

# 2017-4 Ion Balance

color (absorbance/Hazen units), conductivity, pH, turbidity, alkalinity, hardness (Ca+Mg/°dH), Ca, K, Mg, Na, chloride, fluoride, sulfate, sum anions, sum cations, CODMn, TOC

**Part A** Potable well-water

**Part B** Humic recipient

## Receiving the samples

Check that you have received the bottles you ordered.

The samples are not preserved. Upon receipt, treat the samples as far as possible in accordance with your lab's routines. Then store them dark and cool—not frozen—until analysis.

## Reporting the results

Instructions for the results form are on the reverse side.

## Amending reported results

If you wish to make any changes after sending your data, send a new form before the reporting deadline and instruct us in the email to discard the first one. We cannot alter your first form.

## Cost

The registration fee is 2520 SEK/part. An additional fee of 395 SEK is charged for each parameter.

Only one parameter fee will be charged for:

1. Additional results for parameters analyzed by more than one method.
2. Both Ca+Mg and Hardness (°dH) in the same part.
3. All color parameters in the same part.

## Less-than values (<)

Since less-than values cannot be statistically evaluated it is suggested to report actual measurements that are marginally under your reporting limit if they are reasonable. Provide the less-than value on a separate row for the benefit of your accreditation authority and indicate under *Extra Info* which results are not intended for ACES. See the example on the reverse side. Measurements that are unreasonable or far from your reporting limit should be reported as less-than values.

## Schedule

|                    |         |
|--------------------|---------|
| Analysis           | Sep 7   |
| Results deadline   | Sep 27  |
| Preliminary report | week 41 |
| Final report       | week 44 |

## Extra info for certain parameters

### ■ Absorbance

**NEW!** Apparent color (unfiltered) by absorbance is not included, but results may be reported as *Extra Info*. Analysis codes are changed to included wavelength.

Spectral absorption coefficient calculated according to ISO 7887:

$$\alpha(\lambda) = A/d \times 1000$$

*A* sample absorbance at wavelength  $\lambda$  **nm**

*d* cuvette length in **mm**

Please provide cuvette length as *Extra Info*.

### ■ Color: Hazen units

**NEW!** Analysis codes separated into true (filtered) and apparent (unfiltered).

### ■ TOC

Report your measurement principle under *Extra info*.

- 1 TOC  $\approx$  TC (total carbon)
- 2 TOC = TC – TIC (total – total inorganic carbon)
- 3 TOC  $\approx$  NPOC, NVOC (non-volatile organic carbon)
- 4 Other principle

## Kontakt

**Marsha Hanson** 08-674 72 77  
marsha.hanson@aces.su.se

**Marcus Sundbom** 08-674 72 42  
marcus.sundbom@aces.su.se

## ACES Provningsjämförelser

Stockholms universitet SE-106 91 Stockholm

Hemsida: <http://enviropro.itm.su.se>



Stockholms  
universitet

## Reporting your results

The form for reporting can be found at <http://enviropro.itm.su.se/> under **Documents**. The pdf-form may be edited, printed and saved locally on any computer that has Adobe Reader 7 (or later version) installed. The latest version of Adobe Reader can be downloaded for free from <http://get.adobe.com/reader/>.

- **Save a copy** a copy of the form locally on your computer.
- Fill in the required **customer information**.
- **Add rows** by clicking on the green plus button. Rows can be removed with the red minus button.
- Fill in the **Part**. All parts can now be reported on the same form.
- Select **Parameter** with the drop-down menu.
- **Measurement uncertainty**—usually in % of the measured value, with a coverage factor of 2—is optional.
- **Analysis codes** are used to describe the methods. A list with the relevant codes are sent together with the samples. If you can't find a code for your method write "XX" and briefly describe your method under *Extra Info* or in the *Comments* field. Contact us if anything is unclear.
- Change the **Analysis date** if necessary.
- Use the **Extra info** column and the **Comments** field for information that is relevant to the statistical treatment of your results, or for your accreditation authority.
- **Send your results to ACES** by clicking on **Open e-mail** which generates a unique Form ID and creates an e-mail message with your results attached. The function works with most mainstream e-mail programs\*. *Note that you must send the message from within your e-mail program.* If any required customer information is missing, a notice will appear. Complete the form and click the button again. A automatic confirmation will be sent when we receive your results.
- The **Print** button prints a copy of the form, with an identical Form ID, for your records. Print a copy of the empty form, or at any time while filling it in, to use as a rough copy.

\* If a message is not created, check that your e-mail program is selected as the default. If you still experience problems, send the completed form as a pdf-attachment to [intercal@aces.su.se](mailto:intercal@aces.su.se)—you will still receive a confirmation.

Add / remove rows
Select part—A, B or C
Change parameter
Complete the analysis code
Change to your date of analysis

**ACES 2017-4**  
Part A: Recipient, potable  
Part B: Recipient, humic

Please — pay attention to which units are required. Our website has a table with conversion factors which can be found in the menu Useful Documents.

|          |           |         |                              |
|----------|-----------|---------|------------------------------|
| Lab code | 000       | Company | RUSKTRÄSKENS VATTENANALYS AB |
| Zip code | 921 91    | Contact | LEO RASK                     |
| City     | RUSKTRÄSK | Email   | leo@rva.se                   |

Form ID 1504007295000

| Rows  | Part | Parameter                | Units | Sample 1 | Sample 2 | Uncertainty | Analysis code | Extra info                                  | Date of analysis |
|---|------|--------------------------|-------|----------|----------|-------------|---------------|---|------------------|
| <span style="color: green;">+</span> <span style="color: red;">-</span> | A    | Color, true (Absorbance) | α(A)  | 2.32     | 2.34     | 15%         | ABSF - 0420   | d(mm) = 10; apparent color A1 2.44, A2 2.47 | 2017-09-07       |
| <span style="color: green;">+</span> <span style="color: red;">-</span> | A    | pH                       |       | 7.41     | 7.47     | 0.1 pH      | PH - R        | temp 23.4C                                  | 2017-09-07       |
| <span style="color: green;">+</span> <span style="color: red;">-</span> | A    | F/Fluoride               | mg/l  | <1.00    | <1.00    |             | F - DJ        | for accreditation authority                 | 2017-09-07       |
| <span style="color: green;">+</span> <span style="color: red;">-</span> | A    | F/Fluoride               | mg/l  | 0.78     | 0.85     |             | F - DJ        | for ACES                                    | 2017-09-07       |
| <span style="color: green;">+</span> <span style="color: red;">-</span> | A    | TOC                      | mg/l  | 8.2      | 7.9      |             | CORG - TKC    | Measurement principle (1,2,3,4)? = 3        | 2017-09-07       |

Comments

"Open email" generates a Form ID and creates a message to [intercal@aces.su.se](mailto:intercal@aces.su.se) in your e-mail program with the results attached in xml-format. If a message is not created check that your e-mail program is selected as the default for your computer.

Provide additional results if you analyze a parameter by more than one method.

Two fields are available for your comments.

The Open e-mail button generates a Form ID and creates an email message with your results attached.

Print a copy of the form

### Check that your results are in the correct units!

Corrections can be made *only if you contact us before the reporting deadline.*