylcyclohexane	**4.4**	**J**	5.0	0.090	ug/L			11/10/17 19:24	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/10/17 19:24	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 19:24	1
Tetrachloroethene	**0.38**	**J**	1.0	0.14	ug/L			11/10/17 19:24	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 19:24	1
trans-1,2-Dichloroethene	**0.34**	**J**	1.0	0.23	ug/L			11/10/17 19:24	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 19:24	1
Trichloroethene	**0.20**	**J**	1.0	0.20	ug/L			11/10/17 19:24	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/10/17 19:24	1
Vinyl chloride	**5.3**		1.0	0.18	ug/L			11/10/17 19:24	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*11/10/17 19:24*	*1*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*		*11/10/17 19:24*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/10/17 19:24*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/10/17 19:24*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**70**	**CI**	1.9	0.34	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluoropentanoic acid (PFPeA)	**28**		1.9	0.47	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorohexanoic acid (PFHxA)	**29**		1.9	0.56	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluoroheptanoic acid (PFHpA)	**29**		1.9	0.24	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorooctanoic acid (PFOA)	**100**		1.9	0.82	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorononanoic acid (PFNA)	**12**	**B**	1.9	0.26	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorodecanoic acid (PFDA)	**26**		1.9	0.30	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluoroundecanoic acid (PFUnA)	**8.0**		1.9	1.1	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorododecanoic acid (PFDoA)	**5.5**		1.9	0.53	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorotridecanoic Acid (PFTriA)	ND		1.9	1.3	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.28	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorobutanesulfonic acid (PFBS)	**40**		1.9	0.19	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorohexanesulfonic acid (PFHxS)	**14**	**B**	1.9	0.16	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	**4.6**		1.9	0.18	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorooctanesulfonic acid (PFOS)	**380**		1.9	0.52	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorodecanesulfonic acid (PFDS)	**3.9**		1.9	0.31	ng/L		11/16/17 10:19	11/18/17 03:03	1
Perfluorooctane Sulfonamide (FOSA)	**12**		1.9	0.34	ng/L		11/16/17 10:19	11/18/17 03:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*97*		*25 - 150*	*11/16/17 10:19*	*11/18/17 03:03*	*1*
13C4 PFBA	*49*		*25 - 150*	*11/16/17 10:19*	*11/18/17 03:03*	*1*

Client Sample ID: MW-15R

Lab Sample ID: 480-127283-6

Date Collected: 11/08/17 11:25

Matrix: Water

Date Received: 11/09/17 01:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	83		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C4 PFOA	87		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C5 PFNA	100		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C2 PFDA	104		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C2 PFUnA	109		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C2 PFDoA	98		25 - 150	11/16/17 10:19	11/18/17 03:03	1
18O2 PFHxS	98		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C4 PFOS	104		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C4-PFHpA	87		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C5 PFPeA	78		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C3-PFBS	93		25 - 150	11/16/17 10:19	11/18/17 03:03	1
13C2-PFTeDA	90		25 - 150	11/16/17 10:19	11/18/17 03:03	1

Client Sample ID: MW-25D

Lab Sample ID: 480-127283-7

Date Collected: 11/07/17 15:40

Matrix: Water

Date Received: 11/09/17 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 01:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/12/17 01:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/12/17 01:43	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 01:43	1
1,1-Dichloroethane	**0.97**	**J**	1.0	0.24	ug/L			11/12/17 01:43	1
1,1-Dichloroethene	**0.46**	**J**	1.0	0.25	ug/L			11/12/17 01:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/12/17 01:43	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/12/17 01:43	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/12/17 01:43	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/12/17 01:43	1
1,2-Dichloroethane	**1.1**		1.0	0.20	ug/L			11/12/17 01:43	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/12/17 01:43	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/12/17 01:43	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/12/17 01:43	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/12/17 01:43	1
2-Hexanone	ND		10	1.3	ug/L			11/12/17 01:43	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/12/17 01:43	1
Acetone	ND		25	2.7	ug/L			11/12/17 01:43	1
Benzene	**0.98**	**J**	1.0	0.20	ug/L			11/12/17 01:43	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/12/17 01:43	1
Bromoform	ND		1.0	0.29	ug/L			11/12/17 01:43	1
Bromomethane	ND		1.0	0.35	ug/L			11/12/17 01:43	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/12/17 01:43	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/12/17 01:43	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/12/17 01:43	1
Chloroethane	ND		1.0	0.36	ug/L			11/12/17 01:43	1
Chloroform	ND		1.0	0.23	ug/L			11/12/17 01:43	1
Chloromethane	ND		1.0	0.36	ug/L			11/12/17 01:43	1
cis-1,2-Dichloroethene	**150**		1.0	0.21	ug/L			11/12/17 01:43	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 01:43	1
Cyclohexane	ND		5.0	0.13	ug/L			11/12/17 01:43	1

Client Sample ID: MW-25D
Date Collected: 11/07/17 15:40
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0	0.25	ug/L			11/12/17 01:43	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/12/17 01:43	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/12/17 01:43	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/12/17 01:43	1
Methyl acetate	ND		10	0.58	ug/L			11/12/17 01:43	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/12/17 01:43	1
Methylcyclohexane	**1.4**	**J**	5.0	0.090	ug/L			11/12/17 01:43	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/12/17 01:43	1
Styrene	ND		1.0	0.28	ug/L			11/12/17 01:43	1
Tetrachloroethene	**3.2**		1.0	0.14	ug/L			11/12/17 01:43	1
Toluene	ND		1.0	0.17	ug/L			11/12/17 01:43	1
trans-1,2-Dichloroethene	**2.3**		1.0	0.23	ug/L			11/12/17 01:43	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 01:43	1
Trichloroethene	**3.8**		1.0	0.20	ug/L			11/12/17 01:43	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/12/17 01:43	1
Vinyl chloride	**330**		1.0	0.18	ug/L			11/12/17 01:43	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/12/17 01:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*11/12/17 01:43*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*11/12/17 01:43*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/12/17 01:43*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/12/17 01:43*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**33**	**CI**	2.0	0.35	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluoropentanoic acid (PFPeA)	**11**		2.0	0.48	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorohexanoic acid (PFHxA)	**15**		2.0	0.57	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluoroheptanoic acid (PFHpA)	**11**		2.0	0.25	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorooctanoic acid (PFOA)	**34**		2.0	0.84	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorononanoic acid (PFNA)	**3.4**	**B**	2.0	0.27	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorodecanoic acid (PFDA)	**2.4**		2.0	0.31	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorobutanesulfonic acid (PFBS)	**9.7**		2.0	0.20	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorohexanesulfonic acid (PFHxS)	**6.3**	**B**	2.0	0.17	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.1**	**J**	2.0	0.19	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorooctanesulfonic acid (PFOS)	**100**		2.0	0.53	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 10:19	11/18/17 03:11	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/16/17 10:19	11/18/17 03:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*98*		*25 - 150*	*11/16/17 10:19*	*11/18/17 03:11*	*1*
13C4 PFBA	*57*		*25 - 150*	*11/16/17 10:19*	*11/18/17 03:11*	*1*
13C2 PFHxA	*80*		*25 - 150*	*11/16/17 10:19*	*11/18/17 03:11*	*1*

Client Sample ID: MW-25D

Lab Sample ID: 480-127283-7

Date Collected: 11/07/17 15:40

Matrix: Water

Date Received: 11/09/17 01:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	85		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C5 PFNA	96		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C2 PFDA	99		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C2 PFUnA	96		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C2 PFDoA	88		25 - 150	11/16/17 10:19	11/18/17 03:11	1
18O2 PFHxS	94		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C4 PFOS	97		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C4-PFHpA	89		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C5 PFPeA	84		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C3-PFBS	96		25 - 150	11/16/17 10:19	11/18/17 03:11	1
13C2-PFTeDA	83		25 - 150	11/16/17 10:19	11/18/17 03:11	1

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-127283-8

Date Collected: 11/08/17 00:00

Matrix: Water

Date Received: 11/09/17 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 16:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 16:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/10/17 16:11	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 16:11	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 16:11	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 16:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 16:11	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 16:11	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 16:11	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 16:11	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 16:11	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 16:11	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 16:11	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 16:11	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 16:11	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 16:11	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 16:11	1
Acetone	ND		25	2.7	ug/L			11/10/17 16:11	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 16:11	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 16:11	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 16:11	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 16:11	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 16:11	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 16:11	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 16:11	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 16:11	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 16:11	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 16:11	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/10/17 16:11	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 16:11	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 16:11	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 16:11	1

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-127283-8

Date Collected: 11/08/17 00:00
Matrix: Water
Date Received: 11/09/17 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	*	1.0	0.17	ug/L			11/10/17 16:11	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 16:11	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 16:11	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 16:11	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 16:11	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 16:11	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/10/17 16:11	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 16:11	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/10/17 16:11	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 16:11	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 16:11	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 16:11	1
Trichloroethene	ND		1.0	0.20	ug/L			11/10/17 16:11	1
Trichlorofluoromethane	ND	*	1.0	0.21	ug/L			11/10/17 16:11	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 16:11	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/10/17 16:11*	*1*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*		*11/10/17 16:11*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 130*		*11/10/17 16:11*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/10/17 16:11*	*1*

Client Sample ID: EB-04

Lab Sample ID: 480-127283-9

Date Collected: 11/08/17 10:50
Matrix: Water
Date Received: 11/09/17 01:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.36	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.50	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.59	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.86	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.32	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.56	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorohexanesulfonic acid (PFHxS)	**0.24**	**J B**	2.0	0.17	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.55	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.33	ng/L		11/16/17 10:19	11/18/17 03:19	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.36	ng/L		11/16/17 10:19	11/18/17 03:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*96*		*25 - 150*	*11/16/17 10:19*	*11/18/17 03:19*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Client Sample ID: EB-04
Date Collected: 11/08/17 10:50
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-9
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C2 PFHxA	102		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C4 PFOA	88		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C5 PFNA	99		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C2 PFDA	99		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C2 PFUnA	97		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C2 PFDoA	88		25 - 150	11/16/17 10:19	11/18/17 03:19	1
18O2 PFHxS	103		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C4 PFOS	103		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C4-PFHpA	103		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C5 PFPeA	102		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C3-PFBS	106		25 - 150	11/16/17 10:19	11/18/17 03:19	1
13C2-PFTeDA	87		25 - 150	11/16/17 10:19	11/18/17 03:19	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
480-127283-1	MW-6R	95	105	106	95
480-127283-1 - DL	MW-6R	101	94	114	98
480-127283-2	DW-03	104	113	104	109
480-127283-3	MW-29	106	112	106	109
480-127283-4	MW-2	105	111	102	109
480-127283-5	MW-14R	105	110	103	109
480-127283-6	MW-15R	104	124	102	109
480-127283-7	MW-25D	97	97	106	96
480-127283-8	TRIP BLANKS	98	123	114	96
LCS 490-474930/3	Lab Control Sample	106	110	103	110
LCS 490-474935/3	Lab Control Sample	97	94	110	95
LCS 490-475225/3	Lab Control Sample	88	94	107	99
LCS 490-475387/3	Lab Control Sample	98	88	108	97
LCSD 490-474930/4	Lab Control Sample Dup	106	110	104	110
LCSD 490-474935/4	Lab Control Sample Dup	100	89	109	99
LCSD 490-475225/4	Lab Control Sample Dup	89	93	108	96
LCSD 490-475387/4	Lab Control Sample Dup	98	91	110	96
MB 490-474930/6	Method Blank	107	110	106	109
MB 490-474935/6	Method Blank	94	101	108	99
MB 490-475225/6	Method Blank	92	98	105	100
MB 490-475387/6	Method Blank	102	103	115	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	3C8 FOSA (25-150)	3C4 PFBA (25-150)	3C2 PFHxA (25-150)	3C4 PFOA (25-150)	3C5 PFNA (25-150)	3C2 PFDA (25-150)	3C2 PFUnA (25-150)	3C2 PFDoA (25-150)
480-127283-1	MW-6R	98	48	85	91	104	115	110	97
480-127283-2	DW-03	92	46	81	86	99	108	105	96
480-127283-3	MW-29	103	39	81	86	105	114	111	100
480-127283-4	MW-2	97	81	93	87	100	102	98	86
480-127283-5	MW-14R	90	27	73	84	100	121	109	98
480-127283-5 - DL	MW-14R								
480-127283-6	MW-15R	97	49	83	87	100	104	109	98
480-127283-7	MW-25D	98	57	80	85	96	99	96	88
480-127283-9	EB-04	96	101	102	88	99	99	97	88
LCS 320-195067/2-A	Lab Control Sample	96	101	99	91	101	98	97	91
LCSD 320-195067/3-A	Lab Control Sample Dup	98	102	102	89	101	97	99	94
MB 320-195067/1-A	Method Blank	95	96	96	85	97	99	99	90

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	18O2 PFHxS (25-150)	13C4 PFOS (25-150)	13C4-PFHpA (25-150)	13C5 PFPeA (25-150)	13C3-PFBS (25-150)	13C2-PFTeDA (25-150)		
480-127283-1	MW-6R	100	110	88	80	109	92		
480-127283-2	DW-03	100	105	87	79	94	92		
480-127283-3	MW-29	99	108	84	65	106	89		
480-127283-4	MW-2	98	106	100	91	100	89		
480-127283-5	MW-14R	111	112	81	58	113	93		
480-127283-5 - DL	MW-14R		99						
480-127283-6	MW-15R	98	104	87	78	93	90		
480-127283-7	MW-25D	94	97	89	84	96	83		
480-127283-9	EB-04	103	103	103	102	106	87		
LCS 320-195067/2-A	Lab Control Sample	101	102	98	100	98	93		
LCSD 320-195067/3-A	Lab Control Sample Dup	106	105	103	104	105	90		
MB 320-195067/1-A	Method Blank	100	97	94	98	101	91		

Surrogate Legend

13C8 FOSA = 13C8 FOSA
13C4 PFBA = 13C4 PFBA
13C2 PFHxA = 13C2 PFHxA
13C4 PFOA = 13C4 PFOA
13C5 PFNA = 13C5 PFNA
13C2 PFDA = 13C2 PFDA
13C2 PFUnA = 13C2 PFUnA
13C2 PFDoA = 13C2 PFDoA
18O2 PFHxS = 18O2 PFHxS
13C4 PFOS = 13C4 PFOS
13C4-PFHpA = 13C4-PFHpA
13C5 PFPeA = 13C5 PFPeA
13C3-PFBS = 13C3-PFBS
13C2-PFTeDA = 13C2-PFTeDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-474930/6
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/10/17 13:28	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 13:28	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 13:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 13:28	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 13:28	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 13:28	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 13:28	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 13:28	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 13:28	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:28	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 13:28	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 13:28	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 13:28	1
Acetone	ND		25	2.7	ug/L			11/10/17 13:28	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 13:28	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 13:28	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 13:28	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 13:28	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 13:28	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:28	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 13:28	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 13:28	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 13:28	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/10/17 13:28	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 13:28	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 13:28	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 13:28	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 13:28	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 13:28	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 13:28	1
Methylene Chloride	1.07	J	5.0	1.0	ug/L			11/10/17 13:28	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 13:28	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/10/17 13:28	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 13:28	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:28	1
Trichloroethene	ND		1.0	0.20	ug/L			11/10/17 13:28	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/10/17 13:28	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 13:28	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 13:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*11/10/17 13:28*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*11/10/17 13:28*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/10/17 13:28*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/10/17 13:28*	*1*

Lab Sample ID: LCS 490-474930/3
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	22.1		ug/L		111	78 - 135
1,1,2,2-Tetrachloroethane	20.0	22.1		ug/L		111	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.8		ug/L		114	77 - 129
1,1,2-Trichloroethane	20.0	20.4		ug/L		102	80 - 124
1,1-Dichloroethane	20.0	20.5		ug/L		103	78 - 125
1,1-Dichloroethene	20.0	20.5		ug/L		103	79 - 124
1,2,4-Trichlorobenzene	20.0	19.0		ug/L		95	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/L		94	54 - 125
1,2-Dibromoethane	20.0	20.2		ug/L		101	80 - 129
1,2-Dichlorobenzene	20.0	20.8		ug/L		104	80 - 121
1,2-Dichloroethane	20.0	22.2		ug/L		111	77 - 121
1,2-Dichloropropane	20.0	19.9		ug/L		100	75 - 120
1,3-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 122
1,4-Dichlorobenzene	20.0	21.0		ug/L		105	80 - 120
2-Butanone (MEK)	100	98.7		ug/L		99	62 - 133
2-Hexanone	100	103		ug/L		103	60 - 142
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	60 - 137
Acetone	100	115		ug/L		115	54 - 145
Benzene	20.0	20.0		ug/L		100	80 - 121
Bromodichloromethane	20.0	20.6		ug/L		103	75 - 129
Bromoform	20.0	18.5		ug/L		93	46 - 145
Bromomethane	20.0	18.4		ug/L		92	41 - 150
Carbon disulfide	20.0	18.8		ug/L		94	77 - 126
Carbon tetrachloride	20.0	22.7		ug/L		113	64 - 147
Chlorobenzene	20.0	20.5		ug/L		102	80 - 120
Chloroethane	20.0	20.3		ug/L		102	72 - 120
Chloroform	20.0	21.2		ug/L		106	73 - 129
Chloromethane	20.0	21.8		ug/L		109	12 - 150
cis-1,2-Dichloroethene	20.0	20.0		ug/L		100	76 - 125
cis-1,3-Dichloropropene	20.0	21.3		ug/L		107	74 - 140
Cyclohexane	20.0	20.5		ug/L		102	73 - 122
Dibromochloromethane	20.0	21.6		ug/L		108	69 - 133
Dichlorodifluoromethane	20.0	25.5		ug/L		127	37 - 127
Ethylbenzene	20.0	20.6		ug/L		103	80 - 130
Isopropylbenzene	20.0	19.4		ug/L		97	80 - 141
Methyl acetate	40.0	42.8		ug/L		107	64 - 150
Methyl tert-butyl ether	20.0	19.4		ug/L		97	72 - 133
Methylcyclohexane	20.0	20.6		ug/L		103	71 - 129
Methylene Chloride	20.0	20.1		ug/L		101	79 - 123
Styrene	20.0	18.7		ug/L		93	80 - 127
Tetrachloroethene	20.0	21.0		ug/L		105	80 - 126
Toluene	20.0	22.0		ug/L		110	80 - 126
trans-1,2-Dichloroethene	20.0	20.9		ug/L		105	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-474930/3
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	63 - 134
Trichloroethene	20.0	20.1		ug/L		100	80 - 123
Trichlorofluoromethane	20.0	22.2		ug/L		111	65 - 124
Vinyl chloride	20.0	19.9		ug/L		99	68 - 120
Xylenes, Total	40.0	39.4		ug/L		99	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 490-474930/4
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	22.4		ug/L		112	78 - 135	1	15
1,1,2,2-Tetrachloroethane	20.0	22.1		ug/L		111	69 - 131	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.0		ug/L		115	77 - 129	1	16
1,1,2-Trichloroethane	20.0	20.7		ug/L		103	80 - 124	1	13
1,1-Dichloroethane	20.0	20.5		ug/L		102	78 - 125	0	17
1,1-Dichloroethene	20.0	21.1		ug/L		106	79 - 124	3	20
1,2,4-Trichlorobenzene	20.0	19.3		ug/L		97	63 - 133	2	15
1,2-Dibromo-3-Chloropropane	20.0	18.9		ug/L		94	54 - 125	0	19
1,2-Dibromoethane	20.0	20.7		ug/L		103	80 - 129	2	13
1,2-Dichlorobenzene	20.0	21.1		ug/L		106	80 - 121	2	12
1,2-Dichloroethane	20.0	22.6		ug/L		113	77 - 121	2	13
1,2-Dichloropropane	20.0	19.8		ug/L		99	75 - 120	0	15
1,3-Dichlorobenzene	20.0	20.9		ug/L		104	80 - 122	1	13
1,4-Dichlorobenzene	20.0	20.6		ug/L		103	80 - 120	2	12
2-Butanone (MEK)	100	94.7		ug/L		95	62 - 133	4	19
2-Hexanone	100	102		ug/L		102	60 - 142	1	17
4-Methyl-2-pentanone (MIBK)	100	111		ug/L		111	60 - 137	1	21
Acetone	100	111		ug/L		111	54 - 145	3	23
Benzene	20.0	20.1		ug/L		100	80 - 121	0	12
Bromodichloromethane	20.0	20.8		ug/L		104	75 - 129	1	14
Bromoform	20.0	18.8		ug/L		94	46 - 145	2	14
Bromomethane	20.0	18.7		ug/L		93	41 - 150	1	19
Carbon disulfide	20.0	19.0		ug/L		95	77 - 126	1	16
Carbon tetrachloride	20.0	22.7		ug/L		113	64 - 147	0	16
Chlorobenzene	20.0	20.3		ug/L		101	80 - 120	1	12
Chloroethane	20.0	20.7		ug/L		103	72 - 120	2	15
Chloroform	20.0	21.3		ug/L		106	73 - 129	0	14
Chloromethane	20.0	21.8		ug/L		109	12 - 150	0	20
cis-1,2-Dichloroethene	20.0	19.9		ug/L		100	76 - 125	1	15
cis-1,3-Dichloropropene	20.0	21.3		ug/L		107	74 - 140	0	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-474930/4
Matrix: Water
Analysis Batch: 474930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane			20.0	20.1		ug/L		100	73 - 122	2	16
Dibromochloromethane			20.0	21.5		ug/L		107	69 - 133	0	13
Dichlorodifluoromethane			20.0	25.6	*	ug/L		128	37 - 127	0	16
Ethylbenzene			20.0	20.6		ug/L		103	80 - 130	0	12
Isopropylbenzene			20.0	19.2		ug/L		96	80 - 141	1	13
Methyl acetate			40.0	44.0		ug/L		110	64 - 150	3	18
Methyl tert-butyl ether			20.0	19.6		ug/L		98	72 - 133	1	16
Methylcyclohexane			20.0	20.3		ug/L		102	71 - 129	2	17
Methylene Chloride			20.0	20.6		ug/L		103	79 - 123	2	15
Styrene			20.0	18.8		ug/L		94	80 - 127	1	12
Tetrachloroethene			20.0	20.8		ug/L		104	80 - 126	1	17
Toluene			20.0	21.7		ug/L		109	80 - 126	1	13
trans-1,2-Dichloroethene			20.0	21.3		ug/L		107	79 - 126	2	15
trans-1,3-Dichloropropene			20.0	20.2		ug/L		101	63 - 134	2	13
Trichloroethene			20.0	20.0		ug/L		100	80 - 123	0	14
Trichlorofluoromethane			20.0	22.1		ug/L		111	65 - 124	0	22
Vinyl chloride			20.0	20.0		ug/L		100	68 - 120	1	15
Xylenes, Total			40.0	39.4		ug/L		99	80 - 132	0	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*

Lab Sample ID: MB 490-474935/6
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/10/17 13:34	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 13:34	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 13:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 13:34	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 13:34	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 13:34	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 13:34	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:34	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 13:34	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 13:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 13:34	1
Acetone	ND		25	2.7	ug/L			11/10/17 13:34	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-474935/6
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 13:34	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 13:34	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 13:34	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 13:34	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 13:34	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 13:34	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/10/17 13:34	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 13:34	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 13:34	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 13:34	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 13:34	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 13:34	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 13:34	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/10/17 13:34	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 13:34	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/10/17 13:34	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 13:34	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Trichloroethene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/10/17 13:34	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 13:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*11/10/17 13:34*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/10/17 13:34*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*11/10/17 13:34*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/10/17 13:34*	*1*

Lab Sample ID: LCS 490-474935/3
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	24.0		ug/L		120	78 - 135
1,1,2,2-Tetrachloroethane	20.0	19.7		ug/L		98	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.8		ug/L		129	77 - 129
1,1,2-Trichloroethane	20.0	20.9		ug/L		104	80 - 124
1,1-Dichloroethane	20.0	21.0		ug/L		105	78 - 125

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-474935/3
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	23.2		ug/L		116	79 - 124
1,2,4-Trichlorobenzene	20.0	15.6		ug/L		78	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	17.4		ug/L		87	54 - 125
1,2-Dibromoethane	20.0	21.5		ug/L		107	80 - 129
1,2-Dichlorobenzene	20.0	21.3		ug/L		106	80 - 121
1,2-Dichloroethane	20.0	22.6		ug/L		113	77 - 121
1,2-Dichloropropane	20.0	19.7		ug/L		99	75 - 120
1,3-Dichlorobenzene	20.0	21.5		ug/L		108	80 - 122
1,4-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 120
2-Butanone (MEK)	100	93.9		ug/L		94	62 - 133
2-Hexanone	100	85.7		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.1		ug/L		85	60 - 137
Acetone	100	90.2		ug/L		90	54 - 145
Benzene	20.0	21.1		ug/L		105	80 - 121
Bromodichloromethane	20.0	22.9		ug/L		115	75 - 129
Bromoform	20.0	21.8		ug/L		109	46 - 145
Bromomethane	20.0	23.9		ug/L		119	41 - 150
Carbon disulfide	20.0	22.1		ug/L		110	77 - 126
Carbon tetrachloride	20.0	25.6		ug/L		128	64 - 147
Chlorobenzene	20.0	21.6		ug/L		108	80 - 120
Chloroethane	20.0	21.3		ug/L		107	72 - 120
Chloroform	20.0	22.1		ug/L		111	73 - 129
Chloromethane	20.0	18.3		ug/L		91	12 - 150
cis-1,2-Dichloroethene	20.0	21.4		ug/L		107	76 - 125
cis-1,3-Dichloropropene	20.0	20.3		ug/L		101	74 - 140
Cyclohexane	20.0	20.5		ug/L		102	73 - 122
Dibromochloromethane	20.0	21.9		ug/L		109	69 - 133
Dichlorodifluoromethane	20.0	29.8	*	ug/L		149	37 - 127
Ethylbenzene	20.0	20.1		ug/L		100	80 - 130
Isopropylbenzene	20.0	20.7		ug/L		104	80 - 141
Methyl acetate	40.0	39.8		ug/L		100	64 - 150
Methyl tert-butyl ether	20.0	21.1		ug/L		106	72 - 133
Methylcyclohexane	20.0	23.3		ug/L		117	71 - 129
Methylene Chloride	20.0	22.7		ug/L		114	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.7		ug/L		113	80 - 126
Toluene	20.0	20.4		ug/L		102	80 - 126
trans-1,2-Dichloroethene	20.0	20.6		ug/L		103	79 - 126
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	63 - 134
Trichloroethene	20.0	23.4		ug/L		117	80 - 123
Trichlorofluoromethane	20.0	26.1	*	ug/L		130	65 - 124
Vinyl chloride	20.0	20.8		ug/L		104	68 - 120
Xylenes, Total	40.0	39.8		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-474935/3
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	95		70 - 130

