

MassDEP Field Assessment and Support Team (FAST)

Evaluation of Cyclopure Water Test Kits for PFAS Analysis of Private Well Water

July 2026

Background

Over the past two years, MassDEP researchers have conducted a study to evaluate the performance of PFAS testing kits manufactured by Cyclopure, Inc. Specifically, we collected 22 split samples of private well water to compare results obtained from the “Water Test Kit Pro” (WTK) to results from EPA PFAS methods, and reviewed results from an additional 5 split samples collected by a private consultant. All samples were obtained from homes with private drinking water wells. This report presents the data obtained and reviewed, as well as our preliminary conclusions regarding the efficacy of WTKs and potential applications to screening and monitoring programs in Massachusetts.

EPA PFAS testing methods involve a solid-phase extraction (SPE) process to remove and trap target analytes from a water sample. Cyclopure WTKs contain a proprietary SPE sorbent called DEXSORB®, a novel cyclodextrin adsorbent. Available literature describes DEXSORB® as corn-based “cups” 0.78 nm in size that are engineered specifically to capture PFAS and other contaminants in the 150–1000 atomic mass unit range. Their size reportedly makes the material highly selective for PFAS, as opposed to organic matter, inorganic ions, and other constituents of water.¹

The WTK is ordered online; it is shipped and returned via mail at a (2026) cost of \$85 including all shipping costs, which is 1/3 the cost of a commercial laboratory test.² The kit consists of a 270 mL water collection cup with a built-in DEXSORB® SPE filter at the base of the cup (**Figure 1**). The user collects a sample by filling the cup with water and letting it drain through the SPE filter until the cup is empty (or mostly empty). This process takes 20-30 minutes.

If any water remains, the instructions state that the level of remaining water must be marked and the cup should be emptied. The cup/SPE filter is then returned to Cyclopure in its original shipping box via a provided prepaid UPS shipping label. The kit also includes an instruction booklet, card for sampling information, and a pair of disposable gloves.

PFAS is extracted from the DEXSORB® SPE filter in a

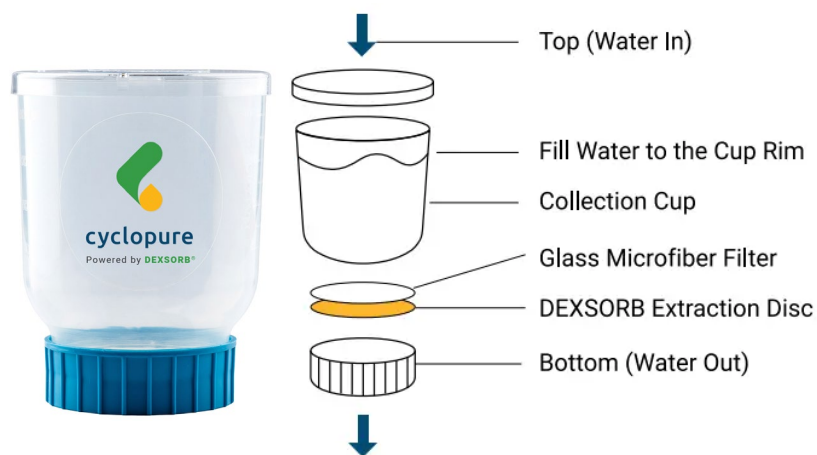


Figure 1. Photograph and diagram of WTK components (images adapted from the manufacturer’s website).

¹ Ling, Y. 2021. Novel beta-cyclodextrin polymer adsorbents for removal of PFAS from diverse water matrices. Emerging Contaminants in the Environment Conference, University of Illinois Urbana-Champaign. <https://hdl.handle.net/2142/109870>

² WTK and commercial laboratory costs are subject to change.

laboratory facility using a proprietary solvent, then analyzed to quantify the concentration of PFAS in the drinking water sample using HPLC-MS/MS with isotope dilution. The sample preparation steps do not follow conventional EPA methods for PFAS (e.g., Method 537.1, 533, or 1633), but the manufacturer's website states "Cyclopure's analytical methods are validated to the requirements of EPA Methods 533, 537, and 1633" and the "methodology follows EPA protocols for: Calibration, Internal standardization, [and] quality control and reporting limits."³ In conversations with MassDEP, Cyclopure engineers reported that the analysis is conducted using an LC-MS/MS instrument and isotopically labeled standards for 24 PFAS compounds. These standards are reportedly added to the SPE solvent extract.

A major deviation from EPA isotope dilution methods is the lack of extraction efficiency quantification or adjustment. EPA methods require addition of isotopically labeled standards directly to the drinking water sample; these standards then go through the same SPE process as PFAS in the sample. Any efficiency loss in the extraction process can thus be quantified and used to adjust the measured concentration of PFAS in the sample. When water samples are collected using WTKs, the SPE step occurs in the field when PFAS are loaded onto the DEXSORB® filter at the base of the collection cup. No standards are added at that time, and SPE efficiency cannot be quantified or corrected. The addition of standards to the DEXSORB® SPE solvent extract prior to analysis on an LC-MS/MS does allow for quantification of and correction for matrix effects and/or analytical and calibration issues during analysis.

Cyclopure analytical methods quantify 55 PFAS with a 1.0 ng/L reporting limit (RL). Cyclopure reports all 40 PFAS compounds in EPA Methods (1633, 533, and 537.1) along with: PFPrS, 10:2 FTS, FBSA, MeFBSA, FHxSA, FDSA, FOSAA, PFECHS, 8Cl-PFOS, FDUEA, FOUEA, 6:6PFPi, 8:8PFPi, N-AP-FHxSA. The analyte list for EPA Method 533 includes 25 compounds with a typical RL of 2.00 ng/L, and the analyte list for EPA Method 537.1 includes 18 compounds, also with a typical RL of 2.00 ng/L.

Of particular interest in all three methods are a group of 6 PFAS compounds ("PFAS6") for which the Commonwealth of Massachusetts has set drinking water and site cleanup standards: PFHpA, PFOA, PFNA, PFDA, PFHxS, and PFOS.

Sampling Effort

Twenty-two Cyclopure Water Test Kits were purchased by MassDEP researchers, through a contractor, to ensure that Cyclopure did not know that the kits were being obtained by a state agency. Split samples were then collected by MassDEP personnel from private drinking water wells known or suspected to be impacted by PFAS contaminants. Samples were collected from kitchen faucets (after at least 5 minutes of flushing) and treatment system sample ports (after flushing the valve and tubing). WTK samples were collected first by filling the sample collection cup to the brim, as specified in the instructions, and then allowing the water in the cup to drain through the bottom SPE filter. The empty cup/SPE filter assembly was subsequently shipped to Cyclopure following the provided instructions; no special handling (e.g., chilling) is required. The other split sample was collected into laboratory-provided bottles, preserved, chilled, and sent to a contracted commercial laboratory (Pace), for analysis via EPA Method 533. All sampling was conducted following standard protocols for PFAS sampling to prevent contamination by the sampler. Sampling locations were chosen to encompass a range of PFAS concentrations, from post-treatment

³ www.cyclopure.com/product/wtk

sampling taps where no or very low levels of contaminants were expected to be present, to pre-treatment or untreated “raw” water samples, where higher levels were expected to be present.

Additionally, MassDEP researchers were provided with results from five split samples collected by a consultant from private drinking water wells and compared to results from EPA Method 537.1. For these samples, only eight PFAS were reported: the MassDEP PFAS6 plus PFBS and PFHxA.

Results

In 10 of the 27 samples, no PFAS were detected by either the WTK or the commercial laboratory. Results for the 17 samples with detections (including two samples with detections below the RL) are presented in **Appendix 1**; only PFAS analytes with detections are included in the table. Data reports for all samples are included in **Appendix 2**.

