Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

4409

Accredited to ISO/IEC 17025:2005

ALS Environmental Ltd
Wakefield

Issue No: 072 **Issue date:** 16 November 2016

Unit 11, Silkwood Park
Janes Hill
Off Albert Drive
Wakefield
WF5 9TG

Contact: Mr J Mace
Tel: +44 (0)1924 818108
Fax: +44 (0)1924 818101
E-Mail: jonathan.mace@alsglobal.com
Website: www.alsenvironmental.co.uk

Testing performed at the above address only

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable
	Chemical Testing	
Potable and Raw waters	Phenols: 2,3-Dichlorophenol 2,3-Xylenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Xylenol 2,5-Xylenol 2,6-Dichlorophenol 2,6-Xylenol 2-Chloro-4-Methylphenol 2-Chlorophenol 3,4-Xylenol 3,5-Xylenol 3-Chloro-4-Methylphenol 3-Chlorophenol 4-Chloro-2-Methylphenol 2-Chloro-5-Methylphenol 4-Chlorophenol 2-Methylphenol 3-Methylphenol 4-Methylphenol Phenol	WPC34 using Pentafluorobenzoylation and Gas Chromatography/Mass Spectrometry

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters	Taste and Odour compounds: 2,3,4-Trichloroanisole 2,3-Dichlorophenol 2,4,5-Trichlorophenol 2,4,6-Tribromoanisole 2,4,6-Tribromophenol 2,4,6-Trichloroanisole 2,4,6-Trichlorophenol 2,4-Dibromophenol 2,4-Dichlorophenol 2,6-Dibromophenol 2,6-Dichlorophenol 2-Bromophenol 2-Chloroanisole 2-Chlorophenol 2-Isobutyl-3-methoxypyrazine 2-Isopropyl-3-methoxypyrazine 3-Chloroanisole 4-Chloroanisole	WPC36 using Liquid-Liquid Extraction And Detection By Gas Chromatography With Mass Spectrometric Detection
Potable and Raw waters	THMs and other VOCs: 1,1,1-Trichloroethane 1,1- Dichloroethane 1,2-Dichloroethane 1,4-Dichlorobenzene Benzene Bromodichloromethane Bromoform Carbon Tetrachloride Chlorodibromomethane Chloroform Dichloromethane Ethylbenzene m&p-Xylene MTBE o-Xylene Tetrachloroethene Trichloroethene	WPC28 using Headspace Gas Chromatography with MS Detection

