METHOD STATEMENT

Determinand:
Staphylococcus aureus

Matrix:
Raw and Potable waters

Principle of method:
A known volume of the water sample (normally 100ml) is filtered through a 0.45µm pore size membrane filter upon which the bacteria are retained. The filter is then placed on a selective growth medium and incubated at 37°C for 48 hours after which colonies characteristic of Staphylococcus aureus are counted and picked off for confirmation or identification.

Sampling and Sample Preparation
Once taken, microbiological samples should be transferred immediately to dark storage conditions and kept at a temperature between 2 - 8°C for transport to the laboratory. If samples are not analysed immediately on receipt in the laboratory, they should be kept at a temperature between 2 - 8°C, in dark conditions, until analysis commences.
Samples should analysed as soon as practicable on the day of collection. In exceptional circumstances where there is a delay; storage under the above conditions should not exceed 24 hours before the commencement of analysis.

Interferences:
Chlorine and chloramines are neutralised by adding sodium thiosulphate, which at a concentration of 18mg/l should counteract up to 5mg/l of free and combined residual chlorine.
Plasticisers can interfere in the mass spectrometry analysis. Only certified, non-plasticising plastic materials should be used.

Performance of method:

Range of Application:	0 – 100 cfu/100ml without dilution
Limit of Detection:	1 cfu/100ml
Normal Reporting Level:	0 cfu/100ml

References:
Based on BS EN ISO 6888-1: 1999. Microbiology of Food and Animal Feeding Stuffs -Horizontal Method for the Enumeration of Coagulase Positive Staphylococci (*Staph. aureus* and other species). Part 1: Technique using Baird-Parker Medium.

The Oxoid Manual 8th Edition 1998.

Oxoid Diagnostic Reagents Staphytect Plus DR0850M Instruction Manual.

Brock et al., Biology of Microorganisms 9th ed., 2000.