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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
	Health and Hygiene	
ASBESTOS IN BULK MATERIALS	Identification of: Amosite Chrysotile Crocidolite Fibrous Actinolite Fibrous Anthophyllite Fibrous Tremolite	HSG 248:2005 “Asbestos: The analysts’ guide for sampling, analysis and clearance procedures”, by Documented In-House Method TM048 using stereo-microscopy, polarised light microscopy and dispersion staining
ASBESTOS IN SOILS and AGGREGATES (fibre screening, identification)	Asbestos fibre screening, identification of asbestos content: Amosite Chrysotile Crocidolite Fibrous Actinolite Fibrous Anthophyllite Fibrous Tremolite	Documented In-House Method TM 048 using stereo microscopy, polarised light optical microscopy, phase contrast microscopy and dispersion staining
ASBESTOS IN SOILS (fibre screening, identification and quantification)	Asbestos fibre screening, identification and quantification of asbestos content: Amosite Chrysotile Crocidolite Fibrous Actinolite Fibrous Anthophyllite Fibrous Tremolite	Documented In-House Method TM 048 and TM 304 using stereo microscopy, polarised light optical microscopy, phase contrast microscopy and dispersion staining
ASBESTOS IN SOILS (Dustiness)	Measurement of Dustiness	Documented In-House Method TM 419 based on BS EN15051-2:2013 +1:2016 “Measurement of the dustiness Of bulk materials; Part 2: Rotating drum method”

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
	Chemical Tests	Documented In-House Methods in the series TM 000
NATURAL GAS	Monoethylene Glycol (MEG) in distributed Natural Gas	TM 121 by Thermal desorption and GC-FID
AMBIENT AIR	Volatile Organic Compounds, 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2,3-Trimethylbenzene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,2-Dichlorotetrafluoroethane 1,3,5-Trimethylbenzene 1,3-Butadiene 1,4-Dichlorobenzene 1-Propanol 2-Butanone (MEK) 2-Hexanone 2-Pentanone 3-Hexanone 3-Pentanone 4-Methyl-2-pentanone Acetone + Propanal Acetonitrile Acrolein Benzene Benzyl Chloride Bromodichloromethane Bromoform	TM 330 based upon US EPA TO-15

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
	Chemical Tests (cont'd)	Documented In-House Methods in the series TM 000
AMBIENT AIR (cont'd)	Volatile Organic Compounds (cont'd), specifically: Bromomethane Butanal Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane cis-1,2-Dichloroethene cis-1,3-Dichloropropene Cyclohexane Dichlorodifluoromethane Difluorochloromethane Ethylbenzene Hexanal Hexane Iodomethane Isobutene Isoprene m/p-Xylene Methylacrolein Methylene Chloride MTBE o-Xylene Pentanal Pentane Styrene Tetrachloroethene Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene Trichloroethene Trichlorofluoromethane Trichlorotrifluoroethane Vinyl Acetate Vinyl Chloride	TM 330 based upon US EPA TO-15 by GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS	Chemical Tests	
	Exchangeable Ammonium	TM 024 by steam distillation and titration
	Water Soluble Anions (2:1), specifically: Chloride Bromide Nitrate Sulphate	TM 019 by Ion Chromatography (IC)
	Water soluble Anions (2:1), specifically: Chloride Sulphate	TM 243 by Kone analyser
	Total Cyanide Easily Liberated/Free Cyanide Thiocyanate	TM 153 by segmented flow analyser based on AWWA/APHA 20th Edition - Method 4500
	Extractable Phophorus (Olsen's Phosphorus)	TM 229 by Kone analyser based upon The Analysis of Agricultural Materials, MAFF, Third edition, 1986
SOILS and SEWAGE SLUDGE	Hexavalent Chromium	TM 151 by Kone analyser
SOILS and SLUDGE	Acid Extractable Fluroide	TM397 by ion selective electrode
	Dry Matter at 105ºC Total Ash at 550ºC	Documented In-House Method TM 236 The Determination of the Dry Solids residue at 105ºC and The Total Ash after ignition at 550ºC