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters	PAHs: Benzo (b) fluoranthene Benzo(k)fluoranthene Benzo(ghi)perylene Benzo(a)pyrene Fluoranthene Indeno(1,2,3-cd)pyrene	WPC27 using HPLC
Potable and Raw waters	Polar herbicides: 2,3,6-Trichlorobenzoic acid 2,4,5-T 2,4,5-TP (Fenoprop) 2,4-D 2,4-DB 2,4-DP (Dichloroprop) Asulam Benazolin Bentazone Bromoxynil Clopyralid Dicamba Fluroxypyr Imazapyr Ioxynil Dinoseb MCPA MCPB MCPP (Mecoprop) Pentachlorophenol Picloram Propamocarb Iprodione Triclopyr	WPC45 using LCMSMS
Potable and Raw waters	Acrylamide	WPC53 using HPLCMSMS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw Waters	Vinyl Chloride	WPC63 using Headspace GC-MS QQQ
Potable and Raw waters	Polar pesticides: Atrazine Boscalid Bromacil Carbaryl Carbetamide Chlorbufam Chloridazon Chlorpropham Chlorpyriphos-Ethyl Chlorpyriphos-Methyl Chlortoluron Clomazone Cyanazine Cyproconazole Diazinon Difenoconazole Diflufenican Diuron EPTC Epoxiconazole Fluazifop-Butyl Flufenacet Flurtamone Flusilazole Flutrifol Isoproturon Kresoxim-Methyl Linuron Metoxuron Tebuconazol Simazine Trietazine Monuron Propham Prosulfocarb	WPC43 using direct aqueous injection with on-line solid phase extraction analysed by Triple Quadrupole LC/MS/MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters (cont'd)	Polar pesticides: (cont'd) Quinmerac Oxadixyl Flusilazole Metalaxyl Triallate Metazachlor Pendimethalin Propachlor Propiconazole Propyzamide Metaldehyde	WPC43 using direct aqueous injection with on-line solid phase extraction analysed by Triple Quadrupole LC/MS/MS (cont'd)
Potable and Raw waters	Organochlorine pesticides, polychlorinated biphenyls and selected non-polar organic compounds: 1,2,4-Trichlorobenzene Hexachlorobutadiene Dichlobenil alpha-HCH beta-HCH Hexachlorobenzene gamma-HCH delta-HCH Chlorothalonil Heptachlor Aldrin Isodrin	WPC50 using solvent extraction and GCMSMS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters (cont'd)	Organochlorine pesticides, polychlorinated biphenyls and selected non-polar organic compounds (cont'd) cis-Heptachlor Epoxide trans-Heptachlor Epoxide o,p'-DDE alpha-Chlordane alpha-Endosulphan p,p'-DDE Dieldrin o,p'-TDE Endrin beta-Endosulphan p,p'-TDE o,p'-DDT p,p'-DDT Methoxychlor Parathion-Ethyl Phorate Carbophenothion Tecnazene Trifluralin Fenitrothion cis-Permethrin Fluazifop-Butyl trans-Permethrin PCB 28 PCB 52 PCB 101 PCB 118 PCB 153 PCB 138 PCB 180 Cyfluthrin Cypermethrin Fenvalerate Deltamethrin Trans-chlordane	WPC50 using solvent extraction and GCMSMS (cont'd)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters (cont'd)	Organochlorine pesticides, polychlorinated biphenyls and selected non-polar organic compounds (cont'd) Chlorthal-dimethyl Fenthion Parathion-ethyl Parathion-methyl Pentachlorobenzene Terbuthylazine	WPC50 using solvent extraction and GCMSMS (cont'd)
Potable and Raw waters	Pesticides: Chlormequat Diquat Paraquat Mepiquat	WPC51 by LCMSMS
Potable And Raw waters	Pesticides: Aldicarb Ametryn Azinphos-methyl Carbendazim Chlorfenvinphos Demeton-s-methyl Dichlorvos Dimethoate Disulfoton Ethofumesate Fenpropidin Fenpropimorph Fonofos Malathion Metamitron	WPC46 using LCMSMS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable And Raw waters (cont'd)	Pesticides: (cont'd) Methabenzthiazuron Methiocarb Mevinphos Phosalone Pirimicarb Pirimiphos-methyl Prometryn Propazine Propetamphos Terbutryn Triadimefon Triazophos Atrazine-desethyl Atrazine-desisopropyl, Azinphos-ethyl, Bendiocarb, Carbofuran Ethoprophos Fluxapyroxad Lenacil Metribuzin Metsulfuron- methyl Pirimiphos-ethyl Pyraclostrobin Spiroxamine Tebuthiuron Terbuthylazine	WPC46 using LCMSMS (cont'd)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters	Glyphosate Aminomethylphosphonic acid	WPC52 by LCMSMS
Potable and Raw waters	Metaldehyde	WPC31 using SPE GC/MS
Potable and Raw waters	Metaldehyde	WPC62 using LC-qTOF MS
Potable, River and Groundwaters	Microcystin - LR	WPC59 using LCMSMS
Potable and Raw waters	Haloacetic acids: MonoChloroAcetic Acid (MCAA) MonoChloroAcetic Acid (MCAA) MonoBromoAcetic Acid (MBAA) DiChloroAcetic Acid (DCAA) 2,2-DiChloroPropanoic Acid (Dalapon) TriChloroAcetic Acid (TCAA) BromoChloroAcetic Acid (BCAA) DiBromoAcetic Acid (DBAA) BromoDiChloroAcetic Acid (BDCAA) DiBromoChloroAcetic Acid (DBCAA) TriBromoAcetic Acid (TBAA)	WPC60 using GCMS
Potable and Raw waters	pH	WPC 8 using manual meter
Potable and Raw waters	Conductivity	WPC 7 using manual meter
Potable and Raw waters	Turbidity	WPC 6 using manual meter
Potable and Raw waters	Colour	WPC13 using UV-Vis spectrometer
Potable and Raw waters	Fluoride	WPC20 using Ion Selective Electrode
Potable and Raw waters	Suspended Solids (105 °C)	WPC22 by gravimetry