Lab Sample ID: LCSD 490-474935/4
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	24.4		ug/L		122	78 - 135	1	15
1,1,2,2-Tetrachloroethane			20.0	17.9		ug/L		90	69 - 131	9	15
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	26.4	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane			20.0	21.2		ug/L		106	80 - 124	1	13
1,1-Dichloroethane			20.0	21.6		ug/L		108	78 - 125	3	17
1,1-Dichloroethene			20.0	24.3		ug/L		122	79 - 124	5	20
1,2,4-Trichlorobenzene			20.0	17.9		ug/L		89	63 - 133	14	15
1,2-Dibromo-3-Chloropropane			20.0	18.4		ug/L		92	54 - 125	5	19
1,2-Dibromoethane			20.0	21.5		ug/L		108	80 - 129	0	13
1,2-Dichlorobenzene			20.0	21.8		ug/L		109	80 - 121	2	12
1,2-Dichloroethane			20.0	22.8		ug/L		114	77 - 121	1	13
1,2-Dichloropropane			20.0	20.8		ug/L		104	75 - 120	5	15
1,3-Dichlorobenzene			20.0	22.0		ug/L		110	80 - 122	2	13
1,4-Dichlorobenzene			20.0	22.6		ug/L		113	80 - 120	4	12
2-Butanone (MEK)			100	91.1		ug/L		91	62 - 133	3	19
2-Hexanone			100	80.8		ug/L		81	60 - 142	6	17
4-Methyl-2-pentanone (MIBK)			100	82.8		ug/L		83	60 - 137	3	21
Acetone			100	83.5		ug/L		83	54 - 145	8	23
Benzene			20.0	21.2		ug/L		106	80 - 121	0	12
Bromodichloromethane			20.0	22.9		ug/L		114	75 - 129	0	14
Bromoform			20.0	21.8		ug/L		109	46 - 145	0	14
Bromomethane			20.0	23.2		ug/L		116	41 - 150	3	19
Carbon disulfide			20.0	22.0		ug/L		110	77 - 126	0	16
Carbon tetrachloride			20.0	26.0		ug/L		130	64 - 147	2	16
Chlorobenzene			20.0	22.2		ug/L		111	80 - 120	2	12
Chloroethane			20.0	23.3		ug/L		117	72 - 120	9	15
Chloroform			20.0	23.0		ug/L		115	73 - 129	4	14
Chloromethane			20.0	19.0		ug/L		95	12 - 150	4	20
cis-1,2-Dichloroethene			20.0	21.9		ug/L		109	76 - 125	2	15
cis-1,3-Dichloropropene			20.0	20.5		ug/L		102	74 - 140	1	15
Cyclohexane			20.0	21.0		ug/L		105	73 - 122	3	16
Dibromochloromethane			20.0	21.9		ug/L		110	69 - 133	0	13
Dichlorodifluoromethane			20.0	30.6	*	ug/L		153	37 - 127	3	16
Ethylbenzene			20.0	20.4		ug/L		102	80 - 130	2	12
Isopropylbenzene			20.0	21.3		ug/L		107	80 - 141	3	13
Methyl acetate			40.0	40.9		ug/L		102	64 - 150	3	18
Methyl tert-butyl ether			20.0	21.3		ug/L		107	72 - 133	1	16
Methylcyclohexane			20.0	24.1		ug/L		121	71 - 129	3	17
Methylene Chloride			20.0	23.0		ug/L		115	79 - 123	1	15
Styrene			20.0	20.5		ug/L		102	80 - 127	1	12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-474935/4
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			20.0	23.2		ug/L		116	80 - 126	2	17
Toluene			20.0	21.0		ug/L		105	80 - 126	3	13
trans-1,2-Dichloroethene			20.0	20.9		ug/L		104	79 - 126	1	15
trans-1,3-Dichloropropene			20.0	20.4		ug/L		102	63 - 134	3	13
Trichloroethene			20.0	23.6		ug/L		118	80 - 123	1	14
Trichlorofluoromethane			20.0	28.2	*	ug/L		141	65 - 124	8	22
Vinyl chloride			20.0	21.3		ug/L		106	68 - 120	2	15
Xylenes, Total			40.0	41.1		ug/L		103	80 - 132	3	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 17:26	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 17:26	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 17:26	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 17:26	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 17:26	1
Acetone	ND		25	2.7	ug/L			11/11/17 17:26	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 17:26	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 17:26	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 17:26	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 17:26	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 17:26	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 17:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 17:26	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 17:26	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 17:26	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 17:26	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 17:26	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 17:26	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 17:26	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/11/17 17:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 17:26*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/11/17 17:26*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/11/17 17:26*	*1*

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.7		ug/L		119	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.3		ug/L		102	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.9	*	ug/L		130	77 - 129
1,1,2-Trichloroethane	20.0	22.0		ug/L		110	80 - 124
1,1-Dichloroethane	20.0	21.5		ug/L		108	78 - 125
1,1-Dichloroethene	20.0	22.3		ug/L		112	79 - 124
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		92	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	22.2		ug/L		111	80 - 129
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121
1,2-Dichloroethane	20.0	22.7		ug/L		114	77 - 121
1,2-Dichloropropane	20.0	20.9		ug/L		105	75 - 120
1,3-Dichlorobenzene	20.0	23.0		ug/L		115	80 - 122
1,4-Dichlorobenzene	20.0	23.3		ug/L		116	80 - 120
2-Butanone (MEK)	100	88.0		ug/L		88	62 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	100	86.0		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.4		ug/L		85	60 - 137
Acetone	100	87.4		ug/L		87	54 - 145
Benzene	20.0	20.6		ug/L		103	80 - 121
Bromodichloromethane	20.0	23.1		ug/L		115	75 - 129
Bromoform	20.0	21.2		ug/L		106	46 - 145
Bromomethane	20.0	21.4		ug/L		107	41 - 150
Carbon disulfide	20.0	21.4		ug/L		107	77 - 126
Carbon tetrachloride	20.0	25.5		ug/L		128	64 - 147
Chlorobenzene	20.0	23.1		ug/L		115	80 - 120
Chloroethane	20.0	20.7		ug/L		103	72 - 120
Chloroform	20.0	23.4		ug/L		117	73 - 129
Chloromethane	20.0	16.4		ug/L		82	12 - 150
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	76 - 125
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	74 - 140
Cyclohexane	20.0	19.7		ug/L		99	73 - 122
Dibromochloromethane	20.0	22.2		ug/L		111	69 - 133
Dichlorodifluoromethane	20.0	23.0		ug/L		115	37 - 127
Ethylbenzene	20.0	20.3		ug/L		101	80 - 130
Isopropylbenzene	20.0	19.1		ug/L		95	80 - 141
Methyl acetate	40.0	39.5		ug/L		99	64 - 150
Methyl tert-butyl ether	20.0	20.8		ug/L		104	72 - 133
Methylcyclohexane	20.0	21.5		ug/L		108	71 - 129
Methylene Chloride	20.0	21.7		ug/L		108	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.8		ug/L		114	80 - 126
Toluene	20.0	20.8		ug/L		104	80 - 126
trans-1,2-Dichloroethene	20.0	21.3		ug/L		107	79 - 126
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	63 - 134
Trichloroethene	20.0	23.9		ug/L		120	80 - 123
Trichlorofluoromethane	20.0	24.8		ug/L		124	65 - 124
Vinyl chloride	20.0	20.2		ug/L		101	68 - 120
Xylenes, Total	40.0	39.9		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	24.2		ug/L		121	78 - 135	2	15
1,1,2,2-Tetrachloroethane	20.0	20.6		ug/L		103	69 - 131	2	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	26.3	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	80 - 124	1	13
1,1-Dichloroethane	20.0	21.9		ug/L		110	78 - 125	2	17
1,1-Dichloroethene	20.0	23.7		ug/L		118	79 - 124	6	20
1,2,4-Trichlorobenzene	20.0	18.7		ug/L		94	63 - 133	1	15
1,2-Dibromo-3-Chloropropane	20.0	19.5		ug/L		98	54 - 125	2	19
1,2-Dibromoethane	20.0	21.5		ug/L		108	80 - 129	3	13
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121	0	12
1,2-Dichloroethane	20.0	23.2		ug/L		116	77 - 121	2	13
1,2-Dichloropropane	20.0	21.4		ug/L		107	75 - 120	2	15
1,3-Dichlorobenzene	20.0	23.1		ug/L		116	80 - 122	1	13
1,4-Dichlorobenzene	20.0	23.2		ug/L		116	80 - 120	0	12
2-Butanone (MEK)	100	95.9		ug/L		96	62 - 133	9	19
2-Hexanone	100	86.1		ug/L		86	60 - 142	0	17
4-Methyl-2-pentanone (MIBK)	100	87.1		ug/L		87	60 - 137	2	21
Acetone	100	90.2		ug/L		90	54 - 145	3	23
Benzene	20.0	21.0		ug/L		105	80 - 121	2	12
Bromodichloromethane	20.0	23.4		ug/L		117	75 - 129	1	14
Bromoform	20.0	21.2		ug/L		106	46 - 145	0	14
Bromomethane	20.0	22.0		ug/L		110	41 - 150	3	19
Carbon disulfide	20.0	21.8		ug/L		109	77 - 126	2	16
Carbon tetrachloride	20.0	25.4		ug/L		127	64 - 147	0	16
Chlorobenzene	20.0	22.3		ug/L		111	80 - 120	3	12
Chloroethane	20.0	21.7		ug/L		108	72 - 120	5	15
Chloroform	20.0	23.8		ug/L		119	73 - 129	2	14
Chloromethane	20.0	16.4		ug/L		82	12 - 150	0	20
cis-1,2-Dichloroethene	20.0	22.1		ug/L		111	76 - 125	1	15
cis-1,3-Dichloropropene	20.0	20.9		ug/L		104	74 - 140	2	15
Cyclohexane	20.0	19.9		ug/L		99	73 - 122	1	16
Dibromochloromethane	20.0	22.8		ug/L		114	69 - 133	3	13
Dichlorodifluoromethane	20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene	20.0	20.2		ug/L		101	80 - 130	0	12
Isopropylbenzene	20.0	19.0		ug/L		95	80 - 141	1	13
Methyl acetate	40.0	40.4		ug/L		101	64 - 150	2	18
Methyl tert-butyl ether	20.0	21.4		ug/L		107	72 - 133	3	16
Methylcyclohexane	20.0	21.5		ug/L		107	71 - 129	0	17
Methylene Chloride	20.0	23.3		ug/L		116	79 - 123	7	15
Styrene	20.0	20.2		ug/L		101	80 - 127	0	12
Tetrachloroethene	20.0	22.5		ug/L		112	80 - 126	1	17
Toluene	20.0	20.8		ug/L		104	80 - 126	0	13
trans-1,2-Dichloroethene	20.0	21.4		ug/L		107	79 - 126	0	15
trans-1,3-Dichloropropene	20.0	20.7		ug/L		103	63 - 134	0	13
Trichloroethene	20.0	23.7		ug/L		118	80 - 123	1	14
Trichlorofluoromethane	20.0	24.5		ug/L		122	65 - 124	1	22
Vinyl chloride	20.0	20.4		ug/L		102	68 - 120	1	15
Xylenes, Total	40.0	39.5		ug/L		99	80 - 132	1	11

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 490-475387/6
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/13/17 11:23	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/13/17 11:23	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/13/17 11:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/13/17 11:23	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/13/17 11:23	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/13/17 11:23	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/13/17 11:23	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/13/17 11:23	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/13/17 11:23	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/13/17 11:23	1
2-Hexanone	ND		10	1.3	ug/L			11/13/17 11:23	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/13/17 11:23	1
Acetone	ND		25	2.7	ug/L			11/13/17 11:23	1
Benzene	ND		1.0	0.20	ug/L			11/13/17 11:23	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Bromoform	ND		1.0	0.29	ug/L			11/13/17 11:23	1
Bromomethane	ND		1.0	0.35	ug/L			11/13/17 11:23	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/13/17 11:23	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/13/17 11:23	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/13/17 11:23	1
Chloroethane	ND		1.0	0.36	ug/L			11/13/17 11:23	1
Chloroform	ND		1.0	0.23	ug/L			11/13/17 11:23	1
Chloromethane	ND		1.0	0.36	ug/L			11/13/17 11:23	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/13/17 11:23	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Cyclohexane	ND		5.0	0.13	ug/L			11/13/17 11:23	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/13/17 11:23	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/13/17 11:23	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/13/17 11:23	1
Methyl acetate	ND		10	0.58	ug/L			11/13/17 11:23	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/13/17 11:23	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475387/6
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	1.0	ug/L			11/13/17 11:23	1
Styrene	ND		1.0	0.28	ug/L			11/13/17 11:23	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/13/17 11:23	1
Toluene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/13/17 11:23	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Trichloroethene	ND		1.0	0.20	ug/L			11/13/17 11:23	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/13/17 11:23	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/13/17 11:23	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/13/17 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*11/13/17 11:23*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*11/13/17 11:23*	*1*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*11/13/17 11:23*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/13/17 11:23*	*1*

Lab Sample ID: LCS 490-475387/3
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.5		ug/L		107	78 - 135
1,1,2,2-Tetrachloroethane	20.0	18.4		ug/L		92	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.3		ug/L		112	77 - 129
1,1,2-Trichloroethane	20.0	19.4		ug/L		97	80 - 124
1,1-Dichloroethane	20.0	20.2		ug/L		101	78 - 125
1,1-Dichloroethene	20.0	21.6		ug/L		108	79 - 124
1,2,4-Trichlorobenzene	20.0	16.8		ug/L		84	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	18.1		ug/L		90	54 - 125
1,2-Dibromoethane	20.0	20.0		ug/L		100	80 - 129
1,2-Dichlorobenzene	20.0	20.3		ug/L		102	80 - 121
1,2-Dichloroethane	20.0	20.1		ug/L		101	77 - 121
1,2-Dichloropropane	20.0	19.4		ug/L		97	75 - 120
1,3-Dichlorobenzene	20.0	20.1		ug/L		101	80 - 122
1,4-Dichlorobenzene	20.0	20.5		ug/L		103	80 - 120
2-Butanone (MEK)	100	95.4		ug/L		95	62 - 133
2-Hexanone	100	81.1		ug/L		81	60 - 142
4-Methyl-2-pentanone (MIBK)	100	83.8		ug/L		84	60 - 137
Acetone	100	95.6		ug/L		96	54 - 145
Benzene	20.0	19.6		ug/L		98	80 - 121
Bromodichloromethane	20.0	21.6		ug/L		108	75 - 129
Bromoform	20.0	20.4		ug/L		102	46 - 145
Bromomethane	20.0	20.5		ug/L		102	41 - 150
Carbon disulfide	20.0	20.5		ug/L		102	77 - 126
Carbon tetrachloride	20.0	23.4		ug/L		117	64 - 147
Chlorobenzene	20.0	20.3		ug/L		101	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475387/3
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	20.0	20.0		ug/L		100	72 - 120
Chloroform	20.0	22.1		ug/L		111	73 - 129
Chloromethane	20.0	15.3		ug/L		76	12 - 150
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	76 - 125
cis-1,3-Dichloropropene	20.0	19.1		ug/L		95	74 - 140
Cyclohexane	20.0	18.8		ug/L		94	73 - 122
Dibromochloromethane	20.0	20.9		ug/L		105	69 - 133
Dichlorodifluoromethane	20.0	19.8		ug/L		99	37 - 127
Ethylbenzene	20.0	19.0		ug/L		95	80 - 130
Isopropylbenzene	20.0	18.6		ug/L		93	80 - 141
Methyl acetate	40.0	39.8		ug/L		100	64 - 150
Methyl tert-butyl ether	20.0	20.1		ug/L		100	72 - 133
Methylcyclohexane	20.0	21.3		ug/L		107	71 - 129
Methylene Chloride	20.0	20.5		ug/L		102	79 - 123
Styrene	20.0	18.8		ug/L		94	80 - 127
Tetrachloroethene	20.0	21.2		ug/L		106	80 - 126
Toluene	20.0	19.2		ug/L		96	80 - 126
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	79 - 126
trans-1,3-Dichloropropene	20.0	19.2		ug/L		96	63 - 134
Trichloroethene	20.0	22.7		ug/L		114	80 - 123
Trichlorofluoromethane	20.0	25.1	*	ug/L		126	65 - 124
Vinyl chloride	20.0	18.2		ug/L		91	68 - 120
Xylenes, Total	40.0	37.4		ug/L		94	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 490-475387/4
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	21.6		ug/L		108	78 - 135	0	15
1,1,2,2-Tetrachloroethane	20.0	17.7		ug/L		89	69 - 131	3	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.3		ug/L		112	77 - 129	0	16
1,1,2-Trichloroethane	20.0	20.7		ug/L		104	80 - 124	6	13
1,1-Dichloroethane	20.0	20.3		ug/L		101	78 - 125	0	17
1,1-Dichloroethene	20.0	21.5		ug/L		108	79 - 124	0	20
1,2,4-Trichlorobenzene	20.0	17.3		ug/L		87	63 - 133	3	15
1,2-Dibromo-3-Chloropropane	20.0	18.1		ug/L		90	54 - 125	0	19
1,2-Dibromoethane	20.0	20.5		ug/L		102	80 - 129	2	13
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 121	3	12
1,2-Dichloroethane	20.0	21.9		ug/L		110	77 - 121	9	13
1,2-Dichloropropane	20.0	19.4		ug/L		97	75 - 120	0	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475387/4
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene			20.0	20.5		ug/L		102	80 - 122	2	13
1,4-Dichlorobenzene			20.0	20.9		ug/L		104	80 - 120	2	12
2-Butanone (MEK)			100	92.4		ug/L		92	62 - 133	3	19
2-Hexanone			100	82.1		ug/L		82	60 - 142	1	17
4-Methyl-2-pentanone (MIBK)			100	82.2		ug/L		82	60 - 137	2	21
Acetone			100	87.7		ug/L		88	54 - 145	9	23
Benzene			20.0	19.5		ug/L		98	80 - 121	1	12
Bromodichloromethane			20.0	21.8		ug/L		109	75 - 129	1	14
Bromoform			20.0	20.2		ug/L		101	46 - 145	1	14
Bromomethane			20.0	22.5		ug/L		113	41 - 150	10	19
Carbon disulfide			20.0	20.5		ug/L		102	77 - 126	0	16
Carbon tetrachloride			20.0	23.0		ug/L		115	64 - 147	2	16
Chlorobenzene			20.0	20.5		ug/L		103	80 - 120	1	12
Chloroethane			20.0	20.7		ug/L		104	72 - 120	4	15
Chloroform			20.0	21.9		ug/L		110	73 - 129	1	14
Chloromethane			20.0	15.7		ug/L		78	12 - 150	2	20
cis-1,2-Dichloroethene			20.0	20.2		ug/L		101	76 - 125	0	15
cis-1,3-Dichloropropene			20.0	19.1		ug/L		95	74 - 140	0	15
Cyclohexane			20.0	19.2		ug/L		96	73 - 122	2	16
Dibromochloromethane			20.0	20.8		ug/L		104	69 - 133	0	13
Dichlorodifluoromethane			20.0	21.2		ug/L		106	37 - 127	7	16
Ethylbenzene			20.0	19.0		ug/L		95	80 - 130	0	12
Isopropylbenzene			20.0	18.9		ug/L		95	80 - 141	2	13
Methyl acetate			40.0	38.6		ug/L		97	64 - 150	3	18
Methyl tert-butyl ether			20.0	19.9		ug/L		100	72 - 133	1	16
Methylcyclohexane			20.0	21.4		ug/L		107	71 - 129	0	17
Methylene Chloride			20.0	22.0		ug/L		110	79 - 123	7	15
Styrene			20.0	18.6		ug/L		93	80 - 127	1	12
Tetrachloroethene			20.0	21.1		ug/L		105	80 - 126	0	17
Toluene			20.0	19.2		ug/L		96	80 - 126	0	13
trans-1,2-Dichloroethene			20.0	19.8		ug/L		99	79 - 126	0	15
trans-1,3-Dichloropropene			20.0	19.1		ug/L		96	63 - 134	0	13
Trichloroethene			20.0	22.1		ug/L		110	80 - 123	3	14
Trichlorofluoromethane			20.0	25.5	*	ug/L		127	65 - 124	1	22
Vinyl chloride			20.0	18.4		ug/L		92	68 - 120	1	15
Xylenes, Total			40.0	37.4		ug/L		94	80 - 132	0	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-195067/1-A
Matrix: Water
Analysis Batch: 195531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorononanoic acid (PFNA)	0.910	J	2.0	0.27	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorohexanesulfonic acid (PFHxS)	0.257	J	2.0	0.17	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 10:16	11/18/17 00:09	1
Perfluorooctane Sulfonamide (FOSA)	ND		2.0	0.35	ng/L		11/16/17 10:16	11/18/17 00:09	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*95*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C4 PFBA	*96*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C2 PFHxA	*96*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C4 PFOA	*85*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C5 PFNA	*97*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C2 PFDA	*99*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C2 PFUnA	*99*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C2 PFDoA	*90*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
18O2 PFHxS	*100*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C4 PFOS	*97*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C4-PFHpA	*94*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C5 PFPeA	*98*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C3-PFBS	*101*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*
13C2-PFTeDA	*91*		*25 - 150*	*11/16/17 10:16*	*11/18/17 00:09*	*1*

Lab Sample ID: LCS 320-195067/2-A
Matrix: Water
Analysis Batch: 195531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	41.4		ng/L		103	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	40.0		ng/L		100	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	39.4		ng/L		98	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	41.7		ng/L		104	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	41.4		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.2		ng/L		101	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	43.2		ng/L		108	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	39.3		ng/L		98	68 - 128

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-195067/2-A
Matrix: Water
Analysis Batch: 195531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorododecanoic acid (PFDoA)	40.0	42.9		ng/L		107	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	39.3		ng/L		98	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	39.6		ng/L		99	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	39.1		ng/L		111	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.3		ng/L		100	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.5		ng/L		106	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	38.4		ng/L		103	74 - 134
Perfluorodecanesulfonic acid (PFDS)	38.6	38.6		ng/L		100	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	41.6		ng/L		104	82 - 142

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C8 FOSA	*96*		*25 - 150*
13C4 PFBA	*101*		*25 - 150*
13C2 PFHxA	*99*		*25 - 150*
13C4 PFOA	*91*		*25 - 150*
13C5 PFNA	*101*		*25 - 150*
13C2 PFDA	*98*		*25 - 150*
13C2 PFUnA	*97*		*25 - 150*
13C2 PFDoA	*91*		*25 - 150*
18O2 PFHxS	*101*		*25 - 150*
13C4 PFOS	*102*		*25 - 150*
13C4-PFHpA	*98*		*25 - 150*
13C5 PFPeA	*100*		*25 - 150*
13C3-PFBS	*98*		*25 - 150*
13C2-PFTeDA	*93*		*25 - 150*

Lab Sample ID: LCSD 320-195067/3-A
Matrix: Water
Analysis Batch: 195531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 195067

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	42.9		ng/L		107	78 - 138	3	30
Perfluoropentanoic acid (PFPeA)	40.0	40.7		ng/L		102	66 - 136	2	30
Perfluorohexanoic acid (PFHxA)	40.0	40.5		ng/L		101	76 - 136	3	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.9		ng/L		105	78 - 138	1	30
Perfluorooctanoic acid (PFOA)	40.0	42.6		ng/L		107	70 - 130	3	30
Perfluorononanoic acid (PFNA)	40.0	42.0		ng/L		105	77 - 137	4	30
Perfluorodecanoic acid (PFDA)	40.0	44.0		ng/L		110	74 - 134	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	39.0		ng/L		97	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)	40.0	41.5		ng/L		104	72 - 132	3	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-195067/3-A
Matrix: Water
Analysis Batch: 195531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 195067

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorotridecanoic Acid (PFTriA)			40.0	38.7		ng/L		97	56 - 163	1	30
Perfluorotetradecanoic acid (PFTeA)			40.0	40.6		ng/L		101	63 - 123	2	30
Perfluorobutanesulfonic acid (PFBS)			35.4	39.1		ng/L		111	79 - 139	0	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	35.8		ng/L		98	77 - 137	2	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	40.7		ng/L		107	83 - 143	1	30
Perfluorooctanesulfonic acid (PFOS)			37.1	38.0		ng/L		102	74 - 134	1	30
Perfluorodecanesulfonic acid (PFDS)			38.6	39.6		ng/L		103	75 - 135	3	30
Perfluorooctane Sulfonamide (FOSA)			40.0	42.0		ng/L		105	82 - 142	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C8 FOSA	*98*		*25 - 150*
13C4 PFBA	*102*		*25 - 150*
13C2 PFHxA	*102*		*25 - 150*
13C4 PFOA	*89*		*25 - 150*
13C5 PFNA	*101*		*25 - 150*
13C2 PFDA	*97*		*25 - 150*
13C2 PFUnA	*99*		*25 - 150*
13C2 PFDoA	*94*		*25 - 150*
18O2 PFHxS	*106*		*25 - 150*
13C4 PFOS	*105*		*25 - 150*
13C4-PFHpA	*103*		*25 - 150*
13C5 PFPeA	*104*		*25 - 150*
13C3-PFBS	*105*		*25 - 150*
13C2-PFTeDA	*90*		*25 - 150*

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

GC/MS VOA

Analysis Batch: 474930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127283-2	DW-03	Total/NA	Water	8260C	
480-127283-3	MW-29	Total/NA	Water	8260C	
480-127283-4	MW-2	Total/NA	Water	8260C	
480-127283-5	MW-14R	Total/NA	Water	8260C	
480-127283-6	MW-15R	Total/NA	Water	8260C	
MB 490-474930/6	Method Blank	Total/NA	Water	8260C	
LCS 490-474930/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-474930/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 474935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127283-8	TRIP BLANKS	Total/NA	Water	8260C	
MB 490-474935/6	Method Blank	Total/NA	Water	8260C	
LCS 490-474935/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-474935/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127283-1	MW-6R	Total/NA	Water	8260C	
480-127283-7	MW-25D	Total/NA	Water	8260C	
MB 490-475225/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475225/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475225/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127283-1 - DL	MW-6R	Total/NA	Water	8260C	
MB 490-475387/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475387/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475387/4	Lab Control Sample Dup	Total/NA	Water	8260C	

