Schedule of Accreditation

Organisation Name	Southern Scientific Services Limited
Trading As	
INAB Reg No	194T
Contact Name	Conor Murphy
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Website	http://www.southernscientificireland.com
Accreditation Standard	EN ISO/IEC 17025 T
Standard Version	2017
Date of award of accreditation	22/04/2008
Scope Classification	Biological and veterinary testing
Scope Classification	Chemical testing

Services available to the public[1]

[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	Dunrine Laboratory	Dunrine , Killarney, Kerry, Ireland, V93 X860
2	The Water Lab	Unit C3, M4 Business Park, Celbridge, Kildare , Kildare, Kildare, Ireland, W23 T9PD
3	Head Office	Unit 4, 4Park Business Centre, , Farranfore, Kerry, Ireland

Scope of Accreditation

Dunrine Laboratory

Biological and Veterinary Testing

Category: A

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 growth - .01 Culture of bacteria	Detection and Enumeration of Legionella species in water and the detection of Legionella pneumophila, Serogroups 1 and 2-14 and presumptive Legionella spp (not Legionella pneumophila 1 -14).Matrices A & B; Procedure 5-10	Membrane Filtration & Latex Agglutination	Potable waters, swimming pool, spa & jacuzzi , cooling tower, processed water, industrial water, water from dental units	N/A	Documented in-house method: SMP 131 based on 11731:2017
	Enumeration of Clostridium perfringens	Membrane Filtration	Waters - potable waters	Membrane Filtration	ISO 14189:2013 / SMP 069
	Enumeration of coliforms and E. coli by the colilert method	Colilert	Waters - potable waters, Swimming pools and spas, Environmental water, Waste water treatment plant effluent (WWTP	fluorescence cabinet; colilert vessels; quanti-trays	ISO 9308-2:2012, AFNOR IDX 33/01-11/19, SMP 019

			effluent), Other waters - Marine waters - Waste Waters - Effluents		
	Enumeration of E. coli by the Multiple Tube Method	Multiple Tube Technique	Fish, Shellfish and molluscs	N/A	ISO/TS 16649-3:2015, SMP 018
	Enumeration of Enterococci by Enterolert method	Enterolert / MPN	Wastewater treatment plant effluent (WWTP effluent), Wastewater, effluent, surface water, ground water, recreational waters incl. saline water	flouresence cabinet; colilert vessels; quanti-trays	Enterolert-E protocol / SMP 068, AFNOR IDX 33/04-02/15
	Enumeration of Enterococci by membrane filtration method	Membrane Filtration	Potable waters, Ground waters, Surface waters and Marine waters	Membrane filtration	ISO 7899-2:2000, SMP 133
	Enumeration of Enterococci by the Enterolert method	Enterolert DW / MPN	Waters - potable waters	fluorescence cabinet; colilert vessels; quanti-trays	Idexx Enterolert protocol, AFNOR IDX 33/03-10/13, SMP 068
	Enumeration of Faecal coliforms	Colilert-18 / MPN	Wastewater treatment plant effluent (WWTP effluent), Wastewater, effluent, surface water, ground water, recreational waters incl Saline Water	Colilert vessels; quanti-trays	Idexx Colilert-18 protocol / SMP 124
	Enumeration of TVC in waters- colony count technique	Colony Count	Waters - potable and domestic waters	N/A	ISO 6222:1999 / SMP 061

