Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

UKAS TESTING **1282** **Accredited to ISO/IEC 17025:2017**	**ALS Laboratories (UK) Limited** **Issue No:** 175 **Issue date:** 17 July 2026	
	7 & 8 Aspen Court **Bessemer Way** **Templeborough** **Rotherham** **S60 1FB**	**Contact: Services and Technical Queries** **Tel: +44 (0)1354 697028** **E-Mail: customerservices.uk@alsglobal.com** **Website: www.als-testing.co.uk**

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
Address Medcalfe Way Bridge Street Chatteris Cambridgeshire PE16 6QZ	**Local contact** Adam Rush Tel: +44 (0)1354 695858 Email: adam.rush@alsglobal.com	Chemical Microbiological Group Co-ordination Activities	A
Address Lords Way Kingmoor Business Park Kingstown Carlisle Cumbria CA6 4SL	**Local contact** Adele Field Tel: +44 (0)7770471791 Email: adele.field@alsglobal.com	Microbiological (Food and Water)	B
Address First Floor Building 550 Winch Road Kent Science Park Sittingbourne Kent ME9 8EF	**Local contact** Adam Rush Tel: +44 (0)1795 858290 Email: adam.rush@alsglobal.com	Microbiological (Food and Water)	C
Address 2 Bartholemews Walk Cambridgeshire Business Park Ely Cambridgeshire CB7 4ZE	**Local contact** Glynn Harvey Tel +44 (0)1353 660040 Email: glynn.harvey@alsglobal.com	Chemical (Pharmaceutical) Microbiological (Pharmaceutical)	E

Location details		Activity	Location code
Address 10 Sandown Centre White Horse Business Park Trowbridge BA14 0XD	**Local contact** Adele Field Tel: +44 (0)1225 769050 Email: adele.field@alsglobal.com	Microbiological (Food and water)	G
Address Yeomanry Road Battlefield Enterprise Park Shrewsbury Shropshire SY1 3EH	**Local contact:** Adele Field Tel: +44 (0)1743 463322 Email: adele.field@alsglobal.com	Microbiological (Food and Water) Physical (Food)	S
Address 7 & 8 Aspen Court Bessemer Way Templeborough Rotherham S60 1FB	**Local contact:** Alexandra Marsden Tel: +44 (0)1709 369699 Email: alexandra.marsden@alsglobal.com	Microbiological (Food) Physical (Food) Sample Receipt (Food and Water)	R

