Schedule of Accreditation



Organisation Name Saotharlann Chonamara Teo Trading As Complete laboratory solutions

108T

INAB Reg No

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Accreditation Standard **EN ISO/IEC 17025 T**

Standard Version 2017

Date of award of accreditation 15/09/1999

Scope Classification Biological and veterinary testing

Scope Classification Chemical testing

Services available to the public¹ Yes

¹ Refer to document on interpreting INAB Scopes of Accreditation

Sites from which accredited services are delivered						
(the detail of the accredited services delivered at each site are on the Scope of Accreditation)						
Name Address						
1	Head Office	Rosmuc, Connemara, Galway				
2 CLS Galway UNIT 2, 3 and 8, IDA Enterprise Park,, Tuam Road, Galway						

Scope of Accreditation

CLS Galway

Biological and Veterinary Testing

Biology/veterinary field - Tests	Test name	Technique	Matrix	Equipment	Std. reference	
803 Culture of organisms in liquid or agar based culture media with visual or instrument monitoring for growth01 Culture of bacteria		Incubation and enumeration of microorganisms.	Tests on human pharmaceutical and biological products. Bacteria, Yeasts and Moulds only	N/A	CLS 210 - ISO 11737- 1:2018/AMD 1: 2021 Sterilization of health care products - Microbiological methods - Part 1: Determination of a population of microorganisms on products	
	Dual Incubation and Enumeration of TSA Plates	Plate count	Factory Hygiene Surfaces Factory Hygiene Air	N/A	CLS 190 In house method	
	Endotoxin testing of Medical Devices	Kinetic Assay	Tests on human pharmaceutical and biological products.	N/A	CLS 211 -ANSI/AAMI St72 - Bacterial endotoxin test methodologies, routine monitoring and alternative batch testing.	

Endotoxin Testing on Purified Water using Gel clot Method	Gel Clot	Tests on human pharmaceutical and biological products endotoxin tests	N/A	CLS 185 Based on ANSI/AAMI ST 72:2019 Bacterial Endotoxin test methodologies,routine monitoring and alternatives to batch testing	
Endotoxin Testing on Purified Water, Renal Water and Endoscopy Water using Kinetic Turbidimetric Method	Kinetic Turbidimetric Method	Tests on human pharmaceutical and biological products endotoxin tests	N/A	CLS 186 Based on ANSI/AAMI ST 72:2019 Bacterial Endotoxin test methodologies,routine monitoring and alternatives to batch testing, USP (85) Bacterial Endotoxin Test	
Enumeration of Microorganisms Colony count technique at 22°C, 30°C and 37°C in water	Spread plate	waters: Bacteriological condition of potable waters waters: Bacteriological condition of industrial waters Micro tests for factory hygiene purposes	N/A	CLS 95 based on the Microbiology of Drinking water part 7 (2020)- Methods for the enumeration of Heterotrophic bacteria by pour plate and spread techniques	
Enumeration of Total Coliforms and E.coli	Colilert	Waters: Factory hygiene Waters: Industrial waters Waters: Potable water Waters: Environmental Waters	N/A	CLS 33 Based on the Microbiology of Drinking Water part 4 (d) (2016)	
Enumeration of Total Viable Counts at 22°C, 35°C and 37°C	pour plate	Waters: Industrial waters	N/A	CLS 160 fluid monitoring membrane filtration based on ISO	

	<u> Anna</u>				
				23500-3:2024 Water for Haemodialysis, USP 1230 Water for Haemodialysis	
Enumeration of TVC at 30°C using Membrane Filtration	Membrane Filtration	Waters: Industrial waters	N/A	CLS 171 Based on ISO 15883- 1:2006/Amd 1:2014 Washer Disinfectors Part 1 and ISO 15883- 4:2018 Washer Disinfectors - Part 4	
Incubation and Enumeration of SDA Plates at 22.5°C	Plate count	Factory Hygiene Surfaces Factory Hygiene Air	N/A	CLS 187 In house method	
Incubation and Enumeration of TSA Plates at 32.5°C		Factory Hygiene Surfaces Factory Hygiene Air	N/A	CLS 188 in house method	

CLS Galway

Chemical Testing

Chemistry Field - Tests	Test name	Analyte	Range of measurement	Matrix	Equipment/technique	Standard reference/SOP
766 Environmental testing (inc waters)01 Metal analysis	Aluminium	Aluminium	2 - 500 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Antimony	Antimony	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Arsenic	Arsenic	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Barium	Barium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Beryllium	Beryllium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Boron	Boron	10 - 500 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Cadmium	Cadmium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Calcium	Calcium	3 - 300 mg/l	Drinking Water	ICP-MS	Documented in house method based on

					USEPA 200.8 ICP-MS CLS 129
Chromium	Chromium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Cobalt	Drinking Water	0.5 - 250 ug/l	Cobalt	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Copper	Copper	1 - 500 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Iron	Iron	10 - 500 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Lead	Lead	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Magnesium	Magnesium	0.8 - 80 mg/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Waste Water	0.8 - 80 mg/l	Magnesium	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Manganese	Manganese	5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Molybdenum	Molybdenum	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Nickel	Nickel	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on