LCMS

Prep Batch: 195067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127283-1	MW-6R	Total/NA	Water	3535	
480-127283-2	DW-03	Total/NA	Water	3535	
480-127283-3	MW-29	Total/NA	Water	3535	
480-127283-4	MW-2	Total/NA	Water	3535	
480-127283-5 - DL	MW-14R	Total/NA	Water	3535	
480-127283-5	MW-14R	Total/NA	Water	3535	
480-127283-6	MW-15R	Total/NA	Water	3535	
480-127283-7	MW-25D	Total/NA	Water	3535	
480-127283-9	EB-04	Total/NA	Water	3535	
MB 320-195067/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-195067/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-195067/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

LCMS (Continued)

Analysis Batch: 195531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127283-1	MW-6R	Total/NA	Water	537 (modified)	195067
480-127283-2	DW-03	Total/NA	Water	537 (modified)	195067
480-127283-3	MW-29	Total/NA	Water	537 (modified)	195067
480-127283-4	MW-2	Total/NA	Water	537 (modified)	195067
480-127283-5	MW-14R	Total/NA	Water	537 (modified)	195067
480-127283-6	MW-15R	Total/NA	Water	537 (modified)	195067
480-127283-7	MW-25D	Total/NA	Water	537 (modified)	195067
480-127283-9	EB-04	Total/NA	Water	537 (modified)	195067
MB 320-195067/1-A	Method Blank	Total/NA	Water	537 (modified)	195067
LCS 320-195067/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	195067
LCSD 320-195067/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	195067

Analysis Batch: 196181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127283-5 - DL	MW-14R	Total/NA	Water	537 (modified)	195067

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Client Sample ID: MW-6R
Date Collected: 11/07/17 16:10
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/12/17 02:09	S1S	TAL NSH
Total/NA	Analysis	8260C	DL	10	475387	11/13/17 13:07	S1S	TAL NSH
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 02:15	ABH	TAL SAC

Client Sample ID: DW-03
Date Collected: 11/08/17 08:30
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	474930	11/10/17 20:40	P1B	TAL NSH
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 02:23	ABH	TAL SAC

Client Sample ID: MW-29
Date Collected: 11/08/17 09:55
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	474930	11/10/17 21:05	P1B	TAL NSH
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 02:31	ABH	TAL SAC

Client Sample ID: MW-2
Date Collected: 11/08/17 08:05
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	474930	11/10/17 18:58	P1B	TAL NSH
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 02:39	ABH	TAL SAC

Client Sample ID: MW-14R
Date Collected: 11/08/17 10:15
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	474930	11/10/17 19:49	P1B	TAL NSH
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 02:47	ABH	TAL SAC
Total/NA	Prep	3535	DL		195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)	DL	5	196181	11/21/17 16:37	ABH	TAL SAC

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Client Sample ID: MW-15R
Date Collected: 11/08/17 11:25
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	474930	11/10/17 19:24	P1B	TAL NSH
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 03:03	ABH	TAL SAC

Client Sample ID: MW-25D
Date Collected: 11/07/17 15:40
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/12/17 01:43	S1S	TAL NSH
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 03:11	ABH	TAL SAC

Client Sample ID: TRIP BLANKS
Date Collected: 11/08/17 00:00
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	474935	11/10/17 16:11	C1A	TAL NSH

Client Sample ID: EB-04
Date Collected: 11/08/17 10:50
Date Received: 11/09/17 01:00

Lab Sample ID: 480-127283-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			195067	11/16/17 10:19	CCB	TAL SAC
Total/NA	Analysis	537 (modified)		1	195531	11/18/17 03:19	ABH	TAL SAC

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	01-01-18
Arizona	State Program	9	AZ0473	05-05-18
Arkansas DEQ	State Program	6	88-0737	04-25-18
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FL)/453.07(A2LA)	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	12-31-17
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18
New York	NELAP	2	11342	03-31-18
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-18
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-27-18
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-28-18
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18
Virginia	NELAP	3	460152	06-14-18
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-17

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17 *
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-28-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127283-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127283-1	MW-6R	Water	11/07/17 16:10	11/09/17 01:00
480-127283-2	DW-03	Water	11/08/17 08:30	11/09/17 01:00
480-127283-3	MW-29	Water	11/08/17 09:55	11/09/17 01:00
480-127283-4	MW-2	Water	11/08/17 08:05	11/09/17 01:00
480-127283-5	MW-14R	Water	11/08/17 10:15	11/09/17 01:00
480-127283-6	MW-15R	Water	11/08/17 11:25	11/09/17 01:00
480-127283-7	MW-25D	Water	11/07/17 15:40	11/09/17 01:00
480-127283-8	TRIP BLANKS	Water	11/08/17 00:00	11/09/17 01:00
480-127283-9	EB-04	Water	11/08/17 10:50	11/09/17 01:00

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

4...-1-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Thomas & E.Sasa	Lab PM: Deyo, Melissa L	Carrier T	COC No: 480-104070-24647.10
Client Contact: Aaron Bobar	Phone: (518)396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 10 of 10
Company: ARCADIS U.S. Inc		Analysis Requested	480-127283 COC	Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			Preservation Codes:
City: Clifton Park	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA; M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A	N		
MW-6R	11-7-17	1610	G	Water	N	N	X	X	5	
IW-03	11-8-17	0830	G	Water	N	N	X	X	5	
MW-29	11-8-17	0955	G	Water	N	N	X	X	5	
MW-2	11-8-17	0805	G	Water	N	N	X	X	5	
MW-14R	11-8-17	1015	G	Water	N	N	X	X	5	
MW-15R	11-8-17	1125	G	Water	N	N	X	X	5	
MW-25D	11-7-17	1540	G	Water	N	N	X	X	5	
Trip Blanks	—	—	—	Water	N	N	X		6	
EB-04	11-8-17	1050	G	Water	N	N		X	2	

11-8-17

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11-8-18 1545	Arcadis	[signature]	11-8-17 1545	TA
[signature]	11-8-18 1800	TA	[signature]	11-9-17 0100	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.6 #1

Ver: 08/04/2016

11/24/2017

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmeric

Client Information	Sampler: Attorney & E.Sasa	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.10
Client Contact: Aaron Bobar	Phone: (518)396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page 10 of 10
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Clifton Park	TAT Requested (days): Standard			M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecal U - Acetone V - MCAA W - pH 4-5 Z - other (specify
State, Zip: NY, 12065	PO #: 00266417.0000			
Phone: (518) 250-7300	WO #:			
Email: aaron.bobar@arcadis-us.com	Project #: 48008440			
Project Name: Crown Dykman - Glen Cove, NY	SSOW#:			
Site: Crown Dykman				Other:

480-127283 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containe	Special Instructions/No
			Preservation Code:				A	N		
MW-6R	11-7-17	1610	G	Water	N	N	X	X	5	
DW-03	11-8-17	0830	G	Water	N	N	X	X	5	
MW-29	11-8-17	0955	G	Water	N	N	X	X	5	
MW-2	11-8-17	0805	G	Water	N	N	X	X	5	
MW-14R	11-8-17	1015	G	Water	N	N	X	X	5	
MW-15R	11-8-17	1125	G	Water	N	N	X	X	5	
MW-25D	11-7-17	1540	G	Water	N	N	X	X	5	
Trip Blanks	—	—	—	Water	N	N	X		6	
EB-04	11-8-17	1050	G	Water	N	N		X	2	

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	11-8-18	1545 ARCADIS		11-8-17	1545 TA
	11-8-18	1800 TA		11/9/17	930 TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.6 0.4

Ver: 08/04/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

480-127283 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 11/10/17 0950

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 3769 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.5 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO..NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES..NO...NA

b. Was there any observable headspace present in any VOA vial? YES..NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES NO...NA es 11-10-17 If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES..NO...NA

16. Was residual chlorine present? YES...NO..NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES..NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..# es

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-127283

TestAmerica LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L	777.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	New York — Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-127283-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/21/2017		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-6R (480-127283-1)	11/7/17	16:10 Eastern		Water			X	3	
DW-03 (480-127283-2)	11/8/17	08:30 Eastern		Water			X	3	
MW-29 (480-127283-3)	11/8/17	09:55 Eastern		Water			X	3	
MW-2 (480-127283-4)	11/8/17	08:05 Eastern		Water			X	3	
MW-14R (480-127283-5)	11/8/17	10:15 Eastern		Water			X	3	
MW-15R (480-127283-6)	11/8/17	11:25 Eastern		Water			X	3	
MW-25D (480-127283-7)	11/7/17	15:40 Eastern		Water			X	3	
TRIP BLANKS (480-127283-8)	11/8/17	Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 11/9/17 A00	Company TAS	Received by:	Date/Time: 11-10-17 9:50	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5

Ver: 09/20/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

Sam

480-127283 Field Sheet

Jo

Tracking # 7417 3416 5747

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Notes:

Therm. ID: AK-2 / AK-3 / HACCP /Other

Ice X Wet X Dry Other

Cooler Custody Seal: 649930

Sample Custody Seal:

Cooler ID: 1 of 2

Temp: Observed 0.4

Corrected:

From: Temp Blank ☐ Sample ☒

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: DH Date: 11/9/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

W16C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Sample Receiving Notes

Job: _____

Tracking # 7417 3416 3758

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes: _____

Therm. ID: AK-2 / AK-3 / HACCP /Other _____

Ice X Wet X Dry _____ Other _____

Cooler Custody Seal: 949911

Sample Custody Seal: —

Cooler ID: 2 of 2

Temp: Observed 0.0°

Corrected: _____

From: Temp Blank ☐ Sample ☒

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: DH Date: 11/9/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127283-1

Login Number: 127283
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	arcadis
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127283-1

Login Number: 127283
List Number: 2
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento
List Creation: 11/09/17 05:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	849911, 849930
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-127327-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Authorized for release by:
11/24/2017 2:31:58 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.

LCMS

Qualifier	Qualifier Description
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-127327-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-127327-1

Receipt
The samples were received on 11/9/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475225 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: IW-01S (480-127327-8), MW-26 (480-127327-9) and MW-25S (480-127327-10).

Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: MW-26 (480-127327-9). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: MW-13 (480-127327-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-474935 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane, Dichlorodifluoromethane and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: MW-27 (480-127327-2), IW-02 (480-127327-3) and DUP-02 (480-127327-4).

Method(s) 8260C: The following samples was diluted due to the nature of the sample matrix: MW-27 (480-127327-2), IW-02 (480-127327-3) and DUP-02 (480-127327-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475277 recovered outside control limits for the following analytes: Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: MW-28 (480-127327-1) and MW-21D (480-127327-7).

Method(s) 8260C: The following samples was diluted due to the nature of the sample matrix: MW-28 (480-127327-1) and MW-21D (480-127327-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-475387 recovered outside control limits for the following analytes: Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: TRIP BLANKS (480-127327-11).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method(s) 537 (modified): The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias for Perfluorobutanoic acid (PFBA) and Perfluorobutanesulfonic acid (PFBS) in the following samples: MW-28 (480-127327-1), DUP-02 (480-127327-4) and MW-26 (480-127327-9).

Method(s) 537 (modified): The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias for Perfluorobutanoic acid (PFBA) in the following samples:
MW-27 (480-127327-2), IW-02 (480-127327-3), MW-13 (480-127327-5), IW-01S (480-127327-8) and MW-25S (480-127327-10).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-195170.

Job ID: 480-127327-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method Code: 3535_PFC

Method(s) 3535: The following samples IW-01S (480-127327-8), MW-25S (480-127327-10) and IW-01D (480-127327-11) had a magenta color. Sample 480-127327-A-10 was an intense pink and sample 480-127327-A-11 was a pale pink color.
Prep Batch: 320-195170
Method Code: 3535_PFC

Method(s) 3535: The following samples: MW-28 (480-127327-1), MW-27 (480-127327-2), IW-02 (480-127327-3), DUP-02 (480-127327-4), MW-13 (480-127327-5), MW-21D (480-127327-7), MW-26 (480-127327-9), MW-25S (480-127327-10) and IW-01D (480-127327-11) were decanted prior to preparation due to excess sediment that had the potential to clog the solid-phase column.
Prep Batch: 320-195170

Method(s) 3535: Although the following sample MW-25S (480-127327-10) was a deep purple prior to extraction, the final extract that came off of the solid-phase column was clear.
Prep Batch: 320-195170
Method Code: 3535_PFC

Method(s) 3535: Due to the matrix, the initial volume used for the following sample MW-25S (480-127327-10) deviated from the standard procedure: The following sample <CommaMerge> was extracted at a 2X dilution as a precaution of possibly containing high levels. The reporting limits (RLs) have been adjusted proportionately.
Prep Batch: 320-195170
Method Code: 3535_PFC, waters

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Client Sample ID: MW-28 — Lab Sample ID: 480-127327-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	28000		200	42	ug/L	200		8260C	Total/NA
Tetrachloroethene	1500		200	28	ug/L	200		8260C	Total/NA
trans-1,2-Dichloroethene	95	J	200	46	ug/L	200		8260C	Total/NA
Trichloroethene	4200		200	40	ug/L	200		8260C	Total/NA
Vinyl chloride	1100		200	36	ug/L	200		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	96	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	16		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	24		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	20		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	77		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.4		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	4.7		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	59	CI	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	31	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	9.0		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	600		2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.54	J B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-27 — Lab Sample ID: 480-127327-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	50000		1000	210	ug/L	1000		8260C	Total/NA
Methylene Chloride	1100	J	5000	1000	ug/L	1000		8260C	Total/NA
Tetrachloroethene	140000		1000	140	ug/L	1000		8260C	Total/NA
Trichloroethene	17000		1000	200	ug/L	1000		8260C	Total/NA
Vinyl chloride	2500		1000	180	ug/L	1000		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	410	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	14		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	17		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	20		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	86		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.6		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.2		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	27		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	21	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	7.8		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	450		2.0	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.52	J B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: IW-02 — Lab Sample ID: 480-127327-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	14000		100	21	ug/L	100		8260C	Total/NA
Methylene Chloride	120	J	500	100	ug/L	100		8260C	Total/NA
Tetrachloroethene	3800		100	14	ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	50	J	100	23	ug/L	100		8260C	Total/NA
Trichloroethene	5600		100	20	ug/L	100		8260C	Total/NA
Vinyl chloride	710		100	18	ug/L	100		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	75	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IW-02 (Continued) — Lab Sample ID: 480-127327-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	25		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	24		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	18		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	56		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	8.5		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	10		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	28		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.2	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.1		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	190		2.0	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.0	J B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 480-127327-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	50000		1000	210	ug/L	1000		8260C	Total/NA
Methylene Chloride	1300	J	5000	1000	ug/L	1000		8260C	Total/NA
Tetrachloroethene	150000		1000	140	ug/L	1000		8260C	Total/NA
Trichloroethene	18000		1000	200	ug/L	1000		8260C	Total/NA
Vinyl chloride	2500		1000	180	ug/L	1000		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	430	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	15		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	18		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	20		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	84		2.0	0.85	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.7		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.1		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	31	CI	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	23	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	6.9		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	450		2.0	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	0.55	J B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 480-127327-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	14000		100	21	ug/L	100		8260C	Total/NA
Methylene Chloride	160	J B	500	100	ug/L	100		8260C	Total/NA
Tetrachloroethene	430		100	14	ug/L	100		8260C	Total/NA
trans-1,2-Dichloroethene	140		100	23	ug/L	100		8260C	Total/NA
Trichloroethene	480		100	20	ug/L	100		8260C	Total/NA
Vinyl chloride	660		100	18	ug/L	100		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	71	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	57		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	61		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	39		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	96		2.0	0.86	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	17		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	28		2.0	0.31	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Client Sample ID: MW-13 (Continued) — Lab Sample ID: 480-127327-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid (PFUnA)	2.4		2.0	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.8	J	2.0	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	62		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.4	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.3		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	230		2.0	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	3.3	B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 480-127327-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.0	J	25	2.7	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	38		2.0	0.36	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	42		2.0	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	43		2.0	0.59	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	51		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	310		2.0	0.87	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	8.1		2.0	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.1	J	2.0	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	64		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	36	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	11		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	310		2.0	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	59	B	2.0	0.36	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-21D — Lab Sample ID: 480-127327-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.7	J	10	2.5	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	1800		10	2.1	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	28		10	2.3	ug/L	10		8260C	Total/NA
Vinyl chloride	50		10	1.8	ug/L	10		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	29		2.0	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	17		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	24		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	18		2.0	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	59		2.0	0.83	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	4.9		2.0	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.9	J	2.0	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.8		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.0	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	110		2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.8	J B	2.0	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: IW-01S — Lab Sample ID: 480-127327-8

This Detection Summary does not include radiochemical test results.

Client Sample ID: IW-01S (Continued) — Lab Sample ID: 480-127327-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.45	J	1.0	0.23	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.6		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	17		1.0	0.14	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	29	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	8.0		2.0	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	9.0		2.0	0.59	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.7		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	43		2.0	0.86	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.7		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.4		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	7.0		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.3	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.4	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	110		2.0	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.4	J B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-26 — Lab Sample ID: 480-127327-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3	J	5.0	1.0	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	960		5.0	1.1	ug/L	5		8260C	Total/NA
Ethylbenzene	85		5.0	0.95	ug/L	5		8260C	Total/NA
Isopropylbenzene	43		5.0	1.7	ug/L	5		8260C	Total/NA
Methylcyclohexane	4.4	J	25	0.45	ug/L	5		8260C	Total/NA
Tetrachloroethene	2.1	J	5.0	0.70	ug/L	5		8260C	Total/NA
Toluene	2.5	J	5.0	0.85	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	8.7		5.0	1.2	ug/L	5		8260C	Total/NA
Trichloroethene	17		5.0	1.0	ug/L	5		8260C	Total/NA
Vinyl chloride	88		5.0	0.90	ug/L	5		8260C	Total/NA
Xylenes, Total	270		15	2.9	ug/L	5		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	150	CI	2.0	0.35	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	7.7		2.0	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	9.7		2.0	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.8		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	33		2.0	0.86	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.8		2.0	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.7		2.0	0.31	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	28	CI	2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.4	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	4.7		2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	380		2.0	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.6	J B	2.0	0.35	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-25S — Lab Sample ID: 480-127327-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	52		25	2.7	ug/L	1		8260C	Total/NA
Bromoform	1.0		1.0	0.29	ug/L	1		8260C	Total/NA
Chloroform	1.6		1.0	0.23	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-25S (Continued) — Lab Sample ID: 480-127327-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	91	CI	8.0	1.4	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	31		8.0	2.0	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	38		8.0	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	29		8.0	1.0	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	140		8.0	3.4	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	14		8.0	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	3.7	J	8.0	1.2	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	14		8.0	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	20	B	8.0	0.68	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	4.5	J	8.0	0.76	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	350		8.0	2.2	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	3.5	J B	8.0	1.4	ng/L	1		537 (modified)	Total/NA

Client Sample ID: IW-01D — Lab Sample ID: 480-127327-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	29		25	2.7	ug/L	1		8260C	Total/NA
Chloroform	1.0		1.0	0.23	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	39		1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	25		1.0	0.14	ug/L	1		8260C	Total/NA
Trichloroethene	3.3		1.0	0.20	ug/L	1		8260C	Total/NA
Perfluorobutanoic acid (PFBA)	37		2.0	0.34	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	18		2.0	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	21		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	15		2.0	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	47		2.0	0.83	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	6.2		2.0	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	13		2.0	0.30	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.2	J	2.0	1.1	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.67	J	2.0	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	13		2.0	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.8	B	2.0	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	1.3	J	2.0	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	130		2.0	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctane Sulfonamide (FOSA)	1.7	J B	2.0	0.34	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIP BLANKS — Lab Sample ID: 480-127327-12

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-28

Date Collected: 11/07/17 09:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		200	38	ug/L			11/12/17 12:36	200
1,1,2,2-Tetrachloroethane	ND		200	38	ug/L			11/12/17 12:36	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		200	30	ug/L			11/12/17 12:36	200
1,1,2-Trichloroethane	ND		200	38	ug/L			11/12/17 12:36	200
1,1-Dichloroethane	ND		200	48	ug/L			11/12/17 12:36	200
1,1-Dichloroethene	ND		200	50	ug/L			11/12/17 12:36	200
1,2,4-Trichlorobenzene	ND		200	40	ug/L			11/12/17 12:36	200
1,2-Dibromo-3-Chloropropane	ND		2000	190	ug/L			11/12/17 12:36	200
1,2-Dibromoethane	ND		200	42	ug/L			11/12/17 12:36	200
1,2-Dichlorobenzene	ND		200	38	ug/L			11/12/17 12:36	200
1,2-Dichloroethane	ND		200	40	ug/L			11/12/17 12:36	200
1,2-Dichloropropane	ND		200	50	ug/L			11/12/17 12:36	200
1,3-Dichlorobenzene	ND		200	36	ug/L			11/12/17 12:36	200
1,4-Dichlorobenzene	ND		200	34	ug/L			11/12/17 12:36	200
2-Butanone (MEK)	ND		10000	530	ug/L			11/12/17 12:36	200
2-Hexanone	ND		2000	260	ug/L			11/12/17 12:36	200
4-Methyl-2-pentanone (MIBK)	ND		2000	160	ug/L			11/12/17 12:36	200
Acetone	ND		5000	530	ug/L			11/12/17 12:36	200
Benzene	ND		200	40	ug/L			11/12/17 12:36	200
Bromodichloromethane	ND		200	34	ug/L			11/12/17 12:36	200
Bromoform	ND		200	58	ug/L			11/12/17 12:36	200
Bromomethane	ND		200	70	ug/L			11/12/17 12:36	200
Carbon disulfide	ND		200	44	ug/L			11/12/17 12:36	200
Carbon tetrachloride	ND		200	36	ug/L			11/12/17 12:36	200
Chlorobenzene	ND		200	36	ug/L			11/12/17 12:36	200
Chloroethane	ND		200	72	ug/L			11/12/17 12:36	200
Chloroform	ND		200	46	ug/L			11/12/17 12:36	200
Chloromethane	ND		200	72	ug/L			11/12/17 12:36	200
cis-1,2-Dichloroethene	**28000**		200	42	ug/L			11/12/17 12:36	200
cis-1,3-Dichloropropene	ND		200	34	ug/L			11/12/17 12:36	200
Cyclohexane	ND		1000	26	ug/L			11/12/17 12:36	200
Dibromochloromethane	ND		200	50	ug/L			11/12/17 12:36	200
Dichlorodifluoromethane	ND		200	34	ug/L			11/12/17 12:36	200
Ethylbenzene	ND		200	38	ug/L			11/12/17 12:36	200
Isopropylbenzene	ND		200	66	ug/L			11/12/17 12:36	200
Methyl acetate	ND		2000	120	ug/L			11/12/17 12:36	200
Methyl tert-butyl ether	ND		200	34	ug/L			11/12/17 12:36	200
Methylcyclohexane	ND		1000	18	ug/L			11/12/17 12:36	200
Methylene Chloride	ND		1000	200	ug/L			11/12/17 12:36	200
Styrene	ND		200	56	ug/L			11/12/17 12:36	200
Tetrachloroethene	**1500**		200	28	ug/L			11/12/17 12:36	200
Toluene	ND		200	34	ug/L			11/12/17 12:36	200
trans-1,2-Dichloroethene	**95**	**J**	200	46	ug/L			11/12/17 12:36	200
trans-1,3-Dichloropropene	ND		200	34	ug/L			11/12/17 12:36	200
Trichloroethene	**4200**		200	40	ug/L			11/12/17 12:36	200
Trichlorofluoromethane	ND	*	200	42	ug/L			11/12/17 12:36	200
Vinyl chloride	**1100**		200	36	ug/L			11/12/17 12:36	200
Xylenes, Total	ND		600	120	ug/L			11/12/17 12:36	200

Client Sample ID: MW-28

Date Collected: 11/07/17 09:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/12/17 12:36*	*200*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*11/12/17 12:36*	*200*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*11/12/17 12:36*	*200*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/12/17 12:36*	*200*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**96**	**CI**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluoropentanoic acid (PFPeA)	**16**		2.0	0.48	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorohexanoic acid (PFHxA)	**24**		2.0	0.57	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluoroheptanoic acid (PFHpA)	**20**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorooctanoic acid (PFOA)	**77**		2.0	0.84	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorononanoic acid (PFNA)	**5.4**		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorodecanoic acid (PFDA)	**4.7**		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorobutanesulfonic acid (PFBS)	**59**	**CI**	2.0	0.20	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorohexanesulfonic acid (PFHxS)	**31**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluoroheptanesulfonic Acid (PFHpS)	**9.0**		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorooctanesulfonic acid (PFOS)	**600**		2.0	0.53	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 06:52	1
Perfluorooctane Sulfonamide (FOSA)	**0.54**	**J B**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 06:52	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	*111*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C4 PFBA	*29*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C2 PFHxA	*75*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C4 PFOA	*93*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C5 PFNA	*115*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C2 PFDA	*134*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C2 PFUnA	*122*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C2 PFDoA	*113*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
18O2 PFHxS	*110*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C4 PFOS	*130*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C4-PFHpA	*84*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C5 PFPeA	*62*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C3-PFBS	*110*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*
13C2-PFTeDA	*102*		*25 - 150*	*11/16/17 14:10*	*11/18/17 06:52*	*1*

