# City of Portsmouth

*Department of Public Works*

## Portsmouth Water System
## PFC Sampling Update
## Updated: November 7, 2017

Per- and polyfluoroalkyl substances (PFAS) are a diverse group of compounds resistant to heat, water, and oil. For decades, they have been used in hundreds of industrial applications and consumer products such as carpeting, apparels, upholstery, food paper wrappings, fire-fighting foams and metal plating. In May, 2014, the City of Portsmouth was contacted by the New Hampshire Department of Environmental Services the samples from the Haven Well, part of the Pease Tradeport drinking water system, had a PFAS compound – PFOS – that exceeded the drinking water health advisory at that time. The well was immediately shut down.

The Air Force's engineering consultant has been performing frequent routine sampling of the water supply wells in the system near the Haven Well for PFAS compounds (also referred to as PFCs). Prior to the installation of activated carbon filters for the Smith and Harrison Wells (Pease Wells), the Smith Well was sampled weekly and the Harrison Well was sampled every two weeks while the Portsmouth and Collins wells were sampled monthly. In addition to the water supply wells, the Air Force's consultant samples other monitoring wells in the surrounding area to track any potential migration of PFAS to the aquifer that may be moving toward the supply wells. To date, PFAS levels in the wells have remained consistent and all detected levels of PFOS and PFOA in the currently operating supply wells remain below the EPA's current health advisory standard of 70 parts per trillion. The newly-installed activated carbon treatment system for the Harrison and Smith wells is also sampled, utilizing the same laboratory as the Air Force's consultant uses to provide consistency. Data provided by the Air Force is updated on the City's website once it has been validated by the laboratory and provided to the City by the Air Force's consultant. The data from the carbon treatment system will be updated periodically.

All of the Portsmouth water sources were sampled for PFAS in May 2014 by the New Hampshire Department of Environmental Services (NHDES). Samples were also taken in two locations of the City's water distribution system (one at the DPW on Peverly Hill Road and another at the meter pit in New Castle). All of the Portsmouth water sources were also sampled as part of the USEPA's third Unregulated Contaminant Monitoring Rule (UCMR 3). Four rounds of UCMR3 sampling were performed between July 2014 and April 2015. Those sample results were below the laboratory's reporting limit for all PFAS.

In June 2016 the NHDES sent out a request to all community and other non-transient water systems to voluntarily collect a water sample for PFOA and PFOS and share the results with NHDES. They also recommended that a lab certified or accredited to complete EPA Method 537 with detection limits of at least 5 nanograms per liter (parts-per-trillion or ppt) be utilized. Following this request Portsmouth water operations staff sampled for PFAS. A second round of sampling was performed in November 2016. The following tables summarize those results:

**2016 PFAS - Portsmouth Water Supply Wells**
**(in Parts Per Trillion or ppt)**

| PFAS | Portsmouth #1 Well | Collins Well | Greenland Well |
|---|---|---|---|
| ***# of samples analyzed in 2016:*** | *11* | *12* | *3* |
| **Perfluorobutanesulfonic acid (PFBS)** | **3** | **6** | **3** |
| **Perfluoroheptanoic acid (PFHpA)** | *ND* | *ND* | *ND* |
| **Perfluorohexanesulfonic acid (PFHxS)** | **9** | **5** | **6** |
| **Perfluorohexanoic acid (PFHxA)** | **4** | *ND* | *ND* |
| **Perfluorooctanesulfonic acid (PFOS)** | **5** | **5** | **9** |
| **Perfluorooctanoic acid (PFOA)** | **6** | *ND* | *ND* |
| **Perfluoropentanoic acid (PFPeA)** | **6** | *ND* | **6** |
| **PFOS+PFOA** | **11** | **5** | **9** |

**All Sample results had Non Detections for 16 compounds:**
6:2 FTS, 8:2 FTS, EtFOSA, EtFOSE, MeFOSA, MeFOSE, PFBA, PFDS, PFDA, PFDoA, PFHpS, PFNA, PFOSA, PFTeDA, PFTrDA, PFUdA

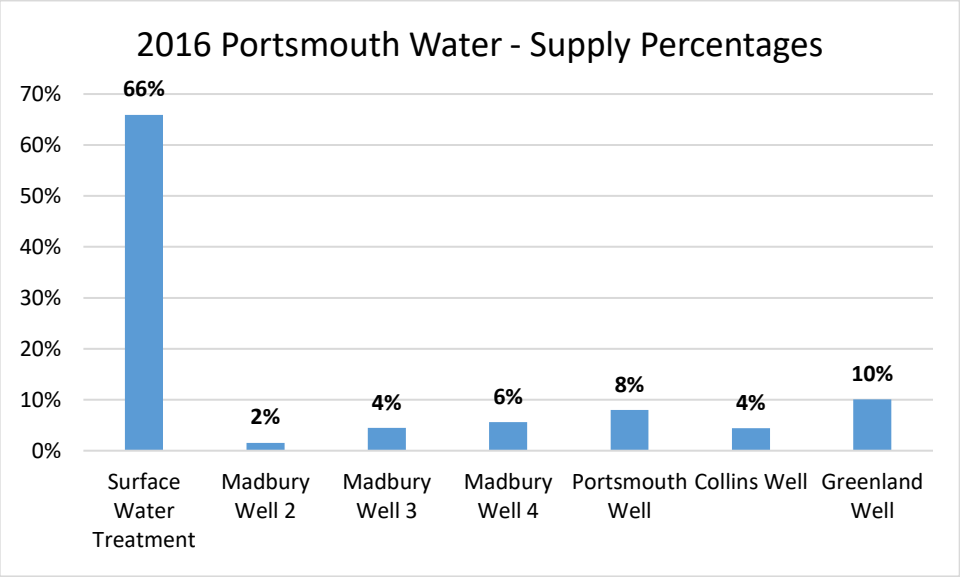
**2016 PFAS – Madbury Surface Water, Treatment and Wells**
**(in Parts Per Trillion – ppt)**