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Metals: Antimony Arsenic Barium Beryllium Boron Cadmium Cobalt Chromium Copper Iron Lead Manganese Mercury Molybdenum Nickel Selenium Strontium Thallium Tin Vanadium Zinc	TM 181 by ICP-OES
	Water Soluble Boron (10:1)	TM 222 by ICP-OES
	Loss on ignition	TM 018 by gravimetry
	Acid Extractable Sulphate	TM 221 by ICP-OES
	Gasoline Range Hydrocarbons, Total, in the range >C5 to C12	TM 089 Headspace GC-FID based on USEPA Methods 8020 and 602
	Petroleum Hydrocarbons in the range >C8 - C40	TM 154 by Flash - GC-FID
	Mercury	TM 418 by Cold Vapour Atomic Fluorescence Spectrocopy

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Elemental Sulphur	TM 136 by HPLC
	Sulphide	TM 180 by ion selective electrode
	Volatile Hydrocarbons: Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane Trans-1,2-dichloroethene Dichloromethane Chloroform 1,1,1-trichloroethane 1,1-dichloropropene Benzene carbon tetrachloride dibromomethane 1,2-dichloropropane bromodichloromethane trichloroethene cis-1,3dichloropropene 1,1,2-trichloroethane Toluene 1,3-dichloropropane dibromochloromethane tetrachloroethene 1,1,1,2-tetrachloroethane chlorobenzene ethylbenzene m/p-xylene Bromoform o-xylene 1,2,3-trichloropropane isopropylbenzene bromobenzene 2-chlorotoluene propylbenzene 4-chlorotoluene	TM 116 by Headspace GC-MS based on USEPA Methods 8240, 8120, 8020, 624, 610 and 602

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Volatile Hydrocarbons: (cont'd) 1,2,4-trimethylbenzene 1,3-dichlorobenzene 1,4-dichlorobenzene Carbon disulphide 1,1-dichloroethene 1,1-dichloroethane cis-1,2-dichloroethene bromochloromethane 1,2-dibromoethane Styrene 4-isopropyltoluene 1,3,5-trimethylbenzene tert-butylbenzene 1,2-dichlorobenzene 1,2-dibromo-3-chloropropane naphthalene 1,2,3-trichlorobenzene Tert-butyl methyl ether 1,2-Dichloroethane Tert-amyl methyl ether 1,1,2,2-Tetrachloroethane	TM 116 by Headspace GC-MS based on USEPA Methods 8240, 8120, 8020, 624, 610 and 602
	pH	TM 133 using a GL pH Meter (Ref: Modified BS 1377:Part 3:1990)
	Monohydric Phenols: phenol cresols xylenols 2,3,5-trimethyl phenol 2-isopropylphenol Total - Sum of the above 5 Monohydric Phenols	TM 062 by HPLC
	Dichloromethane Extractable Compounds	TM 004 by Solvent Extraction Apparatus

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Total Organic Carbon (TOC)	TM 132 by combustion method
	Total Carbon	TM 132 by combustion method
	Polynuclear Aromatic Hydrocarbons (PAH): Naphthalene[1,2] Acenaphthylene[2] Acenaphthene[2] Fluorene[2] Phenanthrene[1,2] Anthracene[1,2] Fluoranthene[1,2] Pyrene[2] benz(a)anthracene[1,2] Chrysene[1,2] Benzo(b)fluoranthene[2] Benzo(k)fluoranthene[1,2] Benzo(a)pyrene[1,2] Indeno(123cd)pyrene[1,2] Dibenzo(ah)anthracene[2] Benzo(ghi)perylene[1,2]	TM 218 by Solvent Extraction and GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	PCB congeners: PCB 28 PCB 52 PCB 77 PCB 81 PCB 101 PCB 105 PCB 114 PCB 118 PCB 123 PCB 126 PCB 138 PCB 153 PCB 156 PCB 157 PCB 167 PCB 169 PCB 180 PCB 189	TM 168 using GC-MS
SLUDGE Digestor liquor only	Volatile Fatty Acids: Acetic acid Propionic Acid Isobutyric Acid Butyric Acid Isovaleric Acid Valeric Acid Caproic Acid Heptanoic Acid	TM 201 by GC-FID

