

PFAS TESTING

PFAS (per- and polyfluoroalkyl substances) are a group of man-made chemicals used in products such as waterproof clothing, food packaging, non-stick cookware and firefighting foam.

They are often called “forever chemicals” because they do not break down easily in the environment.

PFAS can:

- Persist in rivers, groundwater and drinking water sources
- Build-up in wildlife and people over time
- Be linked to health concerns including impacts on the immune system, hormones and cholesterol levels, increased cancer risk and reproductive and development issues.

Research shows PFAS are now widely found in water systems across Europe, including the UK.

PFAS can enter rivers and coastal waters through:

- Industrial discharge
- Wastewater treatment works
- Landfill leachate
- Firefighting foam use
- Runoff from contaminated land

Standard water treatment processes often do not fully remove PFAS, which means contamination can remain in the environment for many years. Nature-based solutions (such as wetlands) have been proven to support the filtration of PFAS but it’s difficult to completely breakdown once they’ve bio-accumulated.

Testing helps identify pollution hotspots, potential risks to bathing waters and long-term contamination trends. It can also highlight areas needing further investigation.

RELEVANT RESEARCH

PFAS exposure pathways

<https://doi.org/10.1021/acs.est.9b01186>

PFAS contamination in water systems

<https://doi.org/10.1016/j.watres.2022.118093>

Essential-use approach to PFAS regulation

<https://doi.org/10.1021/acs.est.9b06332>

HOW CAN YOU TEST FOR PFAS?

Citizen scientists can collect samples and submit them to accredited laboratories for professional analysis.

PFAS testing requires specialist equipment, so samples must be analysed by a laboratory.

We use ALS Laboratories (UK) Limited: [ALS UK | Leaders in PFAS Testing](#)

Environmental services

<https://www.alsglobal.com/en-GB/uk/environmental>

Client services

<https://www.alsglobal.com/en-GB/uk/environmental/client-services>

Method statements

<https://www.alsglobal.com/en-GB/uk/environmental/client-services/method-statements>

ALS offers one of the most robust PFAS testing portfolios in the UK, covering a broad range of compounds and matrices. They provide analysis of 50+ PFAS compounds, including key regulated and emerging substances.

What this means

- A single test can measure **40+ different PFAS compounds**
- Results are usually reported in **nanograms per litre (ng/L)**
- Not all PFAS behave the same, so looking at the full profile gives a better picture of pollution sources and risks

COSTS

PFAS analysis is more expensive than standard water quality testing.

The main cost is the laboratory test itself, with optional extras such as courier collection or faster turnaround increasing the total.

Item	Typical cost
PFAS laboratory analysis	£250 to £300
Minimum batch charge	£150
Courier collection (optional)	Around £75
Drop-off delivery	Usually free

Expected total for one sample:

£250 to £350

WHAT THE LAB TESTS FOR

The standard **PFAS broad suite tested for by ALS (the lab we're using)** covers a wide range of individual chemicals from across the PFAS family. These include both well-known legacy PFAS and newer replacement compounds.

- PFOS (perfluorooctane sulfonate) – includes linear and branched forms
- PFOA (perfluorooctanoic acid)
- PFHxS (perfluorohexane sulfonate)
- PFNA (perfluorononanoic acid)
- PFDA (perfluorodecanoic acid)

Short-chain PFAS (more mobile in water)

- PFBA (perfluorobutanoic acid)
- PFBS (perfluorobutane sulfonate)
- PFPeS (perfluoropentane sulfonate)
- PFHxA (perfluorohexanoic acid)
- PFHpA (perfluoroheptanoic acid)

Long-chain PFAS (more bioaccumulative)

- PFUnA (perfluoroundecanoic acid)
- PFDoA (perfluorododecanoic acid)
- PFTTrDA (perfluorotridecanoic acid)
- PFTeA (perfluorotetradecanoic acid)

Sulfonates and related compounds

- PFDS (perfluorodecane sulfonate)
- PFHpS (perfluoroheptane sulfonate)
- PFNS (perfluorononane sulfonate)
- PFDoS (perfluorododecane sulfonate)
- PFUnDS (perfluoroundecane sulfonate)

Fluorotelomer compounds (often from industrial sources)

- 4:2 FTS
- 6:2 FTS
- 8:2 FTS
- 3:3 FTCA
- 5:3 FTCA
- 7:3 FTCA

Emerging and replacement PFAS

These are newer chemicals increasingly found in monitoring:

- ADONA
- HFPO-DA (commonly known as GenX)
- HFPO-TA
- 9Cl-PF3ONS
- 11Cl-PF3OUdS

Precursors and related substances

These can break down into more persistent PFAS:

- EtFOSAA
- MeFOSAA
- EtFOSE
- MeFOSE
- N-EtFOSA
- N-MeFOSA

Other specialised PFAS included in testing

- FBSA
- FHxSA
- PFOSA
- PFODA
- PFMObA
- PFMOPrA
- PFEESA
- PFHxDA
- PFecHS
- NFDHA