In most samples, Cyclopure underreported PFAS relative to the EPA methods (**Figure 2**). Different trends were observed for perfluorocarboxylates (PFCAs) and perfluorosulfonates (PFSA). On average, the WTKs reported PFSA concentrations 19% lower than the EPA method results, and there was no dependence on chain length. Similarly, WTKs reported lower levels of PFCAs compared to the EPA methods, however, with an apparent correlation with chain length: WTK under-reporting was worse for short-chain PFCAs than long chain PFCAs. For example, PFBA and PFOA were an average of 79% and 31% lower in WTKs, respectively.

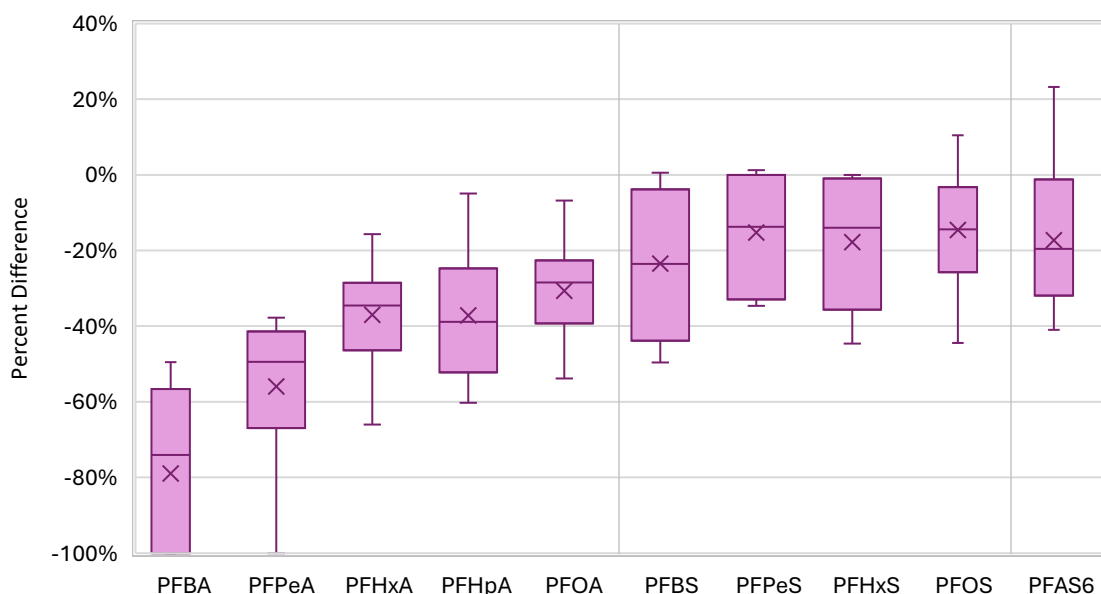


Figure 2. Across 15 split samples in which at least one PFAS compound was detected above its reporting limit by the EPA method, results from the WTK were generally lower than results from the EPA methods. Non-detects were treated as zero for the purpose of calculating percent difference.

On average, Cyclopure reported 18% less PFAS6 compared to EPA method results (median = 21% less) for PFAS6 concentrations ranging from 2–305 ng/L as measured by EPA methods. Across the 15 samples where at least one PFAS was detected above the RL, WTK PFAS6 results ranged from 41% below to 23%

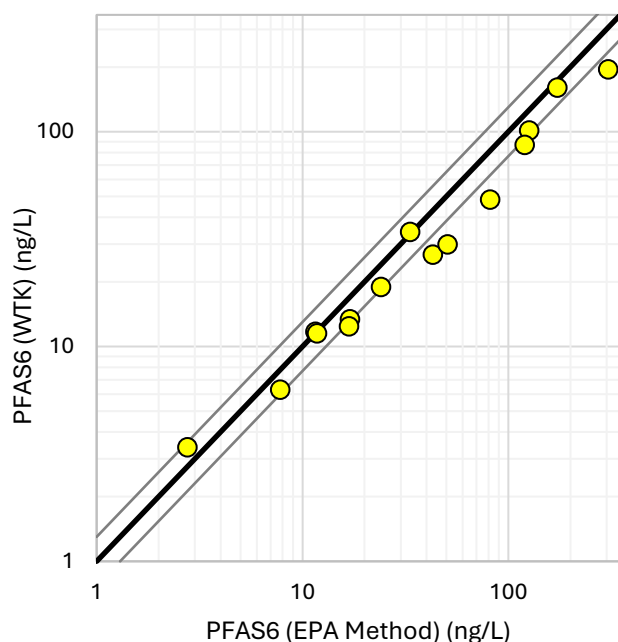


Figure 3. PFAS6 results reported by the WTK mostly fall below the 1:1 (bold) line, indicating lower concentrations reported relative to the EPA method, but generally fall within $\pm 30\%$ of the EPA method results (gray lines).

above the EPA method results, though WTK results were higher than EPA method results for only three samples. **Figure 3** depicts the PFAS6 results for each sample from the two methods as compared to a 1:1 line and $\pm 30\%$ difference. Points that fall along the 1:1 line indicate that the same PFAS6 result was reported by both methods. Points that fall between the gray lines are $\leq 30\%$ different. In 11 of the 15 samples, the WTK reported a PFAS6 concentration within 30% of the EPA method.

Of particular interest is the reliability of WTKs at detecting low levels of PFAS; specifically, the occurrence of false negatives. For the purposes of this evaluation, we considered a false negative to be a detection of PFAS above the RL reported by the EPA method, which was not detected by the WTK. False negatives were only observed for PFBA and PFPeA, the four- and five-carbon chain carboxylic acids, respectively. Specifically, PFBA was detected above the RL in nine samples analyzed by EPA Method 533; of those samples, WTKs reported five detections. In other words, WTKs “missed”

the PFBA in four out of nine samples. PFPeA was detected above the RL in eight samples analyzed by EPA method 533 and the WTK reported detectable levels of PFPeA in seven of them (i.e., a single false negative of PFPeA was present in the dataset). Note that PFBA and PFPeA are not analytes in EPA method 537.1, so a comparison is only possible using EPA method 533 (or 1633). No false negatives of PFAS6 compounds were observed. This finding is consistent with that of other agencies that have conducted similar evaluations.⁴

Lastly, we evaluated the potential for false positives by comparing data from the ten water samples in which PFAS was not detected by the EPA method. In all cases, the WTKs correctly reported no PFAS detections.

Several WTKs identified three PFAS analytes not quantified in Methods 533 or 1633: FBSA, FHxSA, and PFPrS. These analytes were detected in water samples from one home, but were not detected in any other wells. PFPrS is a perfluoroalkyl sulfonate with only 3 carbons (i.e., shorter than PFBS), and is a likely transformation product of PFSA precursor compounds associated with first generation AFFF. Similarly, FHxSA and FBSA (H-FBSA) are perfluorinated sulfonamides and precursors to PFHxS and shorter chain PFASs; these compounds may be intermediate transformation products of PFSA precursor compounds in

⁴ Simones, T. 2026. *Evaluation of the Cyclopure home test kit for PFAS in drinking water against standard EPA-based water testing methods*. Northeast Conference on the Science of PFAS: Public Health and the Environment. April 15. MPART. 2025. *Study to Determine Comparability of PFAS Drinking Water Samples in Cadillac, Michigan*.

first generation AFFF and other products produced by 3M.⁵ These compounds were detected in a well that was impacted by first generation AFFF. All three of these compounds are considered volatile and not measured by EPA methods for PFAS in water.

