QMAS

Quality in Meat and Fish Analysis Scheme

Scheme Description

LGC
Proficiency Testing
1 Chamberhall Business Park
Chamberhall Green
Bury
Lancashire
BL9 0AP
United Kingdom

Telephone: +44 (0) 161 762 2500
Email: axiopt@lgcgroup.com
Website www.lgcstandards.com

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Record of issue status and modifications

ISSUE	ISSUE DATE	DETAILS	AUTHORISED BY
20	Aug 2019	New samples 728 and 729 added, sample size reduced for 741, 742 & 747. Ranges adjusted for 732. Changed matrix quantity in samples 756 and 757 to minimum quantity rather than pre-weighed to exact amount.	W. Gaunt S. Xystouris T,Noblett
21	Oct 2019	Yeast and mould analyte added to sample 746	A.Cheetham
22	Jun 2020	Addition of sample 727 carcass rinsate sample	A Cheetham
23	Sept 2020	Added sample 726 Campylobacter enumeration sample	A.Cheetham
24	April 2021	Added sugar as an analyte to samples 728	L.Fielding
25	July 2021	Added sample 725 Amended email address and UKAS logo	A.Cheetham A Collins
26	February 2022	Added coliform analyte to sample 739	A.Cheetham
27	Sept 2022	Added A and B to sample 725 to make it more clear for participants that there are 2 different samples within the package. Changed the format of 'yeast and/or mould' to state each analyte separately. Changed format of meat speciation sample 749 Added 7 new samples	C Taylor S. Xystouris L. Fielding
28	January 2023	Sample 748 is now accredited	A Collins
29	June 2023	Sample 762 added.	S. Xystouris
30	Sept 2023	Microbiology samples range updated to 'cfu/g'. Units updated to 'reporting units'. New analyte added to 743 'Detection of *Campylobacter* species' per cfu/10g. New samples 763 (Salmonella in 375g meat powder) and 764 (Listeria in 125g meat powder) added. Non-toxigenic added to E.coli O157 samples/analyte names. Added 'Identification of Salmonella' to sample 757 Removed Vet drug samples Added a new sample for PFAS (765) Added methyl mercury and changed the sample name of sample 742 Sample 749 Changed from 2 x set of 2 samples to 1 x set of 2 samples Sample 754 Changed from 50g fresh sample to 10g freeze-dried sample	M.Bell T.Noblett S Xystouris L. Fielding
31	July 2024	763 and 764 'supplied as' information changed to ready to test samples. Remove sample 762. Ranges included for fat in 734. New sample PT-MT-766 for offal added.	M. Bell W. Gaunt
32	Oct 2024	763 amended range to 0 to 100 cfu/375g. 764 amended range to 0 to 100 cfu/125g. 764 formats changed from RTT to vial and matrix.	M.Bell

Notes:
Where this document has been translated, the English version shall remain the definitive version.

Scheme Aims and Organisation
The primary aim of the Quality in Meat and Fish Analysis Scheme (QMAS) is to enable laboratories performing the analysis of meat and fish products to monitor their performance and compare it with that of their peers. QMAS also aims to provide information to participants on technical issues and methodologies relating to the chemical and microbiological examination of meat and fish.

The QMAS scheme year operates from January to December. Further information about QMAS, including test material availability, round despatch dates and reporting deadlines, are available on the current QMAS application form.

Test Materials
Details of test materials available in QMAS are given in Appendix A. The test parameters are continually reviewed to ensure they meet the needs of current laboratory testing and regulatory requirements.

Test material batches are tested for homogeneity for at least one test parameter where deemed appropriate. Details of homogeneity tests performed and results are given in the QMAS Scheme Reports.

Some aspects of the scheme, such as test material production, homogeneity testing and stability assessment, can from time to time be subcontracted. When subcontracting occurs, it is placed with a competent subcontractor and LGC is responsible for this work. The planning of the scheme, the evaluation of performance and the authorisation of the final report will never be subcontracted.