Chemical Testing

Category: A

Chemistry Field - Tests	Test name	Analyte	Range of measurement	Matrix	Equipment/technique	Standard reference/SOP
766 Environmental testing (inc waters)	Determination of Sum benzo b & k fluoranthene in water	Sum benzo b & k fluoranthene	0.005 - 0.2 µg/l	Potable, Ground water, Surface water, Waste Water, WWTP Effluents	GC-MSMS	USEPA method 8270 E / SCP060 (b)
	Determination of BTEX in Soil	Benzene Toluene Ethylbenzene O-Xylene M&P Xylene	20 - 1000 µg/kg	Mineral/Loam & Clay	Headspace GC-MS	ISO 22155 second edition 2011 / SCP 114 b
	Determination of Diesel Range Organics	C10 -C28	10 -10,000 µg/l	Potable, Ground water, surface water	GC-FID	USEPA 8015 D /SCP 115a
	Determination of Dissolved Organic Carbon (DOC)	Dissolved Organic Carbon	0.5-10,000 mg/L	Waters for potable and domestic purposes WWTP effluents Other waters - Ground waters - Surface waters - Landfill Leachates	Elemental Analyzer, Combustion	APHA, 5310-B, 24Ed., (2023), EN 1484 / SCP 065(b)
	Determination of PAH's in Soil	Naphthalene Acenaphtylene Acenaphthene Phenanthrene Anthracene Fluorene Benzo(a)anthracene Chrysene Fluoranthene	0.03 - 250 mg/kg	Mineral/Loam & Clay	GC-MS	USEPA 8270 E /SCP 060(a)

	Pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3,-cd)pyrene Benzo(g,h,i)perylene Dibenz(a,h)anthracene				
Determination of PAH's in water	Acenaphtylene Naphthalene Acenaphthene Phenanthrene Anthracene Fluorene Benzo(a)anthracene Chrysene Fluoranthene Pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3,-cd)pyrene Benzo(g,h,i)perylene Dibenz(a,h)anthracene	0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.003 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L 0.005 - 0.2 µg/L	Potable, Ground water, Surface water, Waste water, Effluents	GC-MSMS	USEPA Method 8270 E/ SCP 060(b)
Determination of Pesticides in water	Pendimethalain Dichlobenil Dieldrin Cypermethrin	0.005 - 0.2 µg/l 0.005 - 0.2 µg/l 0.005 - 0.2 µg/l 0.012 - 0.2 µg/l	Potable, Ground water, Surface water, Waste Water, WWTP Effluents	GC-MS	US EPA Method 8270 E/ SCP 060 (a)
Determination of Sum benzo b & k Fluoratnthene	Sum benzo b &k fluoranthene	0.02 - 250 mg/kg	Mineral/Loam & Clay	GC-MSMS	USEPA 8270 E / SCP 060(a)
Determination of total PAH's in Soil	Total PAH's	0.32 - 250 mg/kg	Mineral/Loam & Clay	GC-MSMS	USEPA 8270 E/ SCP 060(b)
Determination of total PAH's in water (sum 16) Determination of total PAH's in water (sum 4)		0.078 -0.2 µg/l 0.02 -0.012	Potable, Ground water, Surface water, Waste Water, Effluent	GC-MSMS	USEPA method 8720 E/ SCP060 (a)
Determination of TPH's	C10 - C12 C12 - C16 C16 - C21	2 -2000 mg/kg	Mineral/Loam & Clay	GC-FID	USEPA 8015 D/ SCP115a

	C21 - C28 C28 - C35				
Determination of Volatile Organic Compounds (VOC's) in water	Ethyl chloride (Chloroethane) 1,1-Dichloroethene 1,2-Dichloroethene (trans) 1,2-Dichloroethene (cis) 1,1-Dichloroethane 2,2-Dichloropropane Bromochloromethane Carbon Tetrachloride 1,1-Dichloropropene Trichloroethene 1,2-Dichloropropane Dibromomethane 1,3-Dichloropropene (cis) Toluene 1,3-Dichloropropene (trans) 1,1,2-Trichloroethane 1,3-Dichloropropane 1,2-Dibromoethane Chlorobenzne Ethylbenzene 1,1,1,2-Tetrachloroethane M&P-Xylene o-Xylene Styrene Isopropylbenzene (cumene) Bromobenzene 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane n-Propylbenzene 2-Chlorotoluene 1,2,5-Trimethylbenzene	0.1 - 50 µg/L	Potable, Ground Water, Surface water, Waste Water, WWTP Effluents	Headspace GC-MS	USEPA 5021A / SCP114a