					USEPA 200.8 ICP-MS CLS 129
Potassium	Potassium	0.5 - 50 mg/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Selenium	Selenium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Silver	Silver	0.5 - 125 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Sodium	Sodium	1 - 100 mg/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Strontium	Strontium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Tellurium	Tellurium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Thallium	Thallium	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Tin	Tin	0.5 - 250 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Zinc	Zinc	5 - 500 ug/l	Drinking Water	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129

Head Office

Biological and Veterinary Testing

Biology/veterinary field - Tests	Test name	Technique	Matrix	Equipment	Std. reference
802 Preparation of films on slides followed by microscopic examination with or without fixation and staining with dyes as required02 Microscopic examination for parasites	Enumeration of Cryptosporidium	Filta Max	Waters: enumeration of Free living Protoza Waters: Environmental waters Waters: Potable water	Filta Max	CLS 139 Based on MODW (2010) Part 14 and U.S EPA Method 1623:1 (2012)
803 Culture of organisms in liquid or agar based culture media with visual or instrument monitoring for growth01 Culture of bacteria	Detection and Enumeration of Legionella species in water and the detection of Legionella pneumophila, serogroups 1 and 2- 14 and presumptive spp(not legionella pneumophilia 1 -14)	Direct filtration, Acid treatment and Inoculation of selective media	Factory Hygiene Surfaces	N/A	CLS 100 Based on ISO 11731:2017 Procedure 7, Matrix A
			Waters: Industrial waters (treated, recirculating)	N/A	CLS 100 Based on ISO 11731:2017 Procedure 7, Matrix A
	Detection of Campylobacter spp	Resuscitation	Confectionary Dairy products Eggs and Egg products Fish, Shellfish and Mollusks Fruit and Vegetables Meat and Meat products, game and poultry Cereals and bakery products Factory Hygiene	N/A	CLS 181 Based on ISO 10272-1:2017/Amd 1:2023 - Procedure A

Detection of E.coli	Surfaces Prepared dishes Soups, broths and Sauces Factory Hygiene	N/A	CLS 11 Based on ISO	
0157 Detection of Ecoli 0157	Surfaces Cereals and Bakery products Dairy Products Factory hygiene surfaces Meat and Meat products, game and poultry Prepared dishes Soups, Broths and Sauces	N/A	16654:2001/ Amd 2:2023 CLS 11 based on ISO 16654:2001/ Amd 2:2023	
	Cereals and Bakery products Dairy Products Factory hygiene surfaces Meat and Meat products, game and poultry Prepared dishes Soups, Broths and Sauces	N/A	CLS 159 Based on Reveal for Ecoli 0157 20 hour system	
Detection of Listeria monocytogenes	Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg products Cereals and Bakery Products Confectionary Fruit and Vegetables Animal Feed	N/A	CLS 4 Based on IS EN ISO 11290-1:2017	

	Pet Foods Factory Hygiene Surfaces Soups, Broths and Sauces Prepared Dishes		
Detection of listeria monocytogenes by ALOA One Day Method	Animal feeder Cereals and Bakery Products Confectionary Dairy products Eggs and Egg products Factory Hygiene Surfaces Fish, Shellfish and Molluscs Fruit and Vegetables Meat and Meat products, game and poultry Cereals and bakery products Factory Hygiene Surfaces Meat surfaces Product contact surfaces Soups, broths and Sauces	CLS 163 Based on AES ALOA One Day (AFNOR cert AES 10/03-09/00)	
Detection of listeria species by ALOA One Day Method	Cereals and Bakery Products Confectionary Dairy products Eggs and Egg products Fish, Shellfish and Mollusks Fruit and Vegetables	CLS 164 Based on AES ALOA One Day (AFNOR cert AES 10/03-09/00)	

	Meat and Meat products, game and poultry Cereals and bakery products Factory Hygiene Surfaces Meat surfaces Product contact surfaces Prepared dishes Soups, broths and Sauces		
Detection of salmonella	Meat Surfaces Product contact surfaces Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg products Cereals and Bakery Products Confectionary Fruit and Vegetable Animal Feed Pet Foods Factory Hygiene Surfaces 'Factory Hygiene Surfaces and Environmental Swabs for poultry Primary Production' Soups, Broths and Sauces Prepared Dishes	CLS 2 Based on ISO 6579-1:2017/Amd 1:2020	

		Waters: Factory hygiene Waters: Industrial waters Waters: Potable water	N/A	CLS 45 Based on the Microbiology of Drinking Water (2006) Part 9	
Enumeration of Total Coliforms	Pour Plate	Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg products Cereals and Bakery Products Confectionary Fruit and Vegetables Animal Feed Pet Foods Factory Hygiene Surfaces	N/A	CLS 8 Based on ISO 4832:2006	
Enumeration of Clostridium perfringens	Membrane Filtration	Waters: Factory hygiene Waters: Industrial waters Waters: Potable water Waters: Environmental Waters Including Effluents	N/A	CLS 43 Based on the Microbiology of Drinking Water (2021) Part 6 (b)	
Enumeration of Campylobacter species in food	Spread Plate	Dairy products Eggs and Egg products Meat and Meat Products game and poultry Fish, Shellfish and Molluscs Soups, Broths and	N/A	CLS 197 Based on ISO/TS 10272- 2:2017/Amd1:2023	

