



PER- AND POLY-FLUOROALKYL SUBSTANCES **PFAS** ANALYSIS

LABORATORY ANALYSIS OF SOIL AND WATER



SGS PFAS METHODOLOGY

Our methodology is compliant with the latest Australian guidelines including the 2018 PFAS National Environmental Management Plan and Table B-15 of QSM 5.1. Our reports provide complete isotope recovery information ensuring you can accurately assess data quality for your environmental site.

METHOD DETAIL

SGS performs the analysis of per- and poly fluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labeled surrogate standards and cleanup on SPE cartridges aqueous samples are

analysed by liquid chromatography/mass spectrometry (LC-MS/MS). Solid samples are spiked with isotopically labelled surrogate standards, extracted in acetic acid and basic methanol, and cleaned up by carbon and SPE cartridges before analysis by LC-MS/MS. Final sample concentrations are determined by isotope dilution/internal standard quantification.

SGS REPORTING LIMITS

Analyte Name	Water µg/L	Soil mg/kg	TOPA Water µg/L	TOPA Soil mg/kg
Perfluorobutanoic acid (PFBA)	0.0005	0.0001	0.004	0.0032
Perfluoropentanoic acid (PFPeA)	0.0005	0.0005	0.004	0.0032
Perfluorohexanoic acid (PFHxA)	0.0005	0.0001	0.004	0.0032
Perfluoroheptanoic acid (PFHpA)	0.0005	0.0001	0.004	0.0032
Perfluorooctanoic Acid (PFOA)	0.0005	0.0001	0.002	0.0016
Perfluorononanoic acid (PFNA)	0.001	0.0001	0.008	0.0032
Perfluorodecanoic acid (PFDA)	0.001	0.0001	0.008	0.0032
Perfluoroundecanoic acid (PFUnA)	0.001	0.0001	0.008	0.0032
Perfluorododecanoic acid (PFDoA)	0.001	0.0001	0.008	0.0032
Perfluorotridecanoic acid (PFTrDA)	0.001	0.0001	0.008	0.0032
Perfluorotetradecanoic acid (PFTeDA)	0.001	0.0001	0.008	0.0032
Perfluorohexadecanoic acid (PFHxDA)	0.002	0.0001	0.016	0.0064
Perfluorobutane sulfonate (PFBS)	0.001	0.0001	0.008	0.0032
Perfluoropentane sulfonate (PFPeS)	0.001	0.0001	0.008	0.0032
Perfluorohexane sulfonate (PFHxS)	0.0002	0.0001	0.004	0.0032
Perfluoroheptane sulfonate (PFHpS)	0.0002	0.0001	0.004	0.0032
Perfluorooctane sulfonate (PFOS)	0.0002*	0.0001	0.004	0.0032
Sum PFOS & PFHxS	0.0002	0.0001	0.004	0.0032
Perfluorononane sulfonate (PFNS)	0.0005	0.0001	0.004	0.0032
Perfluorodecane sulfonate (PFDS)	0.0005	0.0001	0.004	0.0032
Perfluorododecane sulfonate (PFDoS)	0.0005	0.0001	0.004	0.0032
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	0.0005	0.001	0.004	0.0032
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	0.0005	0.001	0.004	0.0032
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	0.0005	0.001	0.004	0.0032
Perfluorooctane sulfonamide (PFOSA)	0.002	0.001	0.016	0.0032
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	0.0025	0.001	0.02	0.016
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	0.0025	0.001	0.02	0.016
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	0.0025	0.002	0.02	0.032
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	0.0025	0.002	0.02	0.032
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	0.0025	0.001	0.02	0.016
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	0.0025	0.001	0.02	0.016

* PFOS detection limit meets the 99% species protection values - Table 5 PFAS National Environment Management Plan January 2018

WHEN YOU NEED TO BE SURE

SGS