| PFAS | Reservoir | Treated Water | Madbury Well 2 | Madbury Well 3 | Madbury Well 4 |
|---|---|---|---|---|---|
| ***# of samples in 2017:*** | *2* | *1* | *1* | *2* | *1* |
| **Perfluorobutanesulfonic acid (PFBS)** | **2** | *ND* | **4** | *ND* | **4** |
| **Perfluorohexanesulfonic acid (PFHxS)** | *ND* | *ND* | **4** | *ND* | *ND* |
| **PFOS+PFOA** | ***ND*** | ***ND*** | ***ND*** | ***ND*** | ***ND*** |

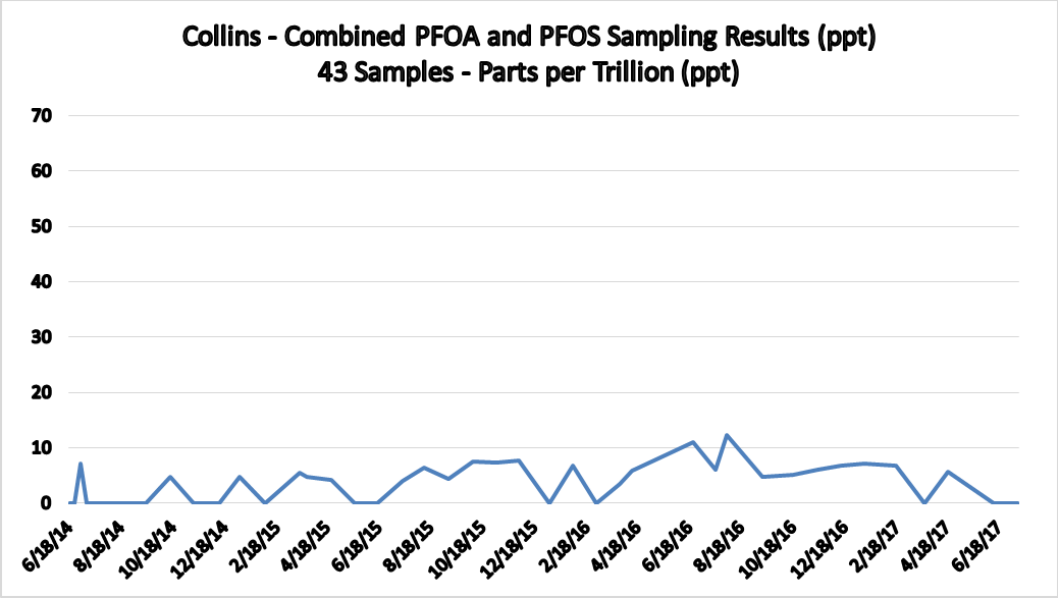
**Sample results had Non Detections for 21 compounds:**
6:2 FTS, 8:2 FTS, EtFOSA, EtFOSE, MeFOSA, MeFOSE, PFBA, PFDS, PFDA, PFDoA, PFHpS, PFHpA, PFHxA, PFOA, PFNA, PFOSA, PFOS, PFPeA, PFTeDA, PFTrDA, PFUdA