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS	Chemical Tests	**Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil**
	Total cyanide Easily liberated/Free cyanide Thiocyanate	TM 153 by segmented flow analyser based on AWWA/APHA 20th Edition - Method 4500
	Water Soluble Boron (10:1)	TM 222 by ICP-OES
	Water Soluble Anions (2:1), specifically: Chloride Bromide Nitrate Sulphate	TM 019 by Ion Chromatography (IC)
	Elemental Sulphur	TM 136 by HPLC
	Arsenic Beryllium Cadmium Cobalt Chromium Copper Manganese Mercury Nickel Lead Zinc	TM 181 by ICP-OES
	Exchangeable Ammonium	TM 024 by steam distillation and titration
	pH	TM 133 by automated pH probe
	Loss on ignition	TM 018 by gravimetry
	Water soluble sulphate 2:1 Water soluble chloride 2:1	TM 243 by Kone analyser
	Acid Extractable Sulphate	TM 221 by ICP-OES

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	**Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil** (cont'd)
	Sulphide	TM 180 by ion selective electrode
	Total Organic Carbon (TOC)	TM 132 by combustion method
	Hexavalent Chromium	TM 151 by Kone analyser
	Polynuclear Aromatic Hydrocarbons (PAH): Naphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(123cd)pyrene Dibenzo(ah)anthracene Benzo(ghi)perylene	TM 218 by solvent extraction and GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	**Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil** (cont'd)
	Volatile Hydrocarbons: Dichlorodifluoromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane Carbon Disulphide Tert-butyl methyl ether Trans-1,2-Dichloroethene 1,1-Dichloroethane Cis-1,2-Dichloroethene Bromochloromethane Chloroform 1,1,1-Trichloroethane 1,1-Dichloropropene Carbon tetrachloride 1,2-Dichloroethane Benzene 1,2-Dichloropropane Dibromomethane Bromodichloromethane Cis-1,3-Dichloropropene Toluene 1,1,2-Trichloroethane 1,3-Dichloropropane Tetrachloroethene Dibromochloromethane 1,2-Dibromoethane Chlorobenzene 1,1,1,2-tetrachloroethane Ethylbenzene o-Xylene 1,2,3-Trichloropropane Propylbenzene 1,3,5-Trimethylbenzene Bromoform Bromobenzene	TM 116 by Headspace GC-MS based on USEPA Methods 8240, 8120, 8020, 624, 610 and 602

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	**Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil** (cont'd)
	Volatile Hydrocarbons (cont'd): 2-Chlorotoluene 4-Chlorotoluene Tert-Butylbenzene 4-Isopropyltoluene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-Chloropropane Naphthalene	TM 116 by Headspace GC-MS based on USEPA Methods 8240, 8120, 8020, 624, 610 and 602
	Gasoline Range Hydrocarbons, Total, in the range >C5 to C12	TM 089 Headspace GC-FID based on USEPA Methods 8020 and 602
	Extractable Petroleum Hydrocarbons (EPH), in the range >C8 to C40	TM 415 by solvent extraction and GCxGC-FID
	Monohydric Phenols: phenol cresols xylenols 2,3,5-trimethyl phenol 2-isopropylphenol Total - Sum of the above 5 Monohydric Phenols	TM 062 by HPLC based on MEWAM Book 124-1988/Second Site Property, March 2003, Method 17.7
	PCB congeners: PCB 28 PCB 52 PCB 77 PCB 81 PCB 101 PCB 105 PCB 114	TM 168 using GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	**Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil** (cont'd)
	PCB congeners (cont'd): PCB 118 PCB 123 PCB 126 PCB 138 PCB 153 PCB 156 PCB 157 PCB 167 PCB 169 PCB 180 PCB 189	TM 168 using GC-MS
WATERS	Chemical Tests	Documented In-House Method
Potable water (non-regulatory), Ground water, Saline water, treated and untreated sewages and trade effluent	Hexavalent Chromium	TM 241 by Kone Analyser
Surface Water	Gasoline Hydrocarbons: Total in the range >C5-C12, and Benzene Toluene Ethyl Benzene o-xylene m/p-xylene MTBE TAME	TM 245 by Headspace GC-FID based on USEPA Methods 8020 and 602

