



AQUACHECK PT Scheme AQ4474 - Institute of Speleology Individual Report

Round: 505

Issue Number 1

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Sample Details

Samples were despatched on 3 May 2016
The reporting deadline was 31 May 2016

The following samples were distributed in Aquacheck Round 505:

1H: 2 x 1L LDPE bottles containing hard matrix water and 2 x 30mL LDPE bottles containing spiking solutions for Kjeldahl Nitrogen and Total Phosphorus.

1S: 2 x 1L LDPE bottles containing soft matrix water and 2 x 30mL LDPE bottles containing spiking solutions for Kjeldahl Nitrogen and Total Phosphorus.

Further information regarding assigned values, performance assessment and technical comments can be found under the individual sample and analyte results.

Samples were despatched on 3 May 2016
The reporting deadline was 31 May 2016

The following samples were distributed in Aquacheck Round 505:

2H: 1 x 1L LDPE bottle containing hard matrix water, 7 x 30mL LDPE bottles (5 clear and 2 amber) containing spiking solutions for nitrite, ammonia, SR phosphorus, colour, permanganate index, total cyanide and free cyanide and 1 x 500mL LDPE bottle containing sample for determination of pH and conductivity.

2S: 1 x 1L LDPE bottle containing soft matrix water, 8 x 30mL LDPE bottles (6 clear and 2 amber) containing spiking solutions for nitrite, nitrate, ammonia, SR phosphorus, colour, permanganate index, total cyanide and free cyanide and 1 x 500mL LDPE bottle containing sample for determination of pH and conductivity.

Further information regarding assigned values, performance assessment and technical comments can be found under the individual sample and analyte results.

Individual Report

This individual report contains a summary of all the results submitted and the performance assessments for your laboratory and your individual analysts. Please note that nominated laboratory results are represented by a blue highlight in the analyst box.

Data statistics given in the individual report are for the method you have used for each analyte. Further detail can be obtained from the main report.

Full details of the scheme, sample types, analytes and data analysis can be found in the corresponding Main Report, along with any technical comments, if applicable. The Main Report is the definitive version.

If you have any questions regarding your results which are not answered in the Main Report, please contact us using the details on the front of the report. If you would like to order any samples for re-test, please contact our customer service department or your local office.

Results Summary

Sample	Results Reported	Satisfactory Results	Questionable Results	Unsatisfactory Results	Not Assessed [^]
1H - Major Inorganic Components - Hard Water	8	8	0	0	0
2H - Nutrients and Others - Hard Water	5	5	0	0	0
Round Total	13	13	0	0	0

[^] Results which are Not Assessed should be reviewed by comparing them with the assigned value and other relevant statistics given in the main report. Participants, according to their internal quality criteria, may consider Not Assessed results to be satisfactory, questionable or unsatisfactory. Further information regarding why results may not be assessed is given in the Scheme Information section of the main report.

Please note surplus PT samples are available as QC materials once the round has closed. These samples can be purchased at a reduced rate if you have taken this sample during the main round.

No unsatisfactory results in this round

No questionable results in this round

1H - Major Inorganic Components - Hard Water

Analyte	Analyst	Method	Result	Units	z score (** z' score)	Assigned Value	Ux AV	SDPA	Exp.SDPA	No of results	Median	Mean	Robust SD	SD
Calcium	CM	ICP-MS	128.74	mgCa/L	0.18	127.04	0.49	9.528	N/A	23	127.00	126.55	5.339	9.257
Magnesium	CM	ICP-MS	6.93	mgMg/L	-0.19	7.03	0.04	0.527	N/A	21	7.10	7.26	0.341	0.610
Alkalinity	AT	Titrimetry	300.9	mgHCO ₃ /L	-0.10	304.0	1.1	30.40	N/A	95	304.3	299.1	9.34	28.86
Potassium	CM	ICP-MS	2.939	mgK/L	-0.38	3.025	0.021	0.2268	N/A	23	2.991	3.045	0.1350	0.1849
Sodium	CM	ICP-MS	16.55	mgNa/L	0.13	16.39	0.10	1.229	N/A	23	16.55	16.51	0.964	1.103
Chloride	CM	Other	31.26	mgCl/L	-0.09	31.47	0.14	2.360	N/A	7	32.08	31.99	1.142	0.883
Sulfate	AT	Turbidimetry	58.52	mgSO ₄ /L	1.39	53.00	0.27	3.975	N/A	16	55.00	53.65	4.152	6.615
Barium	CM	ICP-MS	37.8	µgBa/L	-0.43	39.5	0.5	4.00	N/A	25	39.5	40.4	3.11	4.17

2H - Nutrients and Others - Hard Water

Analyte	Analyst	Method	Result	Units	z score (** z' score)	Assigned Value	Ux AV	SDPA	Exp.SDPA	No of results	Median	Mean	Robust SD	SD
Silicate	CM	ICP-MS	7.68	mgSiO ₂ /L	-0.21	7.80	0.08	0.585	N/A	5	7.68	7.75	0.119	0.296
Nitrite	AT	Colorimetry	0.321	mgNO ₂ /L	0.13	0.318	0.001	0.0239	N/A	55	0.326	0.328	0.0119	0.0155
Ammonia	AT	Colorimetry	0.344	mgNH ₄ /L	-1.51	0.405	0.004	0.0405	N/A	68	0.406	0.403	0.0319	0.0479
pH at 20-25°C	AT	pH Meter	5.39		-1.60	5.55	0.01	0.100	N/A	124	5.55	5.55	0.074	0.106
Nitrate	AT	Colorimetry	37.08	mgNO ₃ /L	-0.20	37.64	0.15	2.823	N/A	35	37.72	36.86	1.661	3.546

** Please note, participant performance for this analyte has been assessed using a z' score, rather than a z score, in order to account for the measurement uncertainty of the assigned value which is not negligible when compared to the SDPA.