FW-1 Metals in wastewater (metalen in afvalwater)	
Year: 2024	Participants: 12 laboratories expected
Number of rounds: 1 per year	Period exercise: 20 March – 10 April
Number of materials: 3 per round	Sample size: 1000 ml

Participation form | Timetable | PT Scheme | Costs

This study covers the determination of trace metals in wastewater test materials.

Test Materials

The test materials are prepared in bulk from filtered (1 mm) wastewater. All test materials are preserved with 2 ml trace metal analysis grade nitric acid per litre of test material. Normally one blank wastewater and two spiked wastewater samples are supplied for each exercise.

Homogeneity of the test materials is assumed, as they were prepared in bulk and thoroughly mixed, before being dispensed into 1 litre polypropylene bottles for distribution. The test materials are stable for the purposes of the exercise.

Determinands and Concentration Ranges

Determinand*	Unit	Concentration Range	Error	
			Const	Prop
Al - Aluminium	mg/l	20–200		
Ag - Silver	µg/l	25–250		
As - Arsenic	µg/l	10–50		
Ba - Barium	µg/l			
Be - Beryllium	µg/l	5–50		
Ca - Calcium	mg/l	>50		
Cd - Cadmium	µg/l	5–50		
Ce - Cerium	µg/l			
Co - Cobalt	µg/l	5–50		
Cr - Chromium	µg/l	100–1000		
Cu - Copper	µg/l	100–1000		
Fe - Iron	mg/l	20–200		
Hg - Mercury	µg/l	2–20		
K - Kalium	mg/l	>50		
Mg – Magnesium	mg/l	>25		
Mn - Manganese	mg/l	20–200		
Mo - Molybdene	µg/l	100–1000		
Na - Sodium	mg/l	>50		
Ni - Nickel	µg/l	100–1000		
Pb - Lead	µg/l	100–1000		
S – Sulfur	mg/l			
Sb - Antimony	µg/l	5–50		
Se - Selenium	µg/l	500–5000		

Determinand*	Unit	Concentration Range	Error	
			Const	Prop
Sn – Stannum	µg/l	100–1000		
Sr – Strontium	µg/l			
Te – Tellurium	µg/l			
Ti - Titanium	µg/l	100–1000		
Tl _ Thallium	µg/l			
U – Uranium	µg/l			
V - Vanadium	µg/l	100–1000		
W - Tungsten	µg/l			
Zn – Zinc	µg/l	100–1000		

* This exercise is not in the scope of accreditation.