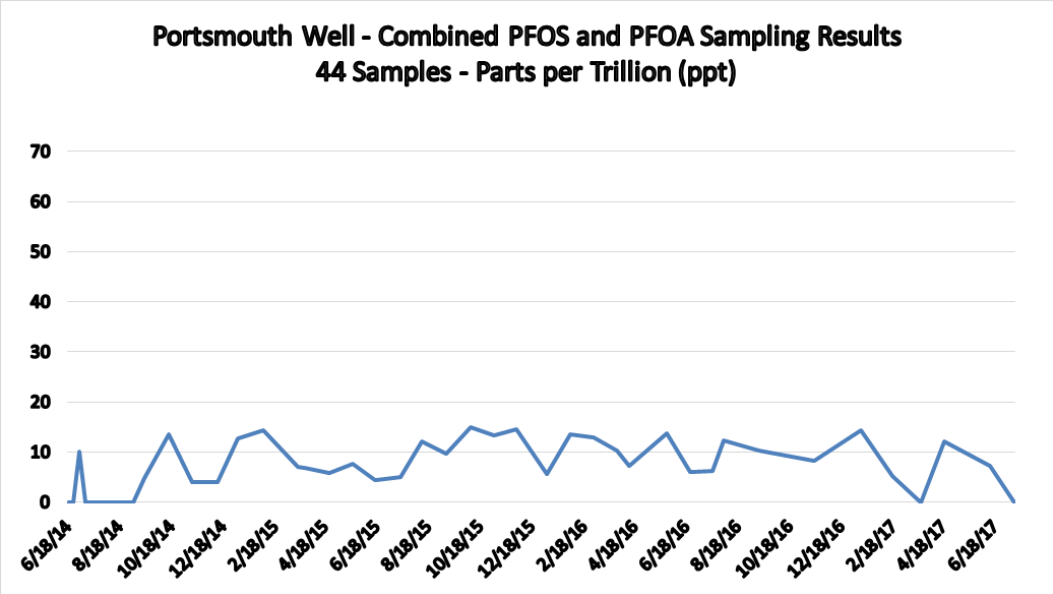
2016 PFAS averages were calculated with all sample results. Many of these compounds were below the analytical method detection limit for at least one of the sample events. Where PFAS compounds were not detected in the sample, half of the method detection limit was used for calculating the average, per USEPA protocols for risk assessment calculations. This method is different than the method used for the data published in the 2016 Annual Water Quality Report. The averages in that report did not include representation of the non-detect data, thus averages were skewed to higher than actual values.

The following graphic shows the percentage of water supply from each of the Portsmouth Water System supply sources for 2016.




As previously mentioned, the Portsmouth and Collins wells are sampled monthly by the Air Force as part of the Pease PFAS water quality monitoring program. Though there are detections, they are less than what we see in the Harrison and Smith wells. To date, the Air Force's consultant's analysis of this data show no increasing trend in PFAS concentrations. The following graphs show the sampling trends for PFOA/PFOS results for the Portsmouth and Collins Wells:






It should be noted that both the Air Force's engineering consultant and the City of Portsmouth are sampling for more PFAS parameters than most other water systems. The Unregulated Contaminant Monitoring that took place across the country in 2014 and 2015 (which the City's water system participated in) only required sampling for six parameters – PFOS, PFOA, PFBS, PFHxS, PFHpA, and PFNA. When the Haven Well contamination was discovered in 2014, DES recommended that the Air Force sample for more compounds than the UCMR required. It was also recommended that a lab capable of sampling at lower levels be utilized. At the time, there were only two labs that could do this type of analysis, Maxxam was one of them and they were selected and have been used for sampling ever since. The DES has been very proactive with this issue and they put out a recommendation and request to all public drinking water systems that they re-sample their water sources utilizing methods that detect PFAS compounds more precise laboratory method than when many drinking water systems in the U.S. sampled for PFAS compounds in 2014-2015. Water systems that had no detections utilizing the UCMR methods at that time now have detections - Dover, Rye, Hampton (Aquarion), Portsmouth and many other water systems in New Hampshire. Detailed information on this sampling can be accessed at the DES website:

https://www4.des.state.nh.us/nh-pfas-investigation/

As for the tap sampling, we have on occasion sampled for PFAS at the tap. Samples were taken last year in June at two of our DES sample sites, one on Sagamore Road and the other at the Portsmouth Library using the same sample method and laboratory (Maxxam) as the Air Force's consultant uses (to be consistent). Results for PFOA and PFOS were non-detect. Five other compounds were detected at low levels in the tap samples collected in 2016: PFBS, PFHpS, PFPeA, PFTeDA, and PFTrDA. The level of these compounds at the taps were equivalent to the sources that served the sample location, with the exception of PFHpS which was not detected at any of the sources, thus likely associated with the facility plumbing or a laboratory analysis issue. The results of these compounds were all estimated by the lab and are near the limits of the lab's ability to detect. We do not intend to continue twice a year sampling at the tap locations

based on the confirmation last year in the field. We will continue twice a year sampling of PFAS at all of our source waters. A copy of all the sample results is included at the end of this update.

The NHDES has stated that because of the widespread use of PFAS it is not unusual to find these compounds in groundwater and surface water throughout the nation anywhere samples are analyzed at the part per trillion level. The recent voluntary sampling of public water systems in New Hampshire shows detected PFAS in multiple drinking water systems, including those that previously had no detections utilizing the UCMR3 methods. Additional information on New Hampshire public drinking water sampling for PFAS can be accessed at the NHDES website: http://des.nh.gov/organization/commissioner/pfoa.htm

**Health Advisory Levels**

In May 2016, the EPA set a Lifetime Health Advisory Level of 70 ppt for PFOS and PFOA. According to EPA information these health advisory levels were calculated to offer a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to these contaminants in drinking water. In order to assure compliance with the newly adopted health standard, the City of Portsmouth's water division will continue to monitor for PFAS in all water sources twice a year. The Air Force will continue with monthly sampling of the Portsmouth, Collins, Harrison and Smith wells.