		Sauces Cereals and Bakery Products Fruit and Vegetables Confectionary Prepared Dishes Animal Feed Meat and Meat Products game and poultry Factory Hygiene Surfaces			
Enumeration of Clostridium Perfringens	pour plate	non alcoholic beverages Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg products Cereals and Bakery Products Confectionary Fruit and Vegetables Animal Feed Pet Foods	N/A	CLS 7 Based on ISO 15213-2:2023	
Enumeration of Coagulase positive Staphylococci	Spread Plate	Cereals and Bakery Products Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg products Confectionary Fruit and Vegetables Animal Feed	N/A	CLS 3 Based on IS EN ISO 6888-1:2022 using EASY STAPH agar	

		Pet Foods Factory Hygiene Surfaces Soups, Broths and Sauces Prepared Dishes			
Enumeration of E.coli		Dairy products Meat and Meat Products game and poultry Eggs and Egg products Cereals and Bakery Products Confectionary Fruit and Vegetables Animal Feed Pet Foods Factory Hygiene Surfaces Soups, Broths and Sauces Prepared Dishes	N/A	CLS 198 Based on ISO 16649-2:2001	
Enumeration of E.coli using an MPN method		Fish, Shellfish and Molluscs	N/A	CLS 92 Based on Cefas Protocol Issue 1, 29/06/2020 Enumeration of Ecoli in Molluscan Bivalve Shellfish and ISO 16649-3:2015	
Enumeration of Enterobacteriaceae	Pour Plate	Meat Surfaces Product contact surfaces Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg products Cereals and Bakery	N/A	CLS 21 based on IS EN ISO 21528-2:2017 using RAPID'Enterobacteriaceae Agar	

		Products Confectionary Fruit and Vegetables Animal Feed Pet Foods Factory Hygiene Surfaces Soups, Broths and Sauces Prepared Dishes			
Enumeration of Enterobacteriaceae (Single Plate)	pour plate (single plate)	Animal feed Dairy products Eggs and Egg products Meat and meat products, game and poultry Fish, Shellfish and Molluscs Fruit and Vegetables Pet Foods	N/A	CLS 134 In House Method	
Enumeration of Enterococci	Membrane Filtration	Waters: Environmental Waters Including Effluents	N/A	CLS 42 Based on the Microbiology of Drinking Water (2012) Part 5 (a)	
		Waters: Factory hygiene Waters: Industrial waters Waters: Potable water Waters: Environmental Waters Including Effluents	N/A	CLS 42 Based on the Microbiology of Drinking Water (2012) Part 5 (a)	
Enumeration of Listeria Species including Listeria Monocytogenes	Resuscitation	Confectionery Dairy products Eggs and Egg products Fruit and Vegetables	N/A	CLS 6 Based on IS EN ISO 11290-2:2017	

		Meat and Meat products, game and poultry Cereals and bakery products Factory Hygiene Surfaces Fish, Shellfish and Molluscs Prepared Dishes Soups, Broths and Sauces			
Enumeration of micro organisms at 22°C	Spread Plate	Fish, Shellfish and Molluscs	N/A	CLS 48 Based on IS EN ISO 4833-2:2013 Cor 1:2014	
		non alcoholic beverages Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg products Confectionary Fruit and Vegetables Animal Feed Pet Foods	N/A	CLS 48 based on IS EN ISO 4833-2:2013 Cor 1:2014/ Amd1:2022	
	TVC @ 22°C - pour plate	non alcoholic beverages Fish, Shellfish and Molluscs Dairy products Meat and Meat Products game and poultry Eggs and Egg	N/A	CLS 47 based on IS EN ISO 4833-2:2013 Cor 1:2014, Amd1:2022	

		products Confectionary Fruit and Vegetables Animal Feed Pet Foods			
Enumeration of Micro organisms at 30°C	TVC @ 30°C – pour plate	Animal feed Confectionery Dairy products Eggs and Egg products Fish, Shellfish and Mollusks Fruit and Vegetables Meat and Meat products, game and poultry Pet foods Cereals and bakery products Non-alcoholic beverages Factory Hygiene Surfaces Meat surfaces Product contact surfaces Prepared dishes Soups, broths and Sauces	N/A	CLS 15 based on IS EN ISO 4833-1:2013/ Amd 1:2022	
	TVC @ 30°C - spread plate	Animal feed Confectionery Dairy products Eggs and Egg products Fish, Shellfish and Mollusks Fruit and Vegetables Meat and Meat products, game and poultry Pet foods Cereals and bakery	N/A	CLS 46 based on IS EN ISO 4833-2:2013 Cor 1:2014/Amd 1:2022	

		products Non-alcoholic beverages Factory Hygiene Surfaces Meat surfaces Product contact surfaces Prepared dishes Soups, broths and Sauces			
eration of micro	TVC @ 37°C - pour plate	Animal feed Confectionery Dairy products Eggs and Egg products Fish, Shellfish and Molluscs Fruit and Vegetables Meat and Meat products, game and poultry Pet foods Non-alcoholic beverages	N/A	CLS 49 Based on IS EN ISO 4833-1:2013, Amd 1:2022	
	TVC @ 37°C - spread plate	Non-alcoholic beverages	N/A	CLS 50 Based on IS EN ISO 4833-1:2013/Amd 1:2022	
eration of nptive Bacillus	Spread Plate	Dairy products Meat and Meat Products game and poultry Eggs and Egg products Cereals and Bakery Products Confectionary Fruit and Vegetables Animal Feed Pet Foods	N/A	CLS 20 Based on IS EN ISO 7932:2004/Amd:2020	