Discussion

Based on the data obtained for this study, it appears that WTKs consistently under-report PFAS concentrations, by approximately 20% for PFASs and long chain PFCAs (including PFAS6), but by larger margins for short-chain PFCAs. These particular analytes are most difficult to adsorb—the short-chain PFASs are less hydrophobic than long chain, and the PFCAs have weaker electrostatic interactions than PFASs. In EPA method 533 (and 1633), isotopically labeled extractable internal standards are added to the water sample before the SPE process in order to quantify and correct for SPE inefficiencies. For the WTKs, these standards are added after the SPE process, and so any losses due to a lack of capture on the DEXSORB® SPE filter cannot be identified and quantitatively corrected.

In some cases, PFBA (the shortest and least hydrophobic PFAS in the analyte list) was incorrectly reported as non-detect by the WTKs. Though it's plausible that the loss of PFBA in some samples is due to insufficient solvent extraction of the SPE filter in the laboratory, poor sorption onto the DEXSORB® SPE filter in the field is the more likely loss mechanism. A separate evaluation of DEXSORB®'s performance as a remedial sorbent, which is beyond the scope of this report, noted that PFBA is typically the first compound to break through treatment vessels, suggesting that PFBA is not well-captured by DEXSORB®, the primary media in the WTK SPE filter. Short-chain PFASs are less hydrophobic than long chain PFASs, and this lower hydrophobicity combined with smaller molecule size may explain the poor sorption observed for short-chain PFCAs; as the perfluorinated chain length increases, so does hydrophobicity and observed adsorption to DEXSORB®.

Given that there does not appear to be a significant chain-length dependency on adsorption of PFASs, we hypothesize that the primary removal mechanism for these compounds is related to electrostatic interactions between the sulfonate functional group and the DEXSORB® surface. Conversely, the improved removal efficiency for long-chain PFCAs compared to short-chain PFCAs suggests that hydrophobic interactions are the primary adsorptive mechanism for PFCAs. In conversations with the manufacturer, we were told that the DEXSORB® surface is modified to be slightly positively charged such that electrostatic interactions assist with adsorption; however, hydrophobic interactions dominate.

In EPA Method 533, the reported concentrations of target PFAS analytes in a continuing calibration check must be plus or minus 30% of actual (spiking) concentrations, and the average WTK discrepancy of 18% for PFAS6 is within that range, though the data suggest that WTK results will most often be biased low. This systemic low bias is likely due to limitations in extent/kinetics of sorption of PFAS analytes to the DEXSORB® SPE filter in the field and/or the robustness of the solvent extraction of analytes from the DEXSORB® SPE filter in the laboratory.

The WTKs consistently correctly identified samples with no detectable PFAS6 present, so they may have utility for routine monitoring of home treatment systems when no PFAS is detected. Though some false negatives were identified for PFBA and PFPeA, in most cases, we do not expect these compounds to drive

⁵ Kabore et al. 2022. [Novel and legacy per- and polyfluoroalkyl substances \(PFAS\) in freshwater sporting fish from background and firefighting foam impacted ecosystems in Eastern Canada - ScienceDirect](#)

the need to replace treatment vessels, and available data indicate a lower risk of health effects from short-chain PFAS due to faster excretion rates and less bioaccumulation.⁶ Thus, for adsorptive PFAS treatment systems (e.g., GAC), depending on the treatment vessel changeout criteria, it may be acceptable to “miss” low level PFBA detections. No false negatives of PFAS6 compounds were measured in this study, indicating that the WTKs reliably detect these compounds when present. If WTKs are used to monitor treatment systems for breakthrough, PFAS6 detection below an action level may require resampling using an EPA method to more accurately quantify the level of PFAS present for comparison against changeout criteria.

Conclusions

To evaluate the performance of low-cost WTKs for PFAS analysis, 27 private well water samples were analyzed using both WTKs and conventional procedures (EPA Methods 533 or 537.1). Results indicate:

- WTKs consistently reported values of commonly regulated PFAS contaminants (e.g., PFAS6) within 30% of values reported by EPA Methods 533 and 537.1, which is considered a good level of interlaboratory performance.
- WTKs appear to have a systemic low bias compared to EPA Methods 533 and 537.1, likely due to water/sorbent and/or sorbent/solvent SPE inefficiencies. These inefficiencies go uncorrected because isotopically labeled standards are spiked into the SPE solvent extract, and not the water sample. The discrepancy is highest for short-chain PFCAs. For PFAS6, WTKs report 18% lower values on average.
- Though some false negatives were observed, WTKs appear to only “miss” PFBA and occasionally PFPeA. No false negatives of PFAS6 compounds were observed.
- There were no false positive PFAS detections; the WTKs appear to reliably identify samples with no detectable levels of PFAS.

Importantly, these conclusions may not be applicable for groundwater testing, which may present analytical challenges related to matrix effects and suspended solids.

Potential Applications

Because the WTKs consistently report lower values than EPA methods and lack a mechanism to identify and correct matrix/extraction inefficiencies on 100% of tested samples, they are unlikely to meet regulatory requirements as the sole source of data obtained for drinking water analysis. However, WTKs appear to have utility as a screening tool and a cost-effective way to increase data density. Potential applications include:

- **Identifying conditions of concern:** if PFAS is detected above regulatory standards (currently 20 ng/L for PFAS6 in Massachusetts) in a private well by a WTK, it’s reasonable to assume that PFAS6 is likely present above that standard. Positive detections of PFAS below a regulatory standard or action level are more problematic, but a conservative approach would be to assume that reported concentrations more than 50% of a standard (e.g. 10 ng/L PFAS6 in Massachusetts) may be of concern, and trigger prompt re-sampling using an EPA method. For private wells, method 533 is

⁶ “Longer chain PFAAs are generally toxic at lower administered doses than shorter chain compounds because their slower excretion results in a higher internal dose from the same administered dose.” ITRC 2023 “PFAS Technical and Regulatory Guidance Document and Fact Sheets.” Chapter 7. <https://pfas-1.itrcweb.org>

recommended, 1633 is acceptable, and 537.1 should not be used (due to the lack of PFBA and PFPeA in the analyte list and inferior quantitation method).

- **Regular monitoring of private well PFAS treatment systems:** in many cases, treatment vessel replacement criteria are based on the detection of PFAS downstream of the first tank. The results of this study indicate that WTKs can reliably detect PFAS6 compounds when present in a water sample, though may miss short-chain PFCAs, most notably PFBA.
- **Representativeness evaluation:** combining WTKs and EPA methods would appear to be an appropriate and cost-effective approach to increase data density, particularly with regard to characterization of temporal variability of PFAS concentrations within private drinking water wells.

Beyond applications within a regulatory program, WTKs represent a simple and inexpensive way for homeowners to test private wells for PFAS and obtain reasonably accurate results. Though some commercial labs work directly with homeowners, access to PFAS sampling and analysis is a significant barrier, as is cost (with tests running up to \$500 per sample). Conversely, WTKs are easy to obtain and inexpensive. The unreliability of PFBA (and PFPeA) results from WTKs remains a limitation, but the results will be sufficient for many private well owners to make decisions about the need for treatment or an alternative water source, and are certainly better than obtaining no data at all.

As a final observation, the results from WTKs may have limited utility in forensic evaluations, as different performances were observed for different PFAS (i.e., PFBA and other short-chain PFAS underreported to a greater extent than long chain and PFSA compounds). Similarly, their use may not be appropriate for formal risk assessments due to the consistent low bias observed in this study.

DISCLAIMER

This document provides information, data, and conclusions on a research effort, and does not constitute formal guidance nor positions of MassDEP. The conclusions apply to the use of this technology for private well water samples only; testing methods for public water supplies must be as specified or allowed in applicable regulations.