		4-Chlorotoluene tert-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene p-Isopropyltoluene (p-Cymene) 1,3-Dichlorobenzene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichlorobenzene				
	Determination of Volatile Organic Compounds (VOC's) in water	Benzene 1,2 dichloroethane Tetra chloroethene Chloroform Bromodichloromethane Dibromochloromethane Bromoform Vinyl Chloride Tetrachloromethene Trichloromethene	0.1 - 200 µg/L 0.1 - 200 µg/L 0.1 - 150 µg/L 2 - 200 µg/L 1 - 200 µg/L 1 - 200 µg/L 1 - 200 µg/L 1 - 200 µg/L 1 - 200 µg/L 1 - 200 µg/L 1 - 200 µg/L	Potable, Ground water, Surface Water, Waste Water, WWTP Effluents	Headspace GC-MS	US EPA 5021A / SCP114 a
		Sum of trichloethene & tetrachloethene	0.2 - 200 µg/L	Potable, Ground water, Surface Water	Headspace GC-MS	US EPA 5021A / SCP114 a
		Total THM's (Calc)	5 - 800 µg/L	Potable, Ground water, Surface Water	Headspace GC-MS	US EPA 5021A /SCP 114 a
	Total BTEX	Calculation total BTEX	100 - 1000 µg/kg	Mineral/Loam &Clay	Headspace GC-MS	ISO 22155 second edition 2011
766 Environmental testing (inc waters) - .01 Metal analysis	Determination of Cu, Zn, RE Mn in Soil	Copper Easily Extractable Manganese Zinc	0.5-15 mg/L 5-750 mg/l 0.5-15 mg/l	Agricultural products and materials - Soils, Constituents of	ICP-OES	Calculation by Chemical Analysis of Agricultural Material,

				the environment - Soils		An Foras Taluntais, 1979 / SSP 038
	Determination of Metals by ICP-OES	Aluminium	10 - 10,000 µg/L	Potable & Domestic Water	ICP-OES	APHA, 3120B 24 Ed., (2023) / SCP 053b
		Cadmium Chromium Copper Iron Lead Manganese Nickel Zinc	2-1000 µg/L 1-1000 µg/L 2-1000 µg/L 10-1000 µg/L 2-1000 µg/L 2-1000 µg/L 2-1000 µg/L 10-1000 µg/L	Waters for potable and domestic purposes, Other Waters - Ground waters - Surface waters	ICP-OES	APHA, 3120B 24 Ed., (2023) / SCP 053b
	Determination of Metals in Soil	Antimony Arsenic Barium Cadmium Chromium Cobalt Copper Lead Manganese Molybdenum Nickel Zinc	0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw 0.25-2500 mg/kg dw	Agricultural products and materials - Soils, Constituents of the environment - Soils	ICP-OES	BS 7755 (1995) / SCP 053b
766 Environmental testing (inc waters) - .02 Biochemical oxygen demand	Determination of Biochemical Oxygen Demand	BOD	1-32,000 mg/L O2	Waters for potable and domestic purposes, Sewage, Saline Waters, Other waters - Ground waters - Surface waters - Waste Waters - Effluents - Landfill Leachates	DO meter	APHA, 5210B, 24Ed., (2023) / SCP015
766 Environmental testing (inc waters) - .03 Chemical oxygen demand	Determination of Chemical Oxygen Demand	COD	10-30,000 mg/L	Waters for potable and domestic purposes, Sewage, Trade Wastes, Saline	HACH / Colorimetric	APHA, 5520D, 24Ed., (2023) / SCP 016

				Waters, Bore Waters, Other waters - Ground waters - Surface waters - Effluents - Leachates		
766 Environmental testing (inc waters) - .04 Organic	Determination of Acid Herbicides by LCMSMS	(2,4 DP)	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
		2, 3, 6-Trichlorobenzoic Acid	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
		2,4 D	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
		2,4 DB	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
		Bentazone	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
		Boscalid	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water,	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a

		bore and raw water		
Clopyralid	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
Dicamba	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
Dichlorprop	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
Fluoroxypr	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
MCPA	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
MCPP (Mecoprop)	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
Pentachlorophenol	0.005 - 50 µg/l	Potable & Domestic Water Ground Water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a