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate) (Beverages, cheese, bakery, sauces/jams, dried fruit, chocolate and related - See Appendix 3 at end of this schedule)	<u>Chemical Tests</u>	Documented In-House Methods	
	Acidity	AM/C/922 by Titration	A
	Additives	AM/V/1003 using HPLC	A
	Aflatoxins B1, B2, G1, G2 and Total Aflatoxins	AM/R/999 using HPLC-immunoaffinity	A
	Aflatoxin M1	AM/R/993 using HPLC -immunoaffinity	A
	Amino Acid Profile: Total	AM/V/206 using HPLC	A
	Ash	AM/C/803 based on BS 4401:Part 1:1998 and Feeding Stuffs (Sampling and Analysis) Regulations 2010	A
	Carbohydrate: available, by difference total, by difference Starch, by difference	By calculation: AM/C/901 using the Food Labelling Regulations 1984 (SI No 1305) and Feedingstuffs Regulations 2005	A
	Chloride	AM/C/603 using Potentiometric titration based upon JAOAC 1974	A
	Cholesterol	AM/C/114 using Gas Chromatography JAOAC 1993	A
	Energy	AM/C/901 by calculation using Commission Regulation (EC) 2008/100 and 90/496	A
	Free Fatty acid	AM/C/108 based on BS EN ISO 660:2009	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate) (cont'd)	<u>Chemical Tests</u> (cont'd)	Documented In-House Methods	
	Fat (oil)	1) AM/C/101 using Soxhlet, Method A based on Feeding Stuffs (Sampling and Analysis) Regulations 2010	A
		2) AM/C/102 using acid hydrolysis, Method B based on Feeding Stuff Regulations 2010	A
		3) AM/C/103 based on Werner-Schmidt Method BS 4401:Part 4:1970	A
		4) AM/C/104 using mixed solvents based on Bligh and Dyer Method	A
	Fatty Acid Composition/Profile - Saturated fats - Monounsaturated fats - Polyunsaturated fats - cis:trans analysis - non-normalised analysis - % actual fatty acids	AM/C/107 using Gas Chromatography based on BS EN ISO 12966-2:2017	A
	Fibre:		
(Animal feeding stuffs)	1) Crude	AM/C/300 using fibrebag method - digestion	A
	2) Dietary	1) AM/C/309 based on AOAC Method No 985.29	A
		2) AM/C/309 using the ANKOM Dietary Fibre Analyser based on AOAC method 985.29	A
(Food Products and raw materials)	Determination of rapid integrated total dietary fibre (RITDF)	Documented In-House Method AM/C/311	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate) (cont'd)	<u>Chemical Tests</u> (cont'd)	Documented In-House Methods	
	Hydroxyproline and Collagen	AM/C/998 using Colorimetry BS 4401:Part 11:1995	A
(Fishmeal, fish food, petfood and food products excluding beer and cheese)	Biogenic amines: - Histamine - Tryptamine - Phenylethylamine - Putrescine - Cadaverine - Tyramine - Spermidine - Spermine	AM/V/212 using HPLC with fluorescence detection	A
(Food Products and ALS-supplied environmental swab rinse liquid)	Quantitative determination of Almond	AM/R/263 by ELISA using Bio-Check kit	A
(Food products and ALS-supplied environmental swab rinse liquid)	Quantitative determination of β-lactoglobulin	AM/R/262 by ELISA using Bio-Check kit	A
(Food products and environmental swabs)	Quantitative determination of cooked egg protein	AM/R/268 by ELISA using R-Biopharm	A
(Food Products and environmental swab rinse liquid)	Gluten/Gliadin content: quantitative	AM/R/253 by R5 Mendez Extraction and ELISA technique	A
(Food products and environmental swabs)	Quantitative determination of Casein and Caseinates	AM/R/254 by ELISA using AgraQuant kit	A
	Quantitative determination of Soya (soya trypsin inhibitor)	AM/R/256 by ELISA using Bio-Check kit	A
(Food products, processed and unprocessed, and environmental swabs)	Quantitative determination of Peanut	AM/R/257 by ELISA using Bio-Check kit	A
	Quantitative determination of Mustard	AM/R/258 by Elisa using Bio-Check kit	A
(Foods, liquids and environmental swabs excluding chia seeds, chocolate and chocolate containing products)	Quantitative determination of Sesame	AM/R/264 by ELISA using Bio-Check kit	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD AND FOOD PRODUCTS, ENVIRONMENTAL SWABS and WATERS (non regulatory)	Detection and quantification of allergens	Methods developed and validated in accordance with flexible scope procedure QM131 using commercially available ELISA kits	A
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate)	<u>Chemical Tests</u>	Documented In-House Methods	
(Poultry/Turkey Feed)	Metabolisable Energy (Hartel)	By calculation: AM/C/901 Feedingstuffs Regulations 2005	A
(Fish and Meat Products)	Meat Content: Lean Total	By calculation: AM/C/902 by Stubbs and Moore	A
Microwave method excludes food and feed samples containing less than 20% moisture, more than 25% sugar, and herbs, spices and samples containing alcohol	Moisture content	1) AM/C/1017 by microwave drying	A
		2) AM/C/801 based on Feeding Stuff Regulations 2000	A
	Ochratoxin A	AM/R/960 HPLC - Fluorescence detection with immunoaffinity columns	A
(Beverages)	Ethanol	AM/C/917 using GC	A
	Peroxide Value	AM/C/112 BS 684 2.14:2001	A
	Nitrogen/Protein	AM/C/224, by DUMAS technique	A
	pH	1) ESGM-C014 using pH meter	A
		2) ACP 037 based on BS 4401: Part 9:1975 and BS 770: Part 5:1976	S, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate) (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods	
(Animal Feeds and Cereal Based Foods)	Starch	AM/C/401 using Polarimetric technique based on EC Directive 79/1999/EC	A
	Sugars - Totals	AM/C/403 based on Luff-Schoorl Method and Feeding (Sampling and Analysis) Regulations 2010	A
(Food products and pure sugars)	Sugars – Total and Individual: Fructose, Galactose, Glucose, Lactose, Maltose, Sucrose	AM/C/1014 by Ion exchange chromatography	A
Food, Food Products, Feed, Pet Food and Sweeteners	Polyols: Erythritol, Inositol, Isomalt, Lactitol, Maltitol, Mannitol, Sorbitol, Xylitol	AM/C/409 using ion exchange chromatography with pulsed electrochemical detection	A
	Sulphur dioxide	AM/C/925 based on Monier Williams procedure	A
	Tryptophan, Total	AM/V/228 using HPLC based on Official Journal of the European communities, directive 2000-45-EC	A
(Meat and meat Products)	Water: Added	By calculation: AM/C/902 Meat Products and Spreadable Fish Products Regulations 1984 (SI No 1566)	A
(excludes milk powder & condensed milk)	Total Fat and Moisture	AM/C/1015 using NMR Oracle AMR	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate) (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods	
	Metals: Calcium Copper Iron Magnesium Manganese Phosphorus Potassium Sodium (including as salt by calculation) Zinc	AM/C/1002 using ICP-OES	A
Meat, meat products, brine, vegetables, animal feeds and baby foods	Determination of the nitrite and nitrate content	AM/V/1004 using high performance anion exchange chromatography based on BS EN 12014-4:2005	A
(Product suitability determined through technical review)	Nutritional composition for purpose of labelling confirmation using ALS NIRS prediction model: Moisture Protein Total fat Saturated fat Dietary fibre Available carbohydrates Total sugars	AM/C/1020 using NIR spectra generation (Foss NIRS D2500) and comparative modelling against an in house dataset	A
FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate)	Chemical Tests Pesticide Residues: Dithiocarbamates (as CS_2)	Documented In-House Methods AM/R/240 using GCMS	 A
(Fruits, vegetables, fungi and cereals)	Chlormequat and Mepiquat	AM/R/231 using LC-MS	A
(Fruits, vegetables and cereals)	Inorganic Bromide	AM/R/222 using GC-MS	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD AND FOOD PRODUCTS (restricted matrices specified as appropriate) (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods	
(Fruits and vegetables)	Maleic Hydrazide	AM/R/1006 using LC-MS/MS	A
	Pesticide multi-residue screen and quantitation – See Appendix 1 at end of this schedule for the list of pesticides covered	AM/R/110 using GC-MS; flame photometric detection; HPLC fluorescence	A
High water content; High acid and high water content; High sugar and low water content; High oil content and intermediate water content; High starch and/or protein content and low water and fat content	Identification, quantification and confirmation of pesticide residues See Appendix 2 at end of this schedule for the list of pesticides covered	AM/R/1003 QuEChERS extraction with LC-MS/MS and GC-MS/MS Detection	A
Food & Food Products (covered by SANTE commodity groups 1, 2, 3, 4a, 4b, 5, 6, 7, 8, 9, 10)	Chlorate and Perchlorate	AM/R/1008 using LC-MS/MS	A
	Sudan red, Para Red and Butter Yellow Dyes	AM/R/244 using LC-MS/MS	A
DAIRY PRODUCTS (as specified)	Chemical Tests	Documented In-House Methods	
Butter & Cheese	Chloride	AM/C/603 using Potentiometric titration based upon JAOAC 1974	A
Milk, Cream and Cheese	Fat content	ESGM C011 based on Gerber method BS 696:Parts 1 and 2:1989 (withdrawn)	A
Milk, Butter, Cream and Condensed Milk	Fat content	ESGM C018 by Rose Gottlieb	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
DAIRY PRODUCTS (as specified) (cont'd)	Chemical Tests (cont'd)	Documented In-House Methods	
Cheese	Moisture content	1) AM/C/1017 by microwave drying	A
Butter, Cheese and Concentrate Milk samples		2) AM/C/801 based on Feeding Stuff Regulations 2000	A
Milk and Cream	Phosphatase	ESGMC008 by Fluorophos (excluding testing for reactivation and microbial phosphatase)	A
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS, INCLUDING PREMIXES, SUPPLEMENTS, DRINKS, PHARMACEUTICAL PRODUCTS, e.g. CAPSULES, PASTILLES AND TABLETS, MEDICATIONS (restricted matrices specified as appropriate)	Chemical Tests (cont'd)	Documented In-House Methods	
	Vitamin A (Retinol) Vitamin E (Alpha tocopherol)	AM/V/702 using HPLC based on Analyst, August 1985, based on Volume 11, 110 and Pure and Applied Chemistry, 1988, Volume 60, p878-892	A
	Vitamin C (Ascorbic acid)	AM/V/710 using HPLC	A
	Vitamin B_1 (Thiamine) Vitamin B_2 (Riboflavin)	AM/V/703 using HPLC	A
(Excluding Silage)	Beta Carotene	AM/V/906 using HPLC	A
(Excluding pharmaceutical products)	Vitamin B_3 complex (Nicotinic acid and Nicotinamide)	AM/V/751 using HPLC	A
(Excluding pharmaceutical products)	Vitamin B_6 (Pyridoxine)	AM/V/752 using HPLC	A
(Excluding vegetable products)	Vitamin B complex (Free Folic Acid)	AM/V/1006 by immunoaffinity assay with HPLC detection	A
	Vitamin D_2 & D_3 (Cholecalciferol & Ergocalciferol)	AM/V/723 using HPLC	A
(Premixes, Supplements, Tablets and Pastilles)	Vitamin D_2 & D_3 (Cholecalciferol & Ergocalciferol)	AM/ V/707 using HPLC	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS, INCLUDING PREMIXES, SUPPLEMENTS, DRINKS, PHARMACEUTICAL PRODUCTS, e.g. CAPSULES, PASTILLES AND TABLETS, MEDICATIONS (restricted matrices specified as appropriate)	Chemical Tests (cont'd) Vitamin E (Alpha tocopherol acetate)	Documented In-House Methods AM/V/715 using HPLC	 A
FOODS, ENVIRONMENTAL SWABS AND RINSE WATERS	Molecular Testing Detection of mitochondrial DNA from the following materials: Celery	Documented In-House Methods AM/R/1001 for DNA extraction and real time PCR detection using AM/MB/302 InviTek InviScreen Celery Detection Kit using BioRad CFX95	 A
FOOD AND FOOD PRODUCTS, ENVIRONMENTAL SWABS and WATERS (non regulatory)	Qualitative detection of DNA	Methods developed and validated in accordance with flexible scope procedure QM131 using commercially available PCR kits	A
MEATS, COOKED AND RAW	Detection of mitochondrial DNA from the following species: Chicken Cow Horse Pig Sheep Turkey	AM/R/1001 and AM/R/1002 using Real Time Polymerase Chain reaction (RT-PCR)	A
FOOD AND FOOD PRODUCTS	Detection of mitochondrial DNA from the following species: Goat (Capra hircus) Duck (Anas species)	AM/R/1001 and AM/MB/301 using Real Time Polymerase Chain reaction (RT-PCR) and BioRad ID-Check Kit	A
FOOD AND FOOD PRODUCTS, ENVIRONMENTAL SWABS and WATERS (non regulatory)	Detection of DNA from the following materials: Crustacea	AM/R/1001 and AM/MB/303 using method Real Time Polymerase Chain Reaction (RT-PCR) and InviTek InviScreen Crustacean DNA Detection Kit using BioRad CFX95	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ANIMAL FEEDINGSTUFFS, FOOD AND FOOD PRODUCTS	<u>Physical Tests</u>		
	Water activity	ACP 040 using water activity meter	S, R
		AM/C/445 using Novasina Labmaster AW meter (based on BS ISO 21807:2004)	A
FOOD AND FOOD PRODUCTS			
Prepared food / meals including raw, part cooked and cooked	Temperature measurement over a specified time period for the generation and/or validation of cooking instructions using domestic appliances: Electric conventional ovens Electric fan ovens Gas ovens Induction hob Electric grills Air fryers Electric deep fat-fryers Microwave ovens	TS005: Temperature Measurement (In-cook) of food samples	R
		TS004: Temperature Measurement (Post-cook) of food samples	R
FOOD AND FOOD PRODUCTS, ENVIRONMENTAL SWABS and WATERS (non regulatory)	<u>Microbiological Tests</u>	Methods developed and validated in accordance with procedure QM131 Management of the UKAS Flexible Scope of Accreditation	
	Transfer of currently accredited test methods between locations listed using techniques and equipment that appear on the fixed scope	QM008 Validation and Verification of Microbiology Methods (Food & Food Products and Environmental Swabs)	A, B, C, G, S, R
		QM134 Validation and Verification of Water Microbiology Methods (Non Regulatory Waters)	A, B, C, G, S, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD AND FOOD PRODUCTS, ENVIRONMENTAL SWABS and WATERS (non regulatory)	Microbiological Tests	Methods developed and validated in accordance with procedure QM131 Management of the UKAS Flexible Scope of Accreditation	
	Confirmation and identification of named presumptive micro-organisms originating from test methods that appear on the fixed scope at locations listed that are included within the current Bruker Maldi Tof library held by the laboratory	QM008 Validation and Verification of Microbiology Methods (Food & Food Products and Environmental Swabs)	G, S, R
		QM134 Validation and Verification of Water Microbiology Methods (Non Regulatory Waters)	G, S, R
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified)	Microbiological Tests	Documented In-House Method	
(Raw and cooked meats, dairy products, vegetables, environmental swabs)	Detection of *Escherichia coli* O157:H7 DNA	ACP052 with primary enrichment in mEHEC broth, magnetic immune-concentration and real-time PCR using Assurance Genetic Detection System (GDS)	R
	Enumeration:		
	Bacillus cereus, presumptive	1) ESGMM319 using PEMBA at 37°C for 24 hours and ambient additional 24 hours	A, B, C, G, S, R
		2) ESGMM333 based on ISO 7932:2004+A1:2020 using MYP agar	A, B, C, G, S, R
(Raw poultry only at Location A, food, food products, including raw and cooked poultry, environmental swabs at Location S)	*Campylobacter* spp (thermotolerant)	ESGMM325 based on BE EN ISO 10272-2:2017 confirmed by biochemical tests or identification to genus level by MALDI-TOF (SM 101/102) for Locations R & S only	A, S, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified) (cont'd)	Microbiological Tests (cont'd)	Documented In-House Method	
	Enumeration (cont'd):		
	Clostridium perfringens (presumptive and confirmed*), and *Clostridium* spp	ESGMM310, using TSC agar based on BS EN ISO 15213-2:2023 * *C. perfringens* confirmation available by following procedures at indicated sites only:	A, B, C, G, S, R
		• Lactose-Gelatine (LG) Motility-Nitrate (MN) tests	S, R
		• Acid phosphatase (based on BS EN ISO 15213-2:2023)	B, S
		• MALDI-TOF (Bruker Maldi Biotyper) following test method SM 101/102	S
	Coliforms, presumptive	ESGMM302 based on BS EN ISO 4832:2006 at 37ºC for general food and swabs and 30ºC for dairy products	A, B, C, G, S, R
	Enterococci, presumptive	1) ESGMM314 based on BS 4285-3.11:1985	A
		2) MP 12 by spread plate technique at 37°C or 44°C using Slanetz and Bartley Agar	C, S, R
(Animal By-Product materials)	Enterobacteriaceae, confirmed	1) ESGMM303 based on BS ISO 21528-2:2017 for the purpose of the Animal By-Products (Enforcement) (England) Regulation (ABPR) 2013 (amended 2015) implementing Regulation (EU) No 142/11	A, G
(including carcass swabs at locations A, B, G, S & R only)	Enterobacteriaceae, Presumptive and confirmed	2) Method ESGMM303 based on BS ISO 21528-2:2017 with confirmation by biochemical tests at Locations B, S only	A, B, C, G, S, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified) (cont'd)	Microbiological Tests (cont'd) Enumeration (cont'd):	Documented In-House Method	
(including carcass swabs at locations A, B, G, S & R only)	*Escherichia coli (ß-*glucuronidase positive)	ESGMM304 using TBX pour plate based on BS ISO 16649- 2:2001	A, B, C, G, S, R
	Lactic acid bacteria, presumptive	1) ESGMM320 based on BS ISO 15214:1998	A, C, G, S, R
		2) ESGMM327 using MRS agar spread plates microaerophilic incubation at 30°C, with optional confirmation by Gram stain and catalase	B
	Listeria spp. and *Listeria monocytogenes* (confirmed according to procedures ESGMM531, ESGMM532 or SM 101/102)	ESGMM321 based on BS EN ISO 11290-2:2017	A, B, C, G, S, R
	Pseudomonas species, presumptive	ESGMM312 based on BS EN ISO 13720:2010	A, B, C, G, S, R
	Coagulase positive *S*taphylococci, confirmed	ESGMM307 based on BS EN ISO 6888-1:2021 confirmed by either RPF or Oxoid Staphytect latex agglutation	A, B, C, G, S, R
	Sulphite reducing Clostridia (presumptive and confirmed)	ESGMM331 using commercially available Iron Sulphite Agar preparation as pour plate and overlay, incubated anaerobically at 37°C for 48h. Confirmed at Shrewsbury (S) location only by obligate anaerobic growth check	S, R
(environmental swabs at locations A, S & R only)	Total Aerobic Colony Count: 3 days, 30°C	ESGMM300 using PCA or MPCA based on BS EN ISO 4833-1:2013+A1:2022	A, B, C, G, S, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified) (cont'd)	Microbiological Tests (cont'd)	Documented In-House Method	
	Enumeration (cont'd):		
(including carcass swabs at locations A, B, G, S & R only)	Total Aerobic Colony Count: 2 days, 30°C	ESGMM300 using PCA or MPCA pour plate technique	A, B, C, G, S, R
	Thermophilic Aerobic Colony Count:	ESGMM300 using pour plate technique and PCA incubated:	
		1) 55°C for 24h	R
		2) 55°C for 48h	S
	Yeasts and Moulds:	1) ESGMM308 based on BS ISO 21527-1:2008	A, B, C, G, S, R
(environmental swabs at locations S & R only)		2) ESGMM315 using DG18 agar (for products of water activity ≤ 0.95) based on BS ISO 21527-2:2008	B, S, R
(excluding environmental swabs)		3) ESGMM309 client specified pour or spread plate method using OGYE incubated at 25°C for 5 days (spread plate at Shrewsbury (S) only)	B, S
	Detection:		
	Campylobacter spp, confirmed	1) MP 19 with enrichment in Preston broth and selective plating on CCDA confirmed by biochemical tests or identification to genus level by MALDI-TOF (SM 101/102) for Locations R & S only	S, R
(including environmental swabs)		2) ESGMM527 based on BS EN ISO 10272-1:2017 confirmed by biochemical tests or identification to genus level by MALDI-TOF (SM 101/102) for Location R only	A, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified) (cont'd)	Microbiological Tests (cont'd)	Documented In-House Method	
	Detection (cont'd):		
GOS Syrup, Peanut Butter, Infant formula and sponge swabs	*Cronobacter sakazakii* (presumptive)	PHARM-M011 based on BS EN ISO 22964:2017	E
	Enterobacteriaceae, presumptive	ESGMM563 based on BS EN ISO 21528-1:2017	B
(including carcass swabs at location A only)	*Escherichia coli* O157	1) AMM382 modified in-house method using one selective media at 41.5°C for 18 hours	A
		2) AMM382 based on BS EN ISO 16654-1:2001+A1:2017	A
	*Escherichia coli (ß-*glucuronidase positive)	ESGMM561 customer specified method based on ISO 16649-3:2015	A, B, G
	Listeria monocytogenes and other named *Listeria* species	1) ESGMM522 based on BS EN ISO 11290-1:2017	A, C, G, S, R
		2) KM61 using BioMerieux VIDAS LIS	B
		3) ESGMM523 using Solus ELISA kit method and DYNEX equipment	A, B, C, G, S, R
	Listeria species confirmation and identification (applicable to enumeration and detection methods)	1) ESGMM531 using oxidase, catalase, Gram stain and biochemical tests (Biomerieux API Listeria or Oxoid Microbact 12L)	A, B, C, G, S, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified) (cont'd)	Microbiological Tests (cont'd)	Documented In-House Method	
	Detection (cont'd):		
	Listeria species confirmation and identification (applicable to enumeration and detection methods)	2) ESGMM532 (BioMerieux MALDI TOF) – also see MICROBIOLOGICAL CULTURES	A
		3) SM 101/102 species identification by Bruker MALDI-TOF	G, S, R
(swabs at location B only)	Coagulase Positive Staphylococci	ESGMM562 based on BS EN ISO 6888-3 2003	A, B
(Animal By-Product materials)	*Salmonella* spp	1) ESGMM511 based on BS EN ISO 6579-1:2017+A1:2020 for the purpose of the Animal By-Products (Enforcement) (England) Regulation (ABPR) 2013 (amended 2015) implementing Regulation (EU) No 142/11	A, G
(including carcass swabs at locations A, B, G, S & R only)		2) ESGMM511 based on BS EN ISO 6579-1:2017+A1:2020	A, B, C, G, S, R
(including feeds at location S and carcass swabs at locations A, B, G, S & R only)		3) ESGMM515 using Solus ELISA Kit method and DYNEX equipment	A, B, C, G, S, R
		4) KM60 using BioMerieux VIDAS SLM, dual selective enrichment, confirmation by BioMerieux API 20E	B