Appendix 1: Data Table

Table 1. PFAS results from WTK and EPA methods for 17 samples (detected analytes only). Bold analytes are included in the PFAS6.

	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5		Sample 6	
	WTK	533 (Pace)	WTK	533 (Pace)	WTK	533 (Pace)	WTK	533 (Pace)	WTK	533 (Pace)	WTK	533 (Pace)
PFBA	ND	3.54	ND	2.46	1.7	4.39	ND	2.31	2.7	10.4	ND	ND
PFPeA	1.3	4.32	1.3	2.74	6.6	10.6	ND	2.52	5.3	12.7	ND	ND
PFHxA	4.8	8.96	3.5	5.16	5.5	8.37	1.1	3.24	10.4	16.2	ND	ND
PFHpA	1.9	3.62	1.7	2.78	2.8	4.31	1.3	3.02	19.7	33.9	ND	ND
PFOA	9.6	19.6	13.8	19.3	12.5	19.2	6.6	14.3	67	86.3	ND	ND
PFNA	ND	0.74 J	ND	ND	ND	0.90 J	ND	ND	ND	ND	ND	ND
PFBS	9	16.2	6.1	7.22	4.3	5.62	2.5	4.96	1.4	1.13 J	ND	ND
PFPeS	13	19.9	7.4	8.58	3.3	4.92	1.1	1.47 J	ND	ND	ND	ND
PFHxS	90.1	142	53.6	64.6	21	36.6	5.4	8.07	ND	ND	1.2	1.98
PFHpS	3.4	3.91	1.8	1.81 J	ND	0.86 J	1.1	ND	ND	ND	ND	ND
PFOS	93.7	140	32.3	39.4	12	21.6	13.5	17.6	ND	1.72 J	32.9	31.4
PFPPrS	1.9	n/a	1.2	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a
FBSA	5.7	n/a	3.2	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a
FHxSA	17.3	n/a	4.1	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a
PFAS6	195.3	305.2	101.4	126.1	48.3	81.71	26.8	42.99	86.7	120.2	34.1	33.4

	Sample 7		Sample 8		Sample 9		Sample 10		Sample 11		Sample 12	
	WTK	533 (Pace)	WTK	533 (WES)	WTK	533 (Pace)	WTK	533 (Pace)	WTK	533 (Pace)	WTK	533 (Pace)
PFBA	1.5	1.42 J	1.3	4.91	1.7	3.37	2	4.17	ND	2.51	ND	1.38 J
PFPeA	ND	1.5 J	3	5.59	2.3	3.91	1.3	2.24	ND	1.63 J	ND	0.62 J
PFHxA	ND	1.06 J	3.8	5.32	6.65	7.89	2.6	3.24	ND	1.68 J	ND	ND
PFHpA	ND	ND	3.9	4.73	4	4.21	ND	ND	ND	0.71 J	ND	ND
PFOA	ND	1.64 J	9.5	12.28	21.2	29.4	1.5	2.24	2.2	2.77	1.4	0.87 J
PFNA	ND	ND	ND	0.65 J	ND	0.77 J	ND	ND	ND	ND	ND	ND
PFBS	ND	ND	4	3.98	12.1	12.1	2.6	2.74	1.4	1.34 J	ND	ND
PFPeS	ND	ND	ND	0.28 J	16.9	16.7	1.9	2.59	1.2	0.92 J	ND	ND
PFHxS	1.3	2.04 J	ND	0.82 J	114.2	117	10.7	14.1	5.5	5.57	1.6	1.31 J
PFHpS	ND	ND	ND	1.27 J	2.6	1.76 J	ND	ND	ND	ND	ND	ND
PFOS	ND	1.42 J	ND	ND	20.8	22.1	6.7	7.69	3.8	3.44	ND	0.8 J
PFPPrS	ND	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a
FBSA	ND	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a
FHxSA	ND	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a	ND	n/a
PFAS6	1.3	ND	13.4	17.01	160.2	172.7	18.9	24.03	11.5	11.78	3.0	ND

Table 1. PFAS results from WTK and EPA methods for 17 samples (detected analytes only). Bold analytes are included in the PFAS6 (cont.).

	Sample 13		Sample 14		Sample 15		Sample 16		Sample 17	
	WTK	537.1 (Pace)	WTK	537.1 (Pace)	WTK	537.1 (Pace)	WTK	537.1 (Pace)	WTK	537.1 (Pace)
PFBA	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a
PFPeA	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a
PFHxA	4.5	6.88	ND	ND	ND	ND	2.2	4.18	4	7.42
PFHpA	1.6	2.35	ND	ND	ND	ND	1	ND	1.6	4.03
PFOA	4.7	7.74	1.9	2.76	3.4	4.4	5.5	5.9	6.3	10.9
PFNA	ND	ND	ND	ND	ND	ND	ND	ND	1.4	2.82
PFBS	3.9	5.11	ND	ND	ND	ND	16	22.7	6.7	11.9
PFPeS	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a
PFHxS	2.3	2.32	ND	ND	ND	ND	3	3.37	6.2	11.2
PFHpS	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a
PFOS	3.8	4.43	1.5	ND	2.9	3.4	2.2	2.3	14.4	21.7
PFPPrS	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a
FBSA	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a
FHxSA	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a	n/p	n/a
PFAS6	12.4	16.8	3.4	2.76	6.3	7.8	11.7	11.6	29.9	50.7

Notes: Samples 13 – 17 were collected by a consultant and the data were provided to MassDEP; results for eight PFAS were included in the dataset.
 ND = not detected
 n/a = not analyzed
 n/p = data not provided

Appendix 2: Laboratory Reports

To: Kenneth Mason

Date: September 9, 2024

Thanks for testing your water with us! This report is unfiltered water sampled from Tyngsborough, MA. **PFAS detects are highlighted in yellow.** Concentrations are in part per trillion (ppt). 1 ng/L = ppt. Limit of quantification is 1.0 ppt for all PFAS.

Kit# 11470. We found 2 PFAS in this water sample, with a total concentration of 34.1 ppt. The other 53 PFAS tested for measured non-detect.

Kit# 11471. We found 12 PFAS in this water sample, with a total concentration of 251.7 ppt. The other 43 PFAS tested for measured non-detect.

What's In My Water?

Barcode	WTK_PFA5_11470	WTK_PFA5_11471
Name	Kenneth Mason	Kenneth Mason
Location	Tyngsborough, MA	Tyngsborough, MA
Comments	kitchen	influent
Filtration	Unfiltered	Unfiltered
Sampling Date	8/29/24 14:45	8/29/24 2:52
Order Number	19489	19489
PFBA	< 1.0 ppt	< 1.0 ppt
PFPeA	< 1.0 ppt	1.3
PFHxA	< 1.0 ppt	4.8
PFHpA	< 1.0 ppt	1.9
PFOA	< 1.0 ppt	9.6
PFNA	< 1.0 ppt	< 1.0 ppt
PFDA	< 1.0 ppt	< 1.0 ppt
GenX	< 1.0 ppt	< 1.0 ppt
PFBS	< 1.0 ppt	9
PFHxS	1.2	90.1
PFOS	32.9	93.7
Total PFAS (11 Compounds)	34.1	210.4
Additional PFAS		
FBSA	< 1.0 ppt	5.7
FHxSA	< 1.0 ppt	17.3
PFHpS	< 1.0 ppt	3.4
PFPeS	< 1.0 ppt	13
PFPrS	< 1.0 ppt	1.9
Total PFAS (All Detected)	34.1	251.7

Regulatory Information

EPA PFAS Maximum Contaminant Levels (MCLs)

EPA has [finalized enforceable Maximum Contaminant Limits \(MCLs\)](#) for PFOA (4.0 ppt), PFOS (4.0 ppt), PFHxS (10.0 ppt), PFNA (10.0 ppt), and GenX (10.0 ppt). For mixtures containing two or more of PFHxS, PFNA, GenX, and PFBS, EPA has set a [Hazard Index](#) MCL at 1.

