

Water Chemistry (AQUACHECK) Individual Report

Round: AQ568

AQ4028 - Waterworks Research Institute Seoul

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LGC Standards Proficiency Testing

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Scheme: Water Chemistry (AQUACHECK)

Round: AQ568

Sample Details

Samples were despatched on 24 June 2019 The reporting deadline was 22 July 2019

The following samples were distributed in Aquacheck Round 568:

6A: 1 x 10mL amber glass vial containing spiking solution of haloforms and chlorinated solvents in methanol and 1 x 2L glass/PETG bottle containing groundwater.

6B: 1 x 10mL amber glass vial containing spiking solution of phenols in methanol and 1 x 2L PETG bottle containing groundwater.

6C: 1 x 10mL amber glass vial containing spiking solution of BTEX components in methanol and 1 x 2L glass/PETG bottle containing groundwater.

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

Please note: Not all the test materials / analytes in this proficiency testing scheme are included in our UKAS scope of accreditation. Please see the current Scheme Description for details of non-accredited items.

Samples were despatched on 24 June 2019 The reporting deadline was 22 July 2019

The following samples were distributed in Aquacheck Round 568:

7A: 2 x 10mL amber glass vial containing spiking solution of organochlorine pesticides in methanol and 1 x 2L PETG bottle containing groundwater.

7B: 1 x 10mL amber glass vial containing spiking solution of chlorinated solvents in methanol and 1 x 2L glass/PETG bottle containing groundwater.

7C: 2 x 10mL amber glass vial containing spiking solutions of polycyclic aromatic hydrocarbons in methanol and 1 x 2L PETG bottle containing groundwater.

7D: 1 x 10mL amber glass vial containing spiking solution of polychlorinated biphenyls in methanol and 1 x 2L PETG bottle containing groundwater.

38: 1 x 60ml of unfiltered solution for UV-Absorbing Organic Constituents determination

39: 1 x 1L sample containing geosmin and methyl isoborneol

40: 1 x 10ml fungicides spiking solution and 1 x 500mL groundwater

43: 1 x 10mL Triclosan spiking solution and 1 x 2L groundwater

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The following samples were distributed in Aquacheck Round 568:

8: 2×10 mL amber glass vial containing spiking solution of acid herbicides in methanol, 1×10 mL amber glass vial containing spiking solution of glyphosate and AMPA in deionised water and 1×2 L PETG bottle containing groundwater.

8B: 1×10 mL amber glass vial containing spiking solution of urea herbicides in acetonitrile, 1×10 mL amber glass vial containing spiking solution of triazines in methanol and 1×2 L PETG bottle containing groundwater

9: 1 x 10mL amber glass vial containing spiking solution of organophosphorus pesticides in methanol and 1 x 2L PETG bottle containing groundwater.

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The following samples were distributed in Aquacheck Round 568:

 $4G: 1 \times 500mL$ LDPE bottle containing spiked groundwater preserved with 0.5% nitric acid and $1 \times 30mL$ LDPE bottle containing spiking solution for silver preserved with 0.5% nitric acid.

 $5G: 1 \times 500$ mL LDPE bottle containing spiked groundwater preserved with 0.5% nitric acid, 1×30 mL LDPE bottle containing spiking solution for mercury preserved with 2% hydrochloric acid and 1×30 mL LDPE bottle containing spiking solution for tin preserved with 0.5% nitric acid.

100: 1 x 60ml spiking solution containing acetate and iodide

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The following samples were distributed in Aquacheck Round 568:

22: 1 x 2mL capillary vial containing a solution of 10 organic compounds at a level of approximately 20mg/L in dichloromethane, labelled 'Sample 22 Solution in Dichloromethane' and 1 x 2mL capillary vial containing a solvent blank, labelled 'Sample 22 Dichloromethane Blank'.

25: 1 x 2L glass bottle containing contaminated clean water.

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

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The following samples were distributed in Aquacheck Round 568:

30: 1 x 2L plastic bottle containing sample for gross alpha and gross beta activity. This sample has been acidified to give a final nitric acid concentration of $0.5\%^{V}/_{V}$.

