

# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

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



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ISO/IEC 17025:2017

### Marchwood Scientific Services Limited (a trading division of Cawood Scientific)

Issue No: 070 Issue date: 08 April 2021

371 Millbrook Road West  
Southampton  
SO15 0HW

Contact: Victoria Hastie  
Tel: +44 (0) 23 8078 6979  
E-Mail: Victoria.Hastie@cawoodscientific.uk.com  
Website: www.marchwood-scientific.com

Testing performed by the Organisation at the locations specified below

#### Locations covered by the organisation and their relevant activities

##### Laboratory locations:

Location details	Activity	Location code
<p><b>Address</b> 371 Millbrook Road West Southampton SO15 0HW</p> <p><b>Local contact</b> Victoria Hastie  Tel: +44 (0)23 8078 6979 Email: Victoria.Hastie@cawoodscientific.uk.com</p>	<p><b>Testing:</b> Environmental Testing Stack Emissions Testing Food Testing Feed Testing</p> <p><b>Support Functions:</b> Quality System Quality Audit administration</p>	A
<p><b>Address</b> Unit 1A.2(A) North Road Marchwood Industrial Park Marchwood Southampton SO40 4BL</p> <p><b>Local contact</b> Victoria Hastie  Tel: +44 (0)23 8078 6979 Email: Victoria.Hastie@cawoodscientific.uk.com</p>	<p><b>Support Functions:</b> Sample Reception Environmental Testing Waste (SRF/RDF) Testing Biofuel Testing</p>	B
<p><b>Address</b> Unit 5 60 Smithfold Lane Worsley Manchester M28 0GP</p> <p><b>Local contact</b> Victoria Hastie  Tel: +44 (0)161 703 9170 Email: Victoria.Hastie@cawoodscientific.uk.com</p>	<p><b>Support Functions:</b> Sample Reception Air testing</p>	C



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DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES	<u>Chemical Tests</u>	National, European, International and Environment Agency specified standards including MIDs and Documented In-House work instructions to meet the requirements of the Environment Agency (MCERTS) Performance Standard for laboratories carrying out testing of samples from stack emissions monitoring	
Filters, probe and impinger rinses (acetone, toluene, and water), XAD-2 resin trap and tubes	<u>Poly Chlorinated Dibenzo-p-Dioxins (PCDD)</u>	BS EN 1948-2:2006, and BS EN 1948-3:2006 Gas Chromatography (GC) High Resolution Mass Spectrometry (MS) using labelled internal Standards (in house method 2002b) following extraction 2043 cleanup by 2044	A
	2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD		
	<u>Poly Chlorinated Dibenzo Furans (PCDF)</u>		A
	2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF		



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES (cont'd)	<u>Chemical Tests</u> (cont'd)	National, European, International and Environment Agency specified standards including MIDs and Documented In-House work instructions to meet the requirements of the Environment Agency (MCERTS) Performance Standard for laboratories carrying out testing of samples from stack emissions monitoring	
Filters, probe and impinger rinses (acetone, toluene, and water), XAD-2 resin trap and tubes	<u>Poly Chlorinated Biphenyls (PCB's)</u>  PCB-77 PCB-81 PCB-105 PCB-114 PCB-118 PCB-123 PCB-126 PCB-156 PCB-157 PCB-167 PCB-169 PCB-189	BS EN 1948-4:2010 Analysis by in-house method 2002b by High Resolution Gas Chromatography Mass Spectrometry (GC/MS) following extraction 2043/ cleanup by 2044 (and in accordance with BS EN 1948-4:2010)	A
Sorbent tubes (Activated carbon)	<u>Siloxanes:</u>  Hexamethyldisiloxane Hexamethylcyclotrisiloxane Octamethyltrisiloxane Octamethylcyclotetrasiloxane Decamethyltetrasiloxane Decamethylcyclopentasiloxane Dodecamethylpentasiloxane Dodecamethylcyclohexasiloxane	Documented in house method 3038 by GC-MS based on PD CEN/TS 13649:2014	C



