



## METHOD SUMMARY – QWI-FM0014

<b>Method Title</b>	<b>E.coli Coliforms – Presence/Absence – AS</b>		
<b>Document number</b>	<b>QWI-FM0014</b>	<b>Date of Issued</b>	7 <sup>th</sup> February 2018

Method External References	<p>AS 5013.3-2009 Food Microbiology – Microbiology of food and animal feeding stuffs – General guidance for the enumeration of coliforms – Most probable number technique.</p> <p>AS 5013.15-2006 Food Microbiology – Microbiology of food and animal feeding stuffs – Horizontal method for the detection and enumeration of presumptive <i>Escherichia coli</i> – Most probable number technique.</p>
Matrix	As listed on NATA Scope.
ALS Department	<input type="checkbox"/> Pharmaceutical Chemistry <input type="checkbox"/> Water Microbiology <input checked="" type="checkbox"/> Food Microbiology <input type="checkbox"/> Pharmaceutical Microbiology <input type="checkbox"/> Food Chemistry
Accreditation Status	<input checked="" type="checkbox"/> NATA <input type="checkbox"/> NON-NATA <input type="checkbox"/> N/A
Analysis technique	<input type="checkbox"/> HPLC <input type="checkbox"/> GC <input type="checkbox"/> Wet Chemistry <input type="checkbox"/> Physical <input type="checkbox"/> Gravimetric <input checked="" type="checkbox"/> Qualitative <input type="checkbox"/> Pour Plate <input type="checkbox"/> Spread Plate <input type="checkbox"/> MPN <input type="checkbox"/> Filtration <input type="checkbox"/> Petrifilm <input type="checkbox"/> EHS <input type="checkbox"/> ELISA <input type="checkbox"/> VIDAS UP <input type="checkbox"/> VIDAS <input type="checkbox"/> TEMPO
Method Principle	<p>This method describes a procedure for determining the presence of coliforms and <i>Escherichia coli</i> in a specified amount of food after incubations at 37 °C in a liquid medium as well as the detection of <i>E.coli</i> in 1 gram of solid food or in 1 mL of liquid food using the triplicate tube method.</p> <p><b>Coliforms</b> – Tubes of selective enrichment broth are inoculated with the test portion and incubated at 37 °C for 48 hours. If the tubes give rise to opacity and/or gas formation, confirmation medium is inoculated and incubated at 37 °C for 48 hours. The presence of Coliforms is confirmed in the case that opacity and gas formation have been noted after examination of the tubes (confirmation medium)</p> <p><b>Escherichia coli</b> – Tubes of selective enrichment broth are inoculated with the test portion and incubated at 37 °C for 48 hours. Tubes are examined for gas production after 24 and 48 hours. If the tube has given rise to opacity, cloudiness or gaseous emission, it is subcultured to a tube containing a liquid selective medium (EC broth). The EC broth tube is then incubated at 44 °C for up to 48 hours. The tube is examined for gas production after 24 hours and 48 hours. If the tube of medium EC broth has given rise to gaseous emission, it is subcultured to a tube containing indole-free peptone water. It is then incubated at 44 °C for 48 hours and examined for</p>

	indole production resulting from degradation of tryptophan in the peptone constituent.
Reporting Unit	Detected/Not detected per g or per mL as per client specifications
LOR/LOQ	N/D

Minimum amount of sample required for analysis	Minimum of 10 g	Turnaround time	2 days
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<b>Author:</b>	Document Controller	<b>Date:</b>	22 <sup>nd</sup> February 2018
<b>Authorised By:</b>	National Quality Manager	<b>Date:</b>	22 <sup>nd</sup> February 2018

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