| Sample Location | Sample ID | Collection Date | Sampled By | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 8:2 Fluorotelomer sulfonate (8:2 FTS) | N-Ethyl perfluorooctane sulfonamide (EtFOSA) | N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | N-Methyl Perfluorooctane Sulfonamide (MEFOSA) | N-Methyl Perfluorooctane Sulfonamidoethanol (MEFOSE) | Perfluorobutanesulfonic acid (PFBS) | Perfluorobutanoic acid (PFBA) | Perfluorodecane sulfonate (PFDS) | Perfluorodecanoic acid (PFDA) | Perfluorododecanoic acid (PFDoA) | Perfluoroheptane sulfonate (PFHpS) | Perfluoroheptanoic acid (PFHpA) | Perfluorohexanesulfonic acid (PFHxS) | Perfluorohexanoic acid (PFHxA) | Perfluorononanoic acid (PFNA) | Perfluorooctane sulfonamide (PFOSA) | Perfluorooctanesulfonic acid (PFOS) | Perfluorooctanoic acid (PFOA) | Perfluoropentanoic acid (PFPeA) | Perfluorotetradecanoic acid (PFTeDA) | Perfluorotridecanoic acid (PFTrDA) | Perfluoroundecanoic acid (PFUnA) | PFOS+PFOA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **USEPA Health Advisory (HA):** | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.070 | 0.070 | - | - | - | - | 0.070 |
| Collins Well | Collins | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | Collins-06182014 | 18-Jun-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | 0.0028 J | ND | ND | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | DW-DUP-06182014 (D) | 18-Jun-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | ND | ND | ND | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS-06252014 | 25-Jun-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | ND | ND | ND | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS-07022014 | 02-Jul-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | 0.0056 J | ND | ND | ND | NA | ND | ND | ND | ND | ND | 0.0072 J | ND | 0.0032 J | ND | ND | ND | 0.007 |
| | COLLINS-07092014 | 09-Jul-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | ND | ND | ND | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS-07162014 | 16-Jul-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0045 J | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_07242014 | 24-Jul-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_08062014 | 06-Aug-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_08212014 | 21-Aug-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_09042014 | 04-Sep-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_09172014 | 17-Sep-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_10162014 | 16-Oct-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0038 J | ND | ND | ND | 0.0048 J | ND | 0.0044 J | ND | ND | 0.005 |
| | COLLINS_11122014 | 12-Nov-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_12122014 | 12-Dec-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_01052015 | 05-Jan-15 | AMEC | ND | ND | ND | ND | 0.0032 J | ND | ND | 0.0035 B | 0.0043 J | ND | ND | ND | 0.0062 J | ND | ND | ND | ND | ND | ND | 0.0047 J | ND | 0.0035 J | ND | ND | 0.005 |
| | COLLINS_02042015 | 04-Feb-15 | AMEC | ND | ND | 0.0091 J | ND | ND | ND | ND | 0.0031 J | ND | ND | ND | ND | ND | ND | 0.0038 J | ND | ND | ND | ND | ND | ND | ND | ND | 0.0054 J | |
| | COLLINS_03172015 | 17-Mar-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0044 J | ND | ND | ND | ND | ND | 0.0054 J | ND | ND | ND | ND | ND | 0.005 |
| | COLLINS_03262015 | 26-Mar-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0047 B | ND | ND | ND | ND | ND | 0.005 |
| | COLLINS_04232015 | 23-Apr-15 | AMEC | ND | ND | ND | 0.0048 B | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0017 B | 0.0041 J | ND | ND | ND | ND | ND | 0.004 |
| | COLLINS_05212015 | 21-May-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_06162015 | 16-Jun-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0043 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0052 J | ND | ND | |
| | COLLINS_07162015 | 16-Jul-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0040 J | ND | ND | ND | ND | ND | 0.004 |
