



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



Nutrients in Estuarine and low salinity Seawater

REFERENCE MATERIAL

AQ2 sample 205



Certificate of Analysis AQ2 205

General Information

In this report an overview is given of analytical data for this sample collected in our proficiency testing program. The consensus values are calculated using a robust statistical model. With this NDA model mean and standard deviation are calculated using all reported data when at least 4 results are left after removal of reported 'lower than' (<) and 0 (= zero) values. No outliers are removed.

This report is divided into two sections: Consensus Values and Indicative Values. The division is made on the reliability of the data. Consensus Values are based on at least 10 results while the relative uncertainty is smaller than 6.25%. Indicative Values are based on a relative uncertainty of maximum 35% with at least 4 and less than 10 results or a relative uncertainty higher than 6.25%.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation) and the uncertainty in the assigned value. The confidence limits (at 95 % probability) are calculated for these determinands.

Sample information

QUASIMEME reference materials cover a range of natural SeaWater species from contaminated waters from the North Sea and/or Mediterranean.

This AQ2 sample 205 of Low salinity seawater unspiked from Baltic Sea is prepared for the QUASIMEME proficiency programs. The results on which the values in this report are based were taken from the periods given in the following table.

Year.Round	Program	Sample Round Id
2023.1	AQ2	QNU395EW



Consensus Values AQ2

Method: Nutrients - AQ2

Element
TOTAL-N

Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits		
µmol/l	11.4	1.00	8.8	23	11.4	0.65	0.26	11.0	-	11.8



Indicative Values AQ2

Method: Nutrients - AQ2

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	95 % confidence limits
Nitrite	µmol/l	0.0124	0.0068	55.1	12	0.0137	0.0037	0.0025	0.0081 - 0.0166
Ammonia	µmol/l	0.451	0.2034	45.1	28	0.455	0.1400	0.0480	0.372 - 0.530
TOxN	µmol/l	0.0942	0.0713	75.7	18	0.0930	0.0450	0.0210	0.0589 - 0.130
TOTAL-P	µmol/l	0.0619	0.0344	55.5	22	0.0678	0.0223	0.0092	0.0467 - 0.0771
Silicate	µmol/l	0.625	0.1987	31.8	26	0.631	0.1150	0.0487	0.545 - 0.705
Phosphate	µmol/l	0.0259	0.0164	63.4	20	0.0300	0.0100	0.0046	0.0182 - 0.0336
Nitrate	µmol/l	0.0799	0.0630	78.9	11	0.100	0.0500	0.0238	0.0381 - 0.122