31: 1 x 250ml glass bottle sample for tritium analysis.

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Individual Report

This individual report contains a summary of all the results submitted and the performance assessment for your laboratory/individual analysts. Please note that the nominated results for each analyte are indicated by the blue highlight in the analyst field.

Full details of the scheme, sample types 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 provided on the front of the report. If you would like to order any samples for re-testing please visit our web shop at www.lgcstandards.com or contact your local LGC representative.

Results Summary

Sample	Results Reported	Satisfactory Results	Questionable Results	Unsatisfactory Results	Not Assessed
PT-AQ-39	14	14	0	0	0
Round Total	14	14	0	0	0

Result which are Not Assessed should be review by comparing them with the assigned value and other relevant statistics given in the main report. Participant, 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 sample 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. Visit our web shop at www.lgcstandards.com and search for the sample you require.

No unsatisfactory results in this round

No questionable results in this round

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39 - Geosmin and MIB

Analyte	Analyst	Method	Result	Units	Z Score	Assigned Value	Ux AV	SDPA	Exp.SDPA	Number of results	Median	Mean	Robust SD	SD	Your Reference
Geosmin	WWRI	Headspace SPME-GC/MS	103.23	ng/L	0.52	98.41	0.38	9.28	N/A	22	96.69	95.61	9.284	7.802	Headspace SPME-GC/MS
Geosmin	0001	Headspace SPME-GC/MS	103.00	ng/L	0.49	98.41	0.38	9.28	N/A	22	96.69	95.61	9.284	7.802	Headspace SPME-GC/MS
Geosmin	0002	Headspace SPME-GC/MS	95.09	ng/L	-0.36	98.41	0.38	9.28	N/A	22	96.69	95.61	9.284	7.802	Headspace SPME-GC/MS
Geosmin	0003	Headspace SPME-GC/MS	98.36	ng/L	-0.01	98.41	0.38	9.28	N/A	22	96.69	95.61	9.284	7.802	Headspace SPME-GC/MS
Geosmin	0006	Headspace SPME-GC/MS	106.37	ng/L	0.86	98.41	0.38	9.28	N/A	22	96.69	95.61	9.284	7.802	Headspace SPME-GC/MS
Geosmin	0004	Headspace GC	98.40	ng/L	0.00	98.41	0.38	9.28	N/A	22	96.69	95.61	9.284	7.802	Headspace GC
Geosmin	0005	Other	102.19	ng/L	0.41	98.41	0.38	9.28	N/A	22	96.69	95.61	9.284	7.802	Other
Methyl isoborneol	WWRI	Headspace SPME-GC/MS	96.24	ng/L	-0.09	97.03	0.37	8.96	N/A	21	95.44	93.90	8.957	12.478	Headspace SPME-GC/MS
Methyl isoborneol	0001	Headspace SPME-GC/MS	102.70	ng/L	0.63	97.03	0.37	8.96	N/A	21	95.44	93.90	8.957	12.478	Headspace SPME-GC/MS
Methyl isoborneol	0002	Headspace SPME-GC/MS	100.61	ng/L	0.40	97.03	0.37	8.96	N/A	21	95.44	93.90	8.957	12.478	Headspace SPME-GC/MS
Methyl isoborneol	0003	Headspace SPME-GC/MS	93.62	ng/L	-0.38	97.03	0.37	8.96	N/A	21	95.44	93.90	8.957	12.478	Headspace SPME-GC/MS
Methyl isoborneol	0006	Headspace SPME-GC/MS	103.95	ng/L	0.77	97.03	0.37	8.96	N/A	21	95.44	93.90	8.957	12.478	Headspace SPME-GC/MS
Methyl isoborneol	0004	Headspace GC	103.40	ng/L	0.71	97.03	0.37	8.96	N/A	21	95.44	93.90	8.957	12.478	Headspace GC
Methyl isoborneol	0005	Other	99.28	ng/L	0.25	97.03	0.37	8.96	N/A	21	95.44	93.90	8.957	12.478	Other