Statistical Analysis
Information on the statistics used in QMAS can be found in the General Protocol and in the Scheme Report. Methods for determining assigned values and the values for SDPA used for individual samples are given in Appendix A

Methods
Methods are listed in PORTAL. Please select the most appropriate method from the list. If none of the methods are appropriate, then please report your method as ‘Other’ and record a brief description in the Comments Section in PORTAL.

Results and Reports
QMAS results are returned through our electronic reporting software, PORTAL, full instructions for which are provided by email.

QMAS reports will be available on the website within 10 working days of round closure. Participants will be emailed a link to the report when it is available.

APPENDIX A - Description of abbreviations used

Assigned Value (AV)
The assigned value may be derived in the following ways:

- From the robust mean (median) of participant results (RMean). This is the median of participant results after the removal of test results that are inappropriate for statistical evaluation, e.g. miscalculations, transpositions and other gross errors. Generally, the assigned value will be set using results from all methods, unless the measurement is considered method-dependant, in which case the assigned value will be set by method as illustrated in the report tables.
  For some analytes, where there is a recognised reference method for that type of measurement, this may be used as the assigned value for a particular analyte i.e. it would be applied to results obtained by any method.

  Traceability: Assigned values which are derived from the participant results, or a sub-set of the results are not traceable to an international measurement standard. The uncertainty of assigned values derived in this way is estimated from the participant results, according to ISO 13528.

- From a formulation value (Formulation). This denotes the use of an assigned value derived from sample preparation details, where known and exact quantities of analyte have been used to prepare the sample.

  Traceability: Assigned values calculated from the formulation of the test sample are traceable, via an unbroken metrological traceability chain, to an international measurement standard. The measurement uncertainty of the assigned value is calculated using the contributions from each calibration in the traceability chain.

- From a qualitative formulation (Qual Form). This applies to qualitative tests where the assigned value is simply based on the presence/absence of the analyte in the test material.

  Traceability: Assigned values calculated from the qualitative formulation of the test sample are traceable to a certified reference standard or a microbiological reference strain.

- From expert labs (Expert). The assigned value for the analyte is provided by an 'expert' laboratory.

  Traceability: Assigned values provided by an 'expert' laboratory may be traceable to an international measurement standard, according to the laboratory and the method used. The uncertainty of measurement for an assigned value produced in this way will be provided by the laboratory undertaking the analysis. Details of traceability and the associated uncertainty will be provided in the report for the scheme/round.

Range
This indicates the concentration range at which the analyte may be present in the test material.

SDPA
The SDPA represents the 'standard deviation for proficiency assessment' which is used to assess participant performance for the measurement of each analyte. This may be a fixed value (as stated), a percentage (%) of the assigned value or based on the robust standard deviation of the participant measurement results, either across all methods or by method depending on whether the measurement made is method dependent (see assigned value).

Units
This indicates the units used for the assessment of data. These are the units in which participants should report their results. For some analytes in some schemes participants may have a choice of which units to report their results, however, the units stipulated in this scheme description are the default units to which any results reported using allowable alternative results will be converted to.

DP
This indicates the number of decimal places to which participants should report their measurement results.

Chemistry samples

Sample PT-MT-718* **Nitrate and nitrite analysis of fish and fish products**
Supplied as: 30g of freeze-dried fish/fish product

Analyte	Method	Range	AV	SDPA	Units	DP
Nitrate	All	All	Median	0 to 60ppm: 15ppm >60ppm: 25% AV	mg/kg (as $NaNO_3$)	1
Nitrite	All	All	Median	0-20ppm: 5ppm >20ppm 25% AV	mg/kg (as $NaNO_2$)	1

Sample PT-MT-728* **Nutritional analysis of fish product (e.g. breaded fish product)**
Supplied as: 150g of fish