		Surface Water, bore and raw water			
	Picloram	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
	Triclopyr	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 535 -2005/ SCP 131a
Determination of Acrylamide by LCMSMS	Acrylamide	0.005 - 0.5 µg/l	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	US EPA 536 & 557, LCMSMS /SCP 131d
Determination of Dustfall	Dust	N/A	Constituents of the environment - Atmospheric dust fall	Bergerhoff Dust Gauge	VDI 4320 Part 2, Measurement of Atmospheric Dust Depositions / SCP 039
Determination of Epichlorohydrin by LCMSMS	Epichlorohydrin	0.02 - 1 µg/L	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	ISO 142087 LCMSMS /SCP 131g
Determination of Glyphosate by LCMSMS	Glyphosate	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 -2007 /SCP 131b
Determination of Halo Haloacetic Acids by LCMSMS	Dibromoacetic Acid	0.005 - 0.5 µg/l	Potable & Domestic Water, Surface Water,	LCMSMS	US EPA 536 & 557, LCMSMS /SCP 131d

			Ground Water, bore and raw water		
	Dichloroacetic Acid	0.005 - 0.5 µg/l	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	US EPA 536 & 557, LCMSMS /SCP 131d
	Monobromoacetic Acid	0.005 - 0.5 µg/l	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	US EPA 536 & 557, LCMSMS /SCP 131d
	Monochloroacetic Acid	0.005 - 0.5 µg/l	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	US EPA 536 & 557, LCMSMS /SCP 131d
	Total Haloacetic Acids (sum of 5)	0.005 - 0.5 µg/l	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	US EPA 536 & 557, LCMSMS /SCP 131d
	Trichloroacetic Acid	0.005 - 0.5 µg/l	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	US EPA 536 & 557, LCMSMS /SCP 131d
Determination of Microcystine-LR by LCMSMS	Microcystine-LR	0.02 - 0.5 µg/l	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	LCMSMS	ISO 22104:2021, LCMSMS /SCP 131e
Determination of Organic Matter	Organic Matter	0.1-99.9 %	Agricultural products and	Gravimetrically	BS 7755 (1995) / SSP 012

			materials - Soils, Constituents of the environment - Soils		
Determination of Pesticides by LCMSMS	Isoproturon	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
	Atrazine	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
	Chlorfenvinphos	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
	Chlorotoluron	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
	Chlorpropham	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
	Diazinon	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c

Diflufenican	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
Diuron	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
Epoxiconazole	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
Linuron	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
Metaldehyde	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
Metazachlor	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
Propzamide	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water,	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c

				bore and raw water		
		Simazine	0.005 - 50 µg/l	Potable & Domestic Water Ground Water Surface Water, bore and raw water	LCMSMS	USEPA 538-1-2009, USEPA 536 - 2007/SCP 131c
	Determination of Total Organic Carbon (TOC)	Total Organic Carbon	0.5-10,000 mg/L	Waters for potable and domestic purposes, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Elemental Analyzer, Combustion	APHA, 5310-B, 24Ed., (2023), EN 1484 / SCP 065(b)
	Determination of Total Pesticides in water (sum of 33)	Total Pesticides (Sum of 33)	0.012 – 660.0 µg/L	Potable & Domestic Water Ground Water Surface Water, bore and raw water	Calculation	USEPA 538-1-2009, USEPA 535 -2005, US EPA Method 8270 E/ SCP 131f
	Determination of Total Petroleum Hydrocarbon in water	C10-C40	10 - 50,000 µg/l	Potable, Ground water, Surface Water, Waste Water, WWTP Effluents	GC-FID	USEPA 8015 D / SCP115 a
	Determination of Turbidity	Turbidity	0.2-20 NTU	Waters for potable and domestic purposes, Other Waters - Ground waters - Surface waters	Nephelometry	APHA, 2130B, 24 Ed., (2023) / SCP 058
766 Environmental testing (inc waters) - .05 Inorganic	Determination of Alkalinity	Alkalinity	5-800 mg/L CaCO3	Waters for potable and domestic purposes, WWTP Effluents, Saline waters, Other	Spectrophotometry by Aquakem 250 Autoanalyser	HMSO, SCA, Method C. / SCP 027h