Client Sample ID: MW-27
Date Collected: 11/07/17 10:30
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1000	190	ug/L			11/10/17 21:25	1000
1,1,2,2-Tetrachloroethane	ND		1000	190	ug/L			11/10/17 21:25	1000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1000	150	ug/L			11/10/17 21:25	1000
1,1,2-Trichloroethane	ND		1000	190	ug/L			11/10/17 21:25	1000
1,1-Dichloroethane	ND		1000	240	ug/L			11/10/17 21:25	1000
1,1-Dichloroethene	ND		1000	250	ug/L			11/10/17 21:25	1000
1,2,4-Trichlorobenzene	ND		1000	200	ug/L			11/10/17 21:25	1000
1,2-Dibromo-3-Chloropropane	ND		10000	940	ug/L			11/10/17 21:25	1000
1,2-Dibromoethane	ND		1000	210	ug/L			11/10/17 21:25	1000
1,2-Dichlorobenzene	ND		1000	190	ug/L			11/10/17 21:25	1000
1,2-Dichloroethane	ND		1000	200	ug/L			11/10/17 21:25	1000
1,2-Dichloropropane	ND		1000	250	ug/L			11/10/17 21:25	1000
1,3-Dichlorobenzene	ND		1000	180	ug/L			11/10/17 21:25	1000
1,4-Dichlorobenzene	ND		1000	170	ug/L			11/10/17 21:25	1000
2-Butanone (MEK)	ND		50000	2600	ug/L			11/10/17 21:25	1000
2-Hexanone	ND		10000	1300	ug/L			11/10/17 21:25	1000
4-Methyl-2-pentanone (MIBK)	ND		10000	810	ug/L			11/10/17 21:25	1000
Acetone	ND		25000	2700	ug/L			11/10/17 21:25	1000
Benzene	ND		1000	200	ug/L			11/10/17 21:25	1000
Bromodichloromethane	ND		1000	170	ug/L			11/10/17 21:25	1000
Bromoform	ND		1000	290	ug/L			11/10/17 21:25	1000
Bromomethane	ND		1000	350	ug/L			11/10/17 21:25	1000
Carbon disulfide	ND		1000	220	ug/L			11/10/17 21:25	1000
Carbon tetrachloride	ND		1000	180	ug/L			11/10/17 21:25	1000
Chlorobenzene	ND		1000	180	ug/L			11/10/17 21:25	1000
Chloroethane	ND		1000	360	ug/L			11/10/17 21:25	1000
Chloroform	ND		1000	230	ug/L			11/10/17 21:25	1000
Chloromethane	ND		1000	360	ug/L			11/10/17 21:25	1000
cis-1,2-Dichloroethene	**50000**		1000	210	ug/L			11/10/17 21:25	1000
cis-1,3-Dichloropropene	ND		1000	170	ug/L			11/10/17 21:25	1000
Cyclohexane	ND		5000	130	ug/L			11/10/17 21:25	1000
Dibromochloromethane	ND		1000	250	ug/L			11/10/17 21:25	1000
Dichlorodifluoromethane	ND	*	1000	170	ug/L			11/10/17 21:25	1000
Ethylbenzene	ND		1000	190	ug/L			11/10/17 21:25	1000
Isopropylbenzene	ND		1000	330	ug/L			11/10/17 21:25	1000
Methyl acetate	ND		10000	580	ug/L			11/10/17 21:25	1000
Methyl tert-butyl ether	ND		1000	170	ug/L			11/10/17 21:25	1000
Methylcyclohexane	ND		5000	90	ug/L			11/10/17 21:25	1000
Methylene Chloride	**1100**	**J**	5000	1000	ug/L			11/10/17 21:25	1000
Styrene	ND		1000	280	ug/L			11/10/17 21:25	1000
Tetrachloroethene	**140000**		1000	140	ug/L			11/10/17 21:25	1000
Toluene	ND		1000	170	ug/L			11/10/17 21:25	1000
trans-1,2-Dichloroethene	ND		1000	230	ug/L			11/10/17 21:25	1000
trans-1,3-Dichloropropene	ND		1000	170	ug/L			11/10/17 21:25	1000
Trichloroethene	**17000**		1000	200	ug/L			11/10/17 21:25	1000
Trichlorofluoromethane	ND	*	1000	210	ug/L			11/10/17 21:25	1000
Vinyl chloride	**2500**		1000	180	ug/L			11/10/17 21:25	1000
Xylenes, Total	ND		3000	580	ug/L			11/10/17 21:25	1000

Client Sample ID: MW-27

Date Collected: 11/07/17 10:30
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		11/10/17 21:25	1000
4-Bromofluorobenzene (Surr)	104		70 - 130		11/10/17 21:25	1000
Dibromofluoromethane (Surr)	108		70 - 130		11/10/17 21:25	1000
Toluene-d8 (Surr)	99		70 - 130		11/10/17 21:25	1000

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**410**	**CI**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluoropentanoic acid (PFPeA)	**14**		2.0	0.49	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorohexanoic acid (PFHxA)	**17**		2.0	0.57	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluoroheptanoic acid (PFHpA)	**20**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorooctanoic acid (PFOA)	**86**		2.0	0.84	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorononanoic acid (PFNA)	**3.6**		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorodecanoic acid (PFDA)	**2.2**		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorobutanesulfonic acid (PFBS)	**27**		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorohexanesulfonic acid (PFHxS)	**21**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	**7.8**		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorooctanesulfonic acid (PFOS)	**450**		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 06:59	1
Perfluorooctane Sulfonamide (FOSA)	**0.52**	**J B**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 06:59	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	82		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C4 PFBA	35		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C2 PFHxA	76		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C4 PFOA	84		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C5 PFNA	99		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C2 PFDA	112		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C2 PFUnA	108		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C2 PFDoA	93		25 - 150	11/16/17 14:10	11/18/17 06:59	1
18O2 PFHxS	94		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C4 PFOS	103		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C4-PFHpA	81		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C5 PFPeA	68		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C3-PFBS	98		25 - 150	11/16/17 14:10	11/18/17 06:59	1
13C2-PFTeDA	77		25 - 150	11/16/17 14:10	11/18/17 06:59	1

Client Sample ID: IW-02
Date Collected: 11/07/17 12:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	19	ug/L			11/10/17 21:51	100
1,1,2,2-Tetrachloroethane	ND		100	19	ug/L			11/10/17 21:51	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	100	15	ug/L			11/10/17 21:51	100
1,1,2-Trichloroethane	ND		100	19	ug/L			11/10/17 21:51	100
1,1-Dichloroethane	ND		100	24	ug/L			11/10/17 21:51	100
1,1-Dichloroethene	ND		100	25	ug/L			11/10/17 21:51	100
1,2,4-Trichlorobenzene	ND		100	20	ug/L			11/10/17 21:51	100
1,2-Dibromo-3-Chloropropane	ND		1000	94	ug/L			11/10/17 21:51	100
1,2-Dibromoethane	ND		100	21	ug/L			11/10/17 21:51	100
1,2-Dichlorobenzene	ND		100	19	ug/L			11/10/17 21:51	100
1,2-Dichloroethane	ND		100	20	ug/L			11/10/17 21:51	100
1,2-Dichloropropane	ND		100	25	ug/L			11/10/17 21:51	100
1,3-Dichlorobenzene	ND		100	18	ug/L			11/10/17 21:51	100
1,4-Dichlorobenzene	ND		100	17	ug/L			11/10/17 21:51	100
2-Butanone (MEK)	ND		5000	260	ug/L			11/10/17 21:51	100
2-Hexanone	ND		1000	130	ug/L			11/10/17 21:51	100
4-Methyl-2-pentanone (MIBK)	ND		1000	81	ug/L			11/10/17 21:51	100
Acetone	ND		2500	270	ug/L			11/10/17 21:51	100
Benzene	ND		100	20	ug/L			11/10/17 21:51	100
Bromodichloromethane	ND		100	17	ug/L			11/10/17 21:51	100
Bromoform	ND		100	29	ug/L			11/10/17 21:51	100
Bromomethane	ND		100	35	ug/L			11/10/17 21:51	100
Carbon disulfide	ND		100	22	ug/L			11/10/17 21:51	100
Carbon tetrachloride	ND		100	18	ug/L			11/10/17 21:51	100
Chlorobenzene	ND		100	18	ug/L			11/10/17 21:51	100
Chloroethane	ND		100	36	ug/L			11/10/17 21:51	100
Chloroform	ND		100	23	ug/L			11/10/17 21:51	100
Chloromethane	ND		100	36	ug/L			11/10/17 21:51	100
cis-1,2-Dichloroethene	**14000**		100	21	ug/L			11/10/17 21:51	100
cis-1,3-Dichloropropene	ND		100	17	ug/L			11/10/17 21:51	100
Cyclohexane	ND		500	13	ug/L			11/10/17 21:51	100
Dibromochloromethane	ND		100	25	ug/L			11/10/17 21:51	100
Dichlorodifluoromethane	ND	*	100	17	ug/L			11/10/17 21:51	100
Ethylbenzene	ND		100	19	ug/L			11/10/17 21:51	100
Isopropylbenzene	ND		100	33	ug/L			11/10/17 21:51	100
Methyl acetate	ND		1000	58	ug/L			11/10/17 21:51	100
Methyl tert-butyl ether	ND		100	17	ug/L			11/10/17 21:51	100
Methylcyclohexane	ND		500	9.0	ug/L			11/10/17 21:51	100
Methylene Chloride	**120**	**J**	500	100	ug/L			11/10/17 21:51	100
Styrene	ND		100	28	ug/L			11/10/17 21:51	100
Tetrachloroethene	**3800**		100	14	ug/L			11/10/17 21:51	100
Toluene	ND		100	17	ug/L			11/10/17 21:51	100
trans-1,2-Dichloroethene	**50**	**J**	100	23	ug/L			11/10/17 21:51	100
trans-1,3-Dichloropropene	ND		100	17	ug/L			11/10/17 21:51	100
Trichloroethene	**5600**		100	20	ug/L			11/10/17 21:51	100
Trichlorofluoromethane	ND	*	100	21	ug/L			11/10/17 21:51	100
Vinyl chloride	**710**		100	18	ug/L			11/10/17 21:51	100
Xylenes, Total	ND		300	58	ug/L			11/10/17 21:51	100

Client Sample ID: IW-02

Date Collected: 11/07/17 12:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		11/10/17 21:51	100
4-Bromofluorobenzene (Surr)	101		70 - 130		11/10/17 21:51	100
Dibromofluoromethane (Surr)	108		70 - 130		11/10/17 21:51	100
Toluene-d8 (Surr)	100		70 - 130		11/10/17 21:51	100

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**75**	**CI**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluoropentanoic acid (PFPeA)	**25**		2.0	0.49	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorohexanoic acid (PFHxA)	**24**		2.0	0.58	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluoroheptanoic acid (PFHpA)	**18**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorooctanoic acid (PFOA)	**56**		2.0	0.84	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorononanoic acid (PFNA)	**8.5**		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorodecanoic acid (PFDA)	**10**		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorobutanesulfonic acid (PFBS)	**28**		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorohexanesulfonic acid (PFHxS)	**7.2**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluoroheptanesulfonic Acid (PFHpS)	**2.1**		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorooctanesulfonic acid (PFOS)	**190**		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 07:15	1
Perfluorooctane Sulfonamide (FOSA)	**1.0**	**J B**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	99		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C4 PFBA	56		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C2 PFHxA	83		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C4 PFOA	89		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C5 PFNA	103		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C2 PFDA	111		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C2 PFUnA	106		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C2 PFDoA	93		25 - 150	11/16/17 14:10	11/18/17 07:15	1
18O2 PFHxS	97		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C4 PFOS	104		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C4-PFHpA	87		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C5 PFPeA	83		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C3-PFBS	99		25 - 150	11/16/17 14:10	11/18/17 07:15	1
13C2-PFTeDA	83		25 - 150	11/16/17 14:10	11/18/17 07:15	1

Client Sample ID: DUP-02
Date Collected: 11/07/17 00:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1000	190	ug/L			11/10/17 22:17	1000
1,1,2,2-Tetrachloroethane	ND		1000	190	ug/L			11/10/17 22:17	1000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1000	150	ug/L			11/10/17 22:17	1000
1,1,2-Trichloroethane	ND		1000	190	ug/L			11/10/17 22:17	1000
1,1-Dichloroethane	ND		1000	240	ug/L			11/10/17 22:17	1000
1,1-Dichloroethene	ND		1000	250	ug/L			11/10/17 22:17	1000
1,2,4-Trichlorobenzene	ND		1000	200	ug/L			11/10/17 22:17	1000
1,2-Dibromo-3-Chloropropane	ND		10000	940	ug/L			11/10/17 22:17	1000
1,2-Dibromoethane	ND		1000	210	ug/L			11/10/17 22:17	1000
1,2-Dichlorobenzene	ND		1000	190	ug/L			11/10/17 22:17	1000
1,2-Dichloroethane	ND		1000	200	ug/L			11/10/17 22:17	1000
1,2-Dichloropropane	ND		1000	250	ug/L			11/10/17 22:17	1000
1,3-Dichlorobenzene	ND		1000	180	ug/L			11/10/17 22:17	1000
1,4-Dichlorobenzene	ND		1000	170	ug/L			11/10/17 22:17	1000
2-Butanone (MEK)	ND		50000	2600	ug/L			11/10/17 22:17	1000
2-Hexanone	ND		10000	1300	ug/L			11/10/17 22:17	1000
4-Methyl-2-pentanone (MIBK)	ND		10000	810	ug/L			11/10/17 22:17	1000
Acetone	ND		25000	2700	ug/L			11/10/17 22:17	1000
Benzene	ND		1000	200	ug/L			11/10/17 22:17	1000
Bromodichloromethane	ND		1000	170	ug/L			11/10/17 22:17	1000
Bromoform	ND		1000	290	ug/L			11/10/17 22:17	1000
Bromomethane	ND		1000	350	ug/L			11/10/17 22:17	1000
Carbon disulfide	ND		1000	220	ug/L			11/10/17 22:17	1000
Carbon tetrachloride	ND		1000	180	ug/L			11/10/17 22:17	1000
Chlorobenzene	ND		1000	180	ug/L			11/10/17 22:17	1000
Chloroethane	ND		1000	360	ug/L			11/10/17 22:17	1000
Chloroform	ND		1000	230	ug/L			11/10/17 22:17	1000
Chloromethane	ND		1000	360	ug/L			11/10/17 22:17	1000
cis-1,2-Dichloroethene	**50000**		1000	210	ug/L			11/10/17 22:17	1000
cis-1,3-Dichloropropene	ND		1000	170	ug/L			11/10/17 22:17	1000
Cyclohexane	ND		5000	130	ug/L			11/10/17 22:17	1000
Dibromochloromethane	ND		1000	250	ug/L			11/10/17 22:17	1000
Dichlorodifluoromethane	ND	*	1000	170	ug/L			11/10/17 22:17	1000
Ethylbenzene	ND		1000	190	ug/L			11/10/17 22:17	1000
Isopropylbenzene	ND		1000	330	ug/L			11/10/17 22:17	1000
Methyl acetate	ND		10000	580	ug/L			11/10/17 22:17	1000
Methyl tert-butyl ether	ND		1000	170	ug/L			11/10/17 22:17	1000
Methylcyclohexane	ND		5000	90	ug/L			11/10/17 22:17	1000
Methylene Chloride	**1300**	**J**	5000	1000	ug/L			11/10/17 22:17	1000
Styrene	ND		1000	280	ug/L			11/10/17 22:17	1000
Tetrachloroethene	**150000**		1000	140	ug/L			11/10/17 22:17	1000
Toluene	ND		1000	170	ug/L			11/10/17 22:17	1000
trans-1,2-Dichloroethene	ND		1000	230	ug/L			11/10/17 22:17	1000
trans-1,3-Dichloropropene	ND		1000	170	ug/L			11/10/17 22:17	1000
Trichloroethene	**18000**		1000	200	ug/L			11/10/17 22:17	1000
Trichlorofluoromethane	ND	*	1000	210	ug/L			11/10/17 22:17	1000
Vinyl chloride	**2500**		1000	180	ug/L			11/10/17 22:17	1000
Xylenes, Total	ND		3000	580	ug/L			11/10/17 22:17	1000

Client Sample ID: DUP-02

Date Collected: 11/07/17 00:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		11/10/17 22:17	1000
4-Bromofluorobenzene (Surr)	102		70 - 130		11/10/17 22:17	1000
Dibromofluoromethane (Surr)	108		70 - 130		11/10/17 22:17	1000
Toluene-d8 (Surr)	101		70 - 130		11/10/17 22:17	1000

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**430**	**CI**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluoropentanoic acid (PFPeA)	**15**		2.0	0.49	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorohexanoic acid (PFHxA)	**18**		2.0	0.58	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluoroheptanoic acid (PFHpA)	**20**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorooctanoic acid (PFOA)	**84**		2.0	0.85	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorononanoic acid (PFNA)	**3.7**		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorodecanoic acid (PFDA)	**2.1**		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorobutanesulfonic acid (PFBS)	**31**	**CI**	2.0	0.20	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorohexanesulfonic acid (PFHxS)	**23**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluoroheptanesulfonic Acid (PFHpS)	**6.9**		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorooctanesulfonic acid (PFOS)	**450**		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 07:23	1
Perfluorooctane Sulfonamide (FOSA)	**0.55**	**J B**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:23	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	86		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C4 PFBA	35		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C2 PFHxA	77		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C4 PFOA	89		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C5 PFNA	108		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C2 PFDA	119		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C2 PFUnA	119		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C2 PFDoA	96		25 - 150	11/16/17 14:10	11/18/17 07:23	1
18O2 PFHxS	96		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C4 PFOS	108		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C4-PFHpA	84		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C5 PFPeA	70		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C3-PFBS	89		25 - 150	11/16/17 14:10	11/18/17 07:23	1
13C2-PFTeDA	84		25 - 150	11/16/17 14:10	11/18/17 07:23	1

Client Sample ID: MW-13
Date Collected: 11/07/17 08:25
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	19	ug/L			11/11/17 10:14	100
1,1,2,2-Tetrachloroethane	ND		100	19	ug/L			11/11/17 10:14	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	15	ug/L			11/11/17 10:14	100
1,1,2-Trichloroethane	ND		100	19	ug/L			11/11/17 10:14	100
1,1-Dichloroethane	ND		100	24	ug/L			11/11/17 10:14	100
1,1-Dichloroethene	ND		100	25	ug/L			11/11/17 10:14	100
1,2,4-Trichlorobenzene	ND		100	20	ug/L			11/11/17 10:14	100
1,2-Dibromo-3-Chloropropane	ND		1000	94	ug/L			11/11/17 10:14	100
1,2-Dibromoethane	ND		100	21	ug/L			11/11/17 10:14	100
1,2-Dichlorobenzene	ND		100	19	ug/L			11/11/17 10:14	100
1,2-Dichloroethane	ND		100	20	ug/L			11/11/17 10:14	100
1,2-Dichloropropane	ND		100	25	ug/L			11/11/17 10:14	100
1,3-Dichlorobenzene	ND		100	18	ug/L			11/11/17 10:14	100
1,4-Dichlorobenzene	ND		100	17	ug/L			11/11/17 10:14	100
2-Butanone (MEK)	ND		5000	260	ug/L			11/11/17 10:14	100
2-Hexanone	ND		1000	130	ug/L			11/11/17 10:14	100
4-Methyl-2-pentanone (MIBK)	ND		1000	81	ug/L			11/11/17 10:14	100
Acetone	ND		2500	270	ug/L			11/11/17 10:14	100
Benzene	ND		100	20	ug/L			11/11/17 10:14	100
Bromodichloromethane	ND		100	17	ug/L			11/11/17 10:14	100
Bromoform	ND		100	29	ug/L			11/11/17 10:14	100
Bromomethane	ND		100	35	ug/L			11/11/17 10:14	100
Carbon disulfide	ND		100	22	ug/L			11/11/17 10:14	100
Carbon tetrachloride	ND		100	18	ug/L			11/11/17 10:14	100
Chlorobenzene	ND		100	18	ug/L			11/11/17 10:14	100
Chloroethane	ND		100	36	ug/L			11/11/17 10:14	100
Chloroform	ND		100	23	ug/L			11/11/17 10:14	100
Chloromethane	ND		100	36	ug/L			11/11/17 10:14	100
cis-1,2-Dichloroethene	**14000**		100	21	ug/L			11/11/17 10:14	100
cis-1,3-Dichloropropene	ND		100	17	ug/L			11/11/17 10:14	100
Cyclohexane	ND		500	13	ug/L			11/11/17 10:14	100
Dibromochloromethane	ND		100	25	ug/L			11/11/17 10:14	100
Dichlorodifluoromethane	ND		100	17	ug/L			11/11/17 10:14	100
Ethylbenzene	ND		100	19	ug/L			11/11/17 10:14	100
Isopropylbenzene	ND		100	33	ug/L			11/11/17 10:14	100
Methyl acetate	ND		1000	58	ug/L			11/11/17 10:14	100
Methyl tert-butyl ether	ND		100	17	ug/L			11/11/17 10:14	100
Methylcyclohexane	ND		500	9.0	ug/L			11/11/17 10:14	100
Methylene Chloride	**160**	**J B**	500	100	ug/L			11/11/17 10:14	100
Styrene	ND		100	28	ug/L			11/11/17 10:14	100
Tetrachloroethene	**430**		100	14	ug/L			11/11/17 10:14	100
Toluene	ND		100	17	ug/L			11/11/17 10:14	100
trans-1,2-Dichloroethene	**140**		100	23	ug/L			11/11/17 10:14	100
trans-1,3-Dichloropropene	ND		100	17	ug/L			11/11/17 10:14	100
Trichloroethene	**480**		100	20	ug/L			11/11/17 10:14	100
Trichlorofluoromethane	ND		100	21	ug/L			11/11/17 10:14	100
Vinyl chloride	**660**		100	18	ug/L			11/11/17 10:14	100
Xylenes, Total	ND		300	58	ug/L			11/11/17 10:14	100

Client Sample ID: MW-13

Date Collected: 11/07/17 08:25
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		11/11/17 10:14	100
4-Bromofluorobenzene (Surr)	112		70 - 130		11/11/17 10:14	100
Dibromofluoromethane (Surr)	105		70 - 130		11/11/17 10:14	100
Toluene-d8 (Surr)	109		70 - 130		11/11/17 10:14	100

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**71**	**CI**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluoropentanoic acid (PFPeA)	**57**		2.0	0.49	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorohexanoic acid (PFHxA)	**61**		2.0	0.58	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluoroheptanoic acid (PFHpA)	**39**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorooctanoic acid (PFOA)	**96**		2.0	0.86	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorononanoic acid (PFNA)	**17**		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorodecanoic acid (PFDA)	**28**		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluoroundecanoic acid (PFUnA)	**2.4**		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorododecanoic acid (PFDoA)	**1.8**	**J**	2.0	0.55	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorobutanesulfonic acid (PFBS)	**62**		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorohexanesulfonic acid (PFHxS)	**9.4**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluoroheptanesulfonic Acid (PFHpS)	**2.3**		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorooctanesulfonic acid (PFOS)	**230**		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 07:31	1
Perfluorooctane Sulfonamide (FOSA)	**3.3**	**B**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	104		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C4 PFBA	64		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C2 PFHxA	88		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C4 PFOA	87		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C5 PFNA	104		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C2 PFDA	113		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C2 PFUnA	111		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C2 PFDoA	98		25 - 150	11/16/17 14:10	11/18/17 07:31	1
18O2 PFHxS	100		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C4 PFOS	100		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C4-PFHpA	96		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C5 PFPeA	87		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C3-PFBS	95		25 - 150	11/16/17 14:10	11/18/17 07:31	1
13C2-PFTeDA	90		25 - 150	11/16/17 14:10	11/18/17 07:31	1

Client Sample ID: MW-3
Date Collected: 11/07/17 09:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 05:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 05:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 05:34	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 05:34	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 05:34	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 05:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 05:34	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 05:34	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 05:34	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 05:34	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 05:34	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 05:34	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 05:34	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 05:34	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 05:34	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 05:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 05:34	1
Acetone	**6.0**	**J**	25	2.7	ug/L			11/11/17 05:34	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 05:34	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 05:34	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 05:34	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 05:34	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 05:34	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 05:34	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 05:34	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 05:34	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 05:34	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 05:34	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 05:34	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 05:34	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 05:34	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 05:34	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 05:34	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 05:34	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 05:34	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 05:34	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 05:34	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 05:34	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 05:34	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 05:34	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 05:34	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 05:34	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 05:34	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 05:34	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 05:34	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 05:34	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 05:34	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 05:34	1

Client Sample ID: MW-3

Date Collected: 11/07/17 09:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		11/11/17 05:34	1
4-Bromofluorobenzene (Surr)	111		70 - 130		11/11/17 05:34	1
Dibromofluoromethane (Surr)	106		70 - 130		11/11/17 05:34	1
Toluene-d8 (Surr)	109		70 - 130		11/11/17 05:34	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**38**		2.0	0.36	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluoropentanoic acid (PFPeA)	**42**		2.0	0.50	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorohexanoic acid (PFHxA)	**43**		2.0	0.59	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluoroheptanoic acid (PFHpA)	**51**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorooctanoic acid (PFOA)	**310**		2.0	0.87	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorononanoic acid (PFNA)	**8.1**		2.0	0.28	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorodecanoic acid (PFDA)	**1.1**	**J**	2.0	0.32	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.56	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.30	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorobutanesulfonic acid (PFBS)	**64**		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorohexanesulfonic acid (PFHxS)	**36**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluoroheptanesulfonic Acid (PFHpS)	**11**		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorooctanesulfonic acid (PFOS)	**310**		2.0	0.55	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.33	ng/L		11/16/17 14:10	11/18/17 07:39	1
Perfluorooctane Sulfonamide (FOSA)	**59**	**B**	2.0	0.36	ng/L		11/16/17 14:10	11/18/17 07:39	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	101		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C4 PFBA	33		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C2 PFHxA	77		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C4 PFOA	89		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C5 PFNA	108		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C2 PFDA	113		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C2 PFUnA	105		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C2 PFDoA	93		25 - 150	11/16/17 14:10	11/18/17 07:39	1
18O2 PFHxS	101		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C4 PFOS	112		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C4-PFHpA	88		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C5 PFPeA	69		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C3-PFBS	94		25 - 150	11/16/17 14:10	11/18/17 07:39	1
13C2-PFTeDA	93		25 - 150	11/16/17 14:10	11/18/17 07:39	1

