

Report

Page 1 (4)



T1320781

2DY418P09WW



Project
Reference
Registered 2013-12-10
Issued 2013-12-17

Matís ohf
Hrólfur Sigurdsson
Food Research, inn. and safety
Vinlandsleid 12
IS-113 Reykjavík
ICELAND

Analysis of waste water

Your ID R13-2951-1						
LabID	O10559405					
Analysis	Results	Uncertainty (\pm)	Unit	Method	Issuer	Sign
ammonium	<0.050		mg/l	1	1	INRO
nitrate	3.80	0.57	mg/l	2	1	INRO
P-tot	0.087	0.017	mg/l	3	1	INRO
AOX	0.033	0.009	mg/l	4	1	INRO
Pb	<0.5		µg/l	5	H	STGR
Cd	<0.05		µg/l	5	H	STGR
Hg	<0.02		µg/l	5	F	STGR
Sn	<0.5		µg/l	5	H	STGR

Your ID R13-2951-2						
LabID	O10559406					
Analysis	Results	Uncertainty (\pm)	Unit	Method	Issuer	Sign
N-tot	<0.10		mg/l	6	1	INRO
ammonium	<0.050		mg/l	1	1	INRO
nitrate	<2.00		mg/l	2	1	INRO
P-tot	<0.010		mg/l	3	1	INRO
phosphate	<0.040		mg/l	7	1	INRO
AOX	0.014	0.007	mg/l	4	1	INRO
Pb	<0.5		µg/l	5	H	STGR
Cd	<0.05		µg/l	5	H	STGR
Hg	<0.02		µg/l	5	F	STGR
Cr	<0.9		µg/l	5	H	STGR
Cu	<1		µg/l	5	H	STGR
Ni	<0.6		µg/l	5	H	STGR
As	<0.5		µg/l	5	H	STGR
Zn	<4		µg/l	5	H	STGR

Report

Page 2 (4)



T1320781

2DY418P09WW



Your ID	R13-2951-3				
LabID	O10559407				
Analysis	Results	Unit	Method	Issuer	Sign
N-tot	<0.10	mg/l	6	1	INRO
ammonium	<0.050	mg/l	1	1	INRO
nitrate	<2.00	mg/l	2	1	INRO
P-tot	<0.010	mg/l	3	1	INRO
phosphate	<0.040	mg/l	7	1	INRO
AOX	<0.010	mg/l	4	1	INRO
tot ext aliphates	<0.10	mg/l	8	1	INRO
non-polar aliphatics	<0.10	mg/l	8	1	INRO
tot ext aromatics	<0.10	mg/l	8	1	INRO
Pb	<0.5	µg/l	5	H	STGR
Cd	<0.05	µg/l	5	H	STGR
Hg	<0.02	µg/l	5	F	STGR
Cr	<0.9	µg/l	5	H	STGR
Cu	<1	µg/l	5	H	STGR
Ni	<0.6	µg/l	5	H	STGR
As	<1	µg/l	5	H	STGR
Zn	<4	µg/l	5	H	STGR

Report

Page 3 (4)



T1320781

2DY418P09WW



* indicates unaccredited analysis.

Method specification	
1	Determination of ammonium using FIA and spectrophotometric detector according to CSN ISO 11732. The method includes filtration of turbid samples.
2	Determination of NO ₃ , nitrate, by ion chromatography, according to method based on CSN EN ISO 10304-1. Filtration of turbid samples is included in the method. Rev 2013-02-04
3	Determination of total phosphorous, P-tot, with spectrophotometry according to method based on CSN EN ISO 6878 and CSN ISO 15681-1. Rev 2012-02-15
4	Determination of AOX according to method CSN EN 1485.
5	Package V-3B. Determination of metals after microwave digestion with HNO ₃ . The measurement was carried out according to EPA-methods 200.7 (ICP-AES) and 200.8 (ICP-SFMS). The determination of Hg was carried out with AFS according to SS-EN ISO 17852:2008. Special information for added metals to the package: W; the sample has been digested with HNO ₃ and HF. Se and Ag; the sample has been digested with HCl. Rev 2012-01-19
6	Determination of total nitrogen, N-tot, with IR detection according to method EN 12260.
7	Determination of phosphate with spectrophotometric detection. Method is based on CSN ISO 15681-1. Turbid samples are filtrated at the laboratory prior analysis.
8	Package OV-20B. Determination of unpolar alifatic hydrocarbons, total extractable alifatics and total extractable aromatics. The measurement is performed with (IR)-spectrometric method. Rev 2013-01-21

	Approver
INRO	Ingallill Rosén
STGR	Sture Grägg

Issuer¹	
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).

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

Report

Page 4 (4)



T1320781

2DY418P09WW



Issuer ¹	
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, Praha 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 03 Ceska Lipa, Pardubice, V Raji 906, 530 02 Pardubice. Contact the laboratory for further information.

The uncertainty is given as extended uncertainty (according to the definition in "Guide to the Expression of Uncertainty in Measurement", ISO, Geneva, Switzerland 1993) calculated with a coverage factor of 2, which gives a confidence level of approximately 95%.

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

This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

The results apply only to the material that has been identified, received, and tested.

Regarding the laboratory's liability in relation to assignment, please refer to our latest product catalogue or website <http://www.alsglobal.se>

The digitally signed PDF file represents the original report. Any printouts are to be considered as copies.