WEPAL-QUASIMEME

Certificate of Analysis

Volatile Organics in seawater

REFERENCE MATERIAL

AQ6 sample 81

2026-Aug-13

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis AQ6 81

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, the 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 8 results and a maximum relative uncertainty of 6.25%. Indicative Values are based on a maximum relative uncertainty of 35% and a minimum of 4 and maximum of 7 results, or a relative uncertainty greater than 6.25% when there are at least 8 results.

For each measurand, the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation), the uncertainty of the mean (consensus or indicative) value and the relative uncertainty.

Please note: Most WEPAL-QUASIMEME reference materials are found to be stable over the long term (>10 years) for most measurand/matrix combinations. There are a few exceptions known to us as being less stable over the long term. These are organotins in sediment (MS6), ASP in shellfish (BT7), some PAHs and PCBs in sediment (SETOC) and N-NH_4 (as N) & N-NO_3 (as N) in clay soils (ISE).

Sample information

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

This AQ6 sample 81 of Seawater spiked with volatiles from North Sea, the Netherlands is prepared for the QUASIMEME proficiency programs. The results on which the values in this report are based were taken from the rounds given in the following table.

Year.Round	Program	Sample Round Id
2026.1	AQ6	QVC080SW

Indicative Values AQ6

Method: VOCs - AQ6

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Carbon-tetrachloride	µg/L	6.71	2.45	36.5	8	6.45	1.57	1.08	16.1
1-1-1-trichloroethane	µg/L	5.46	1.53	28.1	9	5.50	1.10	0.639	11.7
1-2-dichloroethane	µg/L	6.78	1.07	15.7	9	6.90	0.569	0.444	6.55
Tetrachloroethene	µg/L	10.2	3.43	33.8	9	9.70	1.89	1.43	14.1
Trichlorethene	µg/L	9.21	3.13	34.0	9	9.69	1.76	1.30	14.2
Chloroform	µg/L	11.5	4.12	35.8	9	12.0	2.41	1.72	14.9
1-1-2-trichloroethane	µg/L	8.34	1.63	19.5	8	8.29	0.970	0.719	8.62
Dichloromethane	µg/L	15.8	5.41	34.3	8	15.8	2.47	2.39	15.2
Benzene	µg/L	15.7	3.50	22.4	9	17.0	2.00	1.46	9.32
2-chlorotoluene	µg/L	13.9	5.22	37.5	7	14.0	3.00	2.47	17.7
4-chlorotoluene	µg/L	8.02	0.715	8.9	7	8.10	0.326	0.338	4.21
1,1-dichloroethane	µg/L	10.2	4.39	43.2	8	10.3	2.15	1.94	19.1
1,1-dichloroethene	µg/L	72.2	25.7	35.6	8	69.0	15.0	11.3	15.7
1,2-dichloropropane	µg/L	8.45	2.80	33.1	8	8.26	1.51	1.24	14.6
1,2-dichlorobenzene	µg/L	6.90	1.88	27.2	7	7.10	0.683	0.888	12.9
1,3-dichlorobenzene	µg/L	9.75	1.19	12.2	7	9.99	0.651	0.561	5.76
1,4-dichlorobenzene	µg/L	3.39	0.430	12.7	7	3.40	0.138	0.203	6.00
1,3,5-trimethylbenzene	µg/L	80.7	20.8	25.8	5	81.4	7.35	11.6	14.4
1,1,1,2-tetrachlorethane	µg/L	8.74	2.00	22.9	7	8.44	0.935	0.947	10.8
Chlorobenzene	µg/L	6.53	2.23	34.1	7	6.48	1.30	1.05	16.1
cis-1,2-dichloroethene	µg/L	68.6	15.9	23.2	9	66.9	8.90	6.63	9.66
trans-1,2-dichloroethene	µg/L	10.9	3.38	31.1	9	11.0	1.00	1.41	13.0
Toluene	µg/L	15.0	3.53	23.6	9	15.7	2.40	1.47	9.82
Ethylbenzene	µg/L	1.42	0.552	38.9	9	1.40	0.300	0.230	16.2
o-Xylene	µg/L	8.61	2.44	28.3	9	8.40	1.33	1.02	11.8
m+p-Xylene	µg/L	3.94	0.936	23.7	9	4.10	0.680	0.390	9.89
Isopropylbenzene	µg/L	2.88	0.912	31.7	8	2.80	0.600	0.403	14.0
n-Propylbenzene	µg/L	5.19	1.71	33.0	6	5.30	0.950	0.874	16.8
tert-bytylbenzene	µg/L	4.71	1.54	32.7	6	4.78	0.812	0.786	16.7