Client Sample ID: MW-21D

Date Collected: 11/07/17 10:55
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	1.9	ug/L			11/12/17 11:43	10
1,1,2,2-Tetrachloroethane	ND		10	1.9	ug/L			11/12/17 11:43	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	1.5	ug/L			11/12/17 11:43	10
1,1,2-Trichloroethane	ND		10	1.9	ug/L			11/12/17 11:43	10
1,1-Dichloroethane	ND		10	2.4	ug/L			11/12/17 11:43	10
1,1-Dichloroethene	**2.7**	**J**	10	2.5	ug/L			11/12/17 11:43	10
1,2,4-Trichlorobenzene	ND		10	2.0	ug/L			11/12/17 11:43	10
1,2-Dibromo-3-Chloropropane	ND		100	9.4	ug/L			11/12/17 11:43	10
1,2-Dibromoethane	ND		10	2.1	ug/L			11/12/17 11:43	10
1,2-Dichlorobenzene	ND		10	1.9	ug/L			11/12/17 11:43	10
1,2-Dichloroethane	ND		10	2.0	ug/L			11/12/17 11:43	10
1,2-Dichloropropane	ND		10	2.5	ug/L			11/12/17 11:43	10
1,3-Dichlorobenzene	ND		10	1.8	ug/L			11/12/17 11:43	10
1,4-Dichlorobenzene	ND		10	1.7	ug/L			11/12/17 11:43	10
2-Butanone (MEK)	ND		500	26	ug/L			11/12/17 11:43	10
2-Hexanone	ND		100	13	ug/L			11/12/17 11:43	10
4-Methyl-2-pentanone (MIBK)	ND		100	8.1	ug/L			11/12/17 11:43	10
Acetone	ND		250	27	ug/L			11/12/17 11:43	10
Benzene	ND		10	2.0	ug/L			11/12/17 11:43	10
Bromodichloromethane	ND		10	1.7	ug/L			11/12/17 11:43	10
Bromoform	ND		10	2.9	ug/L			11/12/17 11:43	10
Bromomethane	ND		10	3.5	ug/L			11/12/17 11:43	10
Carbon disulfide	ND		10	2.2	ug/L			11/12/17 11:43	10
Carbon tetrachloride	ND		10	1.8	ug/L			11/12/17 11:43	10
Chlorobenzene	ND		10	1.8	ug/L			11/12/17 11:43	10
Chloroethane	ND		10	3.6	ug/L			11/12/17 11:43	10
Chloroform	ND		10	2.3	ug/L			11/12/17 11:43	10
Chloromethane	ND		10	3.6	ug/L			11/12/17 11:43	10
cis-1,2-Dichloroethene	**1800**		10	2.1	ug/L			11/12/17 11:43	10
cis-1,3-Dichloropropene	ND		10	1.7	ug/L			11/12/17 11:43	10
Cyclohexane	ND		50	1.3	ug/L			11/12/17 11:43	10
Dibromochloromethane	ND		10	2.5	ug/L			11/12/17 11:43	10
Dichlorodifluoromethane	ND		10	1.7	ug/L			11/12/17 11:43	10
Ethylbenzene	ND		10	1.9	ug/L			11/12/17 11:43	10
Isopropylbenzene	ND		10	3.3	ug/L			11/12/17 11:43	10
Methyl acetate	ND		100	5.8	ug/L			11/12/17 11:43	10
Methyl tert-butyl ether	ND		10	1.7	ug/L			11/12/17 11:43	10
Methylcyclohexane	ND		50	0.90	ug/L			11/12/17 11:43	10
Methylene Chloride	ND		50	10	ug/L			11/12/17 11:43	10
Styrene	ND		10	2.8	ug/L			11/12/17 11:43	10
Tetrachloroethene	ND		10	1.4	ug/L			11/12/17 11:43	10
Toluene	ND		10	1.7	ug/L			11/12/17 11:43	10
trans-1,2-Dichloroethene	**28**		10	2.3	ug/L			11/12/17 11:43	10
trans-1,3-Dichloropropene	ND		10	1.7	ug/L			11/12/17 11:43	10
Trichloroethene	ND		10	2.0	ug/L			11/12/17 11:43	10
Trichlorofluoromethane	ND	*	10	2.1	ug/L			11/12/17 11:43	10
Vinyl chloride	**50**		10	1.8	ug/L			11/12/17 11:43	10
Xylenes, Total	ND		30	5.8	ug/L			11/12/17 11:43	10

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Client Sample ID: MW-21D
Date Collected: 11/07/17 10:55
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-7
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		11/12/17 11:43	10
4-Bromofluorobenzene (Surr)	97		70 - 130		11/12/17 11:43	10
Dibromofluoromethane (Surr)	108		70 - 130		11/12/17 11:43	10
Toluene-d8 (Surr)	98		70 - 130		11/12/17 11:43	10

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**29**		2.0	0.34	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluoropentanoic acid (PFPeA)	**17**		2.0	0.48	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorohexanoic acid (PFHxA)	**24**		2.0	0.57	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluoroheptanoic acid (PFHpA)	**18**		2.0	0.24	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorooctanoic acid (PFOA)	**59**		2.0	0.83	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorononanoic acid (PFNA)	**4.9**		2.0	0.26	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorodecanoic acid (PFDA)	**1.9**	**J**	2.0	0.30	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.28	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorobutanesulfonic acid (PFBS)	**5.8**		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorohexanesulfonic acid (PFHxS)	**8.0**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.6**	**J**	2.0	0.19	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorooctanesulfonic acid (PFOS)	**110**		2.0	0.53	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 07:47	1
Perfluorooctane Sulfonamide (FOSA)	**1.8**	**J B**	2.0	0.34	ng/L		11/16/17 14:10	11/18/17 07:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	100		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C4 PFBA	54		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C2 PFHxA	85		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C4 PFOA	89		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C5 PFNA	104		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C2 PFDA	106		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C2 PFUnA	102		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C2 PFDoA	91		25 - 150	11/16/17 14:10	11/18/17 07:47	1
18O2 PFHxS	100		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C4 PFOS	102		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C4-PFHpA	94		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C5 PFPeA	82		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C3-PFBS	101		25 - 150	11/16/17 14:10	11/18/17 07:47	1
13C2-PFTeDA	84		25 - 150	11/16/17 14:10	11/18/17 07:47	1

Client Sample ID: IW-01S
Date Collected: 11/07/17 12:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 21:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 21:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 21:48	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 21:48	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 21:48	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 21:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 21:48	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 21:48	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 21:48	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 21:48	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 21:48	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 21:48	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 21:48	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 21:48	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 21:48	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 21:48	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 21:48	1
Acetone	ND		25	2.7	ug/L			11/11/17 21:48	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 21:48	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 21:48	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 21:48	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 21:48	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 21:48	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 21:48	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 21:48	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 21:48	1
Chloroform	**0.45**	**J**	1.0	0.23	ug/L			11/11/17 21:48	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 21:48	1
cis-1,2-Dichloroethene	**1.6**		1.0	0.21	ug/L			11/11/17 21:48	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 21:48	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 21:48	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 21:48	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 21:48	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 21:48	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 21:48	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 21:48	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 21:48	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 21:48	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 21:48	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 21:48	1
Tetrachloroethene	**17**		1.0	0.14	ug/L			11/11/17 21:48	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 21:48	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 21:48	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 21:48	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 21:48	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 21:48	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 21:48	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 21:48	1

Client Sample ID: IW-01S

Date Collected: 11/07/17 12:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-8

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		11/11/17 21:48	1
4-Bromofluorobenzene (Surr)	97		70 - 130		11/11/17 21:48	1
Dibromofluoromethane (Surr)	106		70 - 130		11/11/17 21:48	1
Toluene-d8 (Surr)	100		70 - 130		11/11/17 21:48	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**29**	**CI**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluoropentanoic acid (PFPeA)	**8.0**		2.0	0.50	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorohexanoic acid (PFHxA)	**9.0**		2.0	0.59	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluoroheptanoic acid (PFHpA)	**8.7**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorooctanoic acid (PFOA)	**43**		2.0	0.86	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorononanoic acid (PFNA)	**3.7**		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorodecanoic acid (PFDA)	**2.4**		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.56	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorobutanesulfonic acid (PFBS)	**7.0**		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorohexanesulfonic acid (PFHxS)	**8.3**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.4**	**J**	2.0	0.19	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorooctanesulfonic acid (PFOS)	**110**		2.0	0.55	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 08:26	1
Perfluorooctane Sulfonamide (FOSA)	**1.4**	**J B**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 08:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	100		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C4 PFBA	58		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C2 PFHxA	88		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C4 PFOA	88		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C5 PFNA	102		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C2 PFDA	109		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C2 PFUnA	102		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C2 PFDoA	93		25 - 150	11/16/17 14:10	11/18/17 08:26	1
18O2 PFHxS	102		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C4 PFOS	104		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C4-PFHpA	91		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C5 PFPeA	87		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C3-PFBS	102		25 - 150	11/16/17 14:10	11/18/17 08:26	1
13C2-PFTeDA	89		25 - 150	11/16/17 14:10	11/18/17 08:26	1

Client Sample ID: MW-26
Date Collected: 11/07/17 14:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.95	ug/L			11/12/17 00:24	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			11/12/17 00:24	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	5.0	0.75	ug/L			11/12/17 00:24	5
1,1,2-Trichloroethane	ND		5.0	0.95	ug/L			11/12/17 00:24	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			11/12/17 00:24	5
1,1-Dichloroethene	ND		5.0	1.3	ug/L			11/12/17 00:24	5
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/L			11/12/17 00:24	5
1,2-Dibromo-3-Chloropropane	ND		50	4.7	ug/L			11/12/17 00:24	5
1,2-Dibromoethane	ND		5.0	1.1	ug/L			11/12/17 00:24	5
1,2-Dichlorobenzene	ND		5.0	0.95	ug/L			11/12/17 00:24	5
1,2-Dichloroethane	ND		5.0	1.0	ug/L			11/12/17 00:24	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			11/12/17 00:24	5
1,3-Dichlorobenzene	ND		5.0	0.90	ug/L			11/12/17 00:24	5
1,4-Dichlorobenzene	ND		5.0	0.85	ug/L			11/12/17 00:24	5
2-Butanone (MEK)	ND		250	13	ug/L			11/12/17 00:24	5
2-Hexanone	ND		50	6.4	ug/L			11/12/17 00:24	5
4-Methyl-2-pentanone (MIBK)	ND		50	4.1	ug/L			11/12/17 00:24	5
Acetone	ND		130	13	ug/L			11/12/17 00:24	5
Benzene	**1.3**	**J**	5.0	1.0	ug/L			11/12/17 00:24	5
Bromodichloromethane	ND		5.0	0.85	ug/L			11/12/17 00:24	5
Bromoform	ND		5.0	1.5	ug/L			11/12/17 00:24	5
Bromomethane	ND		5.0	1.8	ug/L			11/12/17 00:24	5
Carbon disulfide	ND		5.0	1.1	ug/L			11/12/17 00:24	5
Carbon tetrachloride	ND		5.0	0.90	ug/L			11/12/17 00:24	5
Chlorobenzene	ND		5.0	0.90	ug/L			11/12/17 00:24	5
Chloroethane	ND		5.0	1.8	ug/L			11/12/17 00:24	5
Chloroform	ND		5.0	1.2	ug/L			11/12/17 00:24	5
Chloromethane	ND		5.0	1.8	ug/L			11/12/17 00:24	5
cis-1,2-Dichloroethene	**960**		5.0	1.1	ug/L			11/12/17 00:24	5
cis-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/12/17 00:24	5
Cyclohexane	ND		25	0.65	ug/L			11/12/17 00:24	5
Dibromochloromethane	ND		5.0	1.3	ug/L			11/12/17 00:24	5
Dichlorodifluoromethane	ND		5.0	0.85	ug/L			11/12/17 00:24	5
Ethylbenzene	**85**		5.0	0.95	ug/L			11/12/17 00:24	5
Isopropylbenzene	**43**		5.0	1.7	ug/L			11/12/17 00:24	5
Methyl acetate	ND		50	2.9	ug/L			11/12/17 00:24	5
Methyl tert-butyl ether	ND		5.0	0.85	ug/L			11/12/17 00:24	5
Methylcyclohexane	**4.4**	**J**	25	0.45	ug/L			11/12/17 00:24	5
Methylene Chloride	ND		25	5.0	ug/L			11/12/17 00:24	5
Styrene	ND		5.0	1.4	ug/L			11/12/17 00:24	5
Tetrachloroethene	**2.1**	**J**	5.0	0.70	ug/L			11/12/17 00:24	5
Toluene	**2.5**	**J**	5.0	0.85	ug/L			11/12/17 00:24	5
trans-1,2-Dichloroethene	**8.7**		5.0	1.2	ug/L			11/12/17 00:24	5
trans-1,3-Dichloropropene	ND		5.0	0.85	ug/L			11/12/17 00:24	5
Trichloroethene	**17**		5.0	1.0	ug/L			11/12/17 00:24	5
Trichlorofluoromethane	ND		5.0	1.1	ug/L			11/12/17 00:24	5
Vinyl chloride	**88**		5.0	0.90	ug/L			11/12/17 00:24	5
Xylenes, Total	**270**		15	2.9	ug/L			11/12/17 00:24	5

Client Sample ID: MW-26

Date Collected: 11/07/17 14:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		11/12/17 00:24	5
4-Bromofluorobenzene (Surr)	96		70 - 130		11/12/17 00:24	5
Dibromofluoromethane (Surr)	109		70 - 130		11/12/17 00:24	5
Toluene-d8 (Surr)	100		70 - 130		11/12/17 00:24	5

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**150**	**CI**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluoropentanoic acid (PFPeA)	**7.7**		2.0	0.49	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorohexanoic acid (PFHxA)	**9.7**		2.0	0.58	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluoroheptanoic acid (PFHpA)	**8.8**		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorooctanoic acid (PFOA)	**33**		2.0	0.86	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorononanoic acid (PFNA)	**3.8**		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorodecanoic acid (PFDA)	**2.7**		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorobutanesulfonic acid (PFBS)	**28**	**CI**	2.0	0.20	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorohexanesulfonic acid (PFHxS)	**8.4**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluoroheptanesulfonic Acid (PFHpS)	**4.7**		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorooctanesulfonic acid (PFOS)	**380**		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 07:54	1
Perfluorooctane Sulfonamide (FOSA)	**1.6**	**J B**	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 07:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	102		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C4 PFBA	43		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C2 PFHxA	82		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C4 PFOA	91		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C5 PFNA	110		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C2 PFDA	122		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C2 PFUnA	118		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C2 PFDoA	96		25 - 150	11/16/17 14:10	11/18/17 07:54	1
18O2 PFHxS	105		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C4 PFOS	116		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C4-PFHpA	90		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C5 PFPeA	78		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C3-PFBS	100		25 - 150	11/16/17 14:10	11/18/17 07:54	1
13C2-PFTeDA	86		25 - 150	11/16/17 14:10	11/18/17 07:54	1

Client Sample ID: MW-25S
Date Collected: 11/07/17 13:55
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 22:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 22:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15	ug/L			11/11/17 22:14	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 22:14	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 22:14	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 22:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 22:14	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 22:14	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 22:14	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 22:14	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 22:14	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 22:14	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 22:14	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 22:14	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 22:14	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 22:14	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 22:14	1
Acetone	**52**		25	2.7	ug/L			11/11/17 22:14	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 22:14	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 22:14	1
Bromoform	**1.0**		1.0	0.29	ug/L			11/11/17 22:14	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 22:14	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 22:14	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 22:14	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 22:14	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 22:14	1
Chloroform	**1.6**		1.0	0.23	ug/L			11/11/17 22:14	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 22:14	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 22:14	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 22:14	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 22:14	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 22:14	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 22:14	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 22:14	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 22:14	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 22:14	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 22:14	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 22:14	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 22:14	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 22:14	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 22:14	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 22:14	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 22:14	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 22:14	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 22:14	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 22:14	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 22:14	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 22:14	1

Client Sample ID: MW-25S

Date Collected: 11/07/17 13:55
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-10

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		11/11/17 22:14	1
4-Bromofluorobenzene (Surr)	98		70 - 130		11/11/17 22:14	1
Dibromofluoromethane (Surr)	108		70 - 130		11/11/17 22:14	1
Toluene-d8 (Surr)	96		70 - 130		11/11/17 22:14	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**91**	**CI**	8.0	1.4	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluoropentanoic acid (PFPeA)	**31**		8.0	2.0	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorohexanoic acid (PFHxA)	**38**		8.0	2.3	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluoroheptanoic acid (PFHpA)	**29**		8.0	1.0	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorooctanoic acid (PFOA)	**140**		8.0	3.4	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorononanoic acid (PFNA)	**14**		8.0	1.1	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorodecanoic acid (PFDA)	**3.7**	**J**	8.0	1.2	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluoroundecanoic acid (PFUnA)	ND		8.0	4.4	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorododecanoic acid (PFDoA)	ND		8.0	2.2	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorotridecanoic Acid (PFTriA)	ND		8.0	5.2	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		8.0	1.2	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorobutanesulfonic acid (PFBS)	**14**		8.0	0.80	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorohexanesulfonic acid (PFHxS)	**20**	**B**	8.0	0.68	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	**4.5**	**J**	8.0	0.76	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorooctanesulfonic acid (PFOS)	**350**		8.0	2.2	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		8.0	1.3	ng/L		11/16/17 14:10	11/18/17 08:42	1
Perfluorooctane Sulfonamide (FOSA)	**3.5**	**J B**	8.0	1.4	ng/L		11/16/17 14:10	11/18/17 08:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	91		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C4 PFBA	79		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C2 PFHxA	92		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C4 PFOA	84		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C5 PFNA	95		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C2 PFDA	96		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C2 PFUnA	97		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C2 PFDoA	92		25 - 150	11/16/17 14:10	11/18/17 08:42	1
18O2 PFHxS	100		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C4 PFOS	99		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C4-PFHpA	94		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C5 PFPeA	94		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C3-PFBS	98		25 - 150	11/16/17 14:10	11/18/17 08:42	1
13C2-PFTeDA	85		25 - 150	11/16/17 14:10	11/18/17 08:42	1

Client Sample ID: IW-01D
Date Collected: 11/06/17 16:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/13/17 11:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/13/17 11:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/13/17 11:49	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/13/17 11:49	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/13/17 11:49	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/13/17 11:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/13/17 11:49	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/13/17 11:49	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/13/17 11:49	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/13/17 11:49	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/13/17 11:49	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/13/17 11:49	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/13/17 11:49	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/13/17 11:49	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/13/17 11:49	1
2-Hexanone	ND		10	1.3	ug/L			11/13/17 11:49	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/13/17 11:49	1
Acetone	**29**		25	2.7	ug/L			11/13/17 11:49	1
Benzene	ND		1.0	0.20	ug/L			11/13/17 11:49	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/13/17 11:49	1
Bromoform	ND		1.0	0.29	ug/L			11/13/17 11:49	1
Bromomethane	ND		1.0	0.35	ug/L			11/13/17 11:49	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/13/17 11:49	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/13/17 11:49	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/13/17 11:49	1
Chloroethane	ND		1.0	0.36	ug/L			11/13/17 11:49	1
Chloroform	**1.0**		1.0	0.23	ug/L			11/13/17 11:49	1
Chloromethane	ND		1.0	0.36	ug/L			11/13/17 11:49	1
cis-1,2-Dichloroethene	**39**		1.0	0.21	ug/L			11/13/17 11:49	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/13/17 11:49	1
Cyclohexane	ND		5.0	0.13	ug/L			11/13/17 11:49	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/13/17 11:49	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/13/17 11:49	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/13/17 11:49	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/13/17 11:49	1
Methyl acetate	ND		10	0.58	ug/L			11/13/17 11:49	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/13/17 11:49	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/13/17 11:49	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/13/17 11:49	1
Styrene	ND		1.0	0.28	ug/L			11/13/17 11:49	1
Tetrachloroethene	**25**		1.0	0.14	ug/L			11/13/17 11:49	1
Toluene	ND		1.0	0.17	ug/L			11/13/17 11:49	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/13/17 11:49	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/13/17 11:49	1
Trichloroethene	**3.3**		1.0	0.20	ug/L			11/13/17 11:49	1
Trichlorofluoromethane	ND	*	1.0	0.21	ug/L			11/13/17 11:49	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/13/17 11:49	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/13/17 11:49	1

Client Sample ID: IW-01D

Date Collected: 11/06/17 16:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-11

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		11/13/17 11:49	1
4-Bromofluorobenzene (Surr)	100		70 - 130		11/13/17 11:49	1
Dibromofluoromethane (Surr)	110		70 - 130		11/13/17 11:49	1
Toluene-d8 (Surr)	98		70 - 130		11/13/17 11:49	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**37**		2.0	0.34	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluoropentanoic acid (PFPeA)	**18**		2.0	0.48	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorohexanoic acid (PFHxA)	**21**		2.0	0.57	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluoroheptanoic acid (PFHpA)	**15**		2.0	0.24	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorooctanoic acid (PFOA)	**47**		2.0	0.83	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorononanoic acid (PFNA)	**6.2**		2.0	0.26	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorodecanoic acid (PFDA)	**13**		2.0	0.30	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluoroundecanoic acid (PFUnA)	**1.2**	**J**	2.0	1.1	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorododecanoic acid (PFDoA)	**0.67**	**J**	2.0	0.54	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.28	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorobutanesulfonic acid (PFBS)	**13**		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorohexanesulfonic acid (PFHxS)	**6.8**	**B**	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	**1.3**	**J**	2.0	0.19	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorooctanesulfonic acid (PFOS)	**130**		2.0	0.53	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 08:58	1
Perfluorooctane Sulfonamide (FOSA)	**1.7**	**J B**	2.0	0.34	ng/L		11/16/17 14:10	11/18/17 08:58	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	98		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C4 PFBA	63		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C2 PFHxA	85		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C4 PFOA	87		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C5 PFNA	103		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C2 PFDA	104		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C2 PFUnA	97		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C2 PFDoA	89		25 - 150	11/16/17 14:10	11/18/17 08:58	1
18O2 PFHxS	97		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C4 PFOS	101		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C4-PFHpA	90		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C5 PFPeA	83		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C3-PFBS	102		25 - 150	11/16/17 14:10	11/18/17 08:58	1
13C2-PFTeDA	87		25 - 150	11/16/17 14:10	11/18/17 08:58	1

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Client Sample ID: TRIP BLANKS
Date Collected: 11/07/17 00:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 03:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 03:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 03:01	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 03:01	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 03:01	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 03:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 03:01	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 03:01	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 03:01	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 03:01	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 03:01	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 03:01	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 03:01	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 03:01	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 03:01	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 03:01	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 03:01	1
Acetone	ND		25	2.7	ug/L			11/11/17 03:01	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 03:01	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 03:01	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 03:01	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 03:01	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 03:01	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 03:01	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 03:01	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 03:01	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 03:01	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 03:01	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 03:01	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 03:01	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 03:01	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 03:01	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 03:01	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 03:01	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 03:01	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 03:01	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 03:01	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 03:01	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 03:01	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 03:01	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 03:01	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 03:01	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 03:01	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 03:01	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 03:01	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 03:01	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 03:01	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 03:01	1

Client Sample ID: TRIP BLANKS
Date Collected: 11/07/17 00:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-12
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		11/11/17 03:01	1
4-Bromofluorobenzene (Surr)	111		70 - 130		11/11/17 03:01	1
Dibromofluoromethane (Surr)	105		70 - 130		11/11/17 03:01	1
Toluene-d8 (Surr)	109		70 - 130		11/11/17 03:01	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
480-127327-1	MW-28	98	97	110	99
480-127327-2	MW-27	90	104	108	99
480-127327-3	IW-02	93	101	108	100
480-127327-4	DUP-02	93	102	108	101
480-127327-5	MW-13	105	112	105	109
480-127327-6	MW-3	105	111	106	109
480-127327-7	MW-21D	100	97	108	98
480-127327-8	IW-01S	95	97	106	100
480-127327-9	MW-26	96	96	109	100
480-127327-10	MW-25S	92	98	108	96
480-127327-11	IW-01D	101	100	110	98
480-127327-12	TRIP BLANKS	105	111	105	109
480-127327-C-1 MS	Matrix Spike	91	90	107	97
480-127327-C-1 MSD	Matrix Spike Duplicate	93	88	113	97
LCS 490-474935/3	Lab Control Sample	97	94	110	95
LCS 490-475086/3	Lab Control Sample	105	110	104	110
LCS 490-475225/3	Lab Control Sample	88	94	107	99
LCS 490-475277/3	Lab Control Sample	92	91	108	96
LCS 490-475387/3	Lab Control Sample	98	88	108	97
LCSD 490-474935/4	Lab Control Sample Dup	100	89	109	99
LCSD 490-475086/4	Lab Control Sample Dup	106	111	103	109
LCSD 490-475225/4	Lab Control Sample Dup	89	93	108	96
LCSD 490-475277/4	Lab Control Sample Dup	97	91	109	100
LCSD 490-475387/4	Lab Control Sample Dup	98	91	110	96
MB 490-474935/6	Method Blank	94	101	108	99
MB 490-475086/6	Method Blank	107	112	106	109
MB 490-475225/6	Method Blank	92	98	105	100
MB 490-475277/6	Method Blank	99	96	110	96
MB 490-475387/6	Method Blank	102	103	115	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	3C8 FOSA (25-150)	3C4 PFBA (25-150)	3C2 PFHxA (25-150)	3C4 PFOA (25-150)	3C5 PFNA (25-150)	3C2 PFDA (25-150)	3C2 PFUnA (25-150)	3C2 PFDoA (25-150)
480-127327-1	MW-28	111	29	75	93	115	134	122	113
480-127327-2	MW-27	82	35	76	84	99	112	108	93
480-127327-3	IW-02	99	56	83	89	103	111	106	93
480-127327-4	DUP-02	86	35	77	89	108	119	119	96
480-127327-5	MW-13	104	64	88	87	104	113	111	98
480-127327-6	MW-3	101	33	77	89	108	113	105	93
480-127327-7	MW-21D	100	54	85	89	104	106	102	91
480-127327-8	IW-01S	100	58	88	88	102	109	102	93
480-127327-9	MW-26	102	43	82	91	110	122	118	96
480-127327-10	MW-25S	91	79	92	84	95	96	97	92
480-127327-11	IW-01D	98	63	85	87	103	104	97	89
LCS 320-195170/2-A	Lab Control Sample	94	99	98	87	103	102	99	88
LCSD 320-195170/3-A	Lab Control Sample Dup	91	99	96	86	103	102	96	88
MB 320-195170/1-A	Method Blank	90	99	99	86	103	107	100	91

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	18O2 PFHxS (25-150)	13C4 PFOS (25-150)	13C4-PFHpA (25-150)	13C5 PFPeA (25-150)	13C3-PFBS (25-150)	13C2-PFTeDA (25-150)		
480-127327-1	MW-28	110	130	84	62	110	102		
480-127327-2	MW-27	94	103	81	68	98	77		
480-127327-3	IW-02	97	104	87	83	99	83		
480-127327-4	DUP-02	96	108	84	70	89	84		
480-127327-5	MW-13	100	100	96	87	95	90		
480-127327-6	MW-3	101	112	88	69	94	93		
480-127327-7	MW-21D	100	102	94	82	101	84		
480-127327-8	IW-01S	102	104	91	87	102	89		
480-127327-9	MW-26	105	116	90	78	100	86		
480-127327-10	MW-25S	100	99	94	94	98	85		
480-127327-11	IW-01D	97	101	90	83	102	87		
LCS 320-195170/2-A	Lab Control Sample	102	103	97	101	101	90		
LCSD 320-195170/3-A	Lab Control Sample Dup	98	100	94	99	97	91		
MB 320-195170/1-A	Method Blank	100	103	101	104	102	88		

