



Freshwater sediment

Proficiency tests in Freshwater sediment

SETOC - Sediment Exchange for Tests on Organic Contaminants p23

General Information

- The sample types/matrices are chosen to represent the materials which you normally analyse. There is no spiking or use of artificial samples.
- The samples are obtained from riverbeds, lake bottoms and harbours.
- Sediments are dried and milled and sieved to <math><0.5\text{ mm}</math>.
- The homogeneity of each batch of samples is tested on a selection of parameters.
- The dried sediment samples are stable over a number of years when stored at room temperature.
- You analyse the samples according to your own procedures and for those elements and parameters you are interested in.
- Your results are processed at WEPAL-QUASIMEME and published every three months under confidential code names.
- The reports contain all data, statistical evaluation including Z-score plots and method information about the method used.
- Your reports are available within three weeks after the submission deadline
- New determinands can be added on request.



SETOC Sediment Exchange for Tests on Organic Contaminants	
Year: 2024	Participants: 50 laboratories expected
Number of rounds: 4 per year	Start exercise: 1 January, 1 April, 1 July, 1 October
Number of materials: 4 per round	Sample size: 100 g

[Participation form](#)
[Timetable](#)
[PT Scheme](#)
[Costs](#)

This study covers the determination of chemical analysis in freshwater sediments.

Determinands and Analysis

Concentration ranges and constant and proportional errors are available in the determinand list on the participants website.

For dioxins and furans, a special round is held once yearly in the period October-December.

Determinand group	Determinand*
Polycyclic aromatic hydrocarbons	acenaphthene ; acenaphthylene; anthracene ; benz(a)anthracene ; benzo(a)pyrene ; benzo(b)fluoranthene ; benzo(ghi)perylene ; benzo(k)fluoranthene ; chrysene ; dibenz(ah)anthracene ; fluoranthene ; fluorene ; indeno(1,2,3-cd)pyrene ; naphthalene; phenanthrene ; pyrene ; EPA ΣPAH(16);
Polychlorobiphenyls	PCB 028 ; PCB 031; PCB 052 ; PCB 077; PCB 081; PCB 101 ; PCB 105; PCB 114; PCB 118 ; PCB 123; PCB 126; PCB 128; PCB 138 ; PCB 149; PCB 153 ; PCB 156; PCB 157; PCB 167; PCB 169; PCB 180 ; PCB 189; ΣPCB(7);
Organochlorine pesticides	1,2,3 trichlorobenzene; 1,2,4 trichlorobenzene; 1,3,5 trichlorobenzene; Sum trichlorobenzenes; 1,2,3,4 tetrachlorobenzene; 1,2,3,5 tetrachlorobenzene; 1,2,4,5 tetrachlorobenzene; Sum tetrachlorobenzenes; aldrin; alpha-endosulfan; alpha-HCH; beta-endosulfan; beta-HCH; chlordane; cis-chlordane; delta-HCH; dieldrin; endosulfan; endosulfan sulfate; endrin; gamma-HCH; heptachlor; heptachlor epoxide; hexachlorobenzene ; hexachlorobutadiene; isodrin; o,p`-DDD; o,p`-DDE; o,p`-DDT; p,p`-DDD; p,p`-DDE ; p,p`-DDT; pentachlorobenzene; pentachlorophenol; telodrin; toxaphene; trans-chlordane;
Other parameters	AOX; CN-Free; CN-Total ; EOX; Inorganic carbon; Organic carbon ; Mineral oil ; GC ; Mineral oil, IR; Particles < 2 µm; Particles < 63 µm; Particles > 63 µm;
Metals	As; Ba; Cd; Co; Cr; Cu; Hg; Mo; Ni; Pb; Zn ;
Dibenzo-P Dioxin#	1,2,3,4,6,7,8 Cl7DD; 1,2,3,4,7,8 Cl6DD; 1,2,3,6,7,8 Cl6DD; 1,2,3,7,8 Cl5DD; 1,2,3,7,8,9 Cl6DD; 2,3,7,8 Cl4DD; Cl8DD;
Dibenzofuran#	1,2,3,4,6,7,8 Cl7DF; 1,2,3,4,7,8 Cl6DF; 1,2,3,4,7,8,9 Cl7DF; 1,2,3,6,7,8 Cl6DF; 1,2,3,7,8 Cl5DF; 1,2,3,7,8,9 Cl6DF; 2,3,4,6,7,8 Cl6DF; 2,3,4,7,8 Cl5DF; 2,3,7,8 Cl4DF; Cl8DF;
Brominated Flame Retardants	BDE 028; BDE 047; BDE 066; BDE 085; BDE 099; BDE 100; BDE 153; BDE 154; BDE 183; BDE 209;
Experimental	DEHP; Tributyl Tin (TBT);

*Determinands not in bold are not in the scope of accreditation