Report

T1109307

ABGRFJ00C0

Project	**drinking water**
Reference	
Registered	**2011-06-30**
Issued	**2011-07-12**

Matís ohf
Anna Pála Vignisdóttir
Food research, inn. and safety
Vinlandsleid 12
IS-113 Reykjavik
ICELAND

Analysis of water

Your ID	**11-1446-01/S-1 Vatnsveita Laugarvatni/midlunartanku**
LabID	O10386770

Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
Ca	**3.44**	0.41	mg/l	1	E	STGR
Fe	**0.0180**	0.0032	mg/l	1	H	STGR
K	**<0.4**		mg/l	1	E	STGR
Mg	**0.149**	0.021	mg/l	1	E	STGR
Na	**10.3**	1.4	mg/l	1	E	STGR
Si	**8.30**	1.21	mg/l	1	E	STGR
Al	**35.3**	6.0	µg/l	1	H	STGR
As	**<0.05**		µg/l	1	H	STGR
Ba	**0.0278**	0.0134	µg/l	1	H	STGR
Cd	**<0.002**		µg/l	1	H	STGR
Co	**0.0137**	0.0118	µg/l	1	H	STGR
Cr	**2.99**	0.53	µg/l	1	H	STGR
Cu	**<0.1**		µg/l	1	H	STGR
Hg	**<0.002**		µg/l	1	F	STGR
Mn	**0.803**	0.158	µg/l	1	H	STGR
Mo	**0.113**	0.042	µg/l	1	H	STGR
Ni	**<0.05**		µg/l	1	H	STGR
P	**19.8**	3.7	µg/l	1	H	STGR
Pb	**<0.01**		µg/l	1	H	STGR
Sr	**<2**		µg/l	1	E	STGR
Zn	**<0.2**		µg/l	1	H	STGR
Sb	**0.0168**	0.0047	µg/l	2	H	STGR
B	**<10**		µg/l	2	E	STGR
Se*	**0.327**		µg/l	2	G	STGR
colour	**<5**		mgPt/l	3	1	KABJ
nitrite	**<0.01**		mg/l	4	1	KABJ
nitrate	**0.13**	0.02	mg/l	5	2	STGR
ammonium	**<0.026**		mg/l	6	3	AKR
chloride	**4.54**	0.909	mg/l	7	3	AKR
sulphate	**1.58**	0.316	mg/l	8	3	AKR
TOC	**0.61**	0.12	mg/l	9	3	AKR
fluoride	**<0.200**		mg/l	10	3	AKR
CN total	**<0.005**		mg/l	11	3	AKR
benzene	**<0.20**		µg/l	12	3	AKR
toluene	**<1.0**		µg/l	12	3	AKR
ethylbenzene	**<0.10**		µg/l	12	3	AKR
m,p-xylen	**<0.20**		µg/l	12	3	AKR
o-xylen	**<0.10**		µg/l	12	3	AKR
xylenes, sum*	**<0.20**		µg/l	12	3	AKR
dichloromethane	**<2.0**		µg/l	13	3	AKR
1,1-dichloroethane	**<0.10**		µg/l	13	3	AKR

ALS Scandinavia AB
Box 511
183 25 Täby
Sweden

Web: www.alsglobal.se
E-mail: info.ta@alsglobal.com
Tel: + 46 8 52 77 5200
Fax: + 46 8 768 3423

The document is approved and digitally signed by

Anna-Karin Revell
2011.07.12 16:36:39
ALS Scandinavia AB
Client Service
anna-karin.revell@alsglobal.com

Your ID	**11-1446-01/S-1 Vatnsveita Laugarvatni/midlunartanku**
LabID	O10386770

Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
1,2-dichloroethane	**<1.0**		µg/l	13	3	AKR
trans-1,2-dichloroethene	**<0.10**		µg/l	13	3	AKR
cis-1,2-dichloroethene	**<0.10**		µg/l	13	3	AKR
1,2-dichlorpropane	**<1.0**		µg/l	13	3	AKR
trichloromethane	**<0.30**		µg/l	13	3	AKR
tetrachloromethane	**<0.10**		µg/l	13	3	AKR
1,1,1-trichloroethane	**<0.10**		µg/l	13	3	AKR
1,1,2-trichlorethane	**<0.20**		µg/l	13	3	AKR
trichloroethene	**<0.10**		µg/l	13	3	AKR
tetrachloroethene	**<0.20**		µg/l	13	3	AKR
vinylchloride	**<1.00**		µg/l	13	3	AKR
naphtalene	**<0.20**		µg/l	14	3	AKR
acenaphtylene	**<0.10**		µg/l	14	3	AKR
acenaphthene	**<0.0070**		µg/l	14	3	AKR
fluorene	**<0.010**		µg/l	14	3	AKR
phenthrene	**<0.040**		µg/l	14	3	AKR
anthracene	**<0.0050**		µg/l	14	3	AKR
fluoranthene	**<0.0050**		µg/l	14	3	AKR
pyrene	**<0.0050**		µg/l	14	3	AKR
benzo(a)anthracene	**<0.0030**		µg/l	14	3	AKR
chrysene	**<0.0070**		µg/l	14	3	AKR
benzo(b)fluoranthene	**<0.0040**		µg/l	14	3	AKR
benzo(k)fluoranthene	**<0.0020**		µg/l	14	3	AKR
benzo(a)pyrene	**<0.0020**		µg/l	14	3	AKR
dibenzo(ah)anthracene	**<0.0020**		µg/l	14	3	AKR
benzo(ghi)perylene	**<0.0030**		µg/l	14	3	AKR
indeno(123cd)pyrene	**<0.0030**		µg/l	14	3	AKR
PAH, sum 16	**<0.20**		µg/l	14	3	AKR
PAH carcinogenic	**<0.012**		µg/l	14	3	AKR
PAH, sum others	**<0.19**		µg/l	14	3	AKR
tribromomethane	**<0.20**		µg/l	15	3	AKR
dibromochloromethane	**<0.10**		µg/l	15	3	AKR
bromodichloromethane	**<0.10**		µg/l	15	3	AKR
sum trihalomethanes	**<0.35**		µg/l	15	3	AKR