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified) (cont'd)	Microbiological Tests (cont'd)	Documented In-House Method	
	Detection (cont'd):		
	Salmonella spp	5) MP 20 customer-specified method based on Nordic Committee on Food Analysis, Method No 71, 5th Ed 1999 enrichment in RVS broth and selective plating using XLD and chromogenic agar	S
(excluding liquid egg products)		6) ESGMM525 using Solus Salmonella One ELISA Kit method and DYNEX equipment	S
DRIED PRODUCTS, cereals, cereal bars, biscuits, confectionary products		7) ESGMM525 using Solus Salmonella One ELISA Kit method and DYNEX equipment	B
FOOD and FOOD PRODUCTS, ENVIRONMENTAL SWABS (unless specified)	Microbiological Tests	Documented In-House Methods	
	Detection:		
	Salmonella confirmation	1) ESGMM517 by oxidase, poly O and poly H antisera and biochemical tests (Biomerieux API 20E)	A, B, C, G, S, R
		2) Identification by MALDI-TOF (SM 101/102)	G, R, S
Fish & shellfish based products (excludes frozen products and high salt fish stock) and swabs	Pathogenic Vibrio species (*V. cholerae, V. parahaemolyticus & V. vulnificus*)	ESGMM551 based on BS EN ISO 21872-1:2017 + A1:2023 with in house confirmation using bioMérieux API 20E, or identification of named species by Bruker MALDI-TOF (SM 101/102) for location S only	A, S