Surrogate Legend

13C8 FOSA = 13C8 FOSA
13C4 PFBA = 13C4 PFBA
13C2 PFHxA = 13C2 PFHxA
13C4 PFOA = 13C4 PFOA
13C5 PFNA = 13C5 PFNA
13C2 PFDA = 13C2 PFDA
13C2 PFUnA = 13C2 PFUnA
13C2 PFDoA = 13C2 PFDoA
18O2 PFHxS = 18O2 PFHxS
13C4 PFOS = 13C4 PFOS
13C4-PFHpA = 13C4-PFHpA
13C5 PFPeA = 13C5 PFPeA
13C3-PFBS = 13C3-PFBS
13C2-PFTeDA = 13C2-PFTeDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-474935/6
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/10/17 13:34	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/10/17 13:34	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/10/17 13:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/10/17 13:34	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/10/17 13:34	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/10/17 13:34	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/10/17 13:34	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/10/17 13:34	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:34	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/10/17 13:34	1
2-Hexanone	ND		10	1.3	ug/L			11/10/17 13:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/10/17 13:34	1
Acetone	ND		25	2.7	ug/L			11/10/17 13:34	1
Benzene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Bromoform	ND		1.0	0.29	ug/L			11/10/17 13:34	1
Bromomethane	ND		1.0	0.35	ug/L			11/10/17 13:34	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/10/17 13:34	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Chloroethane	ND		1.0	0.36	ug/L			11/10/17 13:34	1
Chloroform	ND		1.0	0.23	ug/L			11/10/17 13:34	1
Chloromethane	ND		1.0	0.36	ug/L			11/10/17 13:34	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/10/17 13:34	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Cyclohexane	ND		5.0	0.13	ug/L			11/10/17 13:34	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/10/17 13:34	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/10/17 13:34	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/10/17 13:34	1
Methyl acetate	ND		10	0.58	ug/L			11/10/17 13:34	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/10/17 13:34	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/10/17 13:34	1
Styrene	ND		1.0	0.28	ug/L			11/10/17 13:34	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/10/17 13:34	1
Toluene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/10/17 13:34	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/10/17 13:34	1
Trichloroethene	ND		1.0	0.20	ug/L			11/10/17 13:34	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/10/17 13:34	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/10/17 13:34	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/10/17 13:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*11/10/17 13:34*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/10/17 13:34*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*11/10/17 13:34*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/10/17 13:34*	*1*

Lab Sample ID: LCS 490-474935/3
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	24.0		ug/L		120	78 - 135
1,1,2,2-Tetrachloroethane	20.0	19.7		ug/L		98	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.8		ug/L		129	77 - 129
1,1,2-Trichloroethane	20.0	20.9		ug/L		104	80 - 124
1,1-Dichloroethane	20.0	21.0		ug/L		105	78 - 125
1,1-Dichloroethene	20.0	23.2		ug/L		116	79 - 124
1,2,4-Trichlorobenzene	20.0	15.6		ug/L		78	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	17.4		ug/L		87	54 - 125
1,2-Dibromoethane	20.0	21.5		ug/L		107	80 - 129
1,2-Dichlorobenzene	20.0	21.3		ug/L		106	80 - 121
1,2-Dichloroethane	20.0	22.6		ug/L		113	77 - 121
1,2-Dichloropropane	20.0	19.7		ug/L		99	75 - 120
1,3-Dichlorobenzene	20.0	21.5		ug/L		108	80 - 122
1,4-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 120
2-Butanone (MEK)	100	93.9		ug/L		94	62 - 133
2-Hexanone	100	85.7		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.1		ug/L		85	60 - 137
Acetone	100	90.2		ug/L		90	54 - 145
Benzene	20.0	21.1		ug/L		105	80 - 121
Bromodichloromethane	20.0	22.9		ug/L		115	75 - 129
Bromoform	20.0	21.8		ug/L		109	46 - 145
Bromomethane	20.0	23.9		ug/L		119	41 - 150
Carbon disulfide	20.0	22.1		ug/L		110	77 - 126
Carbon tetrachloride	20.0	25.6		ug/L		128	64 - 147
Chlorobenzene	20.0	21.6		ug/L		108	80 - 120
Chloroethane	20.0	21.3		ug/L		107	72 - 120
Chloroform	20.0	22.1		ug/L		111	73 - 129
Chloromethane	20.0	18.3		ug/L		91	12 - 150
cis-1,2-Dichloroethene	20.0	21.4		ug/L		107	76 - 125
cis-1,3-Dichloropropene	20.0	20.3		ug/L		101	74 - 140
Cyclohexane	20.0	20.5		ug/L		102	73 - 122
Dibromochloromethane	20.0	21.9		ug/L		109	69 - 133
Dichlorodifluoromethane	20.0	29.8	*	ug/L		149	37 - 127
Ethylbenzene	20.0	20.1		ug/L		100	80 - 130
Isopropylbenzene	20.0	20.7		ug/L		104	80 - 141
Methyl acetate	40.0	39.8		ug/L		100	64 - 150
Methyl tert-butyl ether	20.0	21.1		ug/L		106	72 - 133
Methylcyclohexane	20.0	23.3		ug/L		117	71 - 129
Methylene Chloride	20.0	22.7		ug/L		114	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.7		ug/L		113	80 - 126
Toluene	20.0	20.4		ug/L		102	80 - 126
trans-1,2-Dichloroethene	20.0	20.6		ug/L		103	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-474935/3
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	63 - 134
Trichloroethene	20.0	23.4		ug/L		117	80 - 123
Trichlorofluoromethane	20.0	26.1	*	ug/L		130	65 - 124
Vinyl chloride	20.0	20.8		ug/L		104	68 - 120
Xylenes, Total	40.0	39.8		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 490-474935/4
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	24.4		ug/L		122	78 - 135	1	15
1,1,2,2-Tetrachloroethane	20.0	17.9		ug/L		90	69 - 131	9	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	26.4	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane	20.0	21.2		ug/L		106	80 - 124	1	13
1,1-Dichloroethane	20.0	21.6		ug/L		108	78 - 125	3	17
1,1-Dichloroethene	20.0	24.3		ug/L		122	79 - 124	5	20
1,2,4-Trichlorobenzene	20.0	17.9		ug/L		89	63 - 133	14	15
1,2-Dibromo-3-Chloropropane	20.0	18.4		ug/L		92	54 - 125	5	19
1,2-Dibromoethane	20.0	21.5		ug/L		108	80 - 129	0	13
1,2-Dichlorobenzene	20.0	21.8		ug/L		109	80 - 121	2	12
1,2-Dichloroethane	20.0	22.8		ug/L		114	77 - 121	1	13
1,2-Dichloropropane	20.0	20.8		ug/L		104	75 - 120	5	15
1,3-Dichlorobenzene	20.0	22.0		ug/L		110	80 - 122	2	13
1,4-Dichlorobenzene	20.0	22.6		ug/L		113	80 - 120	4	12
2-Butanone (MEK)	100	91.1		ug/L		91	62 - 133	3	19
2-Hexanone	100	80.8		ug/L		81	60 - 142	6	17
4-Methyl-2-pentanone (MIBK)	100	82.8		ug/L		83	60 - 137	3	21
Acetone	100	83.5		ug/L		83	54 - 145	8	23
Benzene	20.0	21.2		ug/L		106	80 - 121	0	12
Bromodichloromethane	20.0	22.9		ug/L		114	75 - 129	0	14
Bromoform	20.0	21.8		ug/L		109	46 - 145	0	14
Bromomethane	20.0	23.2		ug/L		116	41 - 150	3	19
Carbon disulfide	20.0	22.0		ug/L		110	77 - 126	0	16
Carbon tetrachloride	20.0	26.0		ug/L		130	64 - 147	2	16
Chlorobenzene	20.0	22.2		ug/L		111	80 - 120	2	12
Chloroethane	20.0	23.3		ug/L		117	72 - 120	9	15
Chloroform	20.0	23.0		ug/L		115	73 - 129	4	14
Chloromethane	20.0	19.0		ug/L		95	12 - 150	4	20
cis-1,2-Dichloroethene	20.0	21.9		ug/L		109	76 - 125	2	15
cis-1,3-Dichloropropene	20.0	20.5		ug/L		102	74 - 140	1	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-474935/4
Matrix: Water
Analysis Batch: 474935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane			20.0	21.0		ug/L		105	73 - 122	3	16
Dibromochloromethane			20.0	21.9		ug/L		110	69 - 133	0	13
Dichlorodifluoromethane			20.0	30.6	*	ug/L		153	37 - 127	3	16
Ethylbenzene			20.0	20.4		ug/L		102	80 - 130	2	12
Isopropylbenzene			20.0	21.3		ug/L		107	80 - 141	3	13
Methyl acetate			40.0	40.9		ug/L		102	64 - 150	3	18
Methyl tert-butyl ether			20.0	21.3		ug/L		107	72 - 133	1	16
Methylcyclohexane			20.0	24.1		ug/L		121	71 - 129	3	17
Methylene Chloride			20.0	23.0		ug/L		115	79 - 123	1	15
Styrene			20.0	20.5		ug/L		102	80 - 127	1	12
Tetrachloroethene			20.0	23.2		ug/L		116	80 - 126	2	17
Toluene			20.0	21.0		ug/L		105	80 - 126	3	13
trans-1,2-Dichloroethene			20.0	20.9		ug/L		104	79 - 126	1	15
trans-1,3-Dichloropropene			20.0	20.4		ug/L		102	63 - 134	3	13
Trichloroethene			20.0	23.6		ug/L		118	80 - 123	1	14
Trichlorofluoromethane			20.0	28.2	*	ug/L		141	65 - 124	8	22
Vinyl chloride			20.0	21.3		ug/L		106	68 - 120	2	15
Xylenes, Total			40.0	41.1		ug/L		103	80 - 132	3	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 490-475086/6
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 02:10	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 02:10	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 02:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 02:10	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 02:10	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 02:10	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 02:10	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 02:10	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 02:10	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:10	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 02:10	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 02:10	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 02:10	1
Acetone	ND		25	2.7	ug/L			11/11/17 02:10	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475086/6
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			11/11/17 02:10	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 02:10	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 02:10	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 02:10	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 02:10	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 02:10	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 02:10	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 02:10	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 02:10	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 02:10	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 02:10	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 02:10	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 02:10	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 02:10	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 02:10	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 02:10	1
Methylene Chloride	1.57	J	5.0	1.0	ug/L			11/11/17 02:10	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 02:10	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 02:10	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 02:10	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 02:10	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 02:10	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 02:10	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 02:10	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 02:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*11/11/17 02:10*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*11/11/17 02:10*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/11/17 02:10*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/11/17 02:10*	*1*

Lab Sample ID: LCS 490-475086/3
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.5		ug/L		108	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.8		ug/L		104	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.7		ug/L		108	77 - 129
1,1,2-Trichloroethane	20.0	20.3		ug/L		101	80 - 124
1,1-Dichloroethane	20.0	19.7		ug/L		99	78 - 125

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475086/3
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	19.8		ug/L		99	79 - 124
1,2,4-Trichlorobenzene	20.0	17.9		ug/L		90	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	20.0		ug/L		100	80 - 129
1,2-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 121
1,2-Dichloroethane	20.0	21.5		ug/L		108	77 - 121
1,2-Dichloropropane	20.0	19.1		ug/L		96	75 - 120
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 122
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 120
2-Butanone (MEK)	100	93.1		ug/L		93	62 - 133
2-Hexanone	100	99.7		ug/L		100	60 - 142
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	60 - 137
Acetone	100	111		ug/L		111	54 - 145
Benzene	20.0	19.2		ug/L		96	80 - 121
Bromodichloromethane	20.0	20.2		ug/L		101	75 - 129
Bromoform	20.0	18.0		ug/L		90	46 - 145
Bromomethane	20.0	16.9		ug/L		85	41 - 150
Carbon disulfide	20.0	18.2		ug/L		91	77 - 126
Carbon tetrachloride	20.0	21.6		ug/L		108	64 - 147
Chlorobenzene	20.0	19.8		ug/L		99	80 - 120
Chloroethane	20.0	19.4		ug/L		97	72 - 120
Chloroform	20.0	20.6		ug/L		103	73 - 129
Chloromethane	20.0	20.4		ug/L		102	12 - 150
cis-1,2-Dichloroethene	20.0	19.3		ug/L		96	76 - 125
cis-1,3-Dichloropropene	20.0	20.1		ug/L		101	74 - 140
Cyclohexane	20.0	19.0		ug/L		95	73 - 122
Dibromochloromethane	20.0	21.0		ug/L		105	69 - 133
Dichlorodifluoromethane	20.0	24.4		ug/L		122	37 - 127
Ethylbenzene	20.0	19.9		ug/L		99	80 - 130
Isopropylbenzene	20.0	18.5		ug/L		93	80 - 141
Methyl acetate	40.0	40.9		ug/L		102	64 - 150
Methyl tert-butyl ether	20.0	18.2		ug/L		91	72 - 133
Methylcyclohexane	20.0	19.0		ug/L		95	71 - 129
Methylene Chloride	20.0	19.8		ug/L		99	79 - 123
Styrene	20.0	18.1		ug/L		91	80 - 127
Tetrachloroethene	20.0	20.1		ug/L		100	80 - 126
Toluene	20.0	21.2		ug/L		106	80 - 126
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	79 - 126
trans-1,3-Dichloropropene	20.0	19.0		ug/L		95	63 - 134
Trichloroethene	20.0	19.7		ug/L		98	80 - 123
Trichlorofluoromethane	20.0	21.4		ug/L		107	65 - 124
Vinyl chloride	20.0	19.1		ug/L		96	68 - 120
Xylenes, Total	40.0	37.5		ug/L		94	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475086/3
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	110		70 - 130

Lab Sample ID: LCSD 490-475086/4
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	22.3		ug/L		112	78 - 135	4	15
1,1,2,2-Tetrachloroethane			20.0	21.6		ug/L		108	69 - 131	4	15
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	22.7		ug/L		114	77 - 129	5	16
1,1,2-Trichloroethane			20.0	20.7		ug/L		103	80 - 124	2	13
1,1-Dichloroethane			20.0	20.4		ug/L		102	78 - 125	4	17
1,1-Dichloroethene			20.0	20.6		ug/L		103	79 - 124	4	20
1,2,4-Trichlorobenzene			20.0	19.4		ug/L		97	63 - 133	8	15
1,2-Dibromo-3-Chloropropane			20.0	18.9		ug/L		95	54 - 125	2	19
1,2-Dibromoethane			20.0	20.4		ug/L		102	80 - 129	2	13
1,2-Dichlorobenzene			20.0	21.3		ug/L		106	80 - 121	5	12
1,2-Dichloroethane			20.0	22.1		ug/L		110	77 - 121	2	13
1,2-Dichloropropane			20.0	19.4		ug/L		97	75 - 120	2	15
1,3-Dichlorobenzene			20.0	20.8		ug/L		104	80 - 122	5	13
1,4-Dichlorobenzene			20.0	20.9		ug/L		105	80 - 120	3	12
2-Butanone (MEK)			100	97.6		ug/L		98	62 - 133	5	19
2-Hexanone			100	105		ug/L		105	60 - 142	5	17
4-Methyl-2-pentanone (MIBK)			100	113		ug/L		113	60 - 137	3	21
Acetone			100	119		ug/L		119	54 - 145	6	23
Benzene			20.0	19.8		ug/L		99	80 - 121	3	12
Bromodichloromethane			20.0	20.8		ug/L		104	75 - 129	3	14
Bromoform			20.0	18.9		ug/L		94	46 - 145	5	14
Bromomethane			20.0	17.8		ug/L		89	41 - 150	5	19
Carbon disulfide			20.0	18.8		ug/L		94	77 - 126	3	16
Carbon tetrachloride			20.0	22.4		ug/L		112	64 - 147	3	16
Chlorobenzene			20.0	20.5		ug/L		102	80 - 120	3	12
Chloroethane			20.0	20.5		ug/L		102	72 - 120	5	15
Chloroform			20.0	21.0		ug/L		105	73 - 129	2	14
Chloromethane			20.0	21.6		ug/L		108	12 - 150	6	20
cis-1,2-Dichloroethene			20.0	20.3		ug/L		101	76 - 125	5	15
cis-1,3-Dichloropropene			20.0	20.8		ug/L		104	74 - 140	3	15
Cyclohexane			20.0	20.0		ug/L		100	73 - 122	5	16
Dibromochloromethane			20.0	21.6		ug/L		108	69 - 133	3	13
Dichlorodifluoromethane			20.0	25.4		ug/L		127	37 - 127	4	16
Ethylbenzene			20.0	20.6		ug/L		103	80 - 130	3	12
Isopropylbenzene			20.0	19.4		ug/L		97	80 - 141	4	13
Methyl acetate			40.0	40.2		ug/L		100	64 - 150	2	18
Methyl tert-butyl ether			20.0	18.9		ug/L		95	72 - 133	4	16
Methylcyclohexane			20.0	20.4		ug/L		102	71 - 129	7	17
Methylene Chloride			20.0	20.4		ug/L		102	79 - 123	3	15
Styrene			20.0	18.6		ug/L		93	80 - 127	3	12

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475086/4
Matrix: Water
Analysis Batch: 475086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			20.0	21.0		ug/L		105	80 - 126	5	17
Toluene			20.0	21.8		ug/L		109	80 - 126	3	13
trans-1,2-Dichloroethene			20.0	20.9		ug/L		105	79 - 126	5	15
trans-1,3-Dichloropropene			20.0	20.0		ug/L		100	63 - 134	5	13
Trichloroethene			20.0	20.5		ug/L		103	80 - 123	4	14
Trichlorofluoromethane			20.0	22.1		ug/L		110	65 - 124	3	22
Vinyl chloride			20.0	19.9		ug/L		99	68 - 120	4	15
Xylenes, Total			40.0	39.2		ug/L		98	80 - 132	4	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*109*		*70 - 130*

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/11/17 17:26	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/11/17 17:26	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/11/17 17:26	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/11/17 17:26	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/11/17 17:26	1
2-Hexanone	ND		10	1.3	ug/L			11/11/17 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/11/17 17:26	1
Acetone	ND		25	2.7	ug/L			11/11/17 17:26	1
Benzene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Bromoform	ND		1.0	0.29	ug/L			11/11/17 17:26	1
Bromomethane	ND		1.0	0.35	ug/L			11/11/17 17:26	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/11/17 17:26	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Chloroethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1
Chloroform	ND		1.0	0.23	ug/L			11/11/17 17:26	1
Chloromethane	ND		1.0	0.36	ug/L			11/11/17 17:26	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475225/6
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/11/17 17:26	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Cyclohexane	ND		5.0	0.13	ug/L			11/11/17 17:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/11/17 17:26	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/11/17 17:26	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/11/17 17:26	1
Methyl acetate	ND		10	0.58	ug/L			11/11/17 17:26	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/11/17 17:26	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/11/17 17:26	1
Styrene	ND		1.0	0.28	ug/L			11/11/17 17:26	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/11/17 17:26	1
Toluene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/11/17 17:26	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/11/17 17:26	1
Trichloroethene	ND		1.0	0.20	ug/L			11/11/17 17:26	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/11/17 17:26	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/11/17 17:26	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/11/17 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/11/17 17:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/11/17 17:26*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/11/17 17:26*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/11/17 17:26*	*1*

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	23.7		ug/L		119	78 - 135
1,1,2,2-Tetrachloroethane	20.0	20.3		ug/L		102	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	25.9	*	ug/L		130	77 - 129
1,1,2-Trichloroethane	20.0	22.0		ug/L		110	80 - 124
1,1-Dichloroethane	20.0	21.5		ug/L		108	78 - 125
1,1-Dichloroethene	20.0	22.3		ug/L		112	79 - 124
1,2,4-Trichlorobenzene	20.0	18.5		ug/L		92	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	19.2		ug/L		96	54 - 125
1,2-Dibromoethane	20.0	22.2		ug/L		111	80 - 129
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121
1,2-Dichloroethane	20.0	22.7		ug/L		114	77 - 121
1,2-Dichloropropane	20.0	20.9		ug/L		105	75 - 120
1,3-Dichlorobenzene	20.0	23.0		ug/L		115	80 - 122
1,4-Dichlorobenzene	20.0	23.3		ug/L		116	80 - 120
2-Butanone (MEK)	100	88.0		ug/L		88	62 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475225/3
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	100	86.0		ug/L		86	60 - 142
4-Methyl-2-pentanone (MIBK)	100	85.4		ug/L		85	60 - 137
Acetone	100	87.4		ug/L		87	54 - 145
Benzene	20.0	20.6		ug/L		103	80 - 121
Bromodichloromethane	20.0	23.1		ug/L		115	75 - 129
Bromoform	20.0	21.2		ug/L		106	46 - 145
Bromomethane	20.0	21.4		ug/L		107	41 - 150
Carbon disulfide	20.0	21.4		ug/L		107	77 - 126
Carbon tetrachloride	20.0	25.5		ug/L		128	64 - 147
Chlorobenzene	20.0	23.1		ug/L		115	80 - 120
Chloroethane	20.0	20.7		ug/L		103	72 - 120
Chloroform	20.0	23.4		ug/L		117	73 - 129
Chloromethane	20.0	16.4		ug/L		82	12 - 150
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	76 - 125
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	74 - 140
Cyclohexane	20.0	19.7		ug/L		99	73 - 122
Dibromochloromethane	20.0	22.2		ug/L		111	69 - 133
Dichlorodifluoromethane	20.0	23.0		ug/L		115	37 - 127
Ethylbenzene	20.0	20.3		ug/L		101	80 - 130
Isopropylbenzene	20.0	19.1		ug/L		95	80 - 141
Methyl acetate	40.0	39.5		ug/L		99	64 - 150
Methyl tert-butyl ether	20.0	20.8		ug/L		104	72 - 133
Methylcyclohexane	20.0	21.5		ug/L		108	71 - 129
Methylene Chloride	20.0	21.7		ug/L		108	79 - 123
Styrene	20.0	20.2		ug/L		101	80 - 127
Tetrachloroethene	20.0	22.8		ug/L		114	80 - 126
Toluene	20.0	20.8		ug/L		104	80 - 126
trans-1,2-Dichloroethene	20.0	21.3		ug/L		107	79 - 126
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	63 - 134
Trichloroethene	20.0	23.9		ug/L		120	80 - 123
Trichlorofluoromethane	20.0	24.8		ug/L		124	65 - 124
Vinyl chloride	20.0	20.2		ug/L		101	68 - 120
Xylenes, Total	40.0	39.9		ug/L		100	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	24.2		ug/L		121	78 - 135	2	15
1,1,2,2-Tetrachloroethane	20.0	20.6		ug/L		103	69 - 131	2	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	26.3	*	ug/L		132	77 - 129	2	16
1,1,2-Trichloroethane	20.0	21.8		ug/L		109	80 - 124	1	13
1,1-Dichloroethane	20.0	21.9		ug/L		110	78 - 125	2	17
1,1-Dichloroethene	20.0	23.7		ug/L		118	79 - 124	6	20
1,2,4-Trichlorobenzene	20.0	18.7		ug/L		94	63 - 133	1	15
1,2-Dibromo-3-Chloropropane	20.0	19.5		ug/L		98	54 - 125	2	19
1,2-Dibromoethane	20.0	21.5		ug/L		108	80 - 129	3	13
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	80 - 121	0	12
1,2-Dichloroethane	20.0	23.2		ug/L		116	77 - 121	2	13
1,2-Dichloropropane	20.0	21.4		ug/L		107	75 - 120	2	15
1,3-Dichlorobenzene	20.0	23.1		ug/L		116	80 - 122	1	13
1,4-Dichlorobenzene	20.0	23.2		ug/L		116	80 - 120	0	12
2-Butanone (MEK)	100	95.9		ug/L		96	62 - 133	9	19
2-Hexanone	100	86.1		ug/L		86	60 - 142	0	17
4-Methyl-2-pentanone (MIBK)	100	87.1		ug/L		87	60 - 137	2	21
Acetone	100	90.2		ug/L		90	54 - 145	3	23
Benzene	20.0	21.0		ug/L		105	80 - 121	2	12
Bromodichloromethane	20.0	23.4		ug/L		117	75 - 129	1	14
Bromoform	20.0	21.2		ug/L		106	46 - 145	0	14
Bromomethane	20.0	22.0		ug/L		110	41 - 150	3	19
Carbon disulfide	20.0	21.8		ug/L		109	77 - 126	2	16
Carbon tetrachloride	20.0	25.4		ug/L		127	64 - 147	0	16
Chlorobenzene	20.0	22.3		ug/L		111	80 - 120	3	12
Chloroethane	20.0	21.7		ug/L		108	72 - 120	5	15
Chloroform	20.0	23.8		ug/L		119	73 - 129	2	14
Chloromethane	20.0	16.4		ug/L		82	12 - 150	0	20
cis-1,2-Dichloroethene	20.0	22.1		ug/L		111	76 - 125	1	15
cis-1,3-Dichloropropene	20.0	20.9		ug/L		104	74 - 140	2	15
Cyclohexane	20.0	19.9		ug/L		99	73 - 122	1	16
Dibromochloromethane	20.0	22.8		ug/L		114	69 - 133	3	13
Dichlorodifluoromethane	20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene	20.0	20.2		ug/L		101	80 - 130	0	12
Isopropylbenzene	20.0	19.0		ug/L		95	80 - 141	1	13
Methyl acetate	40.0	40.4		ug/L		101	64 - 150	2	18
Methyl tert-butyl ether	20.0	21.4		ug/L		107	72 - 133	3	16
Methylcyclohexane	20.0	21.5		ug/L		107	71 - 129	0	17
Methylene Chloride	20.0	23.3		ug/L		116	79 - 123	7	15
Styrene	20.0	20.2		ug/L		101	80 - 127	0	12
Tetrachloroethene	20.0	22.5		ug/L		112	80 - 126	1	17
Toluene	20.0	20.8		ug/L		104	80 - 126	0	13
trans-1,2-Dichloroethene	20.0	21.4		ug/L		107	79 - 126	0	15
trans-1,3-Dichloropropene	20.0	20.7		ug/L		103	63 - 134	0	13
Trichloroethene	20.0	23.7		ug/L		118	80 - 123	1	14
Trichlorofluoromethane	20.0	24.5		ug/L		122	65 - 124	1	22
Vinyl chloride	20.0	20.4		ug/L		102	68 - 120	1	15
Xylenes, Total	40.0	39.5		ug/L		99	80 - 132	1	11

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475225/4
Matrix: Water
Analysis Batch: 475225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 490-475277/6
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/12/17 06:30	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/12/17 06:30	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/12/17 06:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/12/17 06:30	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/12/17 06:30	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/12/17 06:30	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/12/17 06:30	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/12/17 06:30	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/12/17 06:30	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/12/17 06:30	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/12/17 06:30	1
2-Hexanone	ND		10	1.3	ug/L			11/12/17 06:30	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/12/17 06:30	1
Acetone	ND		25	2.7	ug/L			11/12/17 06:30	1
Benzene	ND		1.0	0.20	ug/L			11/12/17 06:30	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Bromoform	ND		1.0	0.29	ug/L			11/12/17 06:30	1
Bromomethane	ND		1.0	0.35	ug/L			11/12/17 06:30	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/12/17 06:30	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/12/17 06:30	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/12/17 06:30	1
Chloroethane	ND		1.0	0.36	ug/L			11/12/17 06:30	1
Chloroform	ND		1.0	0.23	ug/L			11/12/17 06:30	1
Chloromethane	ND		1.0	0.36	ug/L			11/12/17 06:30	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/12/17 06:30	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Cyclohexane	ND		5.0	0.13	ug/L			11/12/17 06:30	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/12/17 06:30	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/12/17 06:30	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/12/17 06:30	1
Methyl acetate	ND		10	0.58	ug/L			11/12/17 06:30	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/12/17 06:30	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475277/6
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	1.0	ug/L			11/12/17 06:30	1
Styrene	ND		1.0	0.28	ug/L			11/12/17 06:30	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/12/17 06:30	1
Toluene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/12/17 06:30	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/12/17 06:30	1
Trichloroethene	ND		1.0	0.20	ug/L			11/12/17 06:30	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/12/17 06:30	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/12/17 06:30	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/12/17 06:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/12/17 06:30*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/12/17 06:30*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*11/12/17 06:30*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/12/17 06:30*	*1*