ALS Scandinavia AB
Box 511
183 25 Täby
Sweden

Web: www.alsglobal.se
E-mail: info.ta@alsglobal.com
Tel: + 46 8 52 77 5200
Fax: + 46 8 768 3423

The document is approved and digitally signed by

Anna-Karin Revell
2011.07.12 16:36:39
ALS Scandinavia AB
Client Service
anna-karin.revell@alsglobal.com

* indicates unaccredited analysis.

	Method specification
1	Determination of metals without digestion. The measurement was carried out according to EPA-methods 200.7 (ICP-AES) and 200.8 (ICP-SFMS).
2	Additional metals
3	Determination of colour according to SS-EN ISO 7887:1988-4. Uncertainty (k=2): ±14% at 20 mg Pt/l Rev 2011-02-08
4	Determination of nitrite nitrogen according to SS-EN ISO 13395-1 (FIA). The method includes filtration of turbid samples. Uncertainty (k=2) Clean water: ±8% vid 0.01 mg N/l och ±7% vid 0.05 mg N/l Waste water: ±9% vid 0.01 mg N/l och ±8% vid 0.05 mg N/l Rev 2011-02-08
5	Determination of nitrate, NO_3, using ion chromatography. Method, SS-EN ISO 10304-1.
6	Determination of ammonium, low LOQ, using FIA and spectrophotometric detector according to CSN ISO 11732. Filtration of turbid samples is included in the method.
7	Determination of chloride using ion chromatography according to CSN ISO 10304-1&2. The method includes filtration of turbid samples.
8	Determination of sulfate using ion chromatography according to a method based on CSN ISO 10304-1&2. The method includes filtration of turbid samples.
9	Determination of TOC according to method based on CSN EN 1484.
10	Determination of fluoride using ion chromatography according to CSN ISO 10304-01. The method includes filtration of turbid samples.
11	Determination of total cyanide according to CSN ISO 6703-1.
12	Package OV-5. Determination of monocyclic aromatics (BTEX) by GC-MS.
13	Package OV-6. Determination of chlorinated aliphates according to US EPA 624 & 610. The analysis was carried out with head-space GC-MS. Not accredited for determination of 1,2-dichloropropane.
14	Package OV-1.

ALS Scandinavia AB
Box 511
183 25 Täby
Sweden

Web: www.alsglobal.se
E-mail: info.ta@alsglobal.com
Tel: + 46 8 52 77 5200
Fax: + 46 8 768 3423

The document is approved and digitally signed by

Anna-Karin Revell
2011.07.12 16:36:39
ALS Scandinavia AB
Client Service
anna-karin.revell@alsglobal.com

	Method specification
	Determination of polycyclic aromatic hydrocarbons, PAH (EPA-16) by HPLC with both UV and fluorescence detection.
15	Package OV-10. Determination of trihalomethanes according to a method based on EPA 601and EPA 624. The measurement is performed with GC-MS.

	Approver
AKR	Anna-Karin Revell
KABJ	Karin Björk
STGR	Sture Grägg

	Issuer[1]
E	The determination is performed using ICP-AES 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).
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).
G	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 Scandinavia AB, Box 511, 183 25 Täby, which is accredited by the Swedish accreditation body SWEDAC (Reg.No. 2030).
2	The analysis is provided by AK Lab AB, Getängsvägen 29, 504 68 Borås, Sweden, which is a testing laboratory, accredited by the Swedish accreditation body SWEDAC (Reg.No. 1790).
3	The analysis is provided by ALS Laboratory Group, Na Harfê 9/336, 190 00, Prag 9, Czech Rebublic, 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 Harfê 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.

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

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.

ALS Scandinavia AB
Box 511
183 25 Täby
Sweden

Web: www.alsglobal.se
E-mail: info.ta@alsglobal.com
Tel: + 46 8 52 77 5200
Fax: + 46 8 768 3423

The document is approved and digitally signed by

Anna-Karin Revell
2011.07.12 16:36:39
ALS Scandinavia AB
Client Service
anna-karin.revell@alsglobal.com