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
ENVIRONMENTAL SAMPLES Exposed contact plates, settle plates, or plates from air samplers (incubated and enumerated as received)	Enumeration:	ESGMM322 with medium and incubation as specified for the target organisms:	
	Aerobic Colony Count	PCA, 30°C for 48 hours	A, G, S, R
	Coagulase Positive Staphylococci	BP, 37°C for 48 hours	S, R
	Escherchia.coli (β-glucuronidase positive)	TBX, 44°C for 18-24 hours	S, R
	Enterobacteriaceae (presumptive)	VRBGA, 37°C for 24 hours	S, R
	L. monocytogenes and other *Listeria* spp including species identification	Using ALOA, 37°C 18-24 hours	S, R
	Pseudomonas spp. (presumptive)	CFC agar, 25°C for 44 hours	S, R
	Yeasts and Moulds	DRBC agar, 25°C for 5 days	A, G, S, R
MICROBIOLOGICAL CULTURES (presumptive bacterial isolates from respective food and environmental detection and/or enumeration ESGMM tests)	Microbiological Testing (cont'd)	Documented In-House Methods	
	Confirmation of named *Listeria* species: *L. monocytogenes,* *L. innocua,* *L. welshimeri,* *L. grayi,* *L. seeligeri*, *L. ivanovii*	ESGMM532 using the BioMerieux VITEK (V2) MS MALDI TOF instrument	A
	Confirmation of *Salmonella* genus		
	Identification of *Campylobacter* species	ESGMM532 using the VITEK (V2) MS MALDI TOF instrument	A

