

Report

T1712713

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2MCBY0R1LLC



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Project
Reference

Analysis of waste water

Your ID	R17-1163-1					
LabID	O10885040					
Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
Fe	14.7	3.0	mg/l	1	H	WIDF
As	27.2	4.7	µg/l	1	H	WIDF
Ba	57.3	11.0	µg/l	1	H	WIDF
Cd	0.168	0.040	µg/l	1	H	WIDF
Cr	63.9	12.2	µg/l	1	H	WIDF
Cu	56.7	10.3	µg/l	1	H	WIDF
Hg	0.0228	0.0092	µg/l	1	F	WIDF
Ni	59.9	12.1	µg/l	1	H	WIDF
Pb	59.6	11.2	µg/l	1	H	WIDF
Zn	58.5	12.3	µg/l	1	H	WIDF
Mo	1.34	0.27	µg/l	1	H	WIDF
Sb	1.09	0.21	µg/l	2	H	WIDF
Se	<3		µg/l	2	H	WIDF
Sn	2.00	0.38	µg/l	2	H	WIDF
tot ext aliphates	7.37	2.95	mg/l	3	1	AKR
non-polar aliphatics	0.14	0.06	mg/l	3	1	AKR
tot ext aromatics	2.24	0.90	mg/l	3	1	AKR
benzene	0.52	0.21	µg/l	4	1	AKR
toluene	466	186	µg/l	4	1	AKR
ethylbenzene	2.96	1.18	µg/l	4	1	AKR
m,p-xylene	5.70	2.28	µg/l	4	1	AKR
o-xylene	2.24	0.90	µg/l	4	1	AKR
xylenes, sum*	7.9		µg/l	4	1	AKR
DOC	401	80.2	mg/l	5	1	AKR
N-tot	706		mg/l	6	1	AKR
ammonium	777	116	mg/l	7	1	AKR
ammonium nitrogen	603	90.5	mg/l	7	1	AKR
nitrate	<2.00		mg/l	8	1	AKR
nitrate nitrogen	<0.500		mg/l	8	1	AKR
P-tot	4.39	0.878	mg/l	9	1	AKR
phosphate	2.33	0.466	mg/l	10	1	AKR
phosphate phosphorus	0.760	0.152	mg/l	10	1	AKR
AOX	0.621	0.124	mg/l	11	1	AKR
chloride	1410	212	mg/l	12	1	AKR
fluoride	<0.200		mg/l	13	1	AKR
sulphate	<5.00		mg/l	14	1	AKR
phenol index	0.210	0.042	mg/l	15	1	AKR

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Your ID	R17-1163-2						
LabID	O10885041						
Analysis	Results	Uncertainty (\pm)	Unit	Method	Issuer	Sign	
Fe	13.9	2.8	mg/l	1	H	WIDF	
As	28.5	5.0	μ g/l	1	H	WIDF	
Ba	57.1	11.0	μ g/l	1	H	WIDF	
Cd	0.174	0.036	μ g/l	1	H	WIDF	
Cr	65.7	12.6	μ g/l	1	H	WIDF	
Cu	55.4	10.2	μ g/l	1	H	WIDF	
Hg	<0.02		μ g/l	1	F	WIDF	
Ni	58.8	11.7	μ g/l	1	H	WIDF	
Pb	2.57	0.49	μ g/l	1	H	WIDF	
Zn	68.2	14.6	μ g/l	1	H	WIDF	
Mo	1.42	0.29	μ g/l	1	H	WIDF	
Sb	1.19	0.23	μ g/l	2	H	WIDF	
Se	<3		μ g/l	2	H	WIDF	
Sn	1.99	0.39	μ g/l	2	H	WIDF	
tot ext aliphates	4.48	1.79	mg/l	3	1	AKR	
non-polar aliphatics	0.11	0.04	mg/l	3	1	AKR	
tot ext aromatics	1.66	0.67	mg/l	3	1	AKR	
benzene	0.45	0.18	μ g/l	4	1	AKR	
toluene	429	172	μ g/l	4	1	AKR	
ethylbenzene	2.40	0.96	μ g/l	4	1	AKR	
m,p-xylene	4.46	1.78	μ g/l	4	1	AKR	
o-xylene	1.78	0.71	μ g/l	4	1	AKR	
xylene, sum*	6.2		μ g/l	4	1	AKR	
DOC	437	87.4	mg/l	5	1	AKR	
N-tot	630		mg/l	6	1	AKR	
ammonium	794	119	mg/l	7	1	AKR	
ammonium nitrogen	616	92.5	mg/l	7	1	AKR	
nitrate	<2.00		mg/l	8	1	AKR	
nitrate nitrogen	<0.500		mg/l	8	1	AKR	
P-tot	4.48	0.896	mg/l	9	1	AKR	
phosphate	2.23	0.446	mg/l	10	1	AKR	
phosphate phosphorus	0.727	0.145	mg/l	10	1	AKR	
AOX	0.400	0.080	mg/l	11	1	AKR	
chloride	1420	212	mg/l	12	1	AKR	
fluoride	<0.400		mg/l	13	1	AKR	
sulphate	<5.00		mg/l	14	1	AKR	
phenol index	0.238	0.048	mg/l	15	1	AKR	