EPA PFAS Maximum Contaminant Level Goals (MCLGs)

The EPA has [established non-enforceable health based MCLGs](#) for PFOA (zero ppt), PFOS (zero ppt), PFHxS (10.0 ppt), PFNA (10.0 ppt), and GenX (10.0 ppt) as individual contaminants. MCLGs are the maximum levels of contaminants in drinking water where there are no known or anticipated negative health effects allowing for a margin of safety.

Project Name: TYNGSBORO-PFAS**Lab Number:** L2449545**Project Number:** 102270**Report Date:** 09/16/24**SAMPLE RESULTS**

Lab ID: L2449545-02 RE

Date Collected: 08/29/24 14:45

Client ID: 2 SKYLINE-K

Date Received: 08/29/24

Sample Location: TYNGSBORO

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Extraction Method: EPA 533

Analytical Method: 136,533

Extraction Date: 09/10/24 20:11

Analytical Date: 09/11/24 16:13

Analyst: CAP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.98	0.661	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.98	0.661	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.98	0.661	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.98	0.661	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.98	0.661	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.98	0.661	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	1.98	0.661	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.98	0.661	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.98	0.661	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.98	0.661	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	1.98	0.661	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.98	0.661	1
Perfluorohexanesulfonic Acid (PFHxS)	1.98		ng/l	1.98	0.661	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.98	0.661	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.98	0.661	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.98	0.661	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.98	0.661	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.98	0.661	1
Perfluorooctanesulfonic Acid (PFOS)	31.4		ng/l	1.98	0.661	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.98	0.661	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.98	0.661	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.98	0.661	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.98	0.661	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.98	0.661	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.98	0.661	1

Project Name: TYNGSBORO-PFAS**Lab Number:** L2449545**Project Number:** 102270**Report Date:** 09/16/24**SAMPLE RESULTS**

Lab ID: L2449545-04 RE

Date Collected: 08/29/24 14:52

Client ID: 2 SKYLINE-INF

Date Received: 08/29/24

Sample Location: TYNGSBORO

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Extraction Method: EPA 533

Analytical Method: 136,533

Extraction Date: 09/10/24 20:11

Analytical Date: 09/11/24 16:22

Analyst: CAP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.54		ng/l	2.06	0.687	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.06	0.687	1
Perfluoropentanoic Acid (PFPeA)	4.32		ng/l	2.06	0.687	1
Perfluorobutanesulfonic Acid (PFBS)	16.2		ng/l	2.06	0.687	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.06	0.687	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.06	0.687	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.06	0.687	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.06	0.687	1
Perfluorohexanoic Acid (PFHxA)	8.96		ng/l	2.06	0.687	1
Perfluoropentanesulfonic Acid (PFPeS)	19.9		ng/l	2.06	0.687	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	2.06	0.687	1
Perfluoroheptanoic Acid (PFHpA)	3.62		ng/l	2.06	0.687	1
Perfluorohexanesulfonic Acid (PFHxS)	142		ng/l	2.06	0.687	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.06	0.687	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.06	0.687	1
Perfluorooctanoic Acid (PFOA)	19.6		ng/l	2.06	0.687	1
Perfluoroheptanesulfonic Acid (PFHpS)	3.91		ng/l	2.06	0.687	1
Perfluorononanoic Acid (PFNA)	0.740	J	ng/l	2.06	0.687	1
Perfluorooctanesulfonic Acid (PFOS)	140		ng/l	2.06	0.687	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.06	0.687	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.06	0.687	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.06	0.687	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.06	0.687	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.06	0.687	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.06	0.687	1

To: John Fitzgerald

Date: February 11, 2025

Thanks for testing your water with us! We test for 55 PFAS compounds. **PFAS detects are highlighted in yellow.** Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 14939. We found 12 PFAS in this water sample, with a total concentration of 130 ppt.

Barcode	WTK_PFAS_14939
Name	John Fitzgerald
Location	Tyngsboro, MA 01807
Comments	well water; 72-WF;
Filtration	Unfiltered
Sampling Date	1/23/25 10:45
Order Number	21842
PFOA	13.8
PFOS	32.3
PFHxS	53.6
PFNA	< 1.0 ppt
GenX	< 1.0 ppt
PFBS	6.1
Total PFAS (EPA PFAS6)	105.8
Additional PFAS	
PFPeA	1.3
PFHxA	3.5
PFHpA	1.7
PFPeS	7.4
PFHpS	1.8
FBSA	3.2
FHxSA	4.1
PFPrS	1.2
Total PFAS (All Detected)	130

Project Name: TYNGSBORO-PFAS**Lab Number:** L2503871**Project Number:** 102270**Report Date:** 01/30/25**SAMPLE RESULTS**

Lab ID: L2503871-03

Date Collected: 01/23/25 10:51

Client ID: 72-INF

Date Received: 01/23/25

Sample Location: TYNGSBORO

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Extraction Method: EPA 533

Analytical Method: 136,533

Extraction Date: 01/29/25 07:11

Analytical Date: 01/29/25 14:59

Analyst: CAP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.46		ng/l	2.02	0.673	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.02	0.673	1
Perfluoropentanoic Acid (PFPeA)	2.74		ng/l	2.02	0.673	1
Perfluorobutanesulfonic Acid (PFBS)	7.22		ng/l	2.02	0.673	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.02	0.673	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.02	0.673	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.02	0.673	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.02	0.673	1
Perfluorohexanoic Acid (PFHxA)	5.16		ng/l	2.02	0.673	1
Perfluoropentanesulfonic Acid (PFPeS)	8.58		ng/l	2.02	0.673	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	2.02	0.673	1
Perfluoroheptanoic Acid (PFHpA)	2.78		ng/l	2.02	0.673	1
Perfluorohexanesulfonic Acid (PFHxS)	64.6		ng/l	2.02	0.673	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.02	0.673	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.02	0.673	1
Perfluorooctanoic Acid (PFOA)	19.3		ng/l	2.02	0.673	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.81	J	ng/l	2.02	0.673	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.02	0.673	1
Perfluorooctanesulfonic Acid (PFOS)	39.4		ng/l	2.02	0.673	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.02	0.673	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.02	0.673	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.02	0.673	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.02	0.673	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.02	0.673	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.02	0.673	1

To: John Fitzgerald

Date: February 24, 2025

Thanks for testing your water with us! We test for 55 PFAS compounds. PFAS detects are highlighted in yellow. Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 14942. We found 9 PFAS in this water sample, with a total concentration of 69.7 ppt.