				waters - Ground waters, Surface waters, Landfill Leachates		
	Determination of Ammonia	Ammonia	0.02-12 mg/L N (0.03-15.4 mg/L NH4)	Waters for potable and domestic purposes, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500NH3-G, 24Ed., (2023) / SCP 027a
	Determination of Ca, Mg, Na, K by ICP-OES 700 series	Calcium Magnesium Potassium Sodium	1-250 mg/L 0.2-50 mg/l 1-100 mg/l 1-250 mg/l	Waters for potable and domestic purposes, Other Waters - Ground waters - Surface waters	ICP-OES	APHA, 3120B 24 Ed., (2023) / SCP 053a
	Determination of Chlorate by IC	Chlorate	0.03 - 0.8 mg/L	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	Ion Chromatography	USEPA Method 300.1(1997)/ SCP 068a
	Determination of Chloride	Chloride	0.5-600 mg/L Cl	Waters for potable and domestic purposes, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500Cl-G, 24Ed., (2023) / SCP 027b
	Determination of Chlorite by IC	Chlorite	0.03-0.8 mg/L	Potable & Domestic Water, Surface Water, Ground Water, bore and raw water	Ion Chromatography	USEPA Method 300.1 (1997)/ SCP 068a

Determination of Colour by HACH Photometer using the Rohasys System	Colour	5 - 25 Pt Co Units	Potable, Ground water, Surface water, Waste water, Effluents	Automated spectrophometer	Standard Methods for the Examination of Water and Wastewater, Current Edition – APHA-2120C 24th Ed. (2023)/ SCP 018 B
Determination of Colour by Spectrophotometry	Colour	5-500 Pt-Co	Waters for potable and domestic purposes, Sewage, Trade Wastes, Bore Waters,	Spectrophotometry	APHA, 2120C, 24 Ed., (2023) / SCP 018
Determination of Dustfall	Dust	N/A	Constituents of the environment - Atmospheric dust fall	Bergerhoff Dust Gauge	VDI 4320 Part 2, Measurement of Atmospheric Dust Depositions / SCP 039
Determination of Fluoride	Fluoride	0.1 - 10.0 mg/L	Potable waters, surface waters, ground waters and waste waters	ISE	USEPA 9214 - Potentiometric Determination of Fluoride in Aqueous Samples with Ion-Selective Electrode / SCP 063
Determination of Free Cyanide	Free Cyanide	0.01 - 0.5 mg/l	Waters for potable and domestic purposes	Spectrophotometry by Aquakem 250 Autoanalyser	CYN-D-P-A, SCP 027l
Determination of Magnesium in soil	Magnesium	20 – 500 mg/L	Agricultural products and materials - Soils, Constituents of the environment - Soils	Spectrophotometric technique	Documented in-house procedures based on the Department of Agriculture – DAF Publication – Standard Soil Analysis for REPS – 1st November 2004 / SSP 022c

Determination of Metals by ICP-OES in water	Aluminium Cobalt Molybdenum Cadmium Chromium Copper Iron Lead Manganese Nickel Zinc Vanadium Calcium Magnesium Sodium Potassium	10-10,000 ug/l 1-100 ug/l 1-1,000 ug/l 0.4-100 ug/l 1-10,000 ug/l 2-10,000 ug/l 2-10,000 ug/l 2-1,000 ug/l 1-10,000 ug/l 2-10,000 ug/l 2-10,000 ug/l 1-1,000 ug/l 0.2-500 mg/l 0.2-500 mg/l 0.2-500 mg/l 0.2-500 mg/l	Potable, Ground water, Surface water, Waste water, Effluents	ICP-OES	APHA, 3120B 24 Ed., (2023) / SCP 053 D
Determination of Metals by ICP-OES in Water	Arsenic Selenium Antimony	3 - 1,000 ug/l 5 - 100 ug/l 5 - 100 ug/l	Ground water, Surface water, Waste water, Effluents	ICP-OES	APHA, 3120B 24 Ed., (2023) / SCP 053 D
Determination of Nitrate	Nitrate	0.25-45 mg/L N (1.11-199 mg/L NO3)	Waters for potable and domestic purposes, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA 4500NO3-E, 24Ed., (2023) / SCP 027g
Determination of Nitrite	Nitrite	0.005-10 mg/L N (0.016-32.8 mg/L NO2)	Waters for potable and domestic purposes, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500NO2-B, 24Ed., (2023) / SCP 027f
Determination of Orthophosphate	Orthophosphate	0.01-12 mg/l P (0.03-36.8 mg/L PO4)	Waters for potable and domestic	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500P-E, 24Ed., (2023) / SCP 027c