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
MICROBIOLOGICAL CULTURES (presumptive bacterial isolates from respective food and environmental detection and/or enumeration ESGMM tests)	Molecular Testing		
	Molecular serotyping of *Salmonella*	ESGMM519 using Check-Points B.V. Check & Trace Microarray in conjunction with Bioer Life ECO PCR Thermal Cycler	R
	Detection:		
FOOD and FOOD PRODUCTS, PROCESS WATER and ENVIRONMENTAL SAMPLES	Shiga toxin producing E.coli (STEC) DNA detection for stx, eae and O157 gene sequences (presumptive and confirmed). Identification of Serotype isolated	ESGMM571 based on ISO/TS 13136:2012 using Hygiena Biotecon foodproof STEC Screening Lyokit qPCR assay Bio-Rad CFX 69 Thermocycler. Confirmation by culture and Serotyping of O26, O45, O103, O104, O111, O121, O145 and O157 using Foodproof STEC Identification Lyokit Melt Curve analysis with Bio-Rad CFX 96 Thermocycler	R
FOOD and FOOD PRODUCTS, PET FOOD, PROCESS WATERS and ENVIRONMENTAL SWABS	*Salmonella* spp. DNA	ESGMM575 by BioMérieux GENE-UP Real-Time PCR. Protocol for the Use of GENEUP® Salmonella (SLM) Test Kit for Qualitative Detection of Salmonella spp	R
PET FOOD (including raw materials) and ENVIRONMENTAL SWABS	*Salmonella* spp. DNA	ESGMM575 by BioMérieux GENE-UP Real-Time PCR. Protocol for the Use of GENEUP® Salmonella (SLM) Test Kit for Qualitative Detection of Salmonella spp	G

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
PHARMACEUTICAL PRODUCTS - FINISHED AND RAW MATERIALS	Microbiological Testing (cont'd)	In house methods based on European Pharmacopoeia	
	Detection:		
	Clostridia spp	ESGMM700	E
	Pseudomonas spp		
	Salmonella spp		
	Staphylococcus aureus		
	Enterobacteriaceae		
	Escherichia coli		
	Enumeration:		
	Total viable count (including yeasts and moulds)	ESGMM700	E
	Preservative Efficacy Test	AMM380	E
PURIFIED WATERS (including washer-disinfector endoscope rinse water) and WATER FOR INJECTION	Total Aerobic Colony Count	AMM362 in house method based on based on HTM 2030 (Archived) and HTM 01-01 Part D and HTM 01-06 Part E	E
PHARMACEUTICAL PRODUCTS – Raw, Intermediate and Finished Products	Biological Tests	Documented In-House Methods	
	Bacterial Endotoxin	PHARM-M018 kinetic turbimetric quantitative assay using Pyros Kinetic Flex system (Associates of Cape Cod International)	E

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
PURIFIED WATERS (including washer-disinfector endoscope rinse water) and WATER FOR INJECTION	<u>Chemical Tests</u>	Documented In-House Methods	
	Acidity Alkalinity Aluminium Ammonium Calcium and Magnesium (hardness) Carbon dioxide Chloride Nitrate Sulphate	CHEM 123 based on current BP, EP and NHS guidelines HTM01-01 2016 Part C, HTM01-01 2016 Part D and HTM01-06 2016 Part E where specified	E
	Heavy metals - expressed as Lead	CHEM 123	E
	Oxidisable substances	CHEM 123 based on current BP and EP qualitative analysis	E
	Organic Carbon: Total	CHEM 125 based on current BP/EP and NHS guideline HTM01-06 2016 Part E	E
	Conductivity	CHEM 128 based on current BP/EP and NHS guidelines HTM01-01 2016 Part C, HTM01-01 2016 Part D and HTM01-06 2016 Part E	E
	pH	CHEM 022 based on current BP/EP and NHS guidelines HTM01-01 2016 Part C, HTM01-01 2016 Part D and HTM01-06 2016 Part E	E
	Total Solids/Residue on Evaporation	CHEM 037 based on current BP/EP methods and NHS guidelines HTM01-01 2016 Part C, HTM01-01 2016 Part D and HTM01-06 2016 Part E	E
	<u>Physical Tests</u>		
	Character/Appearance/ particulate matter (visual assessment)	CHEM 123 based on current BP, EP and NHS guidelines HTM01-01 2016 Part C, HTM01-01 2016 Part D and HTM01-06 2016 Part E where specified	E

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
WATERS	Microbiological Tests		
Drinking (regulatory tap water; private and public supplies)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2000 [SI 2000/3184]. In accordance with the Drinking Water Testing Specification (DWTS)	Documented In-House Procedures based on/ incorporating procedures in the HMSO publication "The Microbiology of Drinking Water - Methods for the Examination of Water and Associated Materials	
	Enumeration:		
	Coliforms & *Escherichia coli*, presumptive and confirmed	ESGMM107 using membrane filtration onto MLGA based on the MDW 2016, Part 4B	G
	Aerobic Colony Counts: 1 day, 37°C 2 days, 30°C 2 days, 37°C 3 days, 22°C	ESGMM100, pour plate using YEA based on the MDW 2020, Part 7A	G
	Enterococci, presumptive and confirmed	ESGMM106 by membrane filtration based on the MDW 2012, Part 5A	G
	Clostridium perfringens, confirmed	ESGMM105 by membrane filtration using TSC based on the MDW 2021, Part 6B	G
	Sulphite-reducing Clostridia	ESGMM104 by membrane filtration using TSC based on the MDW 2021, Part 6A	G
	Pseudomonas aeruginosa, confirmed	ESGMM102 by membrane filtration using CN agar based on the MDW 2015, Part 8B	G

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
MICROBIOLOGICAL CULTURES	Microbiological Tests (cont'd)		
Microbiological cultures - presumptive bacterial isolates from water enumeration test methods:	Confirmation:	SM 101/102 confirmation by Bruker MALDI-TOF * signifies isolates from both regulatory and non regulatory waters	
ESGMM107	Coliforms & *Escherichia coli*		G*, S
ESGMM102	*Pseudomonas aeruginosa*		G*, S
ESGMM105	*Clostridium perfringens*		G*, S
ESGMM106	*Enterococcus* spp		G*, S
WATERS			
Drinking (non regulatory), Bottled and Process Waters	Enumeration:	Documented in House Methods based on The Microbiology of Drinking Water Blue Books	
	Coliforms, presumptive *Escherichia coli*, presumptive	ESGMM107 using MLGA Based on the MDW 2016 Part 4B	A, B, C, G, S, R
	Coliforms, *Escherichia coli*, confirmed	ESGMM107 using MLGA Based on the MDW 2016 Part 4B	C, G, S, R
	Aerobic Colony Counts: 2 days, 37°C 3 days, 22°C	ESGMM100, pour plate using YEA based on MDW 2020, Part 7A	A, B, C, G, S, R
	1 day, 37°C		A, B, C, G, R
	Aerobic Colony Counts: 2 days, 30°C	ESGMM100, pour plate using YEA based on MDW 2020, Part 7A	A, B, C, G, S, R
	Enterococci presumptive	ESGMM106 by membrane filtration based on MDW 2012, Part 5A	A, C, G, S, R
	Enterococci confirmed	ESGMM106 by membrane filtration based on MDW 2012, Part 5A	B, C, G, S, R
	Clostridium perfringens, (presumptive)	ESGMM105 by membrane filtration based on MDW 2021, Part 6B	A, B, C, G, R