Barcode	WTK_PFAS_14942
Name	John Fitzgerald
Location	Woburn, MA 01801
Filtration	n/a
Sampling Date	n/a
Order Number	21842
PFOA	12.5
PFOS	12
PFHxS	21
PFNA	< 1.0 ppt
GenX	< 1.0 ppt
PFBS	4.3
Total PFAS (EPA PFAS6)	49.8
Additional PFAS	
PFBA	1.7
PFPeA	6.6
PFHxA	5.5
PFHpA	2.8
PFPeS	3.3
Total PFAS (All Detected)	69.7

Project Name: TYNGSBORO-PFAS**Lab Number:** L2503871**Project Number:** 102270**Report Date:** 01/30/25**SAMPLE RESULTS**

Lab ID: L2503871-06

Date Collected: 01/23/25 11:21

Client ID: 64-INF

Date Received: 01/23/25

Sample Location: TYNGSBORO

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Extraction Method: EPA 533

Analytical Method: 136,533

Extraction Date: 01/29/25 07:11

Analytical Date: 01/29/25 15:34

Analyst: CAP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	4.39		ng/l	2.05	0.685	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.05	0.685	1
Perfluoropentanoic Acid (PFPeA)	10.6		ng/l	2.05	0.685	1
Perfluorobutanesulfonic Acid (PFBS)	5.62		ng/l	2.05	0.685	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.05	0.685	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.05	0.685	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.05	0.685	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.05	0.685	1
Perfluorohexanoic Acid (PFHxA)	8.37		ng/l	2.05	0.685	1
Perfluoropentanesulfonic Acid (PFPeS)	4.92		ng/l	2.05	0.685	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	2.05	0.685	1
Perfluoroheptanoic Acid (PFHpA)	4.31		ng/l	2.05	0.685	1
Perfluorohexanesulfonic Acid (PFHxS)	36.6		ng/l	2.05	0.685	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.05	0.685	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.05	0.685	1
Perfluorooctanoic Acid (PFOA)	19.2		ng/l	2.05	0.685	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.862	J	ng/l	2.05	0.685	1
Perfluorononanoic Acid (PFNA)	0.903	J	ng/l	2.05	0.685	1
Perfluorooctanesulfonic Acid (PFOS)	21.6		ng/l	2.05	0.685	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.05	0.685	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.05	0.685	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.05	0.685	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.05	0.685	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.05	0.685	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.05	0.685	1

To: Kenneth Mason

Date: October 11, 2024

Thanks for testing your water with us! We test for 55 PFAS compounds. **PFAS detects are highlighted in yellow.** Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 11473. We found 8 PFAS in this water sample, with a total concentration of 32.6 ppt.

Barcode	WTK_PFAS_11473
Name	Kenneth Mason
Location	Tyngsboro, MA 01801
Filtration	Unfiltered
Sampling Date	9/25/24 12:10
Order Number	19489
PFOA	6.6
PFOS	13.5
PFHxS	5.4
PFNA	< 1.0 ppt
GenX	< 1.0 ppt
PFBS	2.5
Total PFAS (EPA PFAS6)	28
Additional PFAS	
PFHxA	1.1
PFHpA	1.3
PFPeS	1.1
PFHpS	1.1
Total PFAS (All Detected)	32.6

Project Name: TYNGSBORO-27 ALPINE**Lab Number:** L2455314**Project Number:** Not Specified**Report Date:** 10/04/24**SAMPLE RESULTS**

Lab ID: L2455314-01
 Client ID: 27 ALPINE - INF
 Sample Location: TYNGSBORO

Date Collected: 09/25/24 12:10
 Date Received: 09/25/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 136,533
 Analytical Date: 10/03/24 18:04
 Analyst: LMV

Extraction Method: EPA 533
 Extraction Date: 10/02/24 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.31		ng/l	2.10	0.702	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.10	0.702	1
Perfluoropentanoic Acid (PFPeA)	2.52		ng/l	2.10	0.702	1
Perfluorobutanesulfonic Acid (PFBS)	4.96		ng/l	2.10	0.702	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.10	0.702	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.10	0.702	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.10	0.702	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.10	0.702	1
Perfluorohexanoic Acid (PFHxA)	3.24		ng/l	2.10	0.702	1
Perfluoropentanesulfonic Acid (PFPeS)	1.47	J	ng/l	2.10	0.702	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	2.10	0.702	1
Perfluoroheptanoic Acid (PFHpA)	3.02		ng/l	2.10	0.702	1
Perfluorohexanesulfonic Acid (PFHxS)	8.07		ng/l	2.10	0.702	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.10	0.702	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.10	0.702	1
Perfluorooctanoic Acid (PFOA)	14.3		ng/l	2.10	0.702	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.10	0.702	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.10	0.702	1
Perfluorooctanesulfonic Acid (PFOS)	17.6		ng/l	2.10	0.702	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.10	0.702	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.10	0.702	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.10	0.702	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.10	0.702	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.10	0.702	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.10	0.702	1

To: John Fitzgerald

Date: March 12, 2025

Thanks for testing your water with us! We test for 55 PFAS compounds. PFAS detects are highlighted in yellow. Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 14940. We found 7 PFAS in this water sample, with a total concentration of 108.1 ppt.

Barcode	WTK_PFAS_14940
Name	John Fitzgerald
Location	Carlisle, MA 01741
Comments	well water; 74-SCH-MID
Filtration	Not Specified
Sampling Date	2/26/25
Order Number	21842
PFOA	67
PFOS	< 1.0 ppt
PFHxS	< 1.0 ppt
PFNA	< 1.0 ppt
GenX	< 1.0 ppt
PFBS	1.4
Total PFAS (EPA PFAS6)	68.4
Additional PFAS	
PFBA	2.7
PFPeA	5.3
PFHxA	10.4
PFHpA	19.7
PFECHS	1.6
Total PFAS (All Detected)	108.1

Project Name: POET STUDY**Lab Number:** L2510854**Project Number:** 102286**Report Date:** 03/20/25**SAMPLE RESULTS**

Lab ID: L2510854-01
 Client ID: 74 SCHOOL-MID
 Sample Location: CARLISLE

Date Collected: 02/26/25 10:52
 Date Received: 02/27/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 136,533
 Analytical Date: 03/15/25 13:20
 Analyst: RDB

Extraction Method: EPA 533
 Extraction Date: 03/14/25 07:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	10.4		ng/l	1.95	0.653	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.95	0.653	1
Perfluoropentanoic Acid (PFPeA)	12.7		ng/l	1.95	0.653	1
Perfluorobutanesulfonic Acid (PFBS)	1.13	J	ng/l	1.95	0.653	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.95	0.653	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	1.95	0.653	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	1.95	0.653	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.95	0.653	1
Perfluorohexanoic Acid (PFHxA)	16.2		ng/l	1.95	0.653	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.95	0.653	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	1.95	0.653	1
Perfluoroheptanoic Acid (PFHpA)	33.9		ng/l	1.95	0.653	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.95	0.653	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.95	0.653	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.95	0.653	1
Perfluorooctanoic Acid (PFOA)	86.3		ng/l	1.95	0.653	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.95	0.653	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.95	0.653	1
Perfluorooctanesulfonic Acid (PFOS)	1.72	J	ng/l	1.95	0.653	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.95	0.653	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.95	0.653	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.95	0.653	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.95	0.653	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.95	0.653	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.95	0.653	1

To: John Fitzgerald

Date: March 26, 2025

Thanks for testing your water with us! We test for 55 PFAS compounds. PFAS detects are highlighted in yellow. Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 14937. Good news. **Water sample #14937** came back "clean". All 55 PFAS tested measured non-detect.

Kit# 14938. Good news. **Water sample #14938** came back "clean". All 55 PFAS tested measured non-detect.

Kit# 14944. We found 2 PFAS in this water sample, with a total concentration of 2.8 ppt.