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	Documented In-House Method
Ground water and Final effluent	Banded and Total Gasoline Hydrocarbons: Total in the range >C5 - C12 including bands >C6-C8 >C8-C10 >C10-C12 and Benzene Toluene Ethyl Benzene o-xylene m/p-xylene MTBE	TM 245 by Headspace GC-FID based on USEPA Methods 8020 and 602
Ground water, surface water, treated and untreated sewages, landfill leachates	Dissolved Metals: Aluminium Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Potassium Phosphorus Selenium Silver Sodium Strontium Thallium	TM 152 by ICP-MS with KED

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	Documented In-House Method
Ground water, surface water, treated and untreated sewages, landfill leachates (cont'd)	Dissolved Metals (cont'd): Tin Titanium Tungsten Uranium Vanadium Zinc	TM 152 by ICP-MS with KED
Ground water, surface water, treated and landfill leachates	Dissolved Metals: Antimony	TM 152 by ICP-MS with KED
Ground water, surface water, treated and untreated sewages, landfill leachates	Total Metals: Aluminium Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Potassium Phosphorus Silver Sodium Strontium Thallium Tin Titanium Tungsten Uranium Vanadium Zinc	TM 152 by ICP-MS with KED

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	Documented In-House Method
Ground water, surface water, treated and landfill leachates	Dissolved Metals: Selenium	TM 152 by ICP-MS with KED
Surface Water, treated sewage effluent and trade effluent	Total Petroleum Hydrocarbons	TM 235 by Infra-red
Potable water (non-regulatory), Ground water, Surface waters and Final effluent	Extractable Petroleum Hydrocarbons C10 - C40	TM 172 by GC-FID
Surface Waters, Ground Waters	Semi-Volatile Organic Compounds (SVOCs), specifically Bis(2-chloroethyl)ether 2-Chlorophenol 1,4-Dichlorobenzene 1,3-Dichlorobenzene 1,2-Dichlorobenzene 2-Methylphenol N-nitrosodi-n-propylamine Hexachloroethane 4-Methylphenol Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Bis(2-chloroethoxy)methane 2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene Hexachlorobutadiene 4-Chloro-3-methylphenol 2-Methylnaphthalene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline Dimethyl phthalate Acenaphthylene 2,6-Dinitrotoluene	TM 176 by GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd) Surface Waters, Ground Waters (cont'd)	Chemical Tests (cont'd) Semi-Volatile Organic Compounds (SVOCs), specifically (cont'd) 3-Nitroaniline Acenaphthene Dibenzofuran 2,4-Dinitrotoluene Fluorene Diethyl phthalate 4-Chlorophenylphenylether 4-Nitroaniline Azobenzene 4-Bromophenylphenylether Hexachlorobenzene Phenanthrene Anthracene Di-n-butylphthalate Fluoranthene Pyrene Butylbenzylphthalate Benz(a)anthracene Chrysene Bis(2-ethylhexyl)phthalate Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(a,h)anthracene Benzo(ghi)perylene	Documented In-House Method TM 176 by GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	Documented In-House Method
Surface water, Groundwater Treated and Untreated Sewages, Trade Effluent, Landfill Leachate	Volatile Hydrocarbons: Chloromethane Vinyl Chloride Chloroethane Dichloromethane 1,1-dichloroethane tert-butyl methyl ether cis-1,2-dichloroethene bromochloromethane chloroform 1,1,1-trichloroethane 1,1-dichloropropene benzene dibromomethane trichloroethene 1,1,2-trichloroethane toluene 1,3-dichloropropane 1,2-dibromoethane tetrachloroethene chlorobenzene m/p-xylene styrene o-xylene 1,2,3-trichloropropane isopropylbenzene bromobenzene 2-chlorotoluene propylbenzene 4-chlorotoluene n-butylbenzene naphthalene Dichlorofluoromethane Trans-1,2-dichloroethene ethylbenzene 1,2-dichloropropane bromomethane Tert-amyl methyl ether Trichlorofluoromethane 1,1-dichlorethene Carbon disulphide	TM 208 by Headspace GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Surface water, Groundwater Sewages, Trade Effluent, Landfill Leachate (cont'd)	Volatile Hydrocarbons: (cont'd) Bromodichlormethane trans-1,3-dichloropropene Dibromchloromethane 1,1,1,2-tetrachloroethane Bromoform 1,3,5-trimethylbenzene Tert-butylbenzene 1,2,4-trimethylbenzene Sec-butylbenzene 4-isopropyltoluene 1,3-dichlorobenzene 1,4-dichlorobenzene 1,2,4-trichlorobenzene 1,2-dichloroethane 1,1,2,2-tetrachloroethane 1,2-dichlorobenzene Cis-1,3-dichloropropene Hexachlorobutadiene 1,2,3-trichlorobenzene	TM 208 by Headspace GC-MS
Groundwater, Surface Water, Landfill Leachate , Treated and Untreated Sewages, Trade Effluents, Saline Waters, Potable Waters (non-regulatory)	pH	TM 256 using a GL pH Meter based on BS 1377:Part 3:1990
Groundwater, Landfill leachate, Treated and Untreated Sewages, Trade Effluents	Dissolved Oxygen	TM 187 by titration (including auto-titrator)
Groundwater, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents	Dissolved Mercury	TM 183 by Cold Vapour Atomic Fluorescence Spectroscopy