			purposes, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates, Saline waters		
Determination of Phosphorus (P) in Morgan's extracts	Phosphorus	1.0-30 mg/L	Agricultural products and materials - Soils, Constituents of the environment - Soils	Spectrophotometric Technique	Department of Agriculture - DAF Publication - Standard Soil Analysis for REPS - 1st November 2005 / SSP 022b
Determination of Potassium in Morgan's Extract	Potassium	20-500 mg/L	Agricultural products and materials - Soils, Constituents of the environment - Soils	Flame Photometric Technique	Department of Agriculture - DAF Publication - Standard Soil Analysis for REPS - 1st November 2005 / SSP 022a
Determination of Saline Ammonia	Saline Ammonia	0.035-0.4 mg/L N (0.045-0.51 mg/L NH4)	Waters for potable and domestic purposes, Saline Waters, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500NH3-G, 24Ed., (2023) with application note D09161-01 / SCP 027j
Determination of Saline Total Oxidised Nitrogen	Saline TON	0.02-5 mg/L N	Waters for potable and domestic purposes, Saline Waters, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500NO3-G, 24Ed., (2023) with application note D09727-3 Thermo Scientific (2014) / SCP 027k

Determination of Sulphate	Sulphate	0.5-600 mg/L SO4	Waters for potable and domestic purposes, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500SO4-F, 24Ed., (2023) / SCP 027d
Determination of Total Cyanide in Water by flow analyzer	Total Cyanide	5 - 100 µg/L	Potable & Domestic Water, Surface Water, Ground Water, waste waters and leachates	Continuous segmented flow analyzer	ISO 17380/SCP 160
Determination of Total Hardness	Total Hardness	5-600 mg/L CaCO3	Waters for potable and domestic purposes, WWTP Effluents, Saline waters, Other waters - Ground waters, Surface waters, Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	USEPA Method 138.1. / SCP 027i
Determination of Total Kjeldahl Nitrogen by calculation	Total Kjeldahl Nitrogen	0.5 - 10,000 mg/L N	Waters for potable and domestic purposes, Saline Waters, WWTP Effluent, Other Waters - Ground waters - Surface waters - Waste Waters - Effluents - Landfill Leachate	Calculation	APHA, 4500N-C & 4500NO3-H 24 Ed., (2023) / SCP 057
Determination of Total Nitrogen	Total Nitrogen	0.5 – 10,000 mg/L	Potable waters, Ground waters, Surface waters, Saline Waters,	Elemental Analyzer, Combustion	BS EN 12260 / SCP 065(a)

			Leachates and Effluents		
Determination of Total Nitrogen by Digestion/Spectrohotometry	Nitrogen	1-10,000 mg/L N	Sewage, Trade Wastes, Saline Waters, Other Waters	HACH DR3900 / Spectrophotometry	APHA, 4500N, 24Ed., (2023) / SCP 043
Determination of Total Oxidesed Nitrogen	TON	0.2-50 mg/L N	Waters for potable and domestic purposes, Saline Waters, WWTP effluents, Other waters - Ground waters - Surface waters - Landfill Leachates	Spectrophotometry by Aquakem 250 Autoanalyser	APHA, 4500NO3-E, 24Ed., (2023) with application note 71395 Thermo Scientific (2014) / SCP 027e
Determination of Total Phosphorus by Digestion/Spectrohotometry	Phosphorus	0.04-100 mg/L P	Sewage, Trade Wastes, Saline Waters, Other Waters	HACH DR3900 / Spectrophotometry	APHA, 4500-P, 24Ed., (2023) / SCP 044
Determination of Turbidity by HACH Turbidity Meter using the Rohasys System	Turbidity	0.2 - 20 NTU	Potable, Ground water, Surface water, Waste water, Effluents	HACH Turbidity meter	Standard Methods for the Examination of Water and Wastewater, Current Edition – APHA-2130C 24th Ed (2023) SCP 058 B
Dumas Combustion	TC TN	0.1 - 45% 0.05 - 10%	mineral, loam, clay, peat	Dumas combustion	ISO 15936-2012/SSP 046a ISO 15936-2012/SSP 046a
Dumas Combustion	TC TIC	0.1 - 45 % 0.04 - 12 %	mineral, loam, clay, peat	Dumas Combustion	ISO 15936-2012/SSP 047a ISO 15936-2012/SSP 047a
	TOC TOC difference	0.1 - 40 % 0.1 - 40 %	mineral, loam, clay, peat	calculation calculation	ISO 15936-2012/SSP 047a ISO 15936-2012/

