Water & Environmental Chemistry (AQUACHECK)
AQ4474 - Institute of Speleology Individual Report

Round: 550

Issue Number 1

Issued 03 September 2018

Science for a safer world

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Sample Details

Samples were despatched on 30 July 2018
The reporting deadline was 28 August 2018

The following samples were distributed in Aquacheck Round 550:

1A: 1 x 1L LDPE bottle containing spiked matrix water, 1 x 30mL LDPE bottle containing spiking solution for TOC and 1 x 500mL LDPE bottle containing sample for determination of pH.

3A: 4 x 30mL LDPE bottles containing spiking solutions for chlorate/chlorite, bromide and bromate.

3B: 1 x 500mL glass bottle containing matrix water, 1 x 10mL amber glass vial containing spiking solution for free chlorine and 1 x 30mL plastic bottle to be used for mixing solutions.

3C: 1 x 500mL glass bottle containing matrix water, 1 x 10mL amber glass vial containing spiking solution for total chlorine and 1 x 30mL plastic bottle to be used for mixing solutions.

102 - 1 x 500ml containing bottled mineral water

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^
1A - Major Ions in High Salinity Water	6	5	1	0	0
Round Total	**6**	**5**	**1**	**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

For the following analytes you obtained a questionable result:

Sample	Analyte
1A - Major Ions in High Salinity Water	Total organic carbon (TOC)

1A - Major Ions in High Salinity 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
Sodium	Lab Result	ICP-MS	232	mgNa/L	-0.11	234	1	17.6	N/A	5	241	241	11.9	9.0
Magnesium	Lab Result	ICP-MS	61.3	mgMg/L	-1.01	66.3	0.2	4.97	N/A	5	63.0	64.0	6.08	4.25
Chloride	Lab Result	Other	145	mgCl/L	-0.44	150	0	11.3	N/A	3	145	146	1.7	2.3
Sulfate	Lab Result	Turbidimetry	277	mgSO4/L	1.26	253	1	19.0	N/A	6	249	252	12.6	14.9
pH at 20-25°C	Lab Result	pH Meter	6.21		-0.90	6.30	0.03	0.100	N/A	24	6.30	6.27	0.111	0.099
Total organic carbon (TOC)	Lab Result	Combustion	5.38	mgC/L	2.51	4.30	0.11	0.430	N/A	8	4.50	4.51	0.623	0.644

** 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.