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Ground Water, Landfill Leachate, Treated and Untreated Sewages, Trade Effluent, Potable Water (non-regulatory)	Total Mercury	TM 183 by Cold Vapour Atomic Fluorescence Spectroscopy
Groundwater, Surface Water, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents	Chemical Oxygen Demand (COD) Filtered, settled & total	TM 107, PM210 using Dr Lange Kit,
Groundwater, Surface Water, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents	Biochemical Oxygen Demand (BOD) Settled & total	TM 045, PM210 based on MEWAM BOD5, 2nd Edition 1988/AWWA/ APHA, 20th Edition - Method 5210B
Groundwater, Surface Water, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents	Anions: Bromide Chloride Fluoride Nitrate Nitrate as N and NO_3 Nitrite Nitrite as N and NO_2 Phosphate Sulphate	TM 226 by ion chromatography
Groundwater, Surface Water, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents and Saline water	Alkalinity	TM 043 by titration and auto-titrator based on AWWA/APHA 20th Edition - Method 2320B/ BS 2690:Part 109:1984 (Ref: BS 2690)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Groundwater, Surface Water, Saline water, Treated and Untreated Sewages, Trade Effluents	Ammonium Ammoniacal Nitrogen as N and NH_3	TM 099 by Kone Analyser based on BS 2690 Part 7:1968/ BS 6068:Part 2.11:1984
Groundwater, surface water, Untreated Sewage, Treated Sewage, Trade Effluents	Total Inorganic Nitrogen (by calculation)	TM 184 by Kone analyser
Groundwater, Surface Water, Treated and Untreated Sewages, Trade Effluents	Anions: Total Oxidised Nitrogen (TON) TON as N and NO_3 Chloride	TM 184 by automated discrete analyser (Kone)
Groundwater, Surface Water, Saline Water, Treated and Untreated Sewages, Trade Effluents	Sulphate as S and SO_4 Phosphate as P and PO_4 Nitrite as N and NO_2	TM 184 by Kone analyser
Saline Water	Total Oxidised Nitrogen (TON) TON as N and NO_3	TM 281 by Kone analyser
Groundwater, Surface Waters, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents, Saline water, Potable Water (non-regulatory)	Electrical Conductivity at 20 °C	TM 120 using a Digital Conductivity Meter based on BS 2690:Part 119:1981
Ground water, surface water, Landfill leachate, Untreated Sewage, Treated Sewage, Trade Effluent	Total Nitrogen Calculation of Kjeldahl Nitrogen	TM 212 by Skalar
Groundwater, Surface Water, Treated and Untreated Sewages, Trade Effluents, Saline water, Potable Water (non-regulatory)	Total Suspended Solids	TM 022 by Gravimetric Determination based on BS 2690:Part 120:1981