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	All	All	Median	Robust SD	kcal or KJ/100g	0
Fat	All	All	Median	Robust SD	%	2
Saturates	All	All	Median	Robust SD	%	2
Carbohydrate	All	All	Median	Robust SD	%	2
Dietary fibre	All	All	Median	Robust SD	%	2
Protein	All	All	Median	Robust SD	%	2
Salt	All	All	Median	Robust SD	%NaCl	2
Ash	All	All	Median	Robust SD	%	2
Moisture	All	All	Median	Robust SD	%	2
Sugar	All	All	Median	Robust SD	%	2

Sample PT-MT-729* **Sulfur dioxide in meat and meat products**
Supplied as: 50g meat/meat products

Analyte	Method	Range	AV	SDPA	Units	DP
Sulfur dioxide	HPLC, Spectrophotometry, Distillation (e.g. Monier Williams), IC	All	Median	Robust SD	mg/kg	0

*currently not included in LGC's UKAS Scope of Accreditation

Sample PT-MT-730 **Chemical analysis of meat and meat products**
Supplied as: 150g of dried/cured meat

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	All	All	Median	4% of AV	Kcal or KJ/100g	0
Total fat	All	All	Median	4% of AV (min 0.1%)	%	2
Saturates**	All	All	Median	Robust SD	%	2
Cholesterol**	All	All	Median	Robust SD	%	2
Carbohydrate	All	All	Median	Robust SD	%	2
Total sugars	All	All	Median	0.50	%	2
Dietary fibre	All	All	Median	0.50	%	2

Analyte	Method	Range	AV	SDPA	Units	DP
Protein	All	All	Median	3% of AV (min 0.20%)	%	2
Salt	All	All	Median	6% of AV (min 0.15%)	%NaCl	2
Ash	All	All	Median	2% of AV (min 0.05%)	%	2
Moisture	All	All	Median	0.40	%	2
Sodium	All	All	Median	0.10	%	2
Phosphate	All	All	Median	0.10	%PO_4 or %P	2
pH	All	All	Median	0.10	pH units	2

**All results must to be reported as the concentration determined in test material provided.

Sample PT-MT-731 **Chemical analysis of meat and meat products**
Supplied as: 150g of precooked, raw or processed meat

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	All	All	Median	3% of AV	Kcal or KJ/100g	0
Total fat	All	All	Median	4% of AV (min 0.1%)	%	2
Saturates**	All	All	Median	Robust SD	%	2
Cholesterol**	All	All	Median	Robust SD	%	2
Carbohydrate	All	All	Median	Robust SD	%	2
Total sugars	All	All	Median	0.50	%	2
Dietary fibre	All	All	Median	0.50	%	2
Protein	All	All	Median	3% of AV (min 0.20%)	%	2
Salt	All	All	Median	6% of AV (min 0.15%)	%NaCl	2
Ash	All	All	Median	2% of AV (min 0.05%)	%	2
Moisture	All	All	Median	0.40	%	2
Sodium	All	All	Median	0.10	%	2
Phosphate	All	All	Median	0.10	%PO_4	2
pH	All	All	Median	0.10	pH units	2
Calcium	All	All	Median	Robust SD	mg/100g	2
Potassium	All	All	Median	Robust SD	mg/100g	2
Iron	All	All	Median	Robust SD	mg/100g	2
Magnesium	All	All	Median	Robust SD	mg/100g	2

**All results must to be reported as the concentration determined in test material provided.

Sample PT-MT-732 **Nitrate and nitrite analysis of meat and meat products**
Supplied as: 30g of freeze dried meat

Analyte	Method	Range	AV	SDPA	Units	DP
Nitrate	All	20–500 mg/kg	Median	0 to 60ppm: 15ppm >60ppm: 25% AV	mg/kg (as $NaNO_3$)	1
Nitrite	All	1-100 mg/kg	Median	0-20ppm: 5ppm >20ppm 25% AV	mg/kg (as $NaNO_2$)	1

Sample PT-MT-733 **Chemical analysis of meat and meat products**
Supplied as: 150g of meat