Barcode	WTK_PFAS_14937	WTK_PFAS_14938	WTK_PFAS_14944
Name	John Fitzgerald	John Fitzgerald	John Fitzgerald
Location	Tyngsboro, MA 01879	Tyngsboro, MA 01879	Tyngsboro, MA 01879
Comments	well water; 64Alp-2	well water; 64Alp-1	well water; 64Alp-3
Filtration	Not Specified	Not Specified	Not Specified
Sampling Date	n/a	n/a	n/a
Order Number	21842	21842	21842
PFOA	< 1.0 ppt	< 1.0 ppt	< 1.0 ppt
PFOS	< 1.0 ppt	< 1.0 ppt	< 1.0 ppt
PFHxS	< 1.0 ppt	< 1.0 ppt	1.3
PFNA	< 1.0 ppt	< 1.0 ppt	< 1.0 ppt
GenX	< 1.0 ppt	< 1.0 ppt	< 1.0 ppt
PFBS	< 1.0 ppt	< 1.0 ppt	< 1.0 ppt
Total PFAS (EPA PFAS6)	0	0	1.3
Additional PFAS			
PFBA	< 1.0 ppt	< 1.0 ppt	1.5
Total PFAS (All Detected)	0	0	2.8

Project Name: POET STUDY**Lab Number:** L2515180**Project Number:** 102286**Report Date:** 03/27/25**SAMPLE RESULTS**

Lab ID: L2515180-01
 Client ID: 64 ALP-3
 Sample Location: TYNGSBORO

Date Collected: 03/17/25 11:19
 Date Received: 03/17/25
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 136,533
 Analytical Date: 03/26/25 21:05
 Analyst: CAP

Extraction Method: EPA 533
 Extraction Date: 03/26/25 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	1.42	J	ng/l	2.21	0.740	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.21	0.740	1
Perfluoropentanoic Acid (PFPeA)	1.50	J	ng/l	2.21	0.740	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.21	0.740	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.21	0.740	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.21	0.740	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.21	0.740	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.21	0.740	1
Perfluorohexanoic Acid (PFHxA)	1.06	J	ng/l	2.21	0.740	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.21	0.740	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	2.21	0.740	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.21	0.740	1
Perfluorohexanesulfonic Acid (PFHxS)	2.04	J	ng/l	2.21	0.740	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.21	0.740	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.21	0.740	1
Perfluorooctanoic Acid (PFOA)	1.64	J	ng/l	2.21	0.740	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.21	0.740	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.21	0.740	1
Perfluorooctanesulfonic Acid (PFOS)	1.42	J	ng/l	2.21	0.740	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.21	0.740	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.21	0.740	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.21	0.740	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.21	0.740	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.21	0.740	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.21	0.740	1

To: Clean Harbors

Date: April 7, 2026

Thanks for testing your water with us! We test for 55 PFAS compounds. PFAS detects are highlighted in yellow. Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 24609. Good news. **Water sample 24609** came back "clean". All 55 PFAS tested measured non-detect.

Kit# 24610. We found 6 PFAS in this water sample, with a total concentration of 25.5 ppt.

Barcode	WTK_PFAS_24609	WTK_PFAS_24610
Name	Clean Harbors	Clean Harbors
Location	Carlisle, MA	MA
Comments	Well Water; 50-SCH	68 CHU-EFF
Filtration	Not Specified	Not Specified
Sampling Date	3/25/2026 10:35	Not Specified
Order Number	29813	29813
PFOA	< 1.0 ppt	9.5
PFOS	< 1.0 ppt	< 1.0 ppt
PFHxS	< 1.0 ppt	< 1.0 ppt
PFNA	< 1.0 ppt	< 1.0 ppt
GenX	< 1.0 ppt	< 1.0 ppt
PFBS	< 1.0 ppt	4
Total PFAS (EPA PFAS6)	0	13.5
Additional PFAS		
PFBA	< 1.0 ppt	1.3
PFPeA	< 1.0 ppt	3
PFHxA	< 1.0 ppt	3.8
PFHpA	< 1.0 ppt	3.9
Total PFAS (All Detected)	0	25.5

4	Sample Logins		Sample List Name	2600402
5			Sample mass (g)	257.09
6			WinLIMS dilution factor	0.972
24	Final Correct Concentration (ng/L)	Anaytes (ng/L)	PFBA	4.905
25			PFMPA	
26			PFPeA	5.594
27			PFBS	3.977
28			PFMBA	
29			PFEESA	
30			NFDHA	
31			4:2 FTS	
32			PFHxA	5.319
33			PFPeS	0.275
34			HFPO-DA	
35			PFHpA	4.728
36			PFHxS Total	0.820
37			ADONA	
38			6:2 FTS	
39			PFOA Total	12.277
40			PFHpS	
41			PFNA Total	0.650
42			PFOS Total	1.265
43			9CI-PF3ONS	
44			8:2 FTS	
45			PFDA	
46			PFUnA	
47			11CI-PF3OUdS	
48			PFDoDA	

To: Clean Harbors

Date: April 22, 2025

Thanks for testing your water with us! We test for 55 PFAS compounds. PFAS detects are highlighted in yellow. Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 17517. We found 13 PFAS in this water sample, with a total concentration of 224.8 ppt.

Kit# 17518. We found 9 PFAS in this water sample, with a total concentration of 32.3 ppt.

Barcode	WTK_PFA5_17517	WTK_PFA5_17518
Name	Clean Harbors	Clean Harbors
Location	Woburn, MA 01801	Woburn, MA 01801
Comments	35KY-1NF	well water; 6SKY-MID; EMPTY LEARN CARD
Filtration	n/a	n/a
Sampling Date	n/a	n/a
Order Number	24398	24398
PFOA	21.2	1.5
PFOS	20.8	6.7
PFHxS	114.2	10.7
PFNA	< 1.0 ppt	< 1.0 ppt
GenX	< 1.0 ppt	< 1.0 ppt
PFBS	12.1	2.6
Total PFAS (EPA PFAS6)	168.3	21.5
Additional PFAS		
PFBA	1.7	2
PFPeA	2.3	1.3
PFHxA	6.5	2.6
PFHpA	4	< 1.0 ppt
PFPeS	16.9	1.9
PFHpS	2.6	< 1.0 ppt
FBSA	9.2	3
FHxSA	12.2	< 1.0 ppt
PFPrS	1.1	< 1.0 ppt
Total PFAS (All Detected)	224.8	32.3

Project Name: TYNGSBORO PFAS
Project Number: 102270

Lab Number: L2521102
Report Date: 04/28/25

SAMPLE RESULTS

Lab ID: L2521102-17
Client ID: 3 SKY-INF
Sample Location: TYNGSBORO

Date Collected: 04/08/25 11:42
Date Received: 04/08/25
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 136,533
Analytical Date: 04/14/25 12:36
Analyst: RDB

Extraction Method: EPA 533
Extraction Date: 04/12/25 15:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.37		ng/l	1.92	0.640	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.92	0.640	1
Perfluoropentanoic Acid (PFPeA)	3.91		ng/l	1.92	0.640	1
Perfluorobutanesulfonic Acid (PFBS)	12.1		ng/l	1.92	0.640	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.92	0.640	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	1.92	0.640	1
Nonfluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	1.92	0.640	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.92	0.640	1
Perfluorohexanoic Acid (PFHxA)	7.89		ng/l	1.92	0.640	1
Perfluoropentanesulfonic Acid (PFPeS)	16.7		ng/l	1.92	0.640	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	1.92	0.640	1
Perfluoroheptanoic Acid (PFHpA)	4.21		ng/l	1.92	0.640	1
Perfluorohexanesulfonic Acid (PFHxS)	117		ng/l	1.92	0.640	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.92	0.640	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.92	0.640	1
Perfluorooctanoic Acid (PFOA)	29.4		ng/l	1.92	0.640	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.76	J	ng/l	1.92	0.640	1
Perfluorononanoic Acid (PFNA)	0.766	J	ng/l	1.92	0.640	1
Perfluorooctanesulfonic Acid (PFOS)	22.1		ng/l	1.92	0.640	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.92	0.640	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	0.640	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.92	0.640	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.640	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.92	0.640	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.640	1

