METHOD STATEMENT

Determinand:
Total Coliforms and Escherichia coli (MPN).

Matrix:
Raw and Potable waters

Principle of method:
A test portion of the sample is mixed with Colilert -18 reagent. The resulting mixture is poured into a quanti-tray and this is sealed. The quanti-tray is then incubated for 18 hours. This will give a confirmed result for both Coliforms and E. coli.

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.

This method is suitable for most types of aqueous sample but those with high turbidities may mask or impede colour development. Coloured samples may impede the detection of coliforms.

The presence of very high numbers of Aeromonas may result in false positive reactions.

Performance of method:

Range of Application:	0 – 201 MPN/100ml without dilution
Limit of Detection:	1 MPN/100ml
Normal Reporting Level:	0 MPN/100ml

References:
The Microbiology of Drinking Water (2002) - Part 4 – Methods for the isolation and enumeration of coliform bacteria and Escherichia coli (including E. coli 0157:H7).

Bergeys Manual of Determinative Bacteriology. 9th edition, 1994.

IDEXX Colilert Instructions.