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters	Total Dissolved Solids (180 °C)	WPC25 by gravimetry
Potable and Raw waters	pH, Conductivity, Turbidity and Colour	WPC 40 using the Peerless Automated Robotic System
Potable and Raw waters	Chlorite, Chlorate, and Bromide	WPC18
Potable and Raw waters	Chlorite, Chlorate, and Bromide	WPC61 using ion chromatography
Potable and raw waters Bottled waters	Free Cyanide Total Cyanide	WPC65 using continuous flow autoanalyser
Potable and Raw waters	Metals (total and dissolved): Iron Aluminium Manganese Phosphorus Sulphur as Sulphate (SO4) Silicon as Silica (SiO2)	WPC12 using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES)
Potable and Raw waters	Metals (total): Calcium Magnesium Hardness as CaCO3 Potassium Sodium	WPC12 using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES)
Potable and Raw waters	Metals (total): Boron	WPC12 using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable and Raw waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable (cont'd)
Potable and Raw waters	Permanganante Index	WPC47 using manual titration
Potable and Raw waters	Metals: Lead Copper Zinc Nickel Cadmium Chromium Silver Antimony Selenium	WPC15 using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) - Perkin Elmer DRC and Perkin Elmer Nexion instruments
Potable and Raw waters	Metals: Arsenic Strontium Barium Cobalt Molybdenum Uranium Vanadium	WPC15 using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) - Perkin Elmer DRC and Perkin Elmer Nexion instruments (cont'd)
Potable and Raw waters	Tin Titanium	WPC15 using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) - Perkin Elmer DRC ONLY
Potable Waters	Thallium	WPC15 using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) - Perkin Elmer DRC ONLY
Potable and Raw waters	Beryllium Lithium Thallium	WPC15 using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) - Perkin Elmer Nexion ONLY

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable, Raw and Surface Waters	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Chemical Testing (cont'd)	Documented In-House Methods based on procedures in the Standing Committee of Analysts Publication "The Microbiology of Water 2002" unless stated otherwise
Potable waters	Tin Titanium	WPC15 using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) - Perkin Elmer Nexion ONLY
Potable and Raw waters	Mercury	WPC21 using ICP-MS
Potable and Raw waters	TOC	WPC24 using GE Analytical Instruments Sievers InnovOx TOC analyser
Potable, Bottled and Raw waters	Bromate	WPC54 using IC (Methrom)
Potable and Raw waters	Sulphide (test kit)	WPC37 using spectrophotometer
Potable and Raw waters	Bromate	WPC42 using IC (Dionex)
Potable, Raw, Surface and groundwaters	Dissolved and total metals: Iron Manganese Aluminium Sodium Potassium Calcium Magnesium Sulphur (as sulphate) Silicon (as Silica) Phosphorus Boron	WPC 49 using Inductively Coupled Plasma optical emission spectrometry (ICP-OES)
Drinking water, Groundwater and Surface Water	Ammonium Total Oxidised Nitrogen Nitrite Nitrate (by calculation) Chloride Orthophosphate Silica Alkalinity	WPC64 by discrete analysis (Aquakem

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable, Raw and Surface Waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 (SI 2000/3184). The testing is in accordance with the Drinking Water Testing Specification (DWTS) (cont'd) Microbiological Testing Isolation and enumeration of:	Documented In-House Methods based on procedures in the Standing Committee of Analysts Publication "The Microbiology of Water 2002" unless stated otherwise
Potable, Raw and Surface Waters	Total viable countat 22 °C and 37 °C	WPM1 based on "The Microbiology of Drinking Water" Part 7 (2007) (by Pour Plate)
Potable, Raw and Surface Waters	Coliforms presumptive and confirmed	WPM4 based on "The Microbiology of Drinking Water" Part 4 (2009) using membrane filtration using MLGA
Potable, Raw and Surface Waters	*Escherichia coli*, presumptive and confirmed	WPM4 based on "The Microbiology of Drinking Water" Part 4 (2009) using membrane filtration using MLGA
Potable, Raw and Surface Waters	Enterococci, presumptive and confirmed	WPM2 based on "The Microbiology of Drinking Water" Part 5 (2010) using membrane filtration
Potable, Raw and Surface Waters	Clostridium *perfringens* presumptive and confirmed	WPM3 based on "The Microbiology of Drinking Water" Part 6 (2010) using membrane filtration
Potable, Raw and Surface Waters	Cryptosporidium Oocysts	WCRY1, WCRY2, & WCRY3 based on "The Microbiology of Drinking Water" Part 14 (2009)
Potable Waters only	Quantitative Taste	WPM 10 using assessed Panel
Potable and Raw waters	Quantitative Odour	WPM 10 using assessed Panel