Project Name: TYNGSBORO PFAS
Project Number: 102270

Lab Number: L2521102
Report Date: 04/28/25

SAMPLE RESULTS

Lab ID: L2521102-06
Client ID: 6 SKY-MID
Sample Location: TYNGSBORO

Date Collected: 04/08/25 10:18
Date Received: 04/08/25
Field Prep: Not Specified

Sample Depth:

Matrix: Dw
Analytical Method: 136,533
Analytical Date: 04/23/25 21:47
Analyst: CAP

Extraction Method: EPA 533
Extraction Date: 04/23/25 07:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	4.17		ng/l	1.93	0.645	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.93	0.645	1
Perfluoropentanoic Acid (PFPeA)	2.24		ng/l	1.93	0.645	1
Perfluorobutanesulfonic Acid (PFBS)	2.74		ng/l	1.93	0.645	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.93	0.645	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	1.93	0.645	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	1.93	0.645	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.93	0.645	1
Perfluorohexanoic Acid (PFHxA)	3.24		ng/l	1.93	0.645	1
Perfluoropentanesulfonic Acid (PFPeS)	2.59		ng/l	1.93	0.645	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	1.93	0.645	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.93	0.645	1
Perfluorohexanesulfonic Acid (PFHxS)	14.1		ng/l	1.93	0.645	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.93	0.645	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.93	0.645	1
Perfluorooctanoic Acid (PFOA)	2.24		ng/l	1.93	0.645	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.93	0.645	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.93	0.645	1
Perfluorooctanesulfonic Acid (PFOS)	7.69		ng/l	1.93	0.645	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.93	0.645	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.93	0.645	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.93	0.645	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.93	0.645	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.93	0.645	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.93	0.645	1

To: Clean Harbors

Date: August 27, 2025

Thanks for testing your water with us! We test for 55 PFAS compounds. **PFAS detects are highlighted in yellow.** Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 22648. We found 5 PFAS in this water sample, with a total concentration of 14.1 ppt.

Kit# 22649. Good news. **Water sample 22649** came back "clean". All 55 PFAS tested measured non-detect.

Kit# 22650. We found 1 PFAS in this water sample, with a total concentration of 1.3 ppt.

Barcode	WTK_PFAS_22648	WTK_PFAS_22649	WTK_PFAS_22650
Name	Clean Harbors	Clean Harbors	Clean Harbors
Location	Tyngsboro, MA	Tyngsboro, MA	Tyngsboro, MA
Comments	Well; Sample 4	Well; Tyngs-6; Sample 6	Well; Sample S
Filtration	Filtered	Not Specified	Filtered
Sampling Date	Not Specified	8/11/2025 11:52	Not Specified
Order Number	28084	28084	28084
PFOA	2.2	< 1.0 ppt	< 1.0 ppt
PFOS	3.8	< 1.0 ppt	< 1.0 ppt
PFHxS	5.5	< 1.0 ppt	1.3
PFNA	< 1.0 ppt	< 1.0 ppt	< 1.0 ppt
GenX	< 1.0 ppt	< 1.0 ppt	< 1.0 ppt
PFBS	1.4	< 1.0 ppt	< 1.0 ppt
Total PFAS (EPA PFAS6)	12.9	0	1.3
Additional PFAS			
PFPeS	1.2	< 1.0 ppt	< 1.0 ppt
Total PFAS (All Detected)	14.1	0	1.3

Project Name: TYNGSBORO PFAS**Lab Number:** L2550545**Project Number:** 102270**Report Date:** 08/28/25**SAMPLE RESULTS**

Lab ID: L2550545-01

Date Collected: 08/11/25 10:55

Client ID: TYNGS-4

Date Received: 08/12/25

Sample Location: TYNGSBORO

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Extraction Method: EPA 533

Analytical Method: 136,533

Extraction Date: 08/22/25 00:50

Analytical Date: 08/24/25 22:28

Analyst: TBR

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.51		ng/l	2.10	0.700	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.10	0.700	1
Perfluoropentanoic Acid (PFPeA)	1.63	J	ng/l	2.10	0.700	1
Perfluorobutanesulfonic Acid (PFBS)	1.34	J	ng/l	2.10	0.700	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.10	0.700	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.10	0.700	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.10	0.700	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.10	0.700	1
Perfluorohexanoic Acid (PFHxA)	1.68	J	ng/l	2.10	0.700	1
Perfluoropentanesulfonic Acid (PFPeS)	0.922	J	ng/l	2.10	0.700	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	2.10	0.700	1
Perfluoroheptanoic Acid (PFHpA)	0.712	J	ng/l	2.10	0.700	1
Perfluorohexanesulfonic Acid (PFHxS)	5.57		ng/l	2.10	0.700	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.10	0.700	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.10	0.700	1
Perfluorooctanoic Acid (PFOA)	2.77		ng/l	2.10	0.700	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.10	0.700	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.10	0.700	1
Perfluorooctanesulfonic Acid (PFOS)	3.44		ng/l	2.10	0.700	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.10	0.700	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.10	0.700	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.10	0.700	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.10	0.700	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.10	0.700	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.10	0.700	1

To: Clean Harbors

Date: July 23, 2025

Thanks for testing your water with us! We test for 55 PFAS compounds. PFAS detects are highlighted in yellow. Concentrations are shown in parts per trillion (ppt). Our limit of quantification (LOQ) is 1.0 ppt for each of the 55 PFAS. We do not report detection values below our LOQ.

Your report lists results for each of the EPA regulated PFAS6 compounds (PFOA, PFOS, PFHxS, PFNA, GenX, and PFBS). Values are reported under Additional PFAS for the other 49 PFAS tested only if there has been a detection above 1.0 ppt. Regulatory information for the PFAS6 is located on the next page.

What's In My Water?

Kit# 17520. We found 2 PFAS in this water sample, with a total concentration of 3 ppt.

Barcode	WTK_PFAS_17520
Name	Clean Harbors
Location	Tyngsboro, MA
Comments	Private, Well
Filtration	Unknown
Sampling Date	7/8/2025 0:00
Order Number	24398
PFOA	1.4
PFOS	< 1.0 ppt
PFHxS	1.6
PFNA	< 1.0 ppt
GenX	< 1.0 ppt
PFBS	< 1.0 ppt
Total PFAS (EPA PFAS6)	3

Project Name: TYNGSBORO PFAS**Lab Number:** L2542505**Project Number:** 102270**Report Date:** 08/01/25**SAMPLE RESULTS**

Lab ID: L2542505-05

Date Collected: 07/08/25 11:36

Client ID: 71 ALP-MID

Date Received: 07/08/25

Sample Location: TYNGSBORO

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Extraction Method: EPA 533

Analytical Method: 136,533

Extraction Date: 07/17/25 01:28

Analytical Date: 07/20/25 10:24

Analyst: TBR

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	1.38	J	ng/l	1.82	0.607	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.82	0.607	1
Perfluoropentanoic Acid (PFPeA)	0.618	J	ng/l	1.82	0.607	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.82	0.607	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.82	0.607	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.82	0.607	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	1.82	0.607	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.82	0.607	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.82	0.607	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.82	0.607	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	1.82	0.607	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.82	0.607	1
Perfluorohexanesulfonic Acid (PFHxS)	1.31	J	ng/l	1.82	0.607	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.82	0.607	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.82	0.607	1
Perfluorooctanoic Acid (PFOA)	0.872	J	ng/l	1.82	0.607	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.82	0.607	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.82	0.607	1
Perfluorooctanesulfonic Acid (PFOS)	0.800	J	ng/l	1.82	0.607	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.82	0.607	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.82	0.607	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.82	0.607	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.82	0.607	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.82	0.607	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.82	0.607	1