Lab Sample ID: LCS 490-475277/3
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	22.2		ug/L		111	78 - 135
1,1,2,2-Tetrachloroethane	20.0	18.3		ug/L		92	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.1		ug/L		115	77 - 129
1,1,2-Trichloroethane	20.0	19.9		ug/L		100	80 - 124
1,1-Dichloroethane	20.0	20.3		ug/L		101	78 - 125
1,1-Dichloroethene	20.0	21.4		ug/L		107	79 - 124
1,2,4-Trichlorobenzene	20.0	17.0		ug/L		85	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	17.6		ug/L		88	54 - 125
1,2-Dibromoethane	20.0	20.4		ug/L		102	80 - 129
1,2-Dichlorobenzene	20.0	20.5		ug/L		102	80 - 121
1,2-Dichloroethane	20.0	22.0		ug/L		110	77 - 121
1,2-Dichloropropane	20.0	19.8		ug/L		99	75 - 120
1,3-Dichlorobenzene	20.0	20.9		ug/L		105	80 - 122
1,4-Dichlorobenzene	20.0	21.1		ug/L		106	80 - 120
2-Butanone (MEK)	100	96.1		ug/L		96	62 - 133
2-Hexanone	100	82.1		ug/L		82	60 - 142
4-Methyl-2-pentanone (MIBK)	100	83.3		ug/L		83	60 - 137
Acetone	100	89.1		ug/L		89	54 - 145
Benzene	20.0	20.0		ug/L		100	80 - 121
Bromodichloromethane	20.0	22.1		ug/L		111	75 - 129
Bromoform	20.0	20.2		ug/L		101	46 - 145
Bromomethane	20.0	21.8		ug/L		109	41 - 150
Carbon disulfide	20.0	19.8		ug/L		99	77 - 126
Carbon tetrachloride	20.0	23.2		ug/L		116	64 - 147
Chlorobenzene	20.0	21.3		ug/L		106	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475277/3
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	20.0	21.0		ug/L		105	72 - 120
Chloroform	20.0	22.1		ug/L		111	73 - 129
Chloromethane	20.0	16.7		ug/L		83	12 - 150
cis-1,2-Dichloroethene	20.0	21.1		ug/L		106	76 - 125
cis-1,3-Dichloropropene	20.0	19.0		ug/L		95	74 - 140
Cyclohexane	20.0	18.3		ug/L		91	73 - 122
Dibromochloromethane	20.0	20.6		ug/L		103	69 - 133
Dichlorodifluoromethane	20.0	22.9		ug/L		114	37 - 127
Ethylbenzene	20.0	19.5		ug/L		97	80 - 130
Isopropylbenzene	20.0	19.0		ug/L		95	80 - 141
Methyl acetate	40.0	38.7		ug/L		97	64 - 150
Methyl tert-butyl ether	20.0	19.7		ug/L		98	72 - 133
Methylcyclohexane	20.0	21.0		ug/L		105	71 - 129
Methylene Chloride	20.0	22.1		ug/L		110	79 - 123
Styrene	20.0	19.0		ug/L		95	80 - 127
Tetrachloroethene	20.0	21.4		ug/L		107	80 - 126
Toluene	20.0	19.6		ug/L		98	80 - 126
trans-1,2-Dichloroethene	20.0	19.6		ug/L		98	79 - 126
trans-1,3-Dichloropropene	20.0	18.9		ug/L		95	63 - 134
Trichloroethene	20.0	22.8		ug/L		114	80 - 123
Trichlorofluoromethane	20.0	26.1	*	ug/L		131	65 - 124
Vinyl chloride	20.0	19.4		ug/L		97	68 - 120
Xylenes, Total	40.0	37.8		ug/L		95	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 490-475277/4
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	22.4		ug/L		112	78 - 135	1	15
1,1,2,2-Tetrachloroethane	20.0	16.8		ug/L		84	69 - 131	8	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.8		ug/L		114	77 - 129	1	16
1,1,2-Trichloroethane	20.0	19.9		ug/L		99	80 - 124	0	13
1,1-Dichloroethane	20.0	20.0		ug/L		100	78 - 125	1	17
1,1-Dichloroethene	20.0	21.1		ug/L		106	79 - 124	1	20
1,2,4-Trichlorobenzene	20.0	16.8		ug/L		84	63 - 133	1	15
1,2-Dibromo-3-Chloropropane	20.0	17.8		ug/L		89	54 - 125	1	19
1,2-Dibromoethane	20.0	20.4		ug/L		102	80 - 129	0	13
1,2-Dichlorobenzene	20.0	20.2		ug/L		101	80 - 121	1	12
1,2-Dichloroethane	20.0	21.5		ug/L		107	77 - 121	3	13
1,2-Dichloropropane	20.0	19.9		ug/L		100	75 - 120	1	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475277/4
Matrix: Water
Analysis Batch: 475277

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene			20.0	20.4		ug/L		102	80 - 122	3	13
1,4-Dichlorobenzene			20.0	20.7		ug/L		104	80 - 120	2	12
2-Butanone (MEK)			100	92.2		ug/L		92	62 - 133	4	19
2-Hexanone			100	83.1		ug/L		83	60 - 142	1	17
4-Methyl-2-pentanone (MIBK)			100	82.3		ug/L		82	60 - 137	1	21
Acetone			100	90.4		ug/L		90	54 - 145	1	23
Benzene			20.0	19.6		ug/L		98	80 - 121	2	12
Bromodichloromethane			20.0	22.1		ug/L		111	75 - 129	0	14
Bromoform			20.0	20.7		ug/L		103	46 - 145	2	14
Bromomethane			20.0	22.2		ug/L		111	41 - 150	2	19
Carbon disulfide			20.0	19.5		ug/L		98	77 - 126	1	16
Carbon tetrachloride			20.0	23.2		ug/L		116	64 - 147	0	16
Chlorobenzene			20.0	20.8		ug/L		104	80 - 120	2	12
Chloroethane			20.0	21.0		ug/L		105	72 - 120	0	15
Chloroform			20.0	21.9		ug/L		109	73 - 129	1	14
Chloromethane			20.0	16.1		ug/L		80	12 - 150	4	20
cis-1,2-Dichloroethene			20.0	20.3		ug/L		101	76 - 125	4	15
cis-1,3-Dichloropropene			20.0	18.5		ug/L		93	74 - 140	3	15
Cyclohexane			20.0	18.5		ug/L		92	73 - 122	1	16
Dibromochloromethane			20.0	20.5		ug/L		103	69 - 133	0	13
Dichlorodifluoromethane			20.0	22.4		ug/L		112	37 - 127	2	16
Ethylbenzene			20.0	19.1		ug/L		95	80 - 130	2	12
Isopropylbenzene			20.0	19.0		ug/L		95	80 - 141	0	13
Methyl acetate			40.0	37.8		ug/L		94	64 - 150	2	18
Methyl tert-butyl ether			20.0	19.9		ug/L		99	72 - 133	1	16
Methylcyclohexane			20.0	20.9		ug/L		104	71 - 129	1	17
Methylene Chloride			20.0	21.7		ug/L		108	79 - 123	2	15
Styrene			20.0	18.8		ug/L		94	80 - 127	1	12
Tetrachloroethene			20.0	21.1		ug/L		105	80 - 126	1	17
Toluene			20.0	19.5		ug/L		98	80 - 126	0	13
trans-1,2-Dichloroethene			20.0	19.2		ug/L		96	79 - 126	2	15
trans-1,3-Dichloropropene			20.0	18.7		ug/L		94	63 - 134	1	13
Trichloroethene			20.0	23.4		ug/L		117	80 - 123	3	14
Trichlorofluoromethane			20.0	26.0	*	ug/L		130	65 - 124	0	22
Vinyl chloride			20.0	19.1		ug/L		96	68 - 120	1	15
Xylenes, Total			40.0	37.0		ug/L		93	80 - 132	2	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-475387/6
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			11/13/17 11:23	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			11/13/17 11:23	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			11/13/17 11:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			11/13/17 11:23	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			11/13/17 11:23	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			11/13/17 11:23	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/13/17 11:23	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			11/13/17 11:23	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			11/13/17 11:23	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			11/13/17 11:23	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
2-Butanone (MEK)	ND		50	2.6	ug/L			11/13/17 11:23	1
2-Hexanone	ND		10	1.3	ug/L			11/13/17 11:23	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			11/13/17 11:23	1
Acetone	ND		25	2.7	ug/L			11/13/17 11:23	1
Benzene	ND		1.0	0.20	ug/L			11/13/17 11:23	1
Bromodichloromethane	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Bromoform	ND		1.0	0.29	ug/L			11/13/17 11:23	1
Bromomethane	ND		1.0	0.35	ug/L			11/13/17 11:23	1
Carbon disulfide	ND		1.0	0.22	ug/L			11/13/17 11:23	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			11/13/17 11:23	1
Chlorobenzene	ND		1.0	0.18	ug/L			11/13/17 11:23	1
Chloroethane	ND		1.0	0.36	ug/L			11/13/17 11:23	1
Chloroform	ND		1.0	0.23	ug/L			11/13/17 11:23	1
Chloromethane	ND		1.0	0.36	ug/L			11/13/17 11:23	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			11/13/17 11:23	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Cyclohexane	ND		5.0	0.13	ug/L			11/13/17 11:23	1
Dibromochloromethane	ND		1.0	0.25	ug/L			11/13/17 11:23	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Ethylbenzene	ND		1.0	0.19	ug/L			11/13/17 11:23	1
Isopropylbenzene	ND		1.0	0.33	ug/L			11/13/17 11:23	1
Methyl acetate	ND		10	0.58	ug/L			11/13/17 11:23	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Methylcyclohexane	ND		5.0	0.090	ug/L			11/13/17 11:23	1
Methylene Chloride	ND		5.0	1.0	ug/L			11/13/17 11:23	1
Styrene	ND		1.0	0.28	ug/L			11/13/17 11:23	1
Tetrachloroethene	ND		1.0	0.14	ug/L			11/13/17 11:23	1
Toluene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/13/17 11:23	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			11/13/17 11:23	1
Trichloroethene	ND		1.0	0.20	ug/L			11/13/17 11:23	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			11/13/17 11:23	1
Vinyl chloride	ND		1.0	0.18	ug/L			11/13/17 11:23	1
Xylenes, Total	ND		3.0	0.58	ug/L			11/13/17 11:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*11/13/17 11:23*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*11/13/17 11:23*	*1*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*11/13/17 11:23*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/13/17 11:23*	*1*

Lab Sample ID: LCS 490-475387/3
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.5		ug/L		107	78 - 135
1,1,2,2-Tetrachloroethane	20.0	18.4		ug/L		92	69 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.3		ug/L		112	77 - 129
1,1,2-Trichloroethane	20.0	19.4		ug/L		97	80 - 124
1,1-Dichloroethane	20.0	20.2		ug/L		101	78 - 125
1,1-Dichloroethene	20.0	21.6		ug/L		108	79 - 124
1,2,4-Trichlorobenzene	20.0	16.8		ug/L		84	63 - 133
1,2-Dibromo-3-Chloropropane	20.0	18.1		ug/L		90	54 - 125
1,2-Dibromoethane	20.0	20.0		ug/L		100	80 - 129
1,2-Dichlorobenzene	20.0	20.3		ug/L		102	80 - 121
1,2-Dichloroethane	20.0	20.1		ug/L		101	77 - 121
1,2-Dichloropropane	20.0	19.4		ug/L		97	75 - 120
1,3-Dichlorobenzene	20.0	20.1		ug/L		101	80 - 122
1,4-Dichlorobenzene	20.0	20.5		ug/L		103	80 - 120
2-Butanone (MEK)	100	95.4		ug/L		95	62 - 133
2-Hexanone	100	81.1		ug/L		81	60 - 142
4-Methyl-2-pentanone (MIBK)	100	83.8		ug/L		84	60 - 137
Acetone	100	95.6		ug/L		96	54 - 145
Benzene	20.0	19.6		ug/L		98	80 - 121
Bromodichloromethane	20.0	21.6		ug/L		108	75 - 129
Bromoform	20.0	20.4		ug/L		102	46 - 145
Bromomethane	20.0	20.5		ug/L		102	41 - 150
Carbon disulfide	20.0	20.5		ug/L		102	77 - 126
Carbon tetrachloride	20.0	23.4		ug/L		117	64 - 147
Chlorobenzene	20.0	20.3		ug/L		101	80 - 120
Chloroethane	20.0	20.0		ug/L		100	72 - 120
Chloroform	20.0	22.1		ug/L		111	73 - 129
Chloromethane	20.0	15.3		ug/L		76	12 - 150
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	76 - 125
cis-1,3-Dichloropropene	20.0	19.1		ug/L		95	74 - 140
Cyclohexane	20.0	18.8		ug/L		94	73 - 122
Dibromochloromethane	20.0	20.9		ug/L		105	69 - 133
Dichlorodifluoromethane	20.0	19.8		ug/L		99	37 - 127
Ethylbenzene	20.0	19.0		ug/L		95	80 - 130
Isopropylbenzene	20.0	18.6		ug/L		93	80 - 141
Methyl acetate	40.0	39.8		ug/L		100	64 - 150
Methyl tert-butyl ether	20.0	20.1		ug/L		100	72 - 133
Methylcyclohexane	20.0	21.3		ug/L		107	71 - 129
Methylene Chloride	20.0	20.5		ug/L		102	79 - 123
Styrene	20.0	18.8		ug/L		94	80 - 127
Tetrachloroethene	20.0	21.2		ug/L		106	80 - 126
Toluene	20.0	19.2		ug/L		96	80 - 126
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-475387/3
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.2		ug/L		96	63 - 134
Trichloroethene	20.0	22.7		ug/L		114	80 - 123
Trichlorofluoromethane	20.0	25.1	*	ug/L		126	65 - 124
Vinyl chloride	20.0	18.2		ug/L		91	68 - 120
Xylenes, Total	40.0	37.4		ug/L		94	80 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 490-475387/4
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	21.6		ug/L		108	78 - 135	0	15
1,1,2,2-Tetrachloroethane	20.0	17.7		ug/L		89	69 - 131	3	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.3		ug/L		112	77 - 129	0	16
1,1,2-Trichloroethane	20.0	20.7		ug/L		104	80 - 124	6	13
1,1-Dichloroethane	20.0	20.3		ug/L		101	78 - 125	0	17
1,1-Dichloroethene	20.0	21.5		ug/L		108	79 - 124	0	20
1,2,4-Trichlorobenzene	20.0	17.3		ug/L		87	63 - 133	3	15
1,2-Dibromo-3-Chloropropane	20.0	18.1		ug/L		90	54 - 125	0	19
1,2-Dibromoethane	20.0	20.5		ug/L		102	80 - 129	2	13
1,2-Dichlorobenzene	20.0	19.8		ug/L		99	80 - 121	3	12
1,2-Dichloroethane	20.0	21.9		ug/L		110	77 - 121	9	13
1,2-Dichloropropane	20.0	19.4		ug/L		97	75 - 120	0	15
1,3-Dichlorobenzene	20.0	20.5		ug/L		102	80 - 122	2	13
1,4-Dichlorobenzene	20.0	20.9		ug/L		104	80 - 120	2	12
2-Butanone (MEK)	100	92.4		ug/L		92	62 - 133	3	19
2-Hexanone	100	82.1		ug/L		82	60 - 142	1	17
4-Methyl-2-pentanone (MIBK)	100	82.2		ug/L		82	60 - 137	2	21
Acetone	100	87.7		ug/L		88	54 - 145	9	23
Benzene	20.0	19.5		ug/L		98	80 - 121	1	12
Bromodichloromethane	20.0	21.8		ug/L		109	75 - 129	1	14
Bromoform	20.0	20.2		ug/L		101	46 - 145	1	14
Bromomethane	20.0	22.5		ug/L		113	41 - 150	10	19
Carbon disulfide	20.0	20.5		ug/L		102	77 - 126	0	16
Carbon tetrachloride	20.0	23.0		ug/L		115	64 - 147	2	16
Chlorobenzene	20.0	20.5		ug/L		103	80 - 120	1	12
Chloroethane	20.0	20.7		ug/L		104	72 - 120	4	15
Chloroform	20.0	21.9		ug/L		110	73 - 129	1	14
Chloromethane	20.0	15.7		ug/L		78	12 - 150	2	20
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	76 - 125	0	15
cis-1,3-Dichloropropene	20.0	19.1		ug/L		95	74 - 140	0	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-475387/4
Matrix: Water
Analysis Batch: 475387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane			20.0	19.2		ug/L		96	73 - 122	2	16
Dibromochloromethane			20.0	20.8		ug/L		104	69 - 133	0	13
Dichlorodifluoromethane			20.0	21.2		ug/L		106	37 - 127	7	16
Ethylbenzene			20.0	19.0		ug/L		95	80 - 130	0	12
Isopropylbenzene			20.0	18.9		ug/L		95	80 - 141	2	13
Methyl acetate			40.0	38.6		ug/L		97	64 - 150	3	18
Methyl tert-butyl ether			20.0	19.9		ug/L		100	72 - 133	1	16
Methylcyclohexane			20.0	21.4		ug/L		107	71 - 129	0	17
Methylene Chloride			20.0	22.0		ug/L		110	79 - 123	7	15
Styrene			20.0	18.6		ug/L		93	80 - 127	1	12
Tetrachloroethene			20.0	21.1		ug/L		105	80 - 126	0	17
Toluene			20.0	19.2		ug/L		96	80 - 126	0	13
trans-1,2-Dichloroethene			20.0	19.8		ug/L		99	79 - 126	0	15
trans-1,3-Dichloropropene			20.0	19.1		ug/L		96	63 - 134	0	13
Trichloroethene			20.0	22.1		ug/L		110	80 - 123	3	14
Trichlorofluoromethane			20.0	25.5	*	ug/L		127	65 - 124	1	22
Vinyl chloride			20.0	18.4		ug/L		92	68 - 120	1	15
Xylenes, Total			40.0	37.4		ug/L		94	80 - 132	0	11

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-195170/1-A
Matrix: Water
Analysis Batch: 195549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.35	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorohexanesulfonic acid (PFHxS)	0.284	J	2.0	0.17	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/16/17 14:10	11/18/17 05:48	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-195170/1-A
Matrix: Water
Analysis Batch: 195549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/16/17 14:10	11/18/17 05:48	1
Perfluorooctane Sulfonamide (FOSA)	0.357	J	2.0	0.35	ng/L		11/16/17 14:10	11/18/17 05:48	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*90*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C4 PFBA	*99*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C2 PFHxA	*99*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C4 PFOA	*86*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C5 PFNA	*103*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C2 PFDA	*107*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C2 PFUnA	*100*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C2 PFDoA	*91*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
18O2 PFHxS	*100*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C4 PFOS	*103*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C4-PFHpA	*101*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C5 PFPeA	*104*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C3-PFBS	*102*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*
13C2-PFTeDA	*88*		*25 - 150*	*11/16/17 14:10*	*11/18/17 05:48*	*1*

Lab Sample ID: LCS 320-195170/2-A
Matrix: Water
Analysis Batch: 195549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	41.0		ng/L		102	78 - 138
Perfluoropentanoic acid (PFPeA)	40.0	39.1		ng/L		98	66 - 136
Perfluorohexanoic acid (PFHxA)	40.0	39.7		ng/L		99	76 - 136
Perfluoroheptanoic acid (PFHpA)	40.0	42.5		ng/L		106	78 - 138
Perfluorooctanoic acid (PFOA)	40.0	43.2		ng/L		108	70 - 130
Perfluorononanoic acid (PFNA)	40.0	39.1		ng/L		98	77 - 137
Perfluorodecanoic acid (PFDA)	40.0	41.4		ng/L		103	74 - 134
Perfluoroundecanoic acid (PFUnA)	40.0	39.4		ng/L		98	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	44.0		ng/L		110	72 - 132
Perfluorotridecanoic Acid (PFTriA)	40.0	36.8		ng/L		92	56 - 163
Perfluorotetradecanoic acid (PFTeA)	40.0	37.9		ng/L		95	63 - 123
Perfluorobutanesulfonic acid (PFBS)	35.4	37.5		ng/L		106	79 - 139
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.8		ng/L		96	77 - 137
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.1		ng/L		103	83 - 143
Perfluorooctanesulfonic acid (PFOS)	37.1	36.8		ng/L		99	74 - 134
Perfluorodecanesulfonic acid (PFDS)	38.6	40.0		ng/L		104	75 - 135
Perfluorooctane Sulfonamide (FOSA)	40.0	40.1		ng/L		100	82 - 142

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	94		25 - 150
13C4 PFBA	99		25 - 150
13C2 PFHxA	98		25 - 150
13C4 PFOA	87		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	99		25 - 150
13C2 PFDoA	88		25 - 150
18O2 PFHxS	102		25 - 150
13C4 PFOS	103		25 - 150
13C4-PFHpA	97		25 - 150
13C5 PFPeA	101		25 - 150
13C3-PFBS	101		25 - 150
13C2-PFTeDA	90		25 - 150

Lab Sample ID: LCSD 320-195170/3-A
Matrix: Water
Analysis Batch: 195549

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 195170

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	41.0		ng/L		103	78 - 138	0	30
Perfluoropentanoic acid (PFPeA)			40.0	39.0		ng/L		98	66 - 136	0	30
Perfluorohexanoic acid (PFHxA)			40.0	39.8		ng/L		100	76 - 136	0	30
Perfluoroheptanoic acid (PFHpA)			40.0	43.1		ng/L		108	78 - 138	1	30
Perfluorooctanoic acid (PFOA)			40.0	41.7		ng/L		104	70 - 130	3	30
Perfluorononanoic acid (PFNA)			40.0	41.2		ng/L		103	77 - 137	5	30
Perfluorodecanoic acid (PFDA)			40.0	39.8		ng/L		99	74 - 134	4	30
Perfluoroundecanoic acid (PFUnA)			40.0	40.3		ng/L		101	68 - 128	2	30
Perfluorododecanoic acid (PFDoA)			40.0	41.8		ng/L		105	72 - 132	5	30
Perfluorotridecanoic Acid (PFTriA)			40.0	37.3		ng/L		93	56 - 163	1	30
Perfluorotetradecanoic acid (PFTeA)			40.0	38.7		ng/L		97	63 - 123	2	30
Perfluorobutanesulfonic acid (PFBS)			35.4	39.5		ng/L		112	79 - 139	5	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	36.4		ng/L		100	77 - 137	5	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	38.9		ng/L		102	83 - 143	1	30
Perfluorooctanesulfonic acid (PFOS)			37.1	37.9		ng/L		102	74 - 134	3	30
Perfluorodecanesulfonic acid (PFDS)			38.6	38.5		ng/L		100	75 - 135	4	30
Perfluorooctane Sulfonamide (FOSA)			40.0	41.9		ng/L		105	82 - 142	4	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C8 FOSA	91		25 - 150
13C4 PFBA	99		25 - 150
13C2 PFHxA	96		25 - 150
13C4 PFOA	86		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	96		25 - 150
13C2 PFDoA	88		25 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-195170/3-A
Matrix: Water
Analysis Batch: 195549

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 195170

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
18O2 PFHxS	98		25 - 150
13C4 PFOS	100		25 - 150
13C4-PFHpA	94		25 - 150
13C5 PFPeA	99		25 - 150
13C3-PFBS	97		25 - 150
13C2-PFTeDA	91		25 - 150

GC/MS VOA

Analysis Batch: 474935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-2	MW-27	Total/NA	Water	8260C	
480-127327-3	IW-02	Total/NA	Water	8260C	
480-127327-4	DUP-02	Total/NA	Water	8260C	
MB 490-474935/6	Method Blank	Total/NA	Water	8260C	
LCS 490-474935/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-474935/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-5	MW-13	Total/NA	Water	8260C	
480-127327-6	MW-3	Total/NA	Water	8260C	
480-127327-12	TRIP BLANKS	Total/NA	Water	8260C	
MB 490-475086/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475086/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475086/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-8	IW-01S	Total/NA	Water	8260C	
480-127327-9	MW-26	Total/NA	Water	8260C	
480-127327-10	MW-25S	Total/NA	Water	8260C	
MB 490-475225/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475225/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475225/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-1	MW-28	Total/NA	Water	8260C	
480-127327-7	MW-21D	Total/NA	Water	8260C	
MB 490-475277/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475277/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475277/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 475387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-11	IW-01D	Total/NA	Water	8260C	
MB 490-475387/6	Method Blank	Total/NA	Water	8260C	
LCS 490-475387/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-475387/4	Lab Control Sample Dup	Total/NA	Water	8260C	

LCMS

Prep Batch: 195170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-1	MW-28	Total/NA	Water	3535	
480-127327-2	MW-27	Total/NA	Water	3535	
480-127327-3	IW-02	Total/NA	Water	3535	
480-127327-4	DUP-02	Total/NA	Water	3535	
480-127327-5	MW-13	Total/NA	Water	3535	
480-127327-6	MW-3	Total/NA	Water	3535	

LCMS (Continued)

Prep Batch: 195170 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-7	MW-21D	Total/NA	Water	3535	
480-127327-8	IW-01S	Total/NA	Water	3535	
480-127327-9	MW-26	Total/NA	Water	3535	
480-127327-10	MW-25S	Total/NA	Water	3535	
480-127327-11	IW-01D	Total/NA	Water	3535	
MB 320-195170/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-195170/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-195170/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 195549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-127327-1	MW-28	Total/NA	Water	537 (modified)	195170
480-127327-2	MW-27	Total/NA	Water	537 (modified)	195170
480-127327-3	IW-02	Total/NA	Water	537 (modified)	195170
480-127327-4	DUP-02	Total/NA	Water	537 (modified)	195170
480-127327-5	MW-13	Total/NA	Water	537 (modified)	195170
480-127327-6	MW-3	Total/NA	Water	537 (modified)	195170
480-127327-7	MW-21D	Total/NA	Water	537 (modified)	195170
480-127327-8	IW-01S	Total/NA	Water	537 (modified)	195170
480-127327-9	MW-26	Total/NA	Water	537 (modified)	195170
480-127327-10	MW-25S	Total/NA	Water	537 (modified)	195170
480-127327-11	IW-01D	Total/NA	Water	537 (modified)	195170
MB 320-195170/1-A	Method Blank	Total/NA	Water	537 (modified)	195170
LCS 320-195170/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	195170
LCSD 320-195170/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	195170

