

Water Quality Analysis definitions

What to Measure

“Pollution” Parameters

BOD

COD

TOC

Suspended Solids

Ammonia (N-NH₃)

+ Turbidity, Conductivity, Colour, pH and Temperature

Aquascan Abbreviations

TOC

Total Organic Content

BOD

Biological Oxygen Demand which is defined as. The quantity of dissolved oxygen in water (mg/10) consumed under test conditions during a given period (5 days) through the microbiological oxidation of biodegradable organic matter present in waste waters. This is a standard test normally carried out in a laboratory using approved test criteria.

BOD

Biochemical Oxygen Demand

- 5 Day Test
- Laboratory Facilities Required
- Accuracy $\pm 20\%$!
- On-line BODst used as a surrogate

Aquascan Abbreviations

COD. Chemical Oxygen Demand which is defined as the quantity of oxygen equivalent to the amount of outstanding agent consumed in oxidising the majority of organic matter present in waste waters. This does not distinguish between the organic matter liable to be degraded readily by biological means and the more intractable forms. Can include the oxygen demand of some inorganic substances such as sulphides. This is usually measured by testing a sample of the waste with potassium dichromate and sulphuric acid

COD

Chemical Oxygen Demand

- 2 hour digestion period (+ sampling and cooling)
- Laboratory or Test Kit
- Accuracy $\pm 10\%$
- On-line analysers use surrogate techniques
- Harmful Reagents

TOC

Total Organic Carbon

- Typically <10 minutes
- Not normally a consent parameter in the UK
- Laboratory analysis
- On-line analysers use 2 main techniques
- Volatile components often lost
- Often used as a surrogate for BOD or COD