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES (cont'd)	<u>Chemical Tests</u> (cont'd)	National, European, International and Environment Agency specified standards including MIDs and Documented In-House work instructions to meet the requirements of the Environment Agency (MCERTS) Performance Standard for laboratories carrying out testing of samples from stack emissions monitoring	
Filters, probe and impinger rinses (acetone, toluene, and water), XAD-2 resin trap and tubes	<u>Polycyclic Aromatic Hydrocarbons (PAH's)</u>  Naphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(b)naphtho[2,1-d]thiophene Benzo(c)phenanthrene Benzo(a)anthracene Chrysene Cyclopenta(cd)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(j)fluoranthene Benzo(a)pyrene Cholanthrene Indeno(1,2,3-cd)pyrene Benzo(ghi)perylene Dibenzo(ah)anthracene Anthanthrene Dibenzo(ai)pyrene	BS ISO 11338-2:2003 Analysis by in-house method 2003 by Gas Chromatography Mass Spectrometry (GC/MS - QQQ) WI2003, following extraction WI1115 and cleanup by WI2016	A



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES (cont'd)	<u>Chemical Tests</u> (cont'd)	National, European, International and Environment Agency specified standards including MIDs and Documented In-House work instructions to meet the requirements of the Environment Agency (MCERTS) Performance Standard for laboratories carrying out testing of samples from stack emissions monitoring	
Charcoal tubes	Speciated VOCs  1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,1-Dichloropropene 1,2,3-Trichloropropane 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dibromo-3-chloropropane 1,2-Dibromomethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,4-Dichlorobenzene 2,2-Dichloropropane 2-Chlorotoluene 4-Chlorotoluene Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform	Documented in house method WI 3048 by GC-MS (solvent desorption) based on PD CEN/TS 13649:2014 & BS ISO 16200-1:2001	C



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES	<u>Chemical Tests</u> (cont'd)	National, European, International and Environment Agency specified standards including MIDs and Documented In-House work instructions to meet the requirements of the Environment Agency (MCERTS) Performance Standard for laboratories carrying out testing of samples from stack emissions monitoring	
Charcoal tubes	Speciated VOCs (cont'd)  Butylbenzene Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroform cis-1,2-Dichloroethene cis-1,3-Dichloropropene Dibromomethane Ethylbenzene Hexachloro-1,3-butadiene Isopropyl benzene m-Xylene o-Xylene p-Isopropyl toluene Propyl benzene p-Xylene sec-Butylbenzene tert-Butylbenzene Tetrachloroethene Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene	Documented in house method WI 3048 by GC-MS (solvent desorption) based on PD CEN/TS 13649:2014 & BS ISO 16200-1:2001	C



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
<p>ASH DUST EFFLUENT FOLIAGE SLUDGE SOILS</p> <p>Inorganic compounds used as ingredients in animal feeds and food</p> <p>Oils and grain as ingredients in animal feeds and food</p> <p>ANIMAL FEED, FOODS and FATTY FOODS (including fish, meat, dairy products, eggs)</p>	<p><u>Chemical Tests (cont'd)</u></p> <p><u>Poly Chlorinated Dibenzo-p-Dioxins (PCDD)</u></p> <p>2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD</p> <p><u>Poly Chlorinated Dibenzo Furans (PCDF)</u></p> <p>2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF</p>	<p>Documented In-House Methods based on the following national, international and other recognised standards</p> <p>Documented in-house Method 2002 / 2002a, based on US EPA Method 1613. Gas Chromatography (GC) - High Resolution Mass Spectrometry(MS) using Labelled Internal Standards Following extraction by WI 3 2043/cleanup by 2044 for effluents, 2001 or 2005 and 2044 for foods, 1102 for solid foods/feed samples, 2042 for dairy and egg, 2043 and 2044 for 2,4D and 1102/2043 and 2044 for other sample types</p>	<p>A</p>



