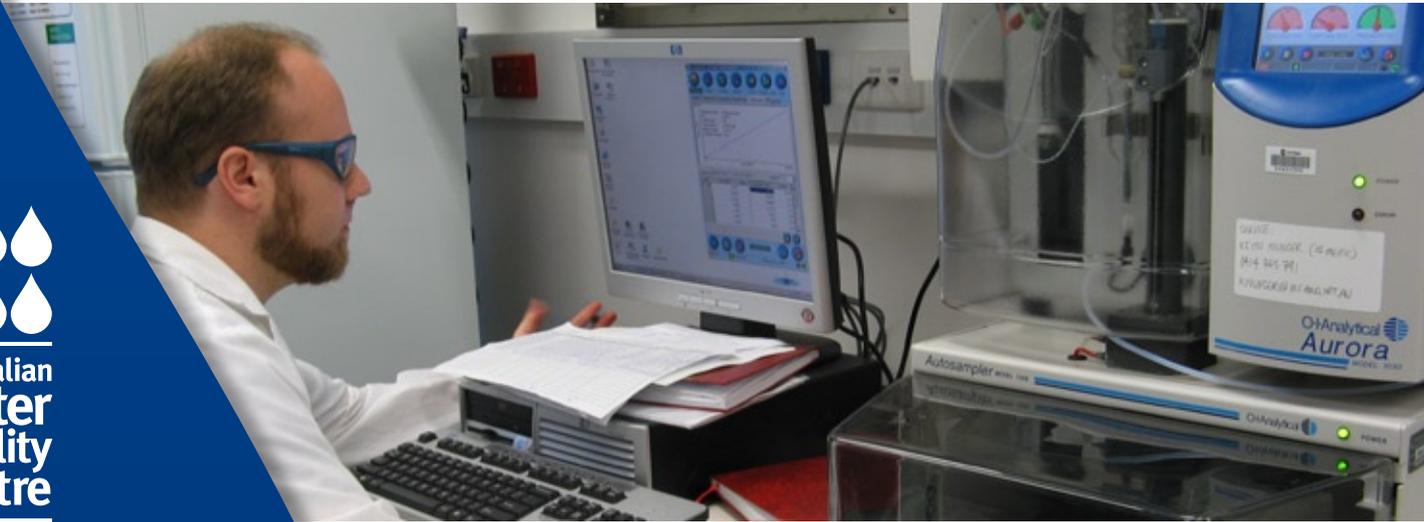


# Organic Carbon Analysis



## Sample Requirements:

- 355ml PET plastic bottle
- Transport & store at 4°C.

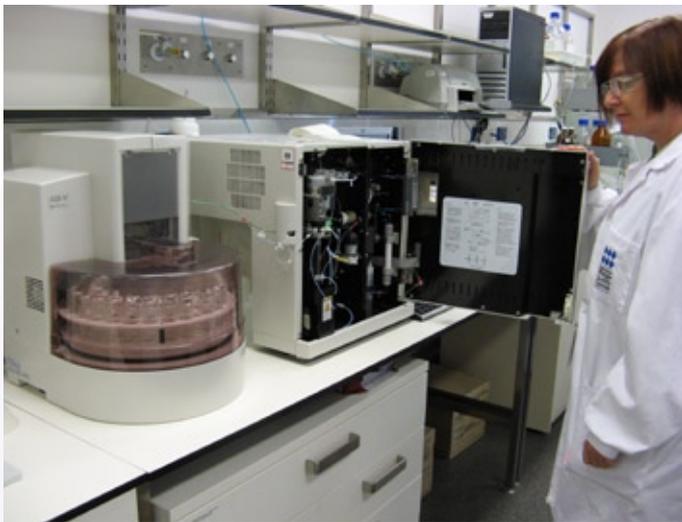
## Dissolved Organic Carbon, Total Organic Carbon and Total Carbon Analysis.

The AWQC offers a selection of methods to cover analysis of organic carbon in potable water supplies, waste waters, and saline samples. Dissolved organic carbon (DOC), Total Organic Carbon (TOC) and Total Carbon (TC) can all be analysed by one of the methods depending on sample type. Reporting limits will vary depending on the analysis method that is best suited to the sample matrix.

Organic Carbon has been recognized as an effective way to measure water quality during the drinking water purification process. Levels of organic carbon also become important during the disinfection process as high levels can lead to disinfection by-products being formed (DBPs).

## Low Level DOC/TOC - Potable waters and waters with low turbidity

DOC and TOC in samples with this type of matrix is analysed using the persulphate oxidation method. Limit of reporting for this method is 0.3mg/L, with an upper limit of 20mg/L before dilution. Samples with expected higher levels of DOC or TOC can be analysed by the combustion method.



## Low Level Saline DOC/TOC – Seawater samples with low turbidity

DOC and TOC can be measured in seawater samples by using an especially modified persulphate oxidation method. Limit of reporting for this method is 0.5mg/L, again with an upper limit of 20mg/L before dilution. Seawater samples with high turbidity can be analysed by the combustion method.

## High Level DOC/TOC- Waste samples typically with high turbidity

DOC and TOC can be measured in waste samples and samples with high turbidity by a combustion method. This method offers an increased upper limit and can in fact measure organic carbon up to several thousand mg/L. The limit of reporting is 1mg/L and is an excellent choice when measurement to very low levels is not required. This method is also applicable to seawater samples with high turbidity.



## TC – Water samples with low or high turbidity

TC is measured by the combustion method and has reporting limits identical to the high level DOC/TOC method. TC is a useful parameter to measure because if the TOC is also known the inorganic carbon (IC) in a sample can also be calculated.