| | COLLINS_08112015 | 11-Aug-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0054 J | ND | ND | ND | ND | ND | ND | 0.0063 J | ND | 0.0077 J | ND | ND | ND | 0.006 |
| | COLLINS_09092015 | 09-Sep-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0044 J | ND | ND | ND | ND | ND | 0.004 |
| | COLLINS_10072015 | 07-Oct-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | 0.0063 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0074 J | ND | ND | ND | ND | ND | 0.007 |
| | COLLINS_11042015 | 04-Nov-15 | AMEC | ND | ND | ND | 0.0080 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0060 J | ND | ND | ND | 0.0073 J | ND | ND | 0.0094 J | ND | 0.0052 J | 0.007 |
| | COLLINS_12012015 | 01-Dec-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0066 J | ND | ND | ND | 0.0076 J | ND | ND | ND | ND | ND | 0.008 |
| | COLLINS_01062016 | 06-Jan-16 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0057 B | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_02022016 | 02-Feb-16 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0041 B | 0.0070 B | ND | ND | 0.0067 J | ND | ND | ND | ND | ND | 0.007 |
| | COLLINS_03012016 | 01-Mar-16 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0084 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS_03292016 | 29-Mar-16 | AMEC | ND | ND | ND | ND | ND | ND | 0.0050 J | 0.0077 J | ND | ND | ND | ND | ND | ND | 0.0051 B | ND | ND | ND | 0.0034 J | ND | ND | ND | ND | ND | 0.003 |
| | COLLINS-04122016 | 12-Apr-16 | AMEC | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | ND | ND | ND | 0.0055 B | 0.0073 B | ND | ND | 0.0058 B | ND | ND | NA | NA | NA | 0.006 |
| | COLLINS-GW_20160623 | 23-Jun-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0035 J | ND | NA | NA | NA | ND | ND | ND | 0.0042 J | 0.0050 J | ND | ND | 0.0054 J | 0.0055 J | 0.0069 J | NA | NA | NA | 0.011 |
| | COLLINS-GW_20160719 | 19-Jul-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0034 J | ND | NA | NA | NA | ND | ND | ND | 0.0058 J | ND | ND | ND | 0.0061 J | ND | 0.0055 J | NA | NA | NA | 0.006 |
| | COLLINS-GW_20160802 | 02-Aug-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0075 J | ND | NA | NA | NA | ND | ND | ND | 0.0054 J | 0.0057 J | ND | ND | 0.0052 J | 0.0071 J | 0.0085 J | NA | NA | NA | 0.012 |
| | COLLINS-GW_20160913 | 13-Sep-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0079 B | ND | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND | 0.0047 B | ND | ND | NA | NA | NA | 0.005 |
| | COLLINS-GW_20161019 | 19-Oct-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0100 J | ND | NA | NA | NA | ND | ND | ND | 0.0054 J | ND | ND | ND | 0.0051 J | ND | ND | NA | NA | NA | 0.005 |
| | COLLINS-GW_20161117 | 17-Nov-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0160 J | ND | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND | 0.0061 J | ND | ND | NA | NA | NA | 0.006 |
| | COLLINS_GW_20161214 | 14-Dec-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0150 J | ND | NA | NA | NA | ND | ND | ND | 0.0060 J | ND | ND | ND | 0.0067 J | ND | 0.0047 J | NA | NA | NA | 0.007 |
| | COLLINS-GW_20170111 | 11-Jan-17 | AMEC | ND | ND | NA | NA | NA | NA | 0.0200 J | ND | NA | NA | NA | ND | ND | ND | 0.0082 J | 0.0093 J | ND | ND | 0.0071 J | ND | ND | NA | NA | NA | 0.007 |
| | COLLINS-GW_20170217 | 17-Feb-17 | AMEC | ND | ND | NA | NA | NA | NA | 0.0130 J | ND | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND | 0.0068 J | ND | ND | NA | NA | NA | 0.007 |
| | COLLINS-GW_20170323 | 23-Mar-17 | AMEC | ND | ND | NA | NA | NA | NA | 0.0089 J | ND | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | |
| | COLLINS-GW_20170419 | 19-Apr-17 | AMEC | ND | ND | NA | NA | NA | NA | 0.0079 J | ND | NA | NA | NA | ND | ND | ND | 0.0042 J | ND | ND | ND | 0.0056 J | ND | ND | NA | NA | NA | 0.006 |
| | COLLINS-GW_20170612 | 12-Jun-17 | AMEC | ND | ND | ND | ND | ND | ND | 0.0100 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | COLLINS-GW_20170711 | 11-Jul-17 | AMEC | ND | ND | ND | ND | ND | ND | 0.0094 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0069 J | ND | ND | ND | |