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Client Sample ID: MW-28
Date Collected: 11/07/17 09:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		200	475277	11/12/17 12:36	AK1	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 06:52	ABH	TAL SAC

Client Sample ID: MW-27
Date Collected: 11/07/17 10:30
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1000	474935	11/10/17 21:25	C1A	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 06:59	ABH	TAL SAC

Client Sample ID: IW-02
Date Collected: 11/07/17 12:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	474935	11/10/17 21:51	C1A	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 07:15	ABH	TAL SAC

Client Sample ID: DUP-02
Date Collected: 11/07/17 00:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1000	474935	11/10/17 22:17	C1A	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 07:23	ABH	TAL SAC

Client Sample ID: MW-13
Date Collected: 11/07/17 08:25
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	475086	11/11/17 10:14	AK1	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 07:31	ABH	TAL SAC

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Client Sample ID: MW-3
Date Collected: 11/07/17 09:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475086	11/11/17 05:34	AK1	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 07:39	ABH	TAL SAC

Client Sample ID: MW-21D
Date Collected: 11/07/17 10:55
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	475277	11/12/17 11:43	AK1	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 07:47	ABH	TAL SAC

Client Sample ID: IW-01S
Date Collected: 11/07/17 12:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 21:48	S1S	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 08:26	ABH	TAL SAC

Client Sample ID: MW-26
Date Collected: 11/07/17 14:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	475225	11/12/17 00:24	S1S	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 07:54	ABH	TAL SAC

Client Sample ID: MW-25S
Date Collected: 11/07/17 13:55
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475225	11/11/17 22:14	S1S	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 08:42	ABH	TAL SAC

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Client Sample ID: IW-01D

Date Collected: 11/06/17 16:35
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475387	11/13/17 11:49	S1S	TAL NSH
Total/NA	Prep	3535			195170	11/16/17 14:10	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	195549	11/18/17 08:58	ABH	TAL SAC

Client Sample ID: TRIP BLANKS

Date Collected: 11/07/17 00:00
Date Received: 11/09/17 09:30

Lab Sample ID: 480-127327-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	475086	11/11/17 03:01	AK1	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	01-01-18
Arizona	State Program	9	AZ0473	05-05-18
Arkansas DEQ	State Program	6	88-0737	04-25-18
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FL)/453.07(A2LA)	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	12-31-17
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18
New York	NELAP	2	11342	03-31-18
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-18
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-27-18
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-28-18
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18
Virginia	NELAP	3	460152	06-14-18
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-17

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17 *
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-28-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-127327-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-127327-1	MW-28	Water	11/07/17 09:00	11/09/17 09:30
480-127327-2	MW-27	Water	11/07/17 10:30	11/09/17 09:30
480-127327-3	IW-02	Water	11/07/17 12:00	11/09/17 09:30
480-127327-4	DUP-02	Water	11/07/17 00:00	11/09/17 09:30
480-127327-5	MW-13	Water	11/07/17 08:25	11/09/17 09:30
480-127327-6	MW-3	Water	11/07/17 09:35	11/09/17 09:30
480-127327-7	MW-21D	Water	11/07/17 10:55	11/09/17 09:30
480-127327-8	IW-01S	Water	11/07/17 12:35	11/09/17 09:30
480-127327-9	MW-26	Water	11/07/17 14:00	11/09/17 09:30
480-127327-10	MW-25S	Water	11/07/17 13:55	11/09/17 09:30
480-127327-11	IW-01D	Water	11/06/17 16:35	11/09/17 09:30
480-127327-12	TRIP BLANKS	Water	11/07/17 00:00	11/09/17 09:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica

Client Information	Sampler: Thomas J. Fussa	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.7
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: Page ~~7 of 10~~ 1 OF 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518)250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric A...
E - NaHS
F - MeO
G - Amc
H - Asc
I - Ice
J - DI W
K - EDT
L - EDA
M - Hexane
N - None
O - AsNaO2
...ahydrate
...ify)
Other: 480-127327 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
MW-28	11-7-17	0900	G	Water	N	N	X	X	5	
MW-27	11-7-17	1030	G	Water	N	N	X	X	5	
IW-02	11-7-17	1200	G	Water	N	N	X	X	5	
DUP-02	11-7-17	-	G	Water	N	N	X	X	5	
MW-13	11-7-17	0825	G	Water	N	N	X	X	5	
MW-3	11-7-17	0935	G	Water	N	N	X	X	5	
MW-21D	11-7-17	1055	G	Water	N	N	X	X	5	
IW-01S	11-7-17	1235	G	Water	N	N	X	X	5	
MW-26	11-7-17	1400	G	Water	N	N	X	X	5	
MW-25S	11-7-17	1355	G	Water	N	N	X	X	5	
IW-01D	11-10-17	1035	G	Water	N	N	X	X	5	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11-7-17 1500	Arcadis		11/7/17 1500	TA
2		11/8/17 1700	ARCADIS		11/9/17 0900	C
3		Date/Time:	Company		Date/Time:	Company

Custody Seals Intact: △ Yes △ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.2 IR

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: AT + ES	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.8
Client Contact: Aaron Bobar	Phone: (518) 396-7246	E-Mail: melissa.deyo@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
Trip Blanks	-	-	-	Water	N	N	X		2	
				Water						
				Water						
				Water						
				Water						
			11-7-17	Water						
				Water						
				Water						
				Water						
				Water						
				Water						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		11-7-17 1500			11/7/17 1500	
2		11/8/17 1700	TAN/C		11/9/17 0930	
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 7.2 #1

Ver: 08/04/2016

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Thomas 1 E. Suser	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.7
Client Contact: Aaron Bobar	Phone: (518) 396-7296	E-Mail: melissa.deyo@testamericainc.com		Page: ~~Page 7 of 10~~ 1 of 2
Company: ARCADIS U.S. Inc		**Analysis Requested**		Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

480-127327 Chain of Custody

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A	N		
MW-28	11-7-17	0900	G	Water	N	N	X	X	5	
MW-27	11-7-17	1030	G	Water	N	N	X	X	5	
IW-02	11-7-17	1200	G	Water	N	N	X	X	5	
DUP-02	11-7-17	—	G	Water	N	N	X	X	5	
MW-13	11-7-17	0825	G	Water	N	N	X	X	5	
MW-3	11-7-17	0935	G	Water	N	N	X	X	5	
MW-21D	11-7-17	1055	G	Water	N	N	X	X	5	
IW-01S	11-7-17	1235	G	Water	N	N	X	X	5	
MW-26	11-7-17	1400	G	Water	N	N	X	X	5	
MW-25S	11-7-17	1355	G	Water	N	N	X	X	5	
IW-01D	11-~~10~~-17	1635	G	Water	N	N	X	X	5	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 11-7-17 1500	Company: Arcadis	Received by: [signature]	Date/Time: 11/7/17 1500	Company: TA
Relinquished by: [signature]	Date/Time: 11/8 1700	Company: TA	Received by: [signature]	Date/Time: 11/9/17 0930	Company: TAWS
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: ~~4.2°~~ 5.9°C ice AL-2 11/9/17		

Ver: 08/04/2016

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: AT + ES	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-104070-24647.8
Client Contact: Aaron Bobar	Phone: (518) 396-7246	E-Mail: melissa.deyo@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S. Inc				Job #:
Address: 855 Route 146 Suite 210	Due Date Requested:			
City: Clifton Park	TAT Requested (days): Standard			
State, Zip: NY, 12065				
Phone: (518) 250-7300	PO #: 00266417.0000			
Email: aaron.bobar@arcadis-us.com	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site: Crown Dykman	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL Volatiles	PFC_IDA - PFAS, Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N		
Trip Blanks	-	-	-	Water	N	M	X		2	
				Water						
				Water						
				Water						
				Water						
			11-7-17	Water						
				Water						
				Water						
				Water						
				Water						
				Water						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	11-7-17 1500		[signature]	11/7/17 1500	
2	[signature]	11/8/17 930	DA	[signature]	11/9/17 930	TALS
3	Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: ~~4.2C~~ 5.9°C ice AL-2 11/9/17

Ver. 08/04/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

480-127327 Chain of Custody

COOLER RECEIPT F

Cooler Received/Opened On 11/10/17 0950

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 3769 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 1.5 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO..NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES..NO..NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES...NO..# es

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-127327

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L		COC No: 480-38760.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	New York	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York		Job #: 480-127327-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/21/2017			
City: Nashville	TAT Requested (days):			
State, Zip: TN, 37204				
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:			
Email:	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-28 (480-127327-1)	11/7/17	09:00 Eastern		Water			X	3	
MW-27 (480-127327-2)	11/7/17	10:30 Eastern		Water			X	3	
IW-02 (480-127327-3)	11/7/17	12:00 Eastern		Water			X	3	
DUP-02 (480-127327-4)	11/7/17	Eastern		Water			X	3	
MW-13 (480-127327-5)	11/7/17	08:25 Eastern		Water			X	3	
MW-3 (480-127327-6)	11/7/17	09:35 Eastern		Water			X	3	
MW-21D (480-127327-7)	11/7/17	10:55 Eastern		Water			X	3	
IW-01S (480-127327-8)	11/7/17	12:35 Eastern		Water			X	3	
MW-26 (480-127327-9)	11/7/17	14:00 Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 11/9/17 1700	Company		Received by:	Date/Time: 11-10-17 9:50	Company	
Relinquished by:	Date/Time:	Company		Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company		Received by:	Date/Time:	Company	
Custody Seals Intact:	Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:	1.5		

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-38760.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: melissa.deyo@testamericainc.com	State of Origin: New York	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York		Job #: 480-127327-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 11/21/2017			
City: Nashville	TAT Requested (days):			
State, Zip: TN, 37204				
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:			
Email:	WO #:			
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440			
Site:	SSOW#:			

Analysis Requested

Loc: 480
127327

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-25S (480-127327-10)	11/7/17	13:55 Eastern		Water			X	3	
IW-01D (480-127327-11)	11/6/17	16:35 Eastern		Water			X	3	
TRIP BLANKS (480-127327-12)	11/7/17	Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11/9/17 A00	[illegible]	[signature]	11-10-17 9:50	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5

Ver: 09/20/2016

11/24/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

Sa

480-127327 Field Sheet

Tracking # 7707 0550 9409

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Notes:

Therm. ID: AK-2 / AK-3 / HACCP /Other

Ice X Wet X Dry Other

Cooler Custody Seal: —

Sample Custody Seal: —

Cooler ID: PM 11/9/17

Temp: Observed 4.2c 5.9c Temp Blank

Corrected: 5.9c Found PM 11/9/17

From: Temp Blank ☒ Sample ☐

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: DH Date: 11/9/17

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

W163


ORIGIN ID:TSSA (212) 643-2367
ESTAMERICA NYC
11 W. 29TH STREET,
SUITE 904
NEW YORK, NY 10001
UNITED STATES US
SHIP DATE: 08NOV17
ACTWGT: 40.00 LB
CAD: 101905570/INET3920
DIMS: 26x18x16 IN
BILL THIRD PARTY
SAMPLE RECEIVING SAC
TESTAMERICA
880 RIVERSIDE PKWY
WEST SACRAMENTO CA 95605
(916) 373-5600
REF
DEPT
FedEx Express
THU - 09 NOV 3:00P
STANDARD OVERNIGHT
7707 0550 9409
95605
CA-US SMF
XH BLUA

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127327-1

Login Number: 127327
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	arcadis
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-127327-1

Login Number: 127327
List Number: 2
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento
List Creation: 11/09/17 02:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

1,4-Dioxane Screening;
April 2018
PRELIMINARY

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-133788-1
Client Project/Site: Crown Dykman - Glen Cove, NY

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Aaron Bobar

Authorized for release by:
4/11/2018 4:09:22 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-133788-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-133788-1

Receipt
The samples were received on 4/7/2018 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.0º C, 3.2º C and 3.4º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Client Sample ID: EB-01 — Lab Sample ID: 480-133788-1

No Detections.

Client Sample ID: EB-02 — Lab Sample ID: 480-133788-2

No Detections.

Client Sample ID: MW-14R-040518 — Lab Sample ID: 480-133788-3

No Detections.

Client Sample ID: DUP-01-040518 — Lab Sample ID: 480-133788-4

No Detections.

Client Sample ID: MW-3-040518 — Lab Sample ID: 480-133788-5

No Detections.

Client Sample ID: MW-4R-040518 — Lab Sample ID: 480-133788-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.38		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: MW-18-040518 — Lab Sample ID: 480-133788-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.51		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: MW-11-040518 — Lab Sample ID: 480-133788-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.29		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: MW-1D-040518 — Lab Sample ID: 480-133788-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.69		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: MW-2-040518 — Lab Sample ID: 480-133788-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.13	J	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: MW-7-040518 — Lab Sample ID: 480-133788-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.33		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: EB-01

Lab Sample ID: 480-133788-1

Date Collected: 04/05/18 08:32

Matrix: Water

Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 19:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 110*	*04/09/18 14:12*	*04/10/18 19:10*	*1*

Client Sample ID: EB-02

Lab Sample ID: 480-133788-2

Date Collected: 04/05/18 08:30

Matrix: Water

Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 19:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*42*		*15 - 110*	*04/09/18 14:12*	*04/10/18 19:33*	*1*

Client Sample ID: MW-14R-040518

Lab Sample ID: 480-133788-3

Date Collected: 04/05/18 10:22

Matrix: Water

Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 19:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*33*		*15 - 110*	*04/09/18 14:12*	*04/10/18 19:57*	*1*

Client Sample ID: DUP-01-040518

Lab Sample ID: 480-133788-4

Date Collected: 04/05/18 00:00

Matrix: Water

Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 20:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*28*		*15 - 110*	*04/09/18 14:12*	*04/10/18 20:21*	*1*

Client Sample ID: MW-3-040518

Lab Sample ID: 480-133788-5

Date Collected: 04/05/18 11:05

Matrix: Water

Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 20:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*39*		*15 - 110*	*04/09/18 14:12*	*04/10/18 20:45*	*1*

Client Sample ID: MW-4R-040518

Lab Sample ID: 480-133788-6

Date Collected: 04/05/18 09:50
Matrix: Water
Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.38		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 15:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*43*		*15 - 110*	*04/09/18 14:12*	*04/10/18 15:35*	*1*

Client Sample ID: MW-18-040518

Lab Sample ID: 480-133788-7

Date Collected: 04/05/18 11:50
Matrix: Water
Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.51		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 21:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*32*		*15 - 110*	*04/09/18 14:12*	*04/10/18 21:08*	*1*

Client Sample ID: MW-11-040518

Lab Sample ID: 480-133788-8

Date Collected: 04/05/18 12:20
Matrix: Water
Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.29		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 21:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*04/09/18 14:12*	*04/10/18 21:32*	*1*

Client Sample ID: MW-1D-040518

Lab Sample ID: 480-133788-9

Date Collected: 04/05/18 13:20
Matrix: Water
Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.69		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 21:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*04/09/18 14:12*	*04/10/18 21:57*	*1*

Client Sample ID: MW-2-040518

Lab Sample ID: 480-133788-10

Date Collected: 04/05/18 13:35
Matrix: Water
Date Received: 04/07/18 09:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.13	J	0.20	0.10	ug/L		04/09/18 14:12	04/10/18 22:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*46*		*15 - 110*	*04/09/18 14:12*	*04/10/18 22:21*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Client Sample ID: MW-7-040518
Date Collected: 04/05/18 14:12
Date Received: 04/07/18 09:00

Lab Sample ID: 480-133788-11
Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.33		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 22:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*46*		*15 - 110*	*04/09/18 14:12*	*04/10/18 22:46*	*1*

Isotope Dilution Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DXE (15-110)							
480-133788-1	EB-01	40							
480-133788-2	EB-02	42							
480-133788-3	MW-14R-040518	33							
480-133788-4	DUP-01-040518	28							
480-133788-5	MW-3-040518	39							
480-133788-6	MW-4R-040518	43							
480-133788-6 MS	MW-4R-040518	37							
480-133788-6 MSD	MW-4R-040518	31							
480-133788-7	MW-18-040518	32							
480-133788-8	MW-11-040518	30							
480-133788-9	MW-1D-040518	30							
480-133788-10	MW-2-040518	46							
480-133788-11	MW-7-040518	46							
LCS 480-407858/2-A	Lab Control Sample	43							
MB 480-407858/1-A	Method Blank	52							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-407858/1-A
Matrix: Water
Analysis Batch: 408032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 407858

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/09/18 14:12	04/10/18 13:58	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*52*		*15 - 110*	*04/09/18 14:12*	*04/10/18 13:58*	*1*

Lab Sample ID: LCS 480-407858/2-A
Matrix: Water
Analysis Batch: 408032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 407858

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	1.00	1.05		ug/L		105	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*43*		*15 - 110*

Lab Sample ID: 480-133788-6 MS
Matrix: Water
Analysis Batch: 408032

Client Sample ID: MW-4R-040518
Prep Type: Total/NA
Prep Batch: 407858

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	0.38		1.00	1.44	E	ug/L		105	40 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*37*		*15 - 110*

Lab Sample ID: 480-133788-6 MSD
Matrix: Water
Analysis Batch: 408032

Client Sample ID: MW-4R-040518
Prep Type: Total/NA
Prep Batch: 407858

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.38		1.00	1.48	E	ug/L		109	40 - 140	3	20

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*31*		*15 - 110*

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

GC/MS Semi VOA

Prep Batch: 407858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133788-1	EB-01	Total/NA	Water	3510C	
480-133788-2	EB-02	Total/NA	Water	3510C	
480-133788-3	MW-14R-040518	Total/NA	Water	3510C	
480-133788-4	DUP-01-040518	Total/NA	Water	3510C	
480-133788-5	MW-3-040518	Total/NA	Water	3510C	
480-133788-6	MW-4R-040518	Total/NA	Water	3510C	
480-133788-7	MW-18-040518	Total/NA	Water	3510C	
480-133788-8	MW-11-040518	Total/NA	Water	3510C	
480-133788-9	MW-1D-040518	Total/NA	Water	3510C	
480-133788-10	MW-2-040518	Total/NA	Water	3510C	
480-133788-11	MW-7-040518	Total/NA	Water	3510C	
MB 480-407858/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-407858/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-133788-6 MS	MW-4R-040518	Total/NA	Water	3510C	
480-133788-6 MSD	MW-4R-040518	Total/NA	Water	3510C	

Analysis Batch: 408032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133788-1	EB-01	Total/NA	Water	8270D SIM ID	407858
480-133788-2	EB-02	Total/NA	Water	8270D SIM ID	407858
480-133788-3	MW-14R-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-4	DUP-01-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-5	MW-3-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-6	MW-4R-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-7	MW-18-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-8	MW-11-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-9	MW-1D-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-10	MW-2-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-11	MW-7-040518	Total/NA	Water	8270D SIM ID	407858
MB 480-407858/1-A	Method Blank	Total/NA	Water	8270D SIM ID	407858
LCS 480-407858/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	407858
480-133788-6 MS	MW-4R-040518	Total/NA	Water	8270D SIM ID	407858
480-133788-6 MSD	MW-4R-040518	Total/NA	Water	8270D SIM ID	407858

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Client Sample ID: EB-01
Lab Sample ID: 480-133788-1
Date Collected: 04/05/18 08:32
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 19:10	DMR	TAL BUF

Client Sample ID: EB-02
Lab Sample ID: 480-133788-2
Date Collected: 04/05/18 08:30
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 19:33	DMR	TAL BUF

Client Sample ID: MW-14R-040518
Lab Sample ID: 480-133788-3
Date Collected: 04/05/18 10:22
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 19:57	DMR	TAL BUF

Client Sample ID: DUP-01-040518
Lab Sample ID: 480-133788-4
Date Collected: 04/05/18 00:00
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 20:21	DMR	TAL BUF

Client Sample ID: MW-3-040518
Lab Sample ID: 480-133788-5
Date Collected: 04/05/18 11:05
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 20:45	DMR	TAL BUF

Client Sample ID: MW-4R-040518
Lab Sample ID: 480-133788-6
Date Collected: 04/05/18 09:50
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 15:35	DMR	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Client Sample ID: MW-18-040518

Lab Sample ID: 480-133788-7

Date Collected: 04/05/18 11:50
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 21:08	DMR	TAL BUF

Client Sample ID: MW-11-040518

Lab Sample ID: 480-133788-8

Date Collected: 04/05/18 12:20
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 21:32	DMR	TAL BUF

Client Sample ID: MW-1D-040518

Lab Sample ID: 480-133788-9

Date Collected: 04/05/18 13:20
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 21:57	DMR	TAL BUF

Client Sample ID: MW-2-040518

Lab Sample ID: 480-133788-10

Date Collected: 04/05/18 13:35
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 22:21	DMR	TAL BUF

Client Sample ID: MW-7-040518

Lab Sample ID: 480-133788-11

Date Collected: 04/05/18 14:12
Matrix: Water
Date Received: 04/07/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			407858	04/09/18 14:12	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	408032	04/10/18 22:46	DMR	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Crown Dykman - Glen Cove, NY

TestAmerica Job ID: 480-133788-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-133788-1	EB-01	Water	04/05/18 08:32	04/07/18 09:00
480-133788-2	EB-02	Water	04/05/18 08:30	04/07/18 09:00
480-133788-3	MW-14R-040518	Water	04/05/18 10:22	04/07/18 09:00
480-133788-4	DUP-01-040518	Water	04/05/18 00:00	04/07/18 09:00
480-133788-5	MW-3-040518	Water	04/05/18 11:05	04/07/18 09:00
480-133788-6	MW-4R-040518	Water	04/05/18 09:50	04/07/18 09:00
480-133788-7	MW-18-040518	Water	04/05/18 11:50	04/07/18 09:00
480-133788-8	MW-11-040518	Water	04/05/18 12:20	04/07/18 09:00
480-133788-9	MW-1D-040518	Water	04/05/18 13:20	04/07/18 09:00
480-133788-10	MW-2-040518	Water	04/05/18 13:35	04/07/18 09:00
480-133788-11	MW-7-040518	Water	04/05/18 14:12	04/07/18 09:00

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

460501
NYSC

TestA

480-133788 COC

Client Information	Sampler: Thomas - ESousa	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-111376-258
Client Contact: Aaron Bobar	Phone: (518) 250-7300	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1
Company: ARCADIS U.S. Inc				Job #:

Address: 855 Route 146 Suite 210	Due Date Requested:	Analysis Requested
City: Clifton Park	TAT Requested (days): 3 days	
State, Zip: NY, 12065		
Phone: (518) 250-7300	PO #: 00266417.0000	
Email: aaron.bobar@arcadis-us.com	WO #:	
Project Name: Crown Dykman - Glen Cove, NY	Project #: 48008440	
Site: Crown Dykman	SSOW#:	

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
EB-01	4-5-18	0832	G	Water	N	N	X	2	
EB-02	4-5-18	0830	G	Water	N	N	X	2	
MW-14R-040518	4-5-18	1022	G	Water	N	N	X	2	
DUP-01-040518	4-5-18	—	G	Water	N	N	X	2	
MW-3-040518	4-5-18	1105	G	Water	N	N	X	2	
MW-4R-040518	4-5-18	0950	G	Water	N	Y	X	6	MS/MSD
MW-18-040518	4-5-18	1150	G	Water	N	N	X	2	
MW-11-040518	4-5-18	1220	G	Water	N	N	X	2	
MW-1D-040518	4-5-18	1320	G	Water	N	N	X	2	
MW-2-040518	4-5-18	1335	G	Water	N	N	X	2	
MW-7-040518	4-5-18	1412	G	Water	N	N	X	2	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		4-5-18 / 15:11	Arcadis		04/5/18 / 15:10	
2		4/5/18 19:50			4/5/18	TAEDI
3		4/6/18 1800	TAEDI		4/7/18 0900	TAB

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 3.2, 3.4, 3.0

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-133788-1

Login Number: 133788

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

APPENDIX F

Gamma Logs – Radiological Site Screening

TABLE 8
Summary of Subsurface Gamma Screening Results

Downhole Gamma Scanning

Crown Dykman (Site # 130054) RAD-1

Project No.: 00266417.0000 **Site Location:** Glen Cove, NY

Probe: Ludlum 44-62 #165709 **Data Logger** Ludlum 2350 #105641

Field Crew: Anna Duewiger, Les Skoski **Date** 10/31/2017

	DEPTH	GAMMA COUNTS	DEPTH	GAMMA COUNTS
	Feet	(ctns in 30 sec)	Feet	(ctns in 30 sec)
30 SECOND	Surface	246		
COUNTS		434		
	1	668	13	739
		762		710
	2	831	14	705
		901		807
NEED AT	3	812 / 770	15	846
LEAST ONE		826		801
DUPLICATE	4	749	16	715
READING		587		683
	5	457	17	676
		494		752
	6	528	18	774
		600		793
	7	608	19	794
		681		862
	8	814	20	892
		843		
	9	825	21	
		800		
	10	736	22	
		597		
	11	640	23	
		662		
	12	650 / 612	24	
		706		

Comments: Well RAD-1, DTB and DTW are from the ground surface

Stickup is ~3 feet

Depth to Bottom 20.39 **Depth to Water** 20.38

TABLE 8
Summary of Subsurface Gamma Screening Results

Downhole Gamma Scanning

Crown Dykman (Site # 130054) RAD-2

Project No.: 00266417.0000 **Site Location:** Glen Cove, NY

Probe: Ludlum 44-62 #165709 **Data Logger** Ludlum 2350 #105641

Field Crew: Anna Duewiger, Les Skoski **Date** 10/31/2017

	DEPTH	GAMMA COUNTS	DEPTH	GAMMA COUNTS
	Feet	(ctns in 30 sec)	Feet	(ctns in 30 sec)
30 SECOND	Surface	284		
COUNTS		704		
	1	812	13	173
		847		163
	2	875	14	187
		800		203
NEED AT	3	799 / 701	15	122
LEAST ONE		772		161
DUPLICATE	4	694	16	155
READING		623		175
	5	521	17	141
		553		127
	6	425	18	182
		354		160
	7	271 / 247	19	179
		203		156
	8	203	20	128
		191		
	9	191	21	
		191		
	10	217	22	
		193		
	11	209	23	
		206		
	12	229	24	
		200		

Comments: Well RAD-2, DTB and DTW are from the ground surface

Stickup is ~3 feet

Depth to Bottom 20.09 **Depth to Water** 19.32

Arcadis CE, Inc.

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