Analyte	Method	Range	AV	SDPA	Units	DP
Hydroxyproline	All	All	Median	0.05	%	2
Starch	All	All	Median	Robust SD	%	2
Total fat	All	All	Median	4% of AV (min 0.15)	g/100g*	2
Saturates**	All	All	Median	20% of AV	g/100g*	2
Mono-unsaturates**	All	All	Median	20% of AV	g/100g*	2
Poly-unsaturates**	All	All	Median	20% of AV	g/100g*	2
Total trans fatty acids**	All	All	Median	Robust SD	g/100g*	2

**All results must to be reported as the concentration determined in test material provided.

Sample PT-MT-734 **Chemical analysis of fish (fresh or processed)**
Supplied as: 150g of fish

Analyte	Method	Range	AV	SDPA	Units	DP
Fat	All	White fish: 0.01 to 2% Oily fish: 5 to 25%	Median	0.25	%	2
Protein	All	All	Median	3% of AV (min 0.20%)	%	2
Salt	All	All	Median	0.15	%	2
Ash	All	All	Median	0.10	%	2
Moisture	All	All	Median	0.40	%	2
pH	All	All	Median	0.10	pH units	2

Sample PT-MT-741 **Elements in seafood (other than fish)**
Supplied as: 50g of seafood

Analyte	Method	Range	AV	SDPA	Units	DP
Total Arsenic	All	All	Median	10% of AV	mg/kg	2
Cadmium	All	All	Median	10% of AV	mg/kg	2
Mercury	All	All	Median	10% of AV	mg/kg	2
Lead	All	All	Median	10% of AV	mg/kg	2
Phosphorus	All	All	Median	10% of AV	mg/kg (as PO_4) or mg/kg (as P)	2
Zinc	All	All	Median	10% of AV	mg/kg	2

Sample PT-MT-742 **Elements in fish including methyl mercury (fresh or processed)**
Supplied as: 50g of fish

Analyte	Method	Range	AV	SDPA	Units	DP
Total Arsenic	All	All	Median	10% of AV	mg/kg	2
Cadmium	All	All	Median	10% of AV	mg/kg	2
Mercury	All	All	Median	10% of AV	mg/kg	2

Analyte	Method	Range	AV	SDPA	Units	DP
Methyl mercury*	All	All	Median	10% of AV	mg/kg	2
Lead	All	All	Median	10% of AV	mg/kg	2
Phosphorus	All	All	Median	10% of AV	mg/kg (as PO_4) or mg/kg (as P)	2
Zinc	All	All	Median	10% of AV	mg/kg	2

Sample PT-MT-747* **Elements in meat**
Supplied as: 50g of processed meat

Analyte	Method	Range	AV	SDPA	Units	DP
Total Arsenic	All	All	Median	10% AV	mg/kg	2
Cadmium	All	All	Median	10% AV	mg/kg	2
Mercury	All	All	Median	10% AV	mg/kg	2
Lead	All	All	Median	10% AV	mg/kg	2
Zinc	All	All	Median	Robust SD	mg/kg	2

Sample PT-MT-748 **Quality parameters in fresh fish**
Supplied as: 150g of fish

Analyte	Method	Range	AV	SDPA	Units	DP
Histamine	All	All	Median	25% AV	mg/kg	2
Total volatile nitrogen (TVN)	All	All	Median	Robust SD	mg/100g	2
Trimethylamine (TMA)	All	All	Median	Robust SD	mg/100g	2

Sample PT-MT-749* **Meat authenticity**
Supplied as: 1 x set of 2 samples (2g each) - various concentrations

Analyte	Method	Range	AV	SDPA	Units	DP
Presence/Absence	PCR, ELISA, NGS	0-100%	Formulation	N/A	-	-
Quantification (% to 2 decimal places)	PCR, ELISA, NGS	0-100%	Formulation	Robust SD	%	2