| Sample Location | Sample ID | Collection Date | Sampled By | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 8:2 Fluorotelomer sulfonate (8:2 FTS) | N-Ethyl perfluorooctane sulfonamide (EtFOSA) | N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | N-Methyl Perfluorooctane Sulfonamide (MEFOSA) | N-Methyl Perfluorooctane Sulfonamidoethanol (MEFOSE) | Perfluorobutanesulfonic acid (PFBS) | Perfluorobutanoic acid (PFBA) | Perfluorodecane sulfonate (PFDS) | Perfluorodecanoic acid (PFDA) | Perfluorododecanoic acid (PFDoA) | Perfluoroheptane sulfonate (PFHpS) | Perfluoroheptanoic acid (PFHpA) | Perfluorohexanesulfonic acid (PFHxS) | Perfluorohexanoic acid (PFHxA) | Perfluorononanoic acid (PFNA) | Perfluorooctane sulfonamide (PFOSA) | Perfluorooctanesulfonic acid (PFOS) | Perfluorooctanoic acid (PFOA) | Perfluoropentanoic acid (PFPeA) | Perfluorotetradecanoic acid (PFTeDA) | Perfluorotridecanoic acid (PFTrDA) | Perfluoroundecanoic acid (PFUnA) | PFOS+PFOA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **USEPA Health Advisory (HA):** | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.070 | 0.070 | - | - | - | - | 0.070 |
| Portsmouth Well | Portsmouth | 20-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | Portsmouth-06182014 | 18-Jun-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | 0.0029 J | ND | ND | ND | NA | ND | 0.0058 J | ND | ND | ND | ND | ND | 0.0068 J | ND | ND | ND | |
| | DW-DUP-06252014 (D) | 25-Jun-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | ND | ND | ND | ND | NA | ND | 0.0044 J | ND | ND | ND | ND | ND | 0.0031 J | ND | ND | ND | |
| | PORTSMOUTH-06252014 | 25-Jun-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | ND | ND | ND | ND | NA | ND | 0.0051 J | ND | ND | ND | ND | ND | 0.0035 J | ND | ND | ND | |
| | PORTSMOUTH-07022014 | 02-Jul-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | 0.0058 J | ND | ND | ND | NA | ND | 0.0055 J | 0.0056 J | ND | 0.0025 J | 0.0100 J | ND | 0.0060 J | ND | ND | ND | 0.010 |
| | PORTSMOUTH-07092014 | 09-Jul-14 | AMEC | NA | NA | NA | NA | NA | NA | ND | 0.0024 J | ND | ND | ND | NA | ND | ND | 0.0029 J | ND | ND | ND | ND | ND | ND | ND | ND | |
| | PORTSMOUTH-07162014 | 16-Jul-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0070 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | DUP2_07242014 | 24-Jul-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0038 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | PORTSMOUTH_07242014 | 24-Jul-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0036 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | PORTSMOUTH_08062014 | 06-Aug-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0052 J | ND | ND | ND | ND | ND | 0.0032 J | ND | ND | ND | |
| | PORTSMOUTH_08212014 | 21-Aug-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0046 J | ND | ND | ND | ND | ND | 0.0045 J | ND | ND | ND | |
| | PORTSMOUTH_09042014 | 04-Sep-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0073 J | 0.0035 J | ND | ND | ND | ND | ND | ND | ND | ND | |
| | PORTSMOUTH_09172014 | 17-Sep-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0084 J | ND | ND | ND | 0.0049 J | ND | 0.0035 J | ND | ND | ND | 0.005 |
| | PORTSMOUTH_10162014 | 16-Oct-14 | AMEC | ND | ND | ND | ND | ND | ND | 0.0038 J | 0.0047 J | ND | ND | ND | ND | 0.0041 J | 0.0091 J | 0.0072 J | ND | ND | 0.0073 J | 0.0062 J | 0.0090 J | ND | ND | ND | 0.014 |
| | PORTSMOUTH_11122014 | 12-Nov-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0031 J | ND | ND | ND | 0.0039 J | ND | 0.0033 J | ND | ND | ND | 0.004 |
| | PORTSMOUTH_12122014 | 12-Dec-14 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0052 J | ND | ND | ND | 0.0039 J | ND | 0.0057 J | ND | ND | ND | 0.004 |
| | PORTSMOUTH_01052015 | 05-Jan-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | 0.0048 B | ND | ND | ND | 0.0060 J | ND | 0.0079 J | 0.0062 J | ND | ND | 0.0074 J | 0.0053 J | 0.0083 J | ND | ND | ND | 0.013 |
| | PORTSMOUTH_02042015 | 04-Feb-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | 0.0028 J | ND | ND | ND | ND | ND | 0.0076 J | 0.0056 J | ND | 0.0033 J | 0.0075 J | 0.0069 J | 0.0085 J | ND | ND | ND | 0.014 |
| | PORTSMOUTH_03172015 | 17-Mar-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0044 J | ND | ND | 0.0070 J | ND | 0.0063 J | ND | ND | ND | 0.007 |
| | PORTSMOUTH_03262015 | 26-Mar-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0052 J | ND | ND | 0.0068 B | ND | 0.0077 B | ND | ND | ND | 0.007 |
| | PORTSMOUTH_04232015 | 23-Apr-15 | AMEC | ND | ND | ND | 0.0045 B | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0019 B | 0.0059 J | ND | ND | ND | ND | ND | 0.006 |