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	<u>Chemical Tests (cont'd)</u>	Documented In-House Methods based on the following national, international and other recognised standards	
ASH DUST EFFLUENT FOLIAGE SLUDGE SOILS  Inorganic compounds used as ingredients in animal feeds and food  Oils and grain as ingredients in animal feeds and food  FOODS and FATTY FOODS (including fish, meat, dairy products, eggs)	<u>Poly Chlorinated Biphenyls (PCB's)</u>  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	Documented In-House Method 2002 / 2002a using High Resolution Gas Chromatography Mass Spectrometry (GC/MS) following extraction 2043/cleanup by 2044 for effluents, 2001 or 2005 and 2044 for foods, 2042 for dairy and egg, and 1102/2043 and 2044 for other sample types	A
Fish oil	<u>Polycyclic aromatic hydrocarbons (PAHs)</u>  Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Benzo(g,h,i)perylene Chrysene Dibenz(a,h)anthracene Indeno(1,2,3,c,d)pyrene	Documented in house method WI-3051 using gas chromatography-high resolution mass spectrometry (GC-HRMS)	A





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Fish oil	<u>Chemical Tests</u> (cont'd)	Documented In-House Methods based on the following national, international and other recognised standards	A
	PAH4 (sum of Benzo(a)pyrene, Chrysene, Benz(a)anthracene, benzo(b)fluoranthene)	Documented in house method WI-3051 using gas chromatography-high resolution mass spectrometry (GC-HRMS)	
Fats and oils	PAH8 (sum of Benzo(a)pyrene, Chrysene, Benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene)	Arsenic, Cadmium, Mercury, Lead	A
Inorganic compounds used as ingredients in animal feeds and food	Arsenic, Cadmium, Mercury, Lead	Documented in-house method WI 2048 using ICP-MS/MS	A
Inorganic compounds used as ingredients in animal feeds and food	Copper, Iron, Manganese, Zinc	Documented in-house method WI 3050 using ICP Triple Quad Mass Spectrometry	B
		Documented in-house method WI 3052 using ICP-OES	



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES	<u>Chemical Tests (cont'd)</u>	Documented In-House Methods based on the following national, international and other recognised standards	
Filters, probe and impinger rinses (acetone, toluene, and water), XAD-2 resin trap and tubes	<u>Poly Chlorinated Dibenzo-p-Dioxins (PCDD)</u> 2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD OCDD	BS EN 1948-2:2006, and BS EN 1948-3:2006 or US EPA Method 23 or, for PU Filters only, US EPA Method 1613 Gas Chromatography (GC) High Resolution Mass Spectrometry (MS) using labelled internal Standards (in house method 2002 / 2002a) following extraction 2043 cleanup by 2044	A
Polyurethane Filters	<u>Poly Chlorinated Dibenzo Furans (PCDF)</u> 2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	BS EN 1948-2:2006, and BS EN 1948-3:2006 or US EPA Method 23 Gas Chromatography (GC) High Resolution Mass Spectrometry (MS) using labelled internal Standards (in house method 2002 / 2002a) following extraction 2043/ cleanup by 2044	A
Air, sampled onto DNPH treated silica gel adsorption tubes	<u>Determination of mass of Carbonyl Compounds in Air:</u> Formaldehyde Acetaldehyde Propionaldehyde Crotonaldehyde Butyraldehyde Benzaldehyde Isovaleraldehyde Valeraldehyde Hexaldehyde 2,5 -Dimethylbenzaldehyde	Documented Method MSSL WI 3044. Based on BS ISO 16000-3:2011 & MDHS 102 using HPLC-UV	C



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES (cont'd)	<u>Chemical Tests</u> (cont'd)	Documented In-House Methods based on the following national, international and other recognised standards	
Filters, probe and impinger rinses (acetone, toluene, and water), XAD-2 resin trap and tubes	<u>Poly Chlorinated Biphenyls (PCB's)</u>	BS EN 1948-4:2010 Analysis by in-house method 2002 / 2002a by High Resolution Gas Chromatography Mass Spectrometry (GC/MS) following extraction 2043/ cleanup by 2044 (and in accordance with BS EN 1948-4:2010 for PU filters)	A
Polyurethane filters	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		
Air, sampled onto charcoal sorbent	<u>Siloxanes:</u> Hexamethyldisiloxane Hexamethylcyclotrisiloxane Octamethyltrisiloxane Octamethylcyclotetrasiloxane Decamethyltetrasiloxane Decamethylcyclopentasiloxane Dodecamethylpentasiloxane Dodecamethylcyclohexasiloxane	Documented in house method 3038 by GC-MS based on PD CEN/TS 13649:2014	C