* indicates unaccredited analysis

	Method specification
1	<p>Package V-3B. Determination of metals after microwave digestion with HNO₃. The measurement was carried out according to EPA-method 200.7(mod), SS EN ISO 11885(mod) (ICP-AES) and EPA-method 200.8(mod), SS EN ISO 17294-1,2(mod) (ICP-SFMS). Analysis of Hg with AFS according to SS-EN ISO 17852:2008.</p> <p>Special information for added metals to the package: W; the sample has been digested with HNO₃ and HF. Ag; the sample has been digested with HCl.</p> <p>Rev 2015-06-25</p>
2	Additional metals
3	<p>Package OV-20B. Determination of non-polar aliphatics, total extractable aliphatics and total extractable aromatics. The measurement is performed with (IR)-spectrometric method.</p> <p>Rev 2013-09-19</p>
4	<p>Package OV-5. Determination of monocyclic aromatics (BTEX) according to method based on US EPA 624, US EPA 8260, EN ISO 10301, MADEP 2004, rev. 1.1. Measurement is performed with GC-FID and GC-MS.</p> <p>Rev 2013-09-19</p>
5	<p>Determination of DOC with IR detection according to method based on CSN EN 1484 and CSN EN 13370.</p> <p>Rev 2013-09-19</p>
6	<p>Spectrophotometric determination of total nitrogen, N-tot, calculated from nitrate-nitrogen + nitrite-nitrogen + Kjeldahl-nitrogen</p> <p>Rev 2013-09-18</p>
7	<p>Spectrophotometric determination of ammonium NH₄, according to method based on CSN EN ISO 11732, CSN EN ISO 13395, CSN EN 13370 and CSN EN 12506. The method includes filtration of turbid samples.</p> <p>Rev 2013-09-18</p>
8	<p>Determination of NO₃, nitrate using ion chromatography according to CSN ISO 10304-1 and CSN EN 12506. The method includes filtration of turbid samples.</p> <p>Rev 2013-09-17</p>
9	<p>Determination of total phosphorous, P-tot, with spectrophotometry according to method based on CSN EN ISO 6878 and CSN ISO 15681-1.</p> <p>Rev 2013-09-17</p>
10	<p>Spectrophotometric determination of phosphate according to method based on CSN EN ISO 6878.</p> <p>The method includes filtration of turbid samples.</p>



Method specification	
	Rev 2013-09-18
11	Determination of adsorbable organically bound halogens (AOX) according to method based on CSN EN ISO 9562. Rev 2013-09-23
12	Determination of chloride using ion chromatography according to CSN ISO 10304-1 and CSN EN 12506. The method includes filtration of turbid samples. Rev 2013-09-17
13	Determination of fluoride using ion chromatography according to CSN ISO 10304-1 and CSN EN 12506. The method includes filtration of turbid samples. Rev 2013-09-17
14	Determination of sulfate using ion chromatography according to CSN ISO 10304-1 and CSN EN 12506. The method includes filtration of turbid samples. Rev 2013-09-17
15	Spectrophotometric determination of phenolindex according to method based on CSN ISO 6439. Rev 2013-09-19

Approver	
AKR	Anna-Karin Revell
WIDF	William Di Francesco

Issuer	
F	The determination is performed using AFS The analysis is provided by ALS Scandinavia AB, Aurorum 10, 977 75 Luleå, Sweden, which is a testing laboratory, accredited by the Swedish accreditation body SWEDAC (Reg.No. 2030).
H	The determination is performed using ICP-SFMS The analysis is provided by ALS Scandinavia AB, Aurorum 10, 977 75 Luleå, Sweden, which is a testing laboratory, accredited by the Swedish accreditation body SWEDAC (Reg.No. 2030).
1	The analysis is provided by ALS Laboratory Group, Na Harfě 9/336, 190 00, Prag 9, Czech Republic, which is a testing laboratory, accredited by the Czech accreditation body CAI (Reg.No 1163). CAI is a signatory to a MLA within EA, the same LA to which the Swedish accreditation body SWEDAC is also a signatory. The laboratories are located in; Prague, Na Harfě 9/336, 190 00, Praha 9, Ceska Lipa, Bendlova 1687/7, 470 01 Ceska Lipa, Pardubice, V Raji 906, 530 02 Pardubice. Contact the laboratory for further information.

¹ The technical unit within ALS Scandinavia where the analysis was carried out, alternatively the subcontractor for the analysis.



	Issuer

The uncertainty is given as extended uncertainty (according to the definition in "Guide to the Expression of Uncertainty in Measurement", JCGM 100:2008 Corrected version 2010) calculated with a coverage factor of 2, which gives a confidence level of approximately 95%.

Measurement of uncertainty is reported only for detected substances with levels above the reporting limits.

The uncertainty from subcontractors is often given as extended uncertainty calculated with a coverage factor of 2. Contact the laboratory for further information.

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