| | PORTSMOUTH_05212015 | 21-May-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0032 J | ND | ND | 0.0076 J | ND | 0.0038 J | ND | ND | ND | 0.008 |
| | PORTSMOUTH_06162015 | 16-Jun-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0064 J | ND | ND | ND | 0.0045 J | ND | 0.0053 J | 0.0049 J | ND | ND | 0.005 |
| | PORTSMOUTH_07162015 | 16-Jul-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0050 J | ND | ND | ND | ND | ND | 0.005 |
| | PORTSMOUTH_08112015 | 11-Aug-15 | AMEC | ND | ND | ND | ND | ND | ND | 0.0049 J | ND | ND | ND | ND | ND | ND | 0.0075 J | 0.0049 J | ND | ND | 0.0070 J | 0.0051 J | 0.0089 J | ND | ND | ND | 0.012 |
| | PORTSMOUTH_09092015 | 09-Sep-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0075 J | ND | ND | ND | 0.0048 J | 0.0048 J | 0.0064 J | ND | ND | ND | 0.010 |
| | PORTSMOUTH_10072015 | 07-Oct-15 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0071 J | 0.0076 J | 0.0066 J | ND | ND | 0.0074 J | 0.0076 J | 0.0069 J | ND | ND | ND | 0.015 |
| | PORTSMOUTH_11042015 | 04-Nov-15 | AMEC | ND | ND | ND | ND | ND | ND | 0.0074 J | 0.0069 J | ND | ND | ND | ND | ND | 0.0085 J | 0.0071 J | ND | ND | 0.0064 J | 0.0070 J | 0.0110 J | ND | ND | ND | 0.013 |
| | PORTSMOUTH_12012015 | 01-Dec-15 | AMEC | ND | ND | ND | ND | ND | ND | 0.0068 J | 0.0100 J | ND | ND | ND | ND | 0.0053 J | 0.0110 J | 0.0082 J | ND | ND | 0.0077 J | 0.0069 J | 0.0058 J | ND | ND | ND | 0.015 |
| | PORTSMOUTH_01062016 | 06-Jan-16 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0057 J | 0.0098 B | 0.0068 J | ND | ND | ND | 0.0056 J | 0.0082 J | ND | ND | ND | 0.006 |
| | PORTSMOUTH_02022016 | 02-Feb-16 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0071 B | 0.0099 B | ND | ND | 0.0069 J | 0.0066 J | ND | ND | ND | ND | 0.014 |
| | PORTSMOUTH _03012016 | 01-Mar-16 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0082 J | 0.0120 J | ND | ND | ND | ND | 0.0130 J | ND | ND | ND | ND | 0.013 |
| | PORTSMOUTH_03292016 | 29-Mar-16 | AMEC | ND | ND | ND | ND | ND | ND | 0.0054 J | 0.0088 J | ND | ND | ND | ND | ND | 0.0087 B | ND | ND | ND | 0.0044 J | 0.0059 J | 0.0090 J | ND | ND | ND | 0.010 |
| | PORTSMOUTH-04122016 | 12-Apr-16 | AMEC | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | ND | 0.0052 J | 0.0100 B | 0.0089 B | ND | ND | 0.0072 B | ND | ND | NA | NA | NA | |
| | PORTSMOUTH-GW_20160526 | 26-May-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0058 J | 0.0078 J | NA | NA | NA | ND | ND | 0.0069 J | ND | ND | ND | 0.0068 J | 0.0069 J | 0.0049 J | NA | NA | NA | 0.014 |
| | PORTSMOUTH-GW_20160623 | 23-Jun-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0040 J | ND | NA | NA | NA | ND | ND | 0.0073 J | 0.0059 J | ND | ND | 0.0060 J | ND | 0.0066 J | NA | NA | NA | |
| | PORTSMOUTH-GW_20160719 | 19-Jul-16 | AMEC | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | ND | ND | 0.0087 J | 0.0061 J | ND | ND | 0.0062 J | ND | 0.0088 J | NA | NA | NA | |
| | PORTSMOUTH-GW_20160802 | 02-Aug-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0049 J | ND | NA | NA | NA | ND | ND | 0.0095 J | 0.0063 J | ND | ND | 0.0054 J | 0.0070 J | 0.0095 J | NA | NA | NA | 0.012 |
| | PORTSMOUTH-GW_20160913 | 13-Sep-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0032 B | ND | NA | NA | NA | ND | ND | 0.0063 B | ND | ND | ND | 0.0045 B | 0.0057 J | 0.0059 B | NA | NA | NA | 0.010 |
| | PORTSMOUTH-GW_20161117 | 17-Nov-16 | AMEC | ND | ND | NA | NA | NA | NA | 0.0025 J | ND | NA | NA | NA | ND | ND | 0.0090 J | ND | ND | ND | 0.0082 J | ND | 0.0092 J | NA | NA | NA | |
| | PORTSMOUTH-GW_20170111 | 11-Jan-17 | AMEC | ND | ND | NA | NA | NA | NA | 0.0084 J | ND | NA | NA | NA | ND | ND | 0.0110 J | 0.0120 J | ND | ND | 0.0084 J | 0.0059 J | 0.0076 J | NA | NA | NA | 0.014 |
| | PORTSMOUTH-GW_20170217 | 17-Feb-17 | AMEC | ND | ND | NA | NA | NA | NA | 0.0024 J | ND | NA | NA | NA | ND | ND | 0.0053 J | ND | ND | ND | ND | 0.0053 J | 0.0072 J | NA | NA | NA | 0.005 |
| | DUP-GW_20170323 | 23-Mar-17 | AMEC | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | 0.0032 J | NA | NA | NA | |
| | PORTSMOUTH-GW_20170323 | 23-Mar-17 | AMEC | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | 0.0032 J | NA | NA | NA | |
| | PORTSMOUTH-GW_20170419 | 19-Apr-17 | AMEC | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | ND | ND | 0.0095 J | ND | ND | ND | 0.0060 J | 0.0062 J | 0.0044 J | NA | NA | NA | 0.012 |
| | PORTSMOUTH-GW_20170612 | 12-Jun-17 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0038 J | ND | ND | ND | ND | 0.0072 J | ND | ND | ND | ND | 0.007 |
| | PORTSMOUTH-GW_20170711 | 11-Jul-17 | AMEC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0110 J | ND | ND | ND | ND | ND | 0.0071 J | ND | ND | ND | |