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable, Raw and Surface Waters (cont'd)	Radiochemisty Testing:	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials, HMSO Publication, Year and ISBN No given where applicable
Potable, Raw and Surface Waters	Radioactivity - Gross Alpha (relative to Am-241) Gross Beta (relative to K-40)	WPC23
WATERS: Potable, Raw and Surface Waters	Chemical Testing	Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - sampling and chemical testing of untreated sewage, sewage effluent and trade effluent
Raw Water	BOD	WWC11 using dissolved oxygen meter
Raw Water	COD	WWC13 using DR3800 Spectrophotometer
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Alkalinity (to pH 4.5)	WWC9 using manual titration
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Ammonia Nitrite nitrogen Nitrogen total oxidised Phosphorus soluble reactive Sulphate Chloride Nitrate (by calculation)	WWC12 using Aqua 900 discrete analyser
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	pH	WWC14 using manual probe system
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Suspended Solids (105 °C) Ashed suspended solids (450 °C)	WWC21 by gravimetry

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable, Raw and Surface Waters (cont'd)	Chemical Testing (cont'd)	Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - sampling and chemical testing of untreated sewage, sewage effluent and trade effluent (cont'd)
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Aluminium, , Boron Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Phosphorus, Potassium, , Sodium, Thallium, Vanadium, Zinc and Sulphur (as SO_4)	WWC8 by ICP-OES
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Mercury	WWC17 by ICP-MS
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	BOD	WWC11 using dissolved oxygen meter
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	COD	WWC13 using DR3800 Spectrophotometer
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Total Organic Carbon	WWC24 using GE Analytical Instruments Sievers InnovOx TOC analyser
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Ammonia Nitrite Total Oxidised Nitrogen Nitrate (by calculation) Chloride Soluble reactive phosphorus	WWC47 by discrete analysis (Aquakem)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable, Raw and Surface Waters (cont'd)	Chemical Testing (cont'd)	Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - sampling and chemical testing of untreated sewage, sewage effluent and trade effluent (cont'd)
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Metals (total and dissolved) Aluminium Vanadium Chromium Iron Manganese Cobalt Nickel Copper Zinc Arsenic Molybdenum Cadmium Thallium Lead	WWC46 using ICP-MS
Treated sewage effluent and trade effluent to sewer, trade effluent controlled waters	Elements (total and dissolved) Selenium Phosphorus	WWC46 using ICP-MS
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Petroleum ether extractable matter	WWC48
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	pH and Conductivity (20 °C)	WWC14 using manual probe system
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Sulphides	WWC20 using spectrophotometer

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS: Potable, Raw and Surface Waters (cont'd)	Chemical Testing (cont'd)	Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - sampling and chemical testing of untreated sewage, sewage effluent and trade effluent (cont'd)
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Pesticides: Para Tert Octyl Phenol Ioxynil	WWC42 using GC/MSMS
Untreated sewage, treated sewage effluent, trade effluent to sewer, trade effluent to controlled water	Ammonia Nitrite Total Oxidised Nitrogen Nitrate (by calculation) Chloride Soluble reactive phosphorus	WWC50 by Gallery Plus Discrete Analyser
SOILS:	Chemical Tests	
Sludge only	Alkalinity	WSC1 by titration
Soil and sludge	Kjeldahl Nitrogen	WSC8 determined spectrometrically
Soil and sludge	pH	WSC11 Ion Selective Electrode
Soil and sludge	Total Solids (105 °C) Total Ash Solids (550 °C)	WSC12 by gravimetry
Soil and sludge	Vanadium, Cadmium, Chromium, Cobalt, Nickel, Copper, Arsenic, Selenium, Molybdenum, Thallium, Lead, Zinc	WSC 16 by Boiling Acid Digestion Followed by ICP-MS
Soil and sludge	Mercury	WSC5 using ICP-MS
Soil and sludge	Antimony	WSC7 using ICP-MS
Soil and sludge	Fluoride	WSC18 using ion selective electrode
Soil	Extractable potassium Extractable magnesium	WSC13 using ICP-AES
Soil	Extractable phosphorus	WSC14 using UV 1800 Spectrophotometer

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS: Soil and sludge	Chemical Tests (cont'd) Aluminium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Nickel, Phosphorus, Sulphur, Tin, Zinc, Potassium, Magnesium, Manganese, Sodium, Lithium, Cadmium,	WSC6 using ICPAES
END		