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Waters (Cont'd)	Chemical Tests (cont'd)	
Untreated Sewage, Treated Sewage, Trade Effluent	Total Neutralised Suspended Solids Total Neutralised Suspended Solids (settled) Total Suspended Solids (settled)	TM 022, PM 210
Ground Water, Surface Water, Untreated Sewage, Treated Sewage, Trade Effluent	Volatile suspended solids at 500°C	TM 022 by gravimetry
Ground Water, Surface Water, Untreated Sewage, Treated Sewage, Trade Effluent	Non-volatile suspended solids at 500°C	TM 022 based on BS 2690:1981 part 120
Groundwater, Surface Water, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents	Total Inorganic Carbon	TM 090 by TOC Analyser
Groundwater, Surface Water	Total Organic Carbon (low level)	TM 295 by TOC Analyser
Groundwater, Surface Water, Potable Water (non-regulatory), Landfill Leachate, Treated and Untreated Sewage Effluents	Total Organic Carbon	TM 090 by TOC Analyser
Groundwater, Surface Water, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents,	Total Dissolved Solids	TM 021 by Gravimetric Determination based on BS 2690:Part 121:1981 or TM 123 by conductivity meter

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Trade Effluent, Groundwater, Treated and Untreated Sewage, Landfill Leachate	Volatile Fatty Acids: Acetic acid Propionic Acid Isobutyric Acid Butyric Acid Isovaleric Acid Valeric Acid Caproic Acid Heptanoic Acid	TM 201 by GC-FID
Groundwater, Landfill Leachate, Treated and Untreated Sewages, Trade Effluents	Monohydric Phenols: Phenol Cresols Xylenols Sum of the above 3 Monohydric phenols	TM 259 by HPLC
Groundwater, Surface Water	Ferrous Iron	TM 125 using colorimetry
Groundwater, Potable Water (non-regulatory), Landfill Leachate, Treated and Untreated Sewages, Trade Effluents	Total Cyanide Easily Liberated (Free) Cyanide Thiocyanate	TM 227 by Segmented Flow Analyser
Ground Water, Surface Water, Landfill Leachate & Trade Effluents	Easily Liberated (Free) Cyanide Total Cyanide	TM 279 by SFA colorimetry
Groundwater, Potable Water (non-regulatory), Treated and Untreated Sewages, Trade Effluents,	Fluoride	TM 104 by Kone Analyser
Groundwater, Potable Water (non-regulatory), Saline Water, Treated and Untreated Sewages, Trade Effluents	Sulphide	TM 101 by automated discrete analyser (KONE)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Surface Water, Ground Water, Saline Water	Polynuclear Aromatic Hydrocarbons (PAH's): Naphthalene[1,2] Acenaphthylene[2] Acenaphthene[2] Fluorene[2] Phenanthrene[1,2] Anthracene[1,2] Fluoranthene[1,2] Pyrene[2] Benz(a)anthracene[1,2] Chrysene[1,2] Benzo(b)fluoranthene[2] Benzo(k)fluoranthene[1,2] Benzo(a)pyrene[1,2] Indeno(1,2,3-cd)pyrene[1,2] Dibenzo(a,h)anthracene[2] Benzo(g,h,i)perylene[1,2] Sum of "Dutch 10" PAHs (annotated [1]) Sum of "EPA 16" PAHs (annotated [2])	TM 178 by GC-MS
Surface and Saline waters	Volatile Hydrocarbons: Vinyl Chloride 1,1,1,2-tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,1-Dichloropropene 1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane	TM 265 by Headspace GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Surface and Saline waters (cont'd)	Volatile Hydrocarbons: (cont'd) 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,4-Dichlorobenzene 2-Chlorotoluene 4-Chlorotoluene 4-Isopropyltoluene Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Carbon tetrachloride Chlorobenzene Chloroethane Cis-1,2-Dichloroethene Cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane Ethylbenzene Hexachlorobutadiene Isopropylbenzene Naphthalene n-Butylbenzene o-Xylene p/m-Xylene Propylbenzene Sec-Butylbenzene Styrene Tert-Butylbenzene Tetrachloroethene Toluene Trans-1,2-Dichloroethene Trans-1,3-Dichloropropene Trichloroethene Trichlorofluoromethane	TM 265 by Headspace GC-MS
