METHOD SUMMARY – QWI-FM0044

Method Title	Gram Stain - APHA		
Document number	**QWI-FM0044**	**Date Issued**	10th January 2019

Method External References	APHA 4th Edition: Compendium of Methods for the Microbiological Examination of foods
	APHA 21st Edition: Standard Methods for Examination of Water and waste water
Matrix	As listed on NATA Scope
ALS Department	☐ Pharmaceutical Chemistry ☐ Water Microbiology ✓ Food Microbiology ☐ Pharmaceutical Microbiology ☐ Food Chemistry
Accreditation Status	☐ NATA ✓ NON-NATA ☐ N/A
Analysis technique	☐ HPLC ☐ GC ☐ Wet Chemistry ☐ Physical ☐ Gravimetric ✓ Qualitative ☐ Pour Plate ☐ Spread Plate ☐ MPN ☐ Filtration ☐ Petrifilm ☐ EHS ☐ ELISA ☐ VIDAS UP ☐ VIDAS ☐ Other (please specify): _____
Method Scope	This method describes a procedure for performing Gram stain on cultures. It is best to use freshly grown cultures, because older cultures, especially Gram Positive Bacteria, may show variable reactivity in the staining procedure.
Method Principle	The Gram stain categorises most bacteria as Gram positive or Gram negative depending on their reaction to the staining process. The primary reason for the distinction lies within the structure of the cell wall, which determines whether the decolourisation step will cause the stain to be washed out of the cells. The staining protocol generally consists of four steps: the initial stain, the mordant, de-colourisation and the counterstain.
Reporting Unit	Positive or Negative
LOR/LOQ	N/A

Minimum amount of sample required for analysis	Not applicable	Turnaround time	24 hours

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