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
WATERS (cont'd)	Microbiological Tests (cont'd)	Documented in House Methods based on The Microbiology of Drinking Water Blue Books	
Drinking (non regulatory), Bottled and Process Waters (cont'd)	Enumeration: (cont'd)		
	Clostridium perfringens, confirmed	ESGMM105 by membrane filtration based on MDW 2021, Part 6B	B, C, G, R
	Sulphite-reducing Clostridia	ESGMM104 by membrane filtration using TSC based on MDW 2021, Part 6A	A, B, C, G, S, R
	Pseudomonas aeruginosa, presumptive	ESGMM102 by membrane filtration using CN agar based on the MDW 2015, Part 8B	A, B, C, G, S, R
	Pseudomonas aeruginosa, confirmed	ESGMM102 by membrane filtration using CN agar based on the MDW 2015, Part 8B	B, C, G, S, R
	Pseudomonas spp, presumptive	ESGMM110 by membrane filtration using CFC agar incubated at 30°C for 48 hours	C, R
Ground Waters	Coliforms, presumptive *Escherichia coli*, presumptive	ESGMM107 using MLGA Based on the MDW 2016 Part 4B	A, B, C, G, S
	Coliforms, *Escherichia coli*, confirmed	ESGMM107 using MLGA Based on the MDW 2016 Part 4B	C, G, S
	Aerobic Colony Counts:	ESGMM100, pour plate using YEA based on MDW 2020, Part 7A	
	2 days, 37°C 3 days, 22°C		A, B, C, G, S
	1 day, 37°C		A, B, C, G
	2 days, 30°C		A, B, C, G, S
	Enterococci, presumptive	ESGMM106 by membrane filtration based on MDW 2012, Part 5A	A, C, G, S

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
WATERS (cont'd)	Microbiological Tests (cont'd)		
Ground Waters (cont'd)	Enumeration: (cont'd)	Documented in House Methods based on The Microbiology of Drinking Water Blue Books	
	Enterococci, confirmed	ESGMM106 by membrane filtration based on MDW 2012, Part 5A	B, C, G, S
	Clostridium perfringens, (presumptive)	ESGMM105 by membrane filtration based on MDW 2021, Part 6B	A, B, C, G
	Clostridium perfringens, confirmed	ESGMM105 by membrane filtration based on MDW 2021, Part 6B	B, C, G
	Sulphite-reducing Clostridia	ESGMM104 by membrane filtration using TSC based on MDW 2021, Part 6A	A, B, C, G, S
	Pseudomonas aeruginosa, presumptive	ESGMM102 by membrane filtration using CN agar based on the MDW 2015, Part 8B	A, B, C, G, S
	Pseudomonas aeruginosa, confirmed	ESGMM102 by membrane filtration using CN agar based on the MDW 2015, Part 8B	B, C, G, S
Recreational (man-made) and Surface Waters	Coliforms, presumptive *Escherichia coli*, presumptive	ESGMM107 using MLGA Based on the MDW 2016 Part 4B	A, B, C, G
	Coliforms, *Escherichia coli*, confirmed	ESGMM107 using MLGA Based on the MDW 2016 Part 4B	C, G
	Aerobic Colony Counts: 2 days, 37°C 3 days, 22°C 1 day, 37°C 2 days, 30°C	ESGMM100, pour plate using YEA based on MDW 2020, Part 7A	A, B, C, G
	Enterococci, presumptive	ESGMM106 by membrane filtration based on MDW 2012, Part 5A	A, C, G

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
WATERS (cont'd)	Microbiological Tests (cont'd)		
Recreational (man-made) and Surface Waters (cont'd)	Enumeration: (cont'd)	Documented in House Methods based on The Microbiology of Drinking Water Blue Books	
	Enterococci, confirmed	ESGMM106 by membrane filtration based on MDW 2012, Part 5A	B, C, G
	Clostridium perfringens, (presumptive)	ESGMM105 by membrane filtration based on MDW 2021, Part 6B	A, B, C, G
	Sulphite-reducing Clostridia	ESGMM104 by membrane filtration using TSC based on MDW 2021, Part 6A	A, B, C, G
	Pseudomonas aeruginosa, presumptive	ESGMM102 by membrane filtration using CN agar based on the MDW 2015, Part 8B	A, B, C, G
	Pseudomonas aeruginosa, confirmed	ESGMM102 by membrane filtration using CN agar based on the MDW 2015, Part 8B	B, C, G
Process Waters, Waste Waters, Recreational (both manmade and natural)	*Legionella* spp, presumptive and identification of *Legionella* spp: *Legionella pneumophila* sg 1, 2-15 and species	BIO 114 based on BS EN ISO 11731:2017 using filtration or centrifugation with washing, plating on GVPC. Identification by latex agglutination (Matrix A, B & C: Procedure 8, 9 & 10, Media C)	C
Process Waters, Recreational (manmade)	*Legionella* spp, presumptive and identification of *Legionella* spp: *Legionella pneumophila* sg 1, 2-15 and species	BIO 114 based on BS EN ISO 11731:2017 using filtration with washing, plating on GVPC. Identification by latex agglutination (Matrix A & B: Procedure 8, 9 & 10, Media C)	G

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
WATERS (cont'd)	Microbiological Tests (cont'd)	Documented in House Methods	
Process Waters	Detection:		
	L. monocytogenes and other *Listeria* spp	ESGMM523 using Solus ELISA	S, R
	Listeria species confirmation and identification	1) ESGMM531 using oxidase, catalase, Gram stain and biochemical tests (Biomerieux API Listeria or Oxoid Microbact 12L)	S, R
		2) SM 101/102 identification by MALDI-TOF	S, R
	Salmonella spp.	ESGMM515 using Solus ELISA	S, R
	Salmonella confirmation	ESGMM517 by oxidase, Poly O and poly H antisera and biochemical tests (Biomerieux API 20E)	S, R
MICROBIOLOGICAL CULTURES			
(presumptive bacterial isolates from water enumeration ESGMM107)	Confirmation:		
	Coliforms & *Escherichia coli*	SM 101/102 confirmation by MALDI-TOF	G
	Detection:		
ENVIROMENTAL SWABS	*Legionella* spp, presumptive and identification of *Legionella* spp: *Legionella pneumophila* sg 1, 2-15 and species	BIO 114 based on BS EN ISO 11731:2017 using filtration with washing, plating on GVPC. Identification latex agglutination (Procedure 8, 9 & 10, Media C)	C

END

Appendix 1:

Pesticides in Fruits, Vegetables, Fungi and Cereals determined by AM/R/110 using GC-MS; **flame photometric detection; HPLC fluorescence**