		Soups, Broths and Sauces Prepared Dishes			
Enumeration of Presumptive Pseudomonas SPP		non alcoholic beverages Meat and Meat Products game and poultry	N/A	CLS 22 Based on ISO 13720:2010	
Enumeration of Pseudomonas aeruginosa	Membrane Filtration	Waters: Factory hygiene Waters: Industrial waters Waters: Potable water Waters: Environmental water	N/A	CLS 44 Based on the Microbiology of Drinking water Part 8 (2015)	
Enumeration of ß-glucuronidase positive E.coli:Colony Count Technique at 44°C using 5-bromo-4-chloro-3-indolyl-ß-D-glucuronide	Pour Plate	Dairy products Eggs and Egg products Meat and Meat Products game and poultry Fish, Shellfish and Molluscs Soups, Broths and Sauces Cereals and bakery products Fruit and Vegetables Confectionary Prepared Dishes Animal Feed	N/A	CLS 198 Based on ISO 16649-2:2018	
Enumeration of Total Coliforms and E.coli	Colilert	Waters: Factory hygiene Waters: Industrial waters Waters: Potable water	N/A	CLS 33 Based on the Microbiology of Drinking Water (2016) Part 4 (d)	

Enumeration of Total Coliforms and E.coli and Faecal Coliform	Membrane Filtration	Waters: Factory hygiene Waters: Industrial waters Waters: Potable water Waters: Environmental waters including effluents	N/A	CLS 16 Based on the Microbiology of Drinking Water (2016) Part 4 (a) and ISO 9308:2014/Amd 1:2016	
Enumeration of TVC at 22°C, 30°C and at 37°C (Single plate)		Animal feed Dairy products Eggs and Egg products Factory Hygiene Surfaces Fish, Shellfish and Molluscs Fruit and Vegetables Meat and Meat products, game and poultry Pet foods Non-alcoholic beverages	N/A	CLS 132 In House Method	
	Spread Plate (single plate)	Dairy products Eggs and Egg products Meat and Meat Products game and poultry Fish, Shellfish and Molluscs Fruit and Vegetables Non-alcoholic Beverages Pet Foods Animal Feed	N/A	CLS 133 In House Method	
Enumeration of TVCs (Air Settlement plates)		Factory Hygiene Air	N/A	CLS 82 In house method	

		2				
	meration of TVCs tact plates		Factory Hygiene Surfaces	N/A	CLS 80 Based on ISO 18593:2018	
	meration of Yeast Mould	Plate count	Factory Hygiene Air	N/A	CLS 130 In House Method	
			Cereals and Bakery products Dairy products Factory Hygiene Surfaces Fruit and Vegetables Non-alcoholic beverages Prepared dishes		CLS 1 Based on ISO 21527-1 and 2:2008	
Meth	nbrane Filtration hod using omocult Agar		Waters: Potable water		CLS 199 Based on ISO 9308-1:2014 Detection and Enumeration of Total Coliforms and E.coli in water with low bacterial Flora	

Head Office

Chemical Testing

Chemistry Field - Tests	Test name	Analyte	Range of measurement	Matrix	Equipment/technique	Standard reference/SOP
766 Environmental testing (inc waters)01 Metal analysis	Aluminium		2 μg - 10,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Antimony		0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Arsenic		0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
	Barium		0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters)	ICP-MS	Documented in house method based on

Beryllium
Boron
Cadmium
Calcium

	Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes		USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
10 μg - 10,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
3 mg - 3,000 mg/L	Bore Waters Other waters (surface waters) Waste water treatment plants	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129

			effluent (WWTP effluent) Waters for Potable and Domestic Purposes		
Chromium		0.5 μg - 5,000μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Cobalt		0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Copper		1 μg - 10,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
ICPM Metals	Mercury	0.05-2.5ug/l	Waste Water	ICPMS	CLS 129/USEP A 200.8
ICPMS Metals		0.05-2.5ug/l	Drinking Water	ICPMS	CLS 129/USEP A 200.8
		0.05-2.5ug/l	Ground Water	ICPMS	CLS 129/USEP A 200.8

		0.05-2.5ug/l	Surface Water	ICPMS	CLS 129/USEP A 200.8
	Silver	0.5-125ug/l	Ground Water	ICPMS	CLS 129/USEP A 200.8
		0.5-125ug/l	Surface Water	ICPMS	CLS 129/USEP A 200.8
		0.5-125ug/l	Waste Water	ICPMS	CLS 129/USEP A 200.8
Iron		10 μg - 10,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Lead		0.5 µg - 5,000 µg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Magnesium		0.8 mg - 800 mg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
Manganese		5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters)	ICP-MS	Documented in house method based on

Molybdenum
Nickel
Potassium
Selenium

	Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes		USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
0.5 mg - 500 mg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129

Sodium
Strontium
Fellurium
Thallium

	effluent (WWTP effluent) Waters for Potable and Domestic Purposes		
1 mg - 1,000 mg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent)	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129

	Tin
	Vanadium
	Zinc
766 Environmental testing (inc waters)02 Biochemical oxygen demand	Biochemical Oxygen Demand