| Sample Location | Sample ID | Collection Date | Sampled By | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 8:2 Fluorotelomer sulfonate (8:2 FTS) | N-Ethyl perfluorooctane sulfonamide (EtFOSA) | N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | N-Methyl Perfluorooctane Sulfonamide (MEFOSA) | N-Methyl Perfluorooctane Sulfonamidoethanol (MEFOSE) | Perfluorobutanesulfonic acid (PFBS) | Perfluorobutanoic acid (PFBA) | Perfluorodecane sulfonate (PFDS) | Perfluorodecanoic acid (PFDA) | Perfluorododecanoic acid (PFDoA) | Perfluoroheptane sulfonate (PFHpS) | Perfluoroheptanoic acid (PFHpA) | Perfluorohexanesulfonic acid (PFHxS) | Perfluorohexanoic acid (PFHxA) | Perfluorononanoic acid (PFNA) | Perfluorooctane sulfonamide (PFOSA) | Perfluorooctanesulfonic acid (PFOS) | Perfluorooctanoic acid (PFOA) | Perfluoropentanoic acid (PFPeA) | Perfluorotetradecanoic acid (PFTeDA) | Perfluorotridecanoic acid (PFTrDA) | Perfluoroundecanoic acid (PFUnA) | PFOS+PFOA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **USEPA Health Advisory (HA):** | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.070 | 0.070 | - | - | - | - | 0.070 |
| **Bellamy Reservoir Source Water** | BELLAMY RAW | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | BELLAMY RESERVOIR - 20160609 | 09-Jun-16 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | BELLAMY RESERVOIR - 20161109 | 09-Nov-16 | DPW | ND | ND | ND | ND | ND | ND | 0.0038 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | BELLAMY RESERVOIR - 20170427 | 27-Apr-17 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| **Madbury Well 2** | MADBURY WELL 2 | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | MADBURY WELL 2_20161109 | 09-Nov-16 | DPW | ND | ND | ND | ND | ND | ND | 0.0038 J | ND | ND | ND | ND | ND | ND | 0.0042 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| **Madbury Well 3** | MADBURY WELL 3 | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | MADBURY WELL 3_20160609 | 09-Jun-16 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | MADBURY WELL 3_20160916 | 09-Nov-16 | DPW | ND | ND | ND | ND | ND | ND | 0.0037 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | MADBURY WELL 3_20170427 | 27-Apr-17 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| **Madbury Well 4** | MADBURY WELL 4 | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | MADBURY WELL 4_20161109 | 09-Nov-16 | DPW | ND | ND | ND | ND | ND | ND | 0.0038 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | MADBURY WELL 4_20170427 | 27-Apr-17 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| **Treatment Plant Finished Water** | MADBURY FINISHED_20161109 | 09-Nov-16 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | MADBURY FINISHED_20170427 | 27-Apr-17 | DPW | ND | ND | ND | ND | ND | ND | ND | 0.018 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| **Madbury Blend (treatment plant and wells)** | TREATMENT PLANT | 21-Jul-14 | DPW | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | MADBURY BLEND_20141027 | 27-Oct-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | MADBURY BLEND_20150210 | 10-Feb-15 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | MADBURY BLEND_20150407 | 07-Apr-15 | DPW | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | MADBURY BLEND_20160607 | 07-Jun-16 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0048 J | ND | ND | ND | ND | ND | ND | ND | 0.0058 J | 0.0097 J | ND | |
| **Greenland Well** | GREENLAND | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | GREENLAND WELL_20140721 | 21-Jul-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | GREENLAND WELL_20150210 | 10-Feb-15 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| | GREENLAND WELL_20160801 | 01-Aug-16 | DPW | ND | ND | ND | ND | ND | ND | 0.0033 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.007 J | ND | 0.0071 J | ND | ND | ND | 0.007 |
| | GREENLAND WELL_20161117 | 17-Nov-16 | DPW | 0.007 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0061 J | ND | ND | ND | 0.014 J | ND | 0.0046 J | ND | ND | ND | 0.014 |
| | GREENLAND WELL_20161117_RERUN | 17-Nov-16 | DPW | ND | ND | ND | ND | ND | ND | 0.0035 J | ND | ND | ND | ND | ND | ND | 0.0058 J | ND | ND | ND | 0.0065 J | ND | ND | ND | ND | ND | 0.007 |
| | GREENLAND WELL_20170427 | 27-Apr-17 | DPW | ND | ND | ND | ND | ND | ND | 0.0062 J | ND | ND | ND | ND | ND | ND | 0.006 J | 0.0033 J | ND | ND | 0.0037 J | ND | ND | ND | ND | ND | 0.004 |
| **DISTRIBUTION - TAP SAMPLING** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **DPW** | DPW | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| **New Castle** | NEW CASTLE | 16-May-14 | NHDES | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | ND | NA | ND | NA | ND | ND | NA | NA | NA | NA | |
| **Library** | LIBRARY | 07-Jun-16 | DPW | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0045 J | ND | ND | ND | ND | ND | ND | ND | 0.0065 J | 0.0056 J | 0.0093 J | ND | |
| **Sagamore Ave. Sample Site** | SAGAMORE AVE | 07-Jun-16 | DPW | ND | ND | ND | ND | ND | ND | 0.0052 J | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0079 J | 0.0054 J | 0.0092 J | ND | |

**Notes:**

**Grey text indicates the parameter was not analyzed (NA) or not detected below the laboratory detection limit (ND).**
**Grey highlight indicates the compound was not analyzed**
**All concentrations in µg/L - micrograms per liter**
**All values in micrograms per liter (µg/L)**

**D - duplicate sample**
**J - The result is an estimated value.**
**B - Compound Detected in Blank.**