Surface, Ground and Saline waters	Di (2-ethylhexyl) phthalate DEHP	TM 423 by GC-MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Surface, Ground and Saline waters	Hexabromocyclododecane (HBCDD)	TM 421 by LC-MS-MS
	Cypermethrin	TM 422 by LC-MS-MS
WATERS & WASTE WATERS	Chemical Testing	
Groundwater, surface Water, Untreated sewage, Treated Sewage & Trade Effluent	Turbidity	TM 195 by nephelometry
Untreated Sewage, Treated Sewage, Trade Effluent	Dissolved Metals, specifically: Aluminium Arsenic Cadmium Chromium Cobalt Copper Iron Lead Nickel Phosphorus Selenium Zinc	TM 377 by ICP-MS with Kinetic Energy Discrimination (KED)
Untreated Sewage, Treated Sewage, Trade Effluent	Total Metals, specifically: Aluminium Arsenic Cadmium Chromium Cobalt Copper Iron Lead Nickel Phosphorus Zinc	TM 377 by ICP-MS with Kinetic Energy Discrimination (KED)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS & WASTE WATERS Groundwater, Surface Water and Treated Sewage Effluent	<u>Chemical Testing</u> Perfluorinated substances (PFAS): Perfluoro-n-butanoic acid Perfluoro-n-pentanoic acid Perfluoro-n-hexanoic acid Perfluoro-n-butanesulfonate Perfluoro-n-heptanoic acid 6:2 fluorotelomer sulfonate Perfluoro-n-pentanesulfonate Perfluoro-n-octanoic acid Perfluoro-n-hexanesulfonate Perfluoro-n-nonanoic acid Perfluoro-n-heptanesulfonate Perfluoro-n-decanoic acid Perfluoro-n-octanesulfonate -linear Perfluorooctane sulfonate-branched Perfluoro-n-undecanoic acid Perfluoro-n-dodecanoic acid Perfluorooctanesulfonamide Total PFOS (linear & Branched)	TM 337 by LC-MS/MS

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WASTE WATERS Trade Effluent, Untreated Sewage and Treated Sewage Effluent	Chemical Testing	**Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - sampling and chemical testing of untreated sewage, treated sewage effluents and trade effluents**
	Total Suspended Solids	TM 022 by Gravimetry
	Ammonia Ammoniacal Nitrogen as N and NH_3	TM 099 by discrete colorimetric analyser
	pH	TM 256 by pH meter
	Chemical Oxygen Demand (COD)	TM 107 by tube test
	Biochemical Oxygen Demand (BOD)	TM 045 by DO meter
	Total Nitrogen	TM 212 by Skalar
	Anions: Bromide Chloride Fluoride Nitrate Nitrate as N and NO3 Nitrite Nitrite as N and NO2 Total Oxidised Nitrogen (TON) as N Phosphate Sulphate	TM 226 by Ion Chromatography

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WASTE WATERS (cont'd) Trade Effluent, Untreated Sewage and Treated Sewage Effluent	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, treated sewage effluents and trade effluents**
	Total Metals, specifically: Aluminium Arsenic Cadmium Chromium Cobalt Copper Iron Lead Nickel Phosphorus Zinc	TM 377 by ICP-MS with Kinetic Energy Discrimination (KED)
	Dissolved Metals, specifically: Aluminium Arsenic Cadmium Chromium Cobalt Copper Iron Lead Nickel Phosphorus Selenium Zinc	TM 377 by ICP-MS with Kinetic Energy Discrimination (KED)
END		