Sample PT-MT-752* **Fish identification**
Supplied as: 4 x 20g fish (fresh, cooked, or processed product)

Analyte	Method	Range	AV	SDPA	Units	DP
Fish species identification	PCR, ELISA, NGS	-	Formulation	N/A	-	-

*Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-MT-754* **Chloramphenicol in seafood**
Supplied as: 10g freeze dried prawns

Analyte	Method	Range	AV	SDPA	Units	DP
Chloramphenicol	All	All	Median	Robust SD	µg/kg	2

Sample PT-MT-755* **Ractopamine (β-agonist) in meat**
Supplied as: 100g of beef

Analyte	Method	Range	AV	SDPA	Units	DP
Ractopamine	All	All	Median	Robust SD	µg/kg	2

Sample PT-MT-765* **PFAS in food e.g., fish or meat (natural levels)**
Supplied as: 30g of material

Analyte	Method	Range	AV	SDPA	Units	DP
Perfluorononanoic acid (PFNA)	LC-MS/MS, Other (please specify)	All	Median	Robust SD	µg/kg	2
Perfluorooctanoic acid (PFOA)	LC-MS/MS, Other (please specify)	All	Median	Robust SD	µg/kg	2
Perfluorohexane sulfonic acid (PFHxS)	LC-MS/MS, Other (please specify)	All	Median	Robust SD	µg/kg	2
Perfluorooctane sulfonic acid (PFOS)	LC-MS/MS, Other (please specify)	All	Median	Robust SD	µg/kg	2
Sum of 4 PFAS	LC-MS/MS, Other (please specify)	All	Median	Robust SD	µg/kg	2

Sample PT-MT-766* **Elements in offal**
Supplied as: 50g of offal

Analyte	Method	Range	AV	SDPA	Units	DP
Total Arsenic	All	All	Median	10% AV	mg/kg	2
Cadmium	All	All	Median	10% AV	mg/kg	2
Mercury	All	All	Median	10% AV	mg/kg	2
Lead	All	All	Median	10% AV	mg/kg	2

*Currently not included in LGC's UKAS Scope of Accreditation

Microbiological samples

Sample PT-MT-725 (A & B) **Detection of Salmonella Typhimurium and/or Enteritidis in Chicken and Chicken based products**
Supplied as: 2 x 25g of lyophilised Chicken

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *Salmonella* Typhimurium	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A
Detection of *Salmonella* Enteritidis	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A

Sample PT-MT-726 **Enumeration of Campylobacter in meat and meat based products**
Supplied as: 1 x 10ml vial plus 10g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Enumeration of *Campylobacter* species	All	0 to 100,000	RMean	$\log_{10}$ 0.50	cfu/g	N/A

Sample PT-MT-727 **Carcass rinsate**
Supplied as: 10ml vial

Analyte	Method	Range cfu/ml	AV	SDPA	Reporting units	DP
Detection of *E. coli* O157 (Non-toxigenic strain)	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 400ml	N/A
Detection of *Salmonella* species	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 400ml	N/A

Sample PT-MT-735 **Indicator organisms in meat and meat based products**
Supplied as: 10g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Total aerobic mesophilic count	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of Enterobacteriaceae	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of Coliforms	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of *Escherichia coli*	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0

Sample PT-MT-736 **Detection of Salmonella in meat and meat based products**
Supplied as: 25g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *Salmonella* species	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A

Sample PT-MT-737 **Detection of Listeria in meat and meat based products**
Supplied as: 25g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *Listeria* species Detection of *Listeria monocytogenes*	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A
Identification of *Listeria* species	All	0 to 1,000	Formulation	N/A	N/A	N/A

Sample PT-MT-738 **Clostridium and staphylococci in meat and meat based products**
Supplied as: 10g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Total anaerobic mesophilic count	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of *Clostridium perfringens*	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of sulphite-reducing bacteria	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of coagulase positive staphylococci	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0

