

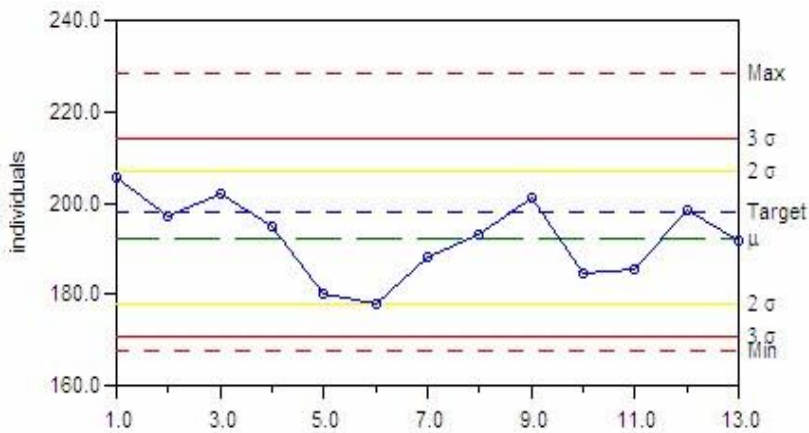
## Method Abstract #124

### Biochemical Oxygen Demand

**Scope and Application** This method conforms to Standard Methods 5210 B, ASTM D888, EPA 405.1, ISO 1899-1, 1899-2 and 5815-1. Biochemical oxygen demand (BOD) measures the equivalent amount of oxygen required to biologically oxidize organic compounds in water. It is a key test for determining overall water quality.

**Method Summary** BOD involves the measurement of the dissolved oxygen of a sample both immediately after it is obtained (initial DO) and after a period of five days (final DO). The amount of oxygen depleted by microorganisms during the five-day incubation period is used to calculate the BOD of the sample

#### Quality Control



Control Chart for glucose-glutamic acid (GGA) standard

#### Method Performance

Parameter	Specification
Measuring Range	Equal to the difference between the maximum initial DO (7-9mg/L) and the minimum DO residual of 1mg/L corrected for seed, and multiplied by the dilution factor.
MDL*	0 – 2mg/L
RSD for GGA standard (198mg/L)	3.76% or +/- 7.22mg/L

\*The detection limits are subject to the pre-dilution factor of the sample. The MANTECH system meets and exceeds Standard Method requirements for the MDLs.