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES (cont'd)	<u>Chemical Tests</u> (cont'd)	Documented In-House Methods based on the following national, international and other recognised standards	
Air, sampled onto charcoal sorbent	<u>Speciated VOCs</u>  Ethanol, Acetone, Isopropyl Alcohol, Metyl tert-butyl ether, Hexane, 2-Butanone, Ethyl acetate, Isobutanol, Isopropyl acetate, Benzene, 1-Butanol, 1-Methoxy-2-propanol, Propyl acetate, 4-Methyl-2-pentanone, Toluene, Butyl acetate, 1-Methoxy-2-propyl acetate, Ethylbenzene, m-Xylene+ p-Xylene, o-Xylene, 1,3,5-Trimethylbenzene, 1,2,4-Trimethylbenzene, 1,2,3-Trimethylbenzene	Documented in house method WI 3042 by GC-MS	C
Air, sampled onto charcoal sorbent	<u>Speciated VOCs</u>  1,1-Dichloroethene 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloropropene 1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dibromomethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,4-Dichlorobenzene 2,2-Dichloropropane 2-Chlorotoluene 3-Chloro-1,2-dibromopropane 4-Chlorotoluene Benzene Bromobenzene	Documented in house method WI 3048 by GC-MS (solvent desorption) based on PD CEN/TS 13649:2014 & BS ISO 16200-1:2001	C



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS - STACK GAS SAMPLES (cont'd)	<u>Chemical Tests</u> (cont'd)	Documented In-House Methods based on the following national, international and other recognised standards	
Air, sampled onto charcoal sorbent (cont'd)	<u>Speciated VOCs</u> (cont'd) Bromochloromethane Bromodichloromethane Bromoform Butylbenzene Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroform cis-1,2-Dichloroethene cis-1,3-Dichloropropene Dibromomethane Dichloromethane (DCM) Ethylbenzene Hexachloro-1,3-butadiene Isopropylbenzene m/p-Xylene o-Xylene p-Isopropyltoluene Propylbenzene sec-Butylbenzene tert-Butylbenzene Tetrachloroethene Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene	Documented in house method WI 3048 by GC-MS (solvent desorption) based on PD CEN/TS 13649:2014 & BS ISO 16200-1:2001	C



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS – GAS SAMPLES (cont'd)  Air, sampled onto Tenax -ambient air - landfill gas	<u>Chemical Tests (cont'd)</u>  <u>Speciated VOCs</u> 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-Dibromomethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,4-Dichlorobenzene 1-Pentene 2-Butoxyethanol 2-Chlorotoluene 3-Chloro-1,2-dibromopropane 4-Chlorotoluene Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Butanethiol Butylbenzene Butyric acid Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroethane Chloroform cis-1,2-Dichloroethene cis-1,3-Dichloropropene	Documented In-House Methods based on the following national, international and other recognised standards  Documented in house method WI 3047 by GC-MS (thermal desorption) based on MDHS72 (1993), LFTGN04 v 3.0 2010, BS EN ISO 16017-1:2001 & PD CEN/TS 13649:2014	C



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ATMOSPHERIC POLLUTANTS AND EFFLUENTS – GAS SAMPLES (cont'd)	<u>Chemical Tests (cont'd)</u>	Documented In-House Methods based on the following national, international and other recognised standards	
Air, sampled onto Tenax -ambient air - landfill gas (cont'd)	<u>Speciated VOCs</u>  Dibromomethane Dimethyldisulphide Ethylbenzene Ethylbutyrate Furan Hexachloro-1,3-butadiene Isopropylbenzene m/p-Xylene Naphthalene o-Xylene p-Isopropyltoluene Propanethiol Propylbenzene sec-Butylbenzene Styrene tert-Butylbenzene Tetrachloroethene Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene Trichloroethylene	Documented in house method WI 3047 by GC-MS (thermal desorption) based on MDHS72 (1993), LFTGN04 v 3.0 2010, BS EN ISO 16017-1:2001 & PD CEN/TS 13649:2014	C
Collected in Tedlar bags Ambient air Landfill gas Syngas	<u>Bulk gas components</u> Hydrogen (100ppm to 100%) Methane (100ppm to 100%) Oxygen (0.3% to 100%) Nitrogen (1.0% to 100%) Carbon monoxide (100ppm to 100%) Carbon dioxide (100ppm to 100%)	Documented in house method WI 3046 using GC-TCD	C
Air, sampled onto charcoal sorbent - landfill gas - Biogenic gas	Arsenic	Documented in house method WI 3054 by ICP-OES	C



