

Reykjavík Energy

Water utilities and water protection issues 2024



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Reykjavik Energy and subsidiaries' area of operations



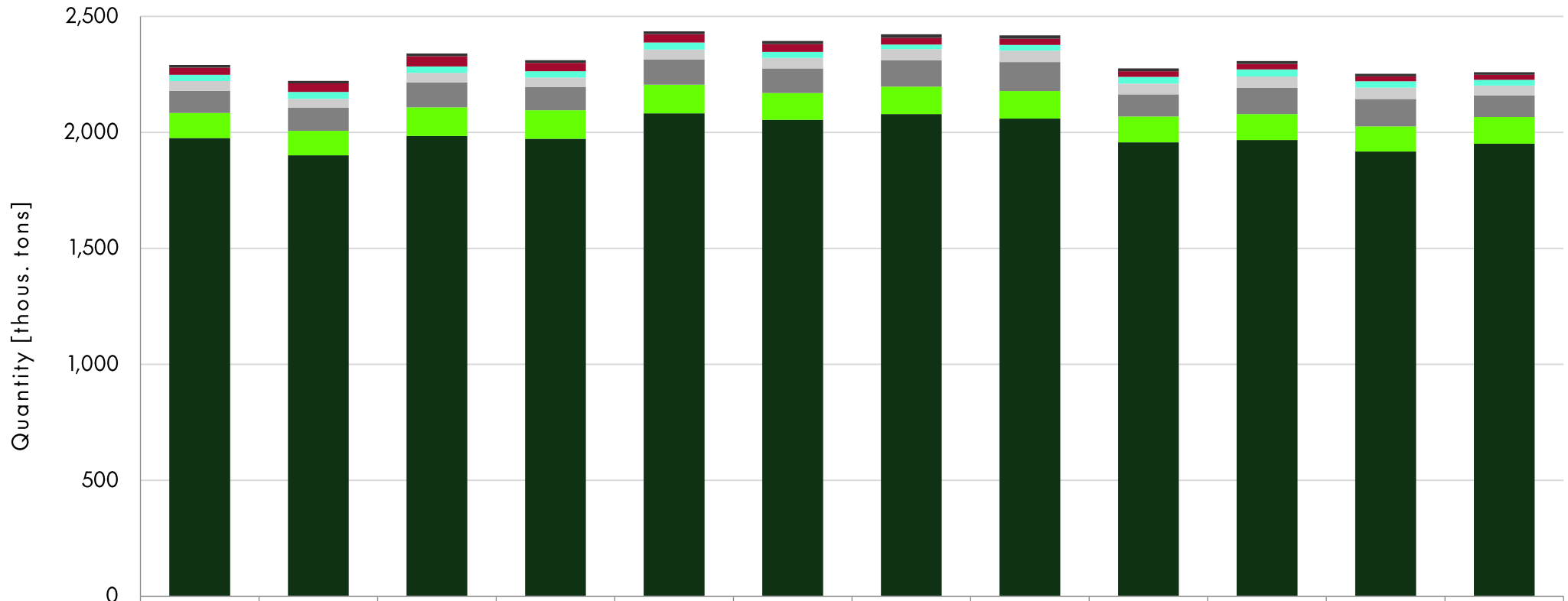
Water utilities of Veitur Utilities and ON Power

The water utilities of Veitur Utilities and ON Power and information on the supervisory procedures applied to the water situation in each area, water volume, comments and improvements.

VEITUR'S WATER UTILITIES							
AREA	UTILITY	WATER SUPPLY	MONITORING METHOD	ANNUAL PRODUCTION		COMMENTS	IMPROVEMENTS
				thous. tons	l/s		
Capital area	Reykjavik Seltjarnanes Mosfellsbær	Gvendarbrunnar, Myllulækur and Vatnsendakriki	Well sampling	23,467	742	UV purification of water from Gvendarbrunnar, Jadar area og Myllulækur.	A chemical surveillance unit monitors chemical concentrations in the water that could increase due to volcanic eruptions on the Reykjanes peninsula or wildfires in Heidmork.
	Alftanes	Vatnsendakriki	Well sampling	434	14	Water purchased from Gardabaer	
	Akranes	Berjadalur, Slöguveita and Os utility	Overflow	1,382	44	UV water purification.	Work in progress for improvements in water production.
West Iceland	Borgarnes, Bifröst and Munadarnes	Grabrok, Seleyri as back-up for Borgarnes	Well sampling	1,274	40	UV water purification at Grabrok and and springs by mt. Hafnarfjall.	Work on new pumping station with UV purification system at Seleyri underway.
	Grundarfjörður	Grund	Well sampling	323	10	UV water purification.	
	Hvanneyri	Fossamelar	Overflow	63	2	UV water purification.	New pumping station with a UV purification system now operational.
	Reykholt and Kleppjarnsreykir	Steindorsstadir	Well sampling	375	12	UV water purification.	
	Stykkisholmur	Svelgsarhraun	Overflow	364	12	UV water purification.	Temporary pumping station with a UV purification system planned.
South Iceland	Hlidarveita	Bjarnarfell	Overflow	147	5		
ON POWER'S WATER UTILITIES							
AREA	UTILITY	WATER SUPPLY	MONITORING METHOD	ANNUAL PRODUCTION		COMMENTS	IMPROVEMENTS
				thous. tons	l/s		
Hengill	Hellisheidi Nesjavellir	Engidalur Gramelur	Well sampling Tank sampling	87,418	2,620	Thermal pollution at Nesjavellir	Actions were taken to substantially reduce thermal pollution at Nesjavellir. Awaiting results. Further actions planned.