Acephate	Dichlorvos	Imazalil	Pirimiphos-methyl
Aldrin	Dicloran	Iodofenfos	Prochloraz
Atrazine	Dicofol	Iprodione	Procymidone
Azinphos-ethyl	Dicrotophos	Isazophos	Profenophos
Azinphos-methyl	Dieldrin	Isoprocarb	Prometryn
Azoxystrobin	Difenoconazole	Kresoxim-methyl	Propachlor
Benalaxyl	Dimethoate	lambda cyhalothrin	Propargite
Bifenthrin	Dimethomorph	Malathion	Propham
Bitertanol	Diphenylamine	Mepanipyrim	Propiconazole
Boscalid	Endosulfan	Metalaxyl	Propyzamide
Bromophos	Endrin	Metalaxyl-M	Prothiofos
Bromophos-ethyl	Ethion	Metazachlor	Pyrazophos
Bromopropylate	Ethofumesate	Methacrifos	Pyridaphenthion
Bromuconazole	Ethoprophos	Methamidophos	Pyrimethanil
Bupirimate	Etridiazole	Methidathion	Quinalphos
Buprofezin	Etrimfos	Methoxychlor	Quintozene
Cadusafos	Fenarimol	Mecarbam	Simazine
Carbofuran (parent molecule)	Fenchlorphos	Metribuzin	Sulfotep
Carbophenothion	Fenitrothion	Mevinphos	Tebuconazole
Carbosulfan	Fenpropathrin	Monocrotophos	Tecnazene
Chlordane	Fenpropimorph	Myclobutanil	Tefluthrin
Chlorfenvinphos	Fensulfothion	Napropamide	Terbuthylazine
Chlorothalonil	Fenthion	Nuarimol	Terbutryn
Chlorpropham	Fenvalerate	Ofurace	Tetradifon
Chlorpyrifos	Fipronil	Omethoate	Tetrachlorvinphos
Chlorpyrifos-methyl	Fluazifop-P-butyl	Oxadixyl	Tetramethrin
Chlorthal-dimethyl	Flucythrinate	Paclobutrazol	Thiabendazole

Appendix 1 (cont'd):

AM/R/110 using GC-MS; **flame photometric detection; HPLC fluorescence**			
Chlorthion	Flusilizole	Parathion	Tolclofos-methyl
Chlozolinate	Fonofos	Parathion-methyl	Tolyfluanid
Cyanazine	Furalaxyl	Penconazole	Triadimefon
Cyfluthrin	Furathiocarb	Pendimethalin	Triadimenol
Cypermethrin	Heptachlor	Permethrin	Trifloxystrobin
Cyproconazole	Heptenophos	Phenthoate	Triazophos
DDT	Hexachlorobenzene (HCB)	Phosalone	Trifluralin
Deltamethrin	Hexachlorocyclohexane-alpha	Phosmet	Vinclozolin (parent molecule)
Desmetryn	Hexachlorocyclohexane-beta	Phosphamidon	Zoxamide
Diazinon	Hexachlorocyclohexane-gamma	Pirimicarb	
Dichlofluanid	Hexaconazole	Pirimiphos-ethyl	

Appendix 2:

Pesticides in foods and food products containing: high water content; high acid and high water content; high sugar and low water content; high oil content and intermediate water content; high starch and/or protein content and low water and fat content as determined by AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection

LC-MS/MS	**GC-MS/MS**
Acephate	1,4-Dimethylnaphthalene
Acetamiprid	Acetochlor
Aldicarb-sulfone	Acibenzolar-S-methyl
Aldicarb-sulfoxide	Acrinathrin
Amidosulfuron	Alachlor
Aminocarb	Aldrin
Atrazine	Ametryn
Azaconazole	Anthraquinone
Azamethiophos	Atraton
Azoxystrobin	Atrazine
Beflubutamid	Azaconazole
Benalaxyl	Azinphos-methyl
Bendiocarb	Azoxystrobin
Benzoximate	Benalaxyl
Bifenazate	Benfluralin
Bifenthrin	Bifenox
Bixafen	Bifenthrin
Boscalid	Biphenyl
Bromacil	Bitertanol

Appendix 2 (cont'd):

AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection:	
LC-MS/MS	**GC-MS/MS**
Bupirimate	Bromocyclen
Buprofezin	Bromophos
Butralin	Bromophos-ethyl
Carbaryl	Bromopropylate
Carbendazim	Bromuconazole
Carbetamide	Bupirimate
Carboxin	Buprofezin
Carfentrazone-ethyl	Butralin
Chlorantraniliprole	Cadusafos
Chlorfenvinphos	Carbofuran
Chloridazon	Carbophenothion
Chlorothiophos	Chinomethionat
Chlorotoluron	Chlordane, cis-
Chloroxuron	Chlordane, trans-
Chlorpyrifos	Chlorfenson
Chlorpyrifos-methyl	Chlorfenvinphos
Chlorsulfuron	Chlormefos
Cinidon-ethyl	Chlorobenzilate
Clomazone	Chloroneb
Coumaphos	Chloropropylate
Crufomate	Chlorpropham
Cyanazine	Chlorpyrifos
Cycluron	Chlorpyrifos Methyl
Cyflufenamid	Chlorthal-dimethyl
Cymiazol HCl	Chlorthion
Cymoxanil	Chlozolinate
Cyproconazole	Climbazole
Cyprodinil	Cloquintocet-mexyl
DEET	Crimidine
Demeton-S-methyl-sulfone	Cyanofenphos
Desmedipham	Cyanophos
Desmethyl-pirimicarb	Cyfluthrin Sum
Desmetryn	Cyhalothrin (lambda)
Diazinon	Cypermethrin
Dichlorvos	Cyproconazole
Diclofop-methyl	Cyprodinil
Dicrotophos	DDD, o,p'-

Appendix 2 (cont'd):

AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection:	
LC-MS/MS	**GC-MS/MS**
Diethofencarb	DDD, p,p'-
Difenoconazole	DDE, o,p'-
Diflubenzuron	DDE, p,p'-
Dimethachlor	DDT, o,p'-
Dimethenamide	DDT, p,p'-
Dimethoate	Deltamethrin
Dimethomorph	Desmetryn
Dimethylvinphos	Di-allate
Dimoxystrobin	Diazinon
Diniconazole	Dichlobenil
Dinotefuran	Dichlofenthion
Dioxacarb	Dichlorvos
Diphenamid	Diclobutrazol
Disulfoton-sulfone	Diclofop methyl
Disulfoton-sulfoxide	Dicloran
Emamectin	Dicofol
Epoxiconazole	Dicrotophos
Ethidimuron(Sulfadiazole)	Dieldrin
Ethiofencarb	Dimethomorph
Ethiofencarb-Sulfone	Dioxabenzofos
Ethiofencarb-sulfoxide	Dipropetryn
Ethion	Edifenphos
Ethirimol	Endosulfan (alpha isomer)
Ethofumesate	Endosulfan (beta isomer)
Ethoprophos	Endosulfan sulfate
Etofenprox	Endrin
Fenamidone	EPN
Fenamiphos	EPTC
Fenamiphos-sulfone	Etaconazole
Fenamiphos-sulfoxide	Ethofumesate
Fenbuconazole	Ethoprophos
Fenchlorphos-oxon	Etoxazole
Fenhexamid	Etridiazole
Fenobucarb	Etrimfos
Fenoxaprop-P-ethyl	Famphur
Fenoxycarb	Fenarimol
Fenpropathrin	Fenchlorphos
Fenpropidin	Fenchlorvos-oxon

Appendix 2 (cont'd):

AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection:	
LC-MS/MS	**GC-MS/MS**
Fenpropimorph	Fenitrothion
Fenpyroximate	Fenpiclonil
Fenthion	Fenpropathrin
Fenthion-sulfone	Fenpropimorph
Fenthion-sulfoxide	Fenson
Fenuron	Fenvalerate
Flamprop-isopropyl	Flamprop-isopropyl
Fluazinam	Fluazifop-p-butyl
Flufenacet	Flucythrinate
Flufenoxuron	Fludioxonil
Flumetsulam	Flurpirimidol
Flumorph	Flusilazole
Fluometuron	Flutolanil
Fluoxastrobin	Flutriafol
Flupyrsulfuron-methyl	Fluvalinate-tau
Flurtamone	Fonofos
Flusilazole	Furalaxyl
Flutolanil	Furathiocarb
Formothion	HCB
Fosthiazate	HCH-alpha isomer
Fuberidazole	HCH-beta isomer
Furalaxyl	HCH-delta isomer
Furathiocarb	Heptachlor
Guthion	Heptachlor endo-epoxide (trans)
Haloxyfop-methyl	Heptachlor exo-epoxide (cis)
Hexaconazole	Heptenophos
Hexazinone	Hexaconazole
Hexythiazox	Imazalil
Imazalil	Iodofenphos
Imidacloprid	Iprodione
Iodosulfuron-methyl	Isazophos
Ipconazole	Isobenzan
Iprobenfos	Isodrin
Iprovalicarb	Isofenphos
Isoprothiolane	Isoprocarb
Isoproturon	Isoxadifen-ethyl
Isopyrazam	Isoxathion
Isoxaben	Kresoxim-methyl

Appendix 2 (cont'd):

AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection:	
LC-MS/MS	**GC-MS/MS**
Kresoxim-methyl	Leptophos
Lenacil	Lindane (HCH-gamma)
Linuron	Malaoxon
Malaoxon	Malathion
Malathion	MCPA thioethyl
Mandipropamid	Mefenapyr-diethyl
Mecarbam	Mepanipyrim
Mephosfolan	Metalaxyl
Mepronil	Metazachlor
Metaflumizone	Metconazole
Metalaxyl	Methacrifos
Metamitron	Methamidophos
Metazachlor	Methidathion
Metconazole	Metribuzin
Methabenzthiazuron	Mevinphos
Methacrifos	Mirex
Methamidophos	Monocrotophos
Methidathion	Myclobutanil
Methiocarb	Napropamide
Methiocarb-sulfone	Nitrofen
Methiocarb-sulfoxide	Nitrothal-isopropyl
Methomyl	Nuarimol
Methoprotryne	Ofurace
Methoxyfenozide	Omethoate
Metobromuron	Oxadixyl
Metolachlor	Oxyfluorfen
Metolcarb	Paclobutrazol
Metoxuron	Parathion ethyl
Metrafenone	Parathion methyl
Metsulfuron-methyl	Pebulate
Mevinphos	Penconazole
Mexacarbate	Pendimethalin
Monocrotophos	Pentachloroaniline
Monolinuron	Pentachloroanisole
Monuron	Pentachlorobenzene
Myclobutanil	Pentachlorophenol
Napropamide	Permethrin
Nitenpyram	Perthan

Appendix 2 (cont'd):

AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection:	
LC-MS/MS	**GC-MS/MS**
Norflurazon	Phenothrin
Omethoate	Phenthoate
Oxadiazon	Phosfolan
Oxadixyl	Phosmet
Oxamyl	Phosphamidon I
Oxydemeton-methyl	Phosphamidon II
Paclobutrazol	Piperonyl butoxide
Paraoxon	Pirimicarb
Paraoxon-methyl	Pirimiphos-ethyl
Penconazole	Pirimiphos-methyl
Pencycuron	Procymidone
Pendimethalin	Profenofos
Penthiopyrad	Prometryn
Permethrin	Propachlor
Pethoxamid	Propargite
Phenmedipham	Propazine
Phenthoate	Propetamphos
Phorate-sulfone	Propham
Phorate-sulfoxide	Propiconazole
Phosalone	Propyzamide
Phosfolan	Prothiofos
Phosmet	Pyrazophos
Phosphamidon	Pyrimethanil
Phoxim	Quintozene
Picolinafen	Resmethrin
Picoxystrobin	Silafluofen
Pinoxaden	Simazine
Piperonyl-butoxide	Sulfotep
Pirimicarb	Sulprofos
Pirimiphos-ethyl	Tebuconazole
Pirimiphos-methyl	Tecnazene
Prochloraz	Tefluthrin, cis-
Procymidone	Terbacil
Profenofos	Terbufos
Promecarb	Terbumeton
Prometon	Terbuthylazine
Prometryne	Terbutryne
Propamocarb	Tetrachlorvinphos

Appendix 2 (cont'd):

AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection:	
LC-MS/MS	**GC-MS/MS**
Propanil	Tetradifon
Propaquizafop	Tetramethrin
Propargite	Tetrasul
Propazine	Thiabendazole
Propham	Tolclofos-methyl
Propiconazole	Transfluthrin
Propoxur	Triadimefon
Propyzamide	Triadimenol
Proquinazid	Tri-allate
Prosulfocarb	Triazamate
Prothioconazole-desthio	Trichloronate
Pyracarbolid	Trietazine
Pyraclostrobin	Trifloxystrobin
Pyraflufen-ethyl	Trifluralin
Pyridaben	Zoxamide
Pyrifenox	
Pyrimethanil	
Pyriproxyfen	
Quassin	
Quinoxyfen	
Quizalofop-ethyl	
Rimsulfuron	
Rotenone	
Silthiofam	
Spinetoram-major	
Spinetoram-minor	
Spinosyn-A	
Spinosyn-D	
Spirodiclofen	
Spirotetramat	
Spiroxamine	
Tebuconazole	
Tebufenozide	
Tebufenpyrad	
Tebupirimfos	
Tebuthiuron	
Temephos	
Terbufos-sulfone	

Appendix 2 (cont'd):

AM/R/1003 QuEChERS extraction with LC-MS/MS or GC-MS/MS Detection:
LC-MS/MS
Terbufos-sulfoxide
Terbuthylazine
Terbutryn
Tetraconazole
Tetramethrin
Thiabendazole
Thiacloprid
Thiamethoxam
Thidiazuron
Thifensulfuron-methyl
Thiobencarb
Thiodicarb
Tralkoxydim
Triadimefon
Triadimenol
Triazophos
Trichlorfon
Tricylazole
Tridemorph
Trietazine
Trifloxystrobin
Triflumizole
Triflusulfuron-methyl
Trimethacarb
Uniconazole-P
Vamidothion
XMC
Zoxamide

Appendix 3:

Additives in Food Products and Beverages determined by AM/V1003 using HPLC

Matrix	Acesulfame K	Saccharin	Theobromine	Aspartame	Quinine	Sorbate K	Benzoic acid	Caffeine
Soft drink	X	X	X	X	X	X	X	X
Complex soft drink					X	X	X	X
Energy drink								X
Sports drink powder								X
Tea								X
Coffee liquid								X
Coffee powder								X
Jam					X	X	X	
Sauce					X	X	X	
Cheese						X	X	
Dried fruit						X	X	
Chocolate			X					X
Bakery product			X	X	X	X	X	X

Products (sports/health products) with high concentrations of analyte restricted to Sorbate K, Benzoic acid and Caffeine only

END