	Waters for Potable and Domestic Purposes		
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
0.5 μg - 5,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
5 μg - 10,000 μg/L	Bore Waters Other waters (surface waters) Waste water treatment plants effluent (WWTP effluent) Waters for Potable and Domestic Purposes	ICP-MS	Documented in house method based on USEPA 200.8 ICP-MS CLS 129
1-7,000 mg/L	Bore waters Other waters (surface waters) Saline waters Sewage Trade wastes Waters for potable and domestic purposes	DO Probe	Documented in house method based on APHA standard methods for the examination of water and waste 24th edition, 2020 (unless otherwise stated) CLS 12 Measurement of

				Waste water treatment plants effluent (WWTP effluent)		Oxygen consumed over 5 days (APHA 5210B)
	BOD using automated system	BOD	1-3000 mg/l	Influent, Effluent, Surface Water, Ground Water and Saline Water	Automated BOD Analyser	Standard Methods for the Examination of Water and Wastewater, 24th ed. 2023. CLS214
	cBOD using automated system	cBOD	1-3000 mg/l	Influent, Effluent, Surface Water, Ground Water and Saline Water	Automated cBOD Analyser	Standard Methods for the Examination of Water and Wastewater, 24th ed. 2023 CLS214
766 Environmental testing (inc waters)03 Chemica oxygen demand	Chemical Oxygen Demand		10 - 30,000 mg/L	Bore waters Other waters (surface waters) Saline waters Sewage Trade wastes Waters for potable and domestic purposes Waste water treatment plants effluent (WWTP effluent)	DR5000	CLS 52 Based on Hach Procedures Manual 9th Edition 1999 and standard methods for the examination of water and wastewater 24th edition, 2023
766 Environmental testing (inc waters)04 Organic	Benzene		10-10,000 μg/L	Bore Waters Other waters (surface waters) Saline waters Trade wastes Waters for Potable and domestic purposes	GC-FID	In house method CLS 148 based on USEPA 8015B
	Ethylbenzene		10-10,000 μg/L	Bore Waters Other waters (surface waters) Saline waters Trade wastes Waters for Potable	GC-FID	In house method CLS 148 based on USEPA 8015B

o-Xylene
t-butyl methyl ether
Benzene
Ethylbenzene
Extractable Hydrocarbons by GC-
FID Diesel Range and Lube Oil (C ₈ - C ₄₀)
- (-0 -40)

	and domestic purposes		
10-10,000 μg/L	Bore Waters Other waters (surface waters) Saline waters Trade wastes Waters for Potable and domestic purposes	GC-FID	In house method CLS 148 based on USEPA 8015B
10-10,000 µg/L	Bore Waters Other waters (surface waters) Saline waters Trade wastes Waters for Potable and domestic purposes	GC-FID	In house method CLS 148 based on USEPA 8015B
0.01mg/kg to 20 mg/kg	Sediments	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
0.01mg/kg to 20 mg/kg	Sediments Soils (Loam, Sand and Peat)	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
0.01mg/kg to 20 mg/kg	Sediments	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
0.01mg/kg to 20 mg/kg	Sediments Soils (Loam, Sand and Peat)	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
10-10,000 µg/L 10-10,000 µg/L 10-10,000 µg/L 10-10,000 µg/L 10-10,000 µg/L 10-10,000 µg/L 200-10,000 µg/L	Bore Waters Other waters (surface waters) Saline waters Sewage Trade wastes Waters for Potable	GC-FID	CLS 147 Method based on USEPA 8015B

			and Domestic Purposes Waste Water Treatment plants Effluent (WWTP effluent)		
		200 mg/kg to 2,000 mg/kg 50 mg/kg to 2,000 mg/kg 50 mg/kg to 2,000 mg/kg	Peat Sediments Soils (Loam, and Sand)	GC-FID	In house method CLS 156 and CLS 147 Method adapted from 8015B
m / p- Xylene		0.02 mg/kg to 40 mg/kg	Sediments	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
		0.02 mg/kg to 40 mg/kg	Sediments Soils (Loam, Sand and Peat)	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
		20 - 20,000 μg/L	Bore Waters Other waters (surface waters) Saline waters Trade wastes Waters for Potable and domestic purposes	GC-FID	In house method CLS 148 based on USEPA 8015B
o-Xylene		0.01mg/kg to 20 mg/kg	Sediments	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
		0.01mg/kg to 20 mg/kg	Sediments Soils (Loam, Sand and Peat)	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
PAH by HPLC	Polycylic Aromatic Hydrocarbons (sum of 4)	0.04-1.6ug/l	Drinking Water	Calculation based on HPLC	CLS 149/ISO 17993 and Agilent 1200 User Manual

Petrol Range Organics (PRO) (C5 to C12)	0.1mg/kg to 169 mg/kg	Sediments	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
	0.1mg/kg to 169 mg/kg	Soils (Loam, Sand and Peat)	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
	10-56,250 μg/L	Bore Waters	GC-FID	In house method CLS 148 based on USEPA 8015B
	10-56,250 μg/L	Other waters (surface waters)	GC-FID	In house method CLS 148 based on USEPA 8015B
	10-56,250 μg/L	Saline Waters	GC-FID	In house method CLS 148 based on USEPA 8015B
	10-56,250 μg/L	Trade Wastes	GC-FID	In house method CLS 148 based on USEPA 8015B
	10-56,250 μg/L	Waters for Potable and Domestic Purposes	GC-FID	In house method CLS 148 based on USEPA 8015B
Polycyclic Aromatic Hydrocarbon by HPLC Acenaphthene	10 - 400 ng/l	Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
Polycyclic Aromatic Hydrocarbon by HPLC Acenaphylene	50 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
Polycyclic Aromatic Hydrocarbon by HPLC Anthracene	10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
Polycyclic Aromatic Hydrocarbon by HPLC Benzo (a) fluoranthene	10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual

Polycyclic Aromatic Hydrocarbon by HPLC Benzo (a) pyrene
Polycyclic Aromatic Hydrocarbon by HPLC Benzo (b) fluoranthene
Polycyclic Aromatic Hydrocarbon by HPLC Benzo (g,h,i) perylene
Polycyclic Aromatic Hydrocarbon by HPLC Benzo (k) fluoranthene
Polycyclic Aromatic Hydrocarbon by HPLC Dibenzo (a,h) anthracene
Polycyclic Aromatic Hydrocarbon by HPLC Fluorene
Polycyclic Aromatic Hydrocarbon by HPLC Fluroanthene
Polycyclic Aromatic Hydrocarbon by HPLC Indeno (1,2,3-cd) perylene
Polycyclic Aromatic Hydrocarbon by HPLC Naphthalene

10 - 400 ng/l 5 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Other waters	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
50 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual

Polycyclic Aromatic Hydrocarbon by HPLC Phenanthrene		10 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
Polycyclic Aromatic Hydrocarbon by HPLC Pyrene		50 - 400 ng/l	Other waters Waters for Potable and Domestic Purposes	HPLC	CLS 149 Based onISO 17993 and Agilent 12000 series G1321A user manual
t-butyl methyl ether		0.01mg/kg to 20 mg/kg	Sediments	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
		0.01mg/kg to 20 mg/kg	Sediments Soils (Loam, Sand and Peat)	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
Toluene		0.01mg/kg to 20 mg/kg	Sediments	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
		0.01mg/kg to 20 mg/kg	Sediments Soils (Loam, Sand and Peat)	GC-FID	In house method CLS 157 and CLS 148 based on USEPA 8015B
		10-10,000 μg/L	Bore Waters Other waters (surface waters) Saline waters Trade wastes Waters for Potable and domestic purposes	GC-FID	In house method CLS 148 based on USEPA 8015B
Total Extractable Petroleum Hydrocarbons by GC- FID TPH (>nC5 to C44)		20 - 10,000 μg/l	Bore Waters Other waters (surface waters)	GC-FID	Based on USEPA 8015B modified. Documented in house method CLS 193
VOC by GCMSD	Chloroform Bromodichloromethane Dibromochloromethane Bromoform		Drinking Water	GCMSD	CLS 183/USEPA 524.3

					-
	Total Trihalomethanes (THMs)	1.7 - 800 ug/l			
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,1,1,2- Tetrachloroethane		2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,1,1-trichloroethane		0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,1,2,2- tetrachloroethane		4-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,1,2-trichloroethane		2-50 μg/l 0.5-50μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,1-Dichloroethane		2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,1-dichloroethene		0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183

	Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,1-dichloropropene
•	Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2,3-trichlorobenzene
i	Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2,3-trichloropropane
•	Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2,4-trichlorobenzene
i	Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2,4-trimethylbenzene
•	Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2-dibromoethane (EDB)
	Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2-dichlorobenzene

0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 0.5-50 μg/l 0.5-50μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 2-50 μg/l 2-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 0.1-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection

Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2-dichloroethane
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,2-dichloropropane
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,3,5 trimethylbenzene (mesitylene)
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,3-butadiene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1,3-dichloropropane
Volatile Organic compounds (VOC) including Trihalomethanes (THM) 1-chlorobutane (n-butyl chloride)
Volatile Organic compounds (VOC) including

	and Domestic Purposes		Documented in-house procedure CLS 183
0.2-50 μg/l 0.5-50 μg/l 0.1-50 μg/l	Bore waters Other Waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 2-50 μg/l 2-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l 0.5-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l	Bore waters Other waters (surface waters)) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.1-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters)	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to

Trihalomethanes (THM) benzene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) bromobenzene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) bromochloromethane
Volatile Organic compounds (VOC) including Trihalomethanes (THM) bromodichloromethane
Volatile Organic compounds (VOC) including Trihalomethanes (THM) Bromomethane (methyl bromide)
Volatile Organic compounds (VOC) including Trihalomethanes (THM) Carbon disulfide

	Waters for Potable and Domestic Purposes		Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 1-50 μg/l 1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.2-50 μg/l 2-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.2-50 μg/l 2-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore Waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183

Volatile Organic compounds (VOC including Trihalomethanes (Carbontetrachlorid (tetrachloromethal	(THM) de
Volatile Organic compounds (VOC including Trihalomethanes (Cis-1,2-dichloroet	THM)
Volatile Organic compounds (VOC including Trihalomethanes (Cis-1,3-dichloropr	THM)
Volatile Organic compounds (VOC including Trihalomethanes (dibromethane	,
Volatile Organic compounds (VOC including Trihalomethanes (dibromochloromet	THM)
Volatile Organic compounds (VOC including Trihalomethanes (Dichlorodifluorome (CFC-12)	THM)
Volatile Organic compounds (VOC including Trihalomethanes (

0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l 1-50 μg/l	Bore waters Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l	Bore Waters	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.1-50 μg/l	Bore Waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 1-50 μg/l 1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection

	Diethyl ether (ether ether)
c	Volatile Organic compounds (VOC) ncluding
٦	Trihalomethanes (THM) Diisopropyl ether (DIPE)
C	Volatile Organic compounds (VOC) ncluding
1	rrihalomethanes (THM) ethylbenzene
c	Volatile Organic compounds (VOC)
1	ncluding Frihalomethanes (THM) nexachlorobutadiene
i	Volatile Organic compounds (VOC) ncluding frihalomethanes (THM) nexachloroethane
i	Volatile Organic compounds (VOC) notice (TUN)
I	Frihalomethanes (THM) odomethane (methyl odide)
i	Volatile Organic compounds (VOC) ncluding Frihalomethanes (THM) m/p-xylene
c	Volatile Organic compounds (VOC) ncluding

	and Domestic Purposes		Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l 2-50 μg/l 2-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 0.1-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-60 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
5-50 μg/l	Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to

Trihalomethanes (THM) Methyl acetate
Volatile Organic compounds (VOC) including Trihalomethanes (THM) Methyl tert-butyl ether (MTBE)
Volatile Organic compounds (VOC) including Trihalomethanes (THM) naphthalene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) n-butylbenzene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) n-propylbenzene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) o-xylene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) pentachloroethane
Volatile Organic compounds (VOC)

			Headspace injection Documented in-house procedure CLS 183
2-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 1-50 μg/l 1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 2-50 μg/l 2-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 1-50 μg/l 1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 2-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l	Bore waters Other waters	GC/MS	Based on USEPA 524.3 adapted from

Trih	uding nalomethanes (THM) ene
con incl Trih Ten	atile Organic npounds (VOC) uding alomethanes (THM) t-amyl ether ether EE)
con incl Trih Ter	atile Organic npounds (VOC) uding alomethanes (THM) t-amyl methyl ether ME)
con incl Trih	atile Organic npounds (VOC) uding nalomethanes (THM) achloroethene
con incl Trih	atile Organic npounds (VOC) uding alomethanes (THM) rahydrofuran
con incl Trih	atile Organic npounds (VOC) uding nalomethanes (THM) ene
con incl Trih Tra	atile Organic npounds (VOC) uding nalomethanes (THM) ns-1,3- nloropropene

	(surface waters) Waters for Potable and Domestic Purposes		Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l 5-50 μg/l 5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.2-50 μg/l 1-50 μg/l 1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l 0.1-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 5-50 μg/l 5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l	Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183

Volatile Organic compounds (VOC) including Trihalomethanes (THM) trichloroethene
Volatile Organic compounds (VOC) including Trihalomethanes (THM) Trichlorofluoromethane (CFC-11)
Volatile Organic compounds (VOC) including Trihalomethanes (THM) Trichloromethane (Bromoform)
Volatile Organic compounds (VOC) including Trihalomethanes (THM) Trichloromethane (chloroform)
Volatile Organic compounds (VOC) including Trihalomethanes (THM) Vinyl chloride
Volatile Organic compounds (VOC) including Trihalomethanes (THM)4- isopropyltoluene (p- cymene)
Volatile Organic compounds (VOC) including

2-50 μg/l 0.1-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 0.5-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
2-50 μg/l 1-50 μg/l 1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l 0.1-50 μg/l 0.1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
1-50 μg/l 0.5-50 μg/l 0.5-50 μg/l	Bore waters Other waters (surface waters)	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to

The state of the s	
	Trihalomethanes (THM)Ethyl tert-butyl ether (ETBE)
	Volatile Organic compounds (VOC) including Trihalomethanes (THM)Tert- butylbenzene
	Volatile Organic compounds (VOC) including Trihalomethanes (THM)Trans-1,2- dichloroethene
766 Environmental testin (inc waters)05 Inorgar	
	Ammonia
	Ammonia as NH₄

	Waters for Potable and Domestic Purposes		Headspace injection Documented in-house procedure CLS 183
4-50 μg/l 1-50 μg/l 1-50 μg/l	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	GC/MS	Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
0.5-50 μg/l	5-50 µg/l Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes		Based on USEPA 524.3 adapted from Purge and Trap to Headspace injection Documented in-house procedure CLS 183
10-500 mg/l as CaCO₃	Bore Waters Other waters (surface waters) Waters for potable and domestic purposes	Mettler Toledo DL50 Titrator	Standard Methods examination of water and waste water 24th edition, 2023. Documented in-house method CLS 195
0.005 to 600 mg/L NH₃-N	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Konelab	Konelab CLS 40 Salicylate method based on Methods for the examination of water and associated Materials, Ammonia in waters,1981
0.01 - 1290 mg/L NH₄	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP)	Konelab	Konelab CLS 40 Salicylate method based on Methods for the examination of water and associated Materials, Ammonia in waters,1981

