

BOD Benchsheet [version 11/28/23]

Facility:

Method Number: SM 5210B - 2001

Sampling Information

Sample ID	Collect Date	Collect Time	Sample pH (SU)	pH if adjusted (SU)	Sample Temp Prior to Dilution (°C) [17-23°C]	Res. Cl Check (+/-)*	Res. Cl Treated (y/n)

* "+" = checked and res. chlorine is present

"-" = checked and res. chlorine is not present

Traceability Information

Seed Source Date/Lot:	
GGA:	
PHOSPHATE BUFFER:	
MAGNESIUM SULFATE:	
CALCIUM CHLORIDE:	
FERRIC CHLORIDE:	
SODIUM SULFITE:	

Code Definitions

N = Extra Nutrients added to sample
I = Inhibitor added to sample
P = Sample pre-diluted per SOP (≤ 3 mL)

Read In Calibration

Read In Calibration	Read Out Calibration
Analyst	Analyst
Barom. Pressure (mm Hg)	Barom. Pressure (mm Hg)
Room Temp. (°C)	Room Temp. (°C)
DO Saturation Point (mg/L)	DO Saturation Point (mg/L)
Meter Calibration DO (mg/L)	Meter Calibration DO (mg/L)
Date Bottles In	Date Bottles Out
Time Bottles In	Time Bottles Out

Quality Control

Blanks ≤ 0.24 mg/L	Residual DO ≥ 1.0 mg/L
GGA = 167.5 - 228.5	DO Depletion ≥ 2.0 mg/L
pH = 6.0 - 8.5; if not, adjust to 6.5 - 7.5	Sample and Room Temp: 20 ± 3 °C
Residual Chlorine <0.1 mg/L	Incubator Temp: 20 ± 1 °C

Sample ID (must be unique)	Bottle ID	Sample Volume Used (mL)	Code	Pre-dilution Factor (only use if different than 1)	Seed Volume Added (mL)	Initial DO (mg/L)	Final DO (mg/L)	DO Depletion (mg/L)	Sample Seed CF (mg/L)	Seed Adjusted DO Depletion ((mg/L)/mL)	Dilution Factor = 300/Sample Volume Used (mL)	BOD (mg/L)	Average BOD for dilutions that passed (mg/L)
Blank 1		300											
Seed Control 1		300											
Seed Control 2		300											
Seed Control 3													
GGA		6											

COMMENTS:

Be sure to clear all previous data before adding new data.

Sample pH cells will turn **red** or **blue** if the pH needs to be adjusted.

Temperature cells will turn **red** or **blue** if the temperature is not within the required range of 17 - 23°C.

If the sample was chlorinated, the sample must be checked for residual chlorine with strips or another method that can detect down to 0.1 mg/L.

Meter Calibration DO cells will turn **red** if the value is more than 0.2 mg/L different from the DO saturation point. Recalibrate if needed.

Initial DO cells will turn **red** if the value is 0.3 mg/L greater than the DO saturation point. If possible, reduce excess oxygen and prepare new sample.

Initial DO cells will turn **blue** if the value is 0.3 mg/L lower than the DO saturation point. If possible, increase oxygen and prepare new sample.

Code cells will turn **green** if a dilution of >200 mL is made; record extra nutrient addition.

Code cells will turn **orange** if a predilution must be made; record all dilution volumes.