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ATMOSPHERIC POLLUTANTS AND EFFLUENTS – GAS SAMPLES (cont'd) Workplace Atmospheres - Filters	<u>Chemical Tests (cont'd)</u>  Particulate matter	Documented In-House Methods based on the following national, international and other recognised standards Documented in house method WI 3045 based on MDHS 14/4, PD CEN/TR 15230:2005 and BS ISO 15767:2009	C
Workplace Atmospheres: Filters PUFs (Polyurethane foams from IOM cartridges)	Metals, specifically:  Aluminium Arsenic Barium Beryllium Calcium Cadmium Cobalt Chromium Copper Iron Potassium Magnesium Manganese Molybdenum Sodium Nickel Lead Antimony Selenium Tin Strontium Titanium Thallium Vanadium Zinc	Documented in house method WI 3054 by ICP-OES	C
NATURAL WATERS, SEAWATERS	AOX	Documented in house method 3023 using CL10-AOX analyser	B





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**Marchwood Scientific Services Limited**  
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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FUELS	<u>Chemical and Physical Tests</u>	Documented In-House Methods based on the following national, international and other recognised standards	
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Moisture	Documented in house method 3013 by Gravimetry based on BS EN 15414-3:2011	B
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Ash Content	Documented in house method 3014 by Gravimetry based on BS EN 15403:2011	B
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Calorific Value (Gross Calorific Value)	Documented in house method 3015 by Bomb Calorimetry based on BS EN 15400:2011	B
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Net Calorific Value	By Calculation	B
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Oxygen	By Calculation based on BS EN 15407:2011	B
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Sulphur, Chlorine, Fluorine, Bromine	Documented in house method 3021 by Ion Chromatography (following bomb calorimetry) based on BS EN 15408:2011	B
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Carbon, Hydrogen and Nitrogen	Documented in house method 3024 by Elemental Analyser based on BS EN 15407:2011	B
Solid Recovered Fuels (SRF) Refuse Derived Fuel (RDF)	Volatile Matter	Documented in house method 3027 by Gravimetry based on BS EN 15402:2011	B



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FUELS (cont'd)	<u>Chemical and Physical Tests</u> (cont'd)	Documented In-House Methods based on the following national, international and other recognised standards	
Solid Biofuels (Biomass)	Moisture	Documented in house method 3013 by Gravimetry based on BS EN 18134-3:2015	B
Solid Biofuels (Biomass)	Ash Content	Documented in house method 3014 by Gravimetry based on EN 14775:2009	B
Solid Biofuels (Biomass)	Calorific Value (Gross Calorific Value)	Documented in house method 3015 by Bomb Calorimetry based on BS EN 18125:2017	B
Solid Biofuels (Biomass)	Net Calorific Value	By Calculation	B
Solid Biofuels (Biomass)	Oxygen	By Calculation based on BS EN 16948:2015	B
Solid Biofuels (Biomass)	Sulphur, Chlorine	Documented in house method 3021 by Ion Chromatography (following bomb calorimetry) based on EN 16994:2016	B
Solid Biofuels (Biomass)	Carbon, Hydrogen and Nitrogen	Documented in house method 3024 by Elemental Analyser based on EN 16948:2015	B
Solid Biofuels (Biomass)	Volatile Matter	Documented in house method 3027 by Gravimetry based on BS EN 15148:2009	B
RECYCLED WASTE Trommel Fines	Loss on Ignition at 440°C	Documented in house method 3025 by Gravimetry in accordance with HMRC Excise Notice LFT1 27 March 2015	B
END			