						SSP 048
	Ion Chromatography	Bromate	2 to 50 µg/l BrO_3	Potable, Ground Water, Surface water	IC	USEPA Method 300.0 (1997)/ SCP 068b
		Fluoride	0.1 - 3 mg/L	Potable, Ground Water, Surface water	IC	USEPA Method 326.0 (1997)/ SCP 068a
	Metal analysis by iCapQ ICP-MS	Aluminium Arsenic Cadmium Chromium Cobalt Copper Iron Lead Manganese Boron Molybdenum Mercury Nickel Selenium Vanadium Zinc Uranium Antimony	10-10,000 µg/L 1-10,000 µg/L 0.45-10,000 µg/L 1-10,000 µg/L 1-10,000 µg/L 1-10,000 µg/L 5-10,000 µg/L 1-10,000 µg/L 1-10,000 µg/L 20-10,000 µg/L 1-10,000 µg/L 0.5-10,000 µg/L 1-10,000 µg/L 1-10,000 µg/L 1-10,000 µg/L 5-10,000 µg/L 1-10,000 µg/L 1-10,000 µg/L	Waters for potable and domestic purposes	ICP-MS	APHA, 3125B, 24rd Ed. (2023)/ SCP 073
767 Physical test/measurement - .01 pH	Determination of pH and Conductivity using Rohasys minilab	pH	4-10 pH Units	Waters for potable and domestic purposes, Trade Wastes, Saline Waters, Bore Waters, WWTP Effluent, Other waters - Ground waters - Surface waters - Waste Waters - Effluents	Rohasys Minilab	APHA, 4500B-H+, 24 Ed., (2023) / SCP 052

				- Landfill Leachates		
	Determination of water pH and Buffer pH in Soils	pH Soil (Water)	4-10 pH Units	Agricultural products and materials - Soils, Constituents of the environment - Soils	Rohasys Minilab	Department of Agriculture - DAF Publication - Standard Soil Analysis for REPS - 1st November 2004 / SSP 021
		SMP Buffer pH - for determination of Lime Requirement by calculation	4-10 pH Units	Agricultural products and materials - Soils, Constituents of the environment - Soils	Rohasys Minilab	Department of Agriculture - DAF Publication - Standard Soil Analysis for REPS - 1st November 2005 & Calculation by Chemical Analysis of Agricultural Material, An Foras Taluntais, 1979 / SSP 021
767 Physical test/measurement - .02 Conductivity	Determination of pH and Conductivity using Rohasys minilab	Conductivity	14.7-111,900 µS/cm @ 20˚C	Waters for potable and domestic purposes, Trade Wastes, Saline Waters, Bore Waters, WWTP Effluent, Other waters - Ground waters - Surface waters - Waste Waters - Effluents - Landfill Leachates	Rohasys Minilab	APHA, 2510B, 24 Ed., (2023) / SCP 052
767 Physical test/measurement - .03 Suspended Solids	Determination of Suspended Solids	Suspended Soilds	2-10,000 mg/L	Waters for potable and domestic purposes, Sewage, Trade Wastes, Saline Waters, Bore Waters, Other	Gravimetrically	APHA, 2540D, 24Ed., (2023) / SCP 010

				waters - Ground waters - Surface waters - Effluents - Leachates		