IC Application Note No. S-236

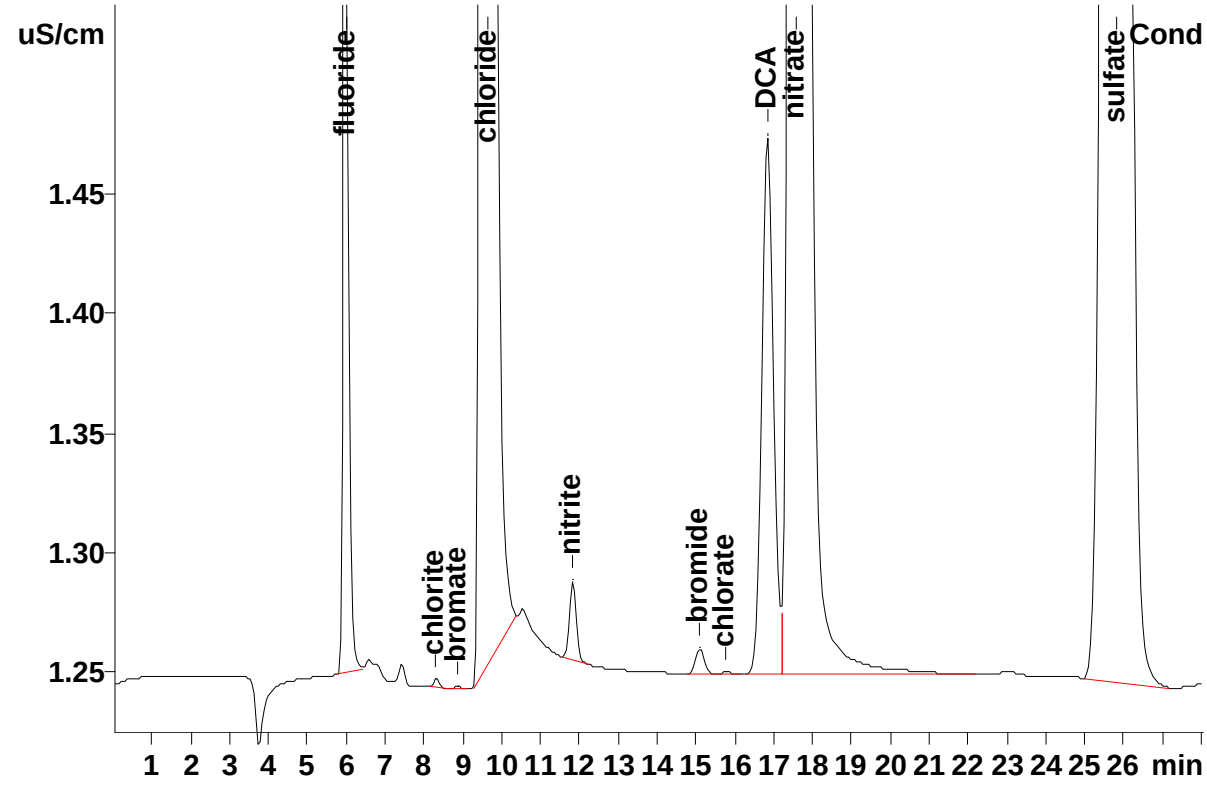
Title:	**Determination of Anions and Oxyhalides by US EPA method 300.1 A and B in a single analysis (Sample)**

***Summary*:**	Determination of fluoride, chlorite, bromate, chloride, nitrite, dichloroacetate (surrogate), chlorate, bromide, nitrate and sulfate according to US EPA 300.1 A and B using anion chromatography with conductivity detection after sequential suppression.

Sample:	Tap water Herisau
Sample Preparation:	Filtrated through 0.45 µm filter

Column:	6.1006.630 Metrosep A Supp 7 – 250
Eluent:	3.6 mmol/L sodium carbonate
Suppressor:	Sequential Suppression: MSM (50 mmol/L H_2SO_4), MCS
Flow:	0.8 mL/min ***Temp.:*** 45°C
Injection Volume:	20 µL

Tap water Herisau, *Laboratory Fortified Sample Matrix* (LFM): 861 Advanced Compact IC



Tap water n=7	Result (Mean) [mg/L]	RSD [%]	Fortified concentration [mg/L]	Result (Mean) [mg/L]	RSD [%]	Recovery [%]
Advanced MIC 2 System						
Fluoride	0.058	0.68	0.075	0.136	0.86	104.0
Chlorite	-	-	0.005	0.005	3.12	99.2
Bromate	-	-	0.005	0.005	7.48	104.8
Chloride	12.80	0.17	1.000	13.77	0.10	96.5
Nitrite-N	-	-	0.008	0.015	1.02	97.3
Bromide	0.008	3.92	0.025	0.031	1.57	92.9
Chlorate	0.004	4.81	0.005	0.010	4.24	103.1
DCA	0.988	0.25	0	0.999	0.26	100.0
Nitrate-N	2.320	0.15	0.304	2.542	0.12	98.3
Sulfate	5.631	0.08	1.000	6.384	0.10	75.3

Tap water n=7	Result (Mean) [mg/L]	RSD [%]	Fortified concentration [mg/L]	Result (Mean) [mg/L]	RSD [%]	Recovery [%]
861 Advanced Compact IC						
Fluoride	0.051	0.32	0.075	0.112	2.10	90.7
Chlorite	-	-	0.005	0.006	1.71	111.3
Bromate	-	-	0.005	0.005	6.39	94.0
Chloride	13.09	0.03	1.000	14.002	0.06	90.8
Nitrite-N	-	-	0.008	0.014	0.77	93.1
Bromide	0.007	3.04	0.025	0.030	1.02	90.3
Chlorate	0.005	6.85	0.005	0.010	3.81	95.8
DCA	0.991	0.37	0	1.003	0.10	100.3
Nitrate-N	2.277	0.10	0.304	2.492	0.09	95.4
Sulfate	5.182	0.08	1.000	6.070	0.12	88.8