Sample PT-MT-739 **Indicator organisms in fish and fish based products**
Supplied as: 1 x 10ml vial plus 10g of lyophilised fish or shellfish material

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Total aerobic mesophilic count	All	0 to 1,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of Enterobacteriaceae	All	0 to 1,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of Coliforms	All	0 to 1,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of *Escherichia coli*	All	0 to 1,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of coagulase positive staphylococci	All	0 to 1,000	RMean	$\log_{10}$ 0.35	cfu/g	0

Sample PT-MT-740 **Detection of Salmonella in fish and shellfish products**
Supplied as: 1 x 10ml vial plus 25g of lyophilised fish or shellfish material

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *Salmonella* species	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A

Sample PT-MT-743 **Detection of Campylobacter in meat and meat based products**
Supplied as: 1 x 10ml vial plus 25g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *Campylobacter* species	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A
Detection of *Campylobacter* species	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 10g	N/A

Sample PT-MT-744 **Detection of E.coli O157 (Non-toxigenic strain) in meat and meat based products**
Supplied as: 1 x 10ml vial plus 25g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *E.coli* O157	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A

Sample PT-MT-745 **Detection of Vibrio in fish and shellfish products**
Supplied as: 1 x 10ml vial plus 25g of lyophilised fish or shellfish material

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *Vibrio* species Detection of *Vibrio parahaemolyticus*	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A

Sample PT-MT-746 **Spoilage organisms in meat and meat based products**
Supplied as: 10g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Enumeration of *Pseudomonas* species	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of lactic acid bacteria	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of yeast	ALL	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of mould	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of yeast and mould	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0

Sample PT-MT-756 (A & B) **Quantitative Package**
Supplied as: 2 x 10ml vial plus minimum 20g meat powder matrix

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Total aerobic mesophilic count	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of total coliforms	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of Enterobacteriaceae	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of *E. coli*	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of *B.cereus*	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of coagulase positive staphylococci	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Detection of coagulase positive staphylococci	All	0 to 100,000	Qual Form	N/A	Detected/Not detected 10g	N/A
Enumeration of yeast	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of mould	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0
Enumeration of yeast and mould	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0

Sample PT-MT-757 (A & B) **Qualitative Package**
Supplied as: 2 x 10ml vial plus minimum 200g meat powder matrix

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Detection of *E. coli* O157 (Non-toxigenic strain)	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A
Detection of *Listeria* species Detection of *Listeria monocytogenes*	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A
Identification of *Listeria* species	All	0 to 1,000	Formulation	N/A	N/A	N/A
Detection of *Salmonella* species	All	0 to 1,000	Qual Form	N/A	Detected/Not detected 25g	N/A
Identification of *Salmonella* species	All	0 to 1,000	Formulation	N/A	N/A	N/A

Sample PT-MT-758 **Psychrotrophs**
Supplied as: 10g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Enumeration of aerobic psychrotrophs	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0

Sample PT-MT-759 **Enumeration of Listeria species**
Supplied as: 10g of lyophilised meat

Analyte	Method	Range cfu/g	AV	SDPA	Reporting units	DP
Enumeration of *Listeria* species Enumeration of *L.monocytogenes*	All	0 to 100,000	RMean	$\log_{10}$ 0.35	cfu/g	0

Sample PT-MT-763 **Detection of Salmonella in meat powder**
Supplied as: 375g meat powder matrix

Analyte	Method	Range cfu/375g	AV	SDPA	Reporting units	DP
Detection of *Salmonella* species	All	0 to 100	Qual Form	N/A	Detected/Not detected 375g	0

Sample PT-MT-764 **Detection of Listeria in meat powder**
Supplied as: 1 x 10ml vial plus 125g meat powder matrix

Analyte	Method	Range cfu/125g	AV	SDPA	Reporting units	DP
Detection of *Listeria monocytogenes* Detection of *Listeria* species	All	0 to 100	Qual Form	N/A	Detected/Not detected 125g	0