

CONVERSION AND DATA REPORTING FOR BENTHIC CHLOROPHYLL A, PHEOPHYTIN & AFDM_ALGAE ~ WATERCOLUMN (MASS/VOLUME) TO BENTHIC (MASS/AREA) ~

CONVERSION

- $\frac{\text{WaterColumn Value} \times \text{CompositeVolume}}{\text{GrabSize}}$ or $(\text{WaterColumn Value}) \times (\text{Composite Volume}) / \text{Grab Size}$
- MUST be done on all 4 values where WaterColumn Value equals:
 - Result
 - MDL
 - RL
 - Expected value
- For Samples:
 - Volume Filtered (ml), Composite Volume (ml) and Grab Size (cm²) will be provided on the COC
 - If these values are not provided on the COC, contact the field crew and/or project manager for this information
- For LABQA and Non-Project samples:
 - Default Composite Volume: 500 ml
 - Default GrabSize: 138.6 cm²

REPORTING

- Report results to 2 decimal places
- Blanks must be reported with all batches including Pheophytin
- Benthic batches will have _B_ in the LabBatch ID for benthic matrix
- WaterColumn and benthic results need to be **analyzed in different batches** so they must be **reported as two separate batches** each having it's own set of QC
- AFDM_Algae batches will have an AFDM at the end for the acronym – not AFDM_Algae

SAMPLE

- Matrix: benthic
- Analyte: AFDM_Algae, Chlorophyll a, or Pheophytin
- Fraction: Particulate
- Chl and Pheo Unit: mg/m²
- AFDM Unit: g/m²

LABQA

- Matrix: blankwater
- Analyte: AFDM_Algae, Chlorophyll a, or Pheophytin
- Fraction: Total
- Chl and Pheo Unit: mg/m²
- AFDM Unit: g/m²

EXAMPLE

Example of conversion for Chlorophyll a or Pheophytin:

$$[300 \text{ ug/L} \times (1 \text{ mg}/1000\text{ug})] \times [535\text{mL} \times (1 \text{ L}/1000\text{mL})] / [138.6\text{cm}^2 \times (1\text{m}^2/10,000\text{cm}^2)] = 11.58 \text{ mg}/\text{m}^2$$

Example of conversion for AFDM_Algae:

$$[412 \text{ mg}/\text{L} \times (1 \text{ g}/1000\text{mg})] \times [535\text{mL} \times (1 \text{ L}/1000\text{mL})] / [138.6\text{cm}^2 \times (1\text{m}^2/10,000\text{cm}^2)] = 15.90 \text{ g}/\text{m}^2$$