			Waters for Potable and Domestic Purposes		
Bicarbonate by calculation		10-500 mg/l as CaCO₃	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	Mettler Toledo DL50 Titrator	Standard Methods examination of water and waste water 24th edition, 2023. Documented in-house method CLS 195
Carbonate by calculation		10-500 mg/l as CaCO₃	Bore waters Other waters (surface waters) Waters for Potable and Domestic Purposes	Mettler Toledo DL50 Titrator	Standard Methods examination of water and waste water 24th edition, 2023. Documented in-house method CLS 195
Chloride		2.0 to 30,000 mg/L Cl	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Konelab	Konelab CLS 36 Colorimetric determination and adapted for discrete analyser Standard Methods 24th edition 2023 (APHA 4500-CL E)
Colour		4.0 - 500 mg/l(PT Co)	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	DR5000	In house method CLS 29 Based on Standard methods for examination of water and waste water 24th edition, 2023 (APHA 2120 C)
Dissolved Organic Carbon	DOC	1-100 mg/l	Other Water (Surface Waters) Waters for Potable	TOC Analyser	CLS 150 Total Organic Carbon (NPOC) and Dissolved Organic

			and Domestic Purposes		Carbon (DOC) USEPA Method 415.3
Fats, oils and greases		5 to 10,000 mg/L	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Soxhlet extractor	CLS 25 Increase in weight after sample filtration and Soxhlet extraction Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA 5520 A and D)
Fluoride	Fluoride	0.2 - 1.5 mg/l	Bore waters Other waters (surface waters) Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Konelab	Standard Methods for Examination of Water and Waste water 24th ed. 2023. CLS 213
Nitrate		0.1 - 500 mg/L NO ₃ -N	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Konelab	Konelab CLS 39 Calculated value
Nitrite		0.005 to 10 mg/L NO ₂ -N	Bore waters Other waters (surface waters Saline waters Sewage	Konelab	Konelab CLS 37 Colorimetric determination and adapted for discrete analyser, Standard

		Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes		Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA 4500-NO ₂ B)
Nitrite as NO ₂	0.017 - 33 mg/L	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes		Konelab CLS 37 Colorimetric determination and adapted for discrete analyser, Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA 4500-NO ₂ B)
Orthophosphate	0.03 to 6,140 mg/L PO ₄	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes		Konelab CLS 35 Colorimetric determination and adapted for discrete analyser, Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA 4500-PE)
Phosphorus	0.01 to 2,000 mg/L PO ₄ -P	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable	Konelab	Konelab CLS 35 Colorimetric determination and adapted for discrete analyser, Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA 4500-PE)

Sulphate
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Total Nitrogen

	and Domestic Purposes		
5-3,000 mg/L SO ₄	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Konelab	Konelab CLS 88 Based on Sulphate in waters Effluents and Soils 2nd Edition (1998) Method E.
0.1 - 500 mg/L NO ₃ -N	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Konelab	Konelab CLS 38 Colorimetric determination and adapted for discrete analyser, Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA 4500-NO ₃ -H)
20-3,000 mg/L CaCO ₃	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Konelab	Konelab CLS 77 Std Methods 22nd Ed 2012, Colorimetric determination and adapted for discrete analyser, Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA - 2340 C)
0.5 - 1000 mg/L	Bore waters Other waters (surface waters) Saline waters	TOC-V CPN/CPN TOC analyser	CLS 152 based on ASTM D5176-08 (reapproved 2015) For total chemically bound

		Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes		nitrogen in water by pyrolysis and chemiluminescence detection
Total Organic Carbon (NPOC)	1 - 1000 mg/L	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	TOC-V CPN/CPN TOC analyser	CLS 150 Based on USEPA 415.3 and Shimadzu User Manual for TOC V- CPH/CPN
Total Phosphorus	0.05 - 1000 mg/L PO₄-P	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Macherey-Nagel Spectrophotometer	CLS 151 Based on ISO 6878-2004 D11 (Macherey Nagel)
Turbidity	0.2 - 4000 NTU	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable	Turbidimeter.	In house method CLS 30 Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 (APHA 2130 B)

			and Domestic Purposes		
767 Physical test/measurement01 pH	pН	4-10	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Ph Probe	CLS 26 Measurement of electromotive force by electrode to determine Hydrogen ion concentration, Standard Methods for the Examination of Water and Wastewater 24th edition, 2017 (APHA 4500 - H+B)
767 Physical test/measurement02 Conductivity	Conductivity at 20°C	5 - 12,730 μS/cm	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes	Conductivity Meter	CLS 67 method based on Standard methods for the examination of water and wastewater 24th edition, 2023 (APHA-2510 B)
767 Physical test/measurement03 Suspended Solids	Suspended Solids	2 to 15,000 mg/L	Bore waters Other waters (surface waters) Saline waters Sewage Trade Wastes Waste water treatment plants effluents (WWTP) Waters for Potable and Domestic Purposes		CLS 13 Based on Standard Methods for the Examination of Water and Wastewater 24th edition, 2023 . Increase in sample filter Dried at 103 - 105°C. (APHA 2540 D)
798 Sampling	Water Sampling of Lakes, Rivers and Lagoons (with subsequent analysis by		Other waters (surface waters)	Grab, Rod, Bucket and Van Dorn	CLS WI 135 Based on ISO 5667-4:2016 and ISO 5667-6:2014

ISO accredited laboratory)		
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Rosmuc Site, Conemarra Co Galway

Chemical Testing

Category: A

Chemistry Field - Tests	Test name	Analyte	Range of measurement	Matrix	Equipment/technique	Standard reference/SOP
766 Environmental testing (inc waters)04 Organic	VOC by GCMSD	Chloroform Bromodichloromethane Dibromochloromethane Bromoform	0.5 - 200 ug/l 0.5 - 200 ug/l 2 - 200 ug/l 2 - 200 ug/l 2 - 200 ug/l	Surface Water Surface Water Surface Water Surface Water Ground Water Ground Water Ground Water Ground Water Drinking Water		CLS 183/USEPA 524.3