Water extraction per month in the distribution areas of Veitur Utilities in 2024

Granting everyone access to healthy potable water with negligible outages is one of the prerequisites for a healthy population and flourishing economic activity in a modern society, see the sustainable development goals of the United Nations.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
■ Hlid utility	11	11	12	12	12	13	15	14	12	12	11	11
■ Stykkisholmur	31	37	44	36	36	34	29	27	25	24	21	21
■ Grundarfjodur	27	29	27	27	31	26	19	24	29	31	28	25
■ Rural Borgarfjodur	42	39	42	41	43	46	49	49	46	49	49	43
■ Borgarnes	95	99	107	100	109	106	113	125	96	113	118	93
■ Akranes	108	106	124	123	123	116	118	118	111	111	108	115
■ Capital area	1,975	1,901	1,984	1,972	2,082	2,054	2,079	2,060	1,957	1,967	1,917	1,951

Microbes and chemical composition of potable water in the capital area in 2024

Reykjavik's Department of Environment and Planning (RDEP) regularly collects samples to monitor water quality. Samples are also collected for a complete chemical composition analysis.

Microbe analysis

Microbial properties	Unit	Max. recommended value	Lab	Well V-13, Myllulaekur	Well V-05, Jadar area	Well VK-05, Vatnsenda-krikar	Arbaer Dam	Well V-03 Jadar area	Well V-14 Myllulaekur	Well VK-01, Vatnsenda-krikar	RDEP microbial samples
Total number of microbes	Number			1	1	1	1	1	1	1	111
Total microbes 22°C	Average	100/ml	MATÍS	0	0	0	0	0	0	0	0.23
	Highest value	100/ml	MATÍS	0	0	0	0	0	0	0	7
	Lowest value	100/ml	MATÍS	0	0	0	0	0	0	0	0
Escherichia coli (E. Coli)	Average	0/100 ml	MATÍS	0	0	0	0	0	0	0	0
	Highest value	0/100 ml	MATÍS	0	0	0	0	0	0	0	0
	Lowest value	0/100 ml	MATÍS	0	0	0	0	0	0	0	0
Enterococci	Average	0/100 ml	MATÍS	0	0	0	0	0	0	0	0
	Highest value	0/100 ml	MATÍS	0	0	0	0	0	0	0	0
	Lowest value	0/100 ml	MATÍS	0	0	0	0	0	0	0	0

Chemical composition of potable water

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Well V-13, Myllulækur	Well V-05, Jadar area	Well VK-05, Vatnsenda-krikar	Arbaer Dam	Well V-03 Jadar area	Well V-14 Myllulækur	Well VK-01, Vatnsenda-krikar
Sample no.					R24009560002	R24009560001	R24009560003	R24009000001	R24024650001	R24024650002	R24024650003
Date					7.5.2024	7.5.2024	7.5.2024	29.4.2024	15.10.2024	15.10.2024	15.10.2024
Colour of sample	mgPt/l			ALS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Turbidity	NTU	adequate	(1)	MATÍS	0.37	0.31	0.12	0.37	<0.10	0.16	0.1
Temperature	°C	25		MATÍS	3.6	3.7	3.8	4	4.1	3.9	3.8
Acidity (pH)	pH			MATÍS	8.75	8.65	8.65	8.85	8.85	8.40	8.36
Conductivity	µS/cm	2,500		MATÍS	87	89	81	93	98	92	89
Chloride (Cl)	mg/l	250		ALS	10.5	11.1	9.33	10.9	11.6	11	9.8
Sulphate (SO4)	mg/l	250		ALS	<5.00	<5.00	<5.00	<5.00	<4.0	<4.0	<4.0
Fluoride (F)	mg/l	1.5		ALS	<0.200	<0.200	<0.200	<0.200	<0.10	<0.10	<0.10
Nitrate (NO3)	mg/l	50		ALS	0.155	0.133	0.146	0.124	0.23	0.23	0.22
Nitrite (NO2)	mg/l	0.5		ALS	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.010
Ammonium (NH4-N)	mg/l	0.5		ALS	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
TOC	mg/l	no abnormal changes		ALS	<0.50	<0.50	<0.50	<0.50	0.51	<0.50	<0.50
Calcium (Ca)	mg/l	100	(3)	ALS	5.24	5.15	5.29	4.96	4.74	5.28	5.32
Iron (Fe)	mg/l	0.2		ALS	<0.0004	<0.0004	<0.0004	0.00224	0.000431	<0.0004	<0.0004
Potassium (K)	mg/l	12	(3)	ALS	<0.4	<0.4	0.464	<0.4	<0.4	<0.4	0.437
Magnesium (Mg)	mg/l	50	(3)	ALS	0.792	0.932	0.947	0.868	0.804	0.821	0.868
Sodium (Na)	mg/l	200		ALS	11.2	12.9	10	12.5	13.2	11.4	9.69
Sulphur (S)	mg/l		(4)	ALS	0.696	0.79	0.712	0.725	0.748	0.731	0.709
Silica (Si)	mg/l		(4)	ALS	6.57	6.97	6.94	6.66	6.74	6.59	6.8
Aluminium (Al)	µg/l	200		ALS	14.1	19.4	21.3	16.4	27.7	13.7	21.1
Arsenic (As)	µg/l	10		ALS	0.0549	0.0506	<0.05	<0.05	0.0647	<0.05	0.0531

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Well V-13, Myllulækur	Well V-05, Jadar area	Well VK-05, Vatnsenda-krikar	Arbaer Dam	Well V-03 Jadar area	Well V-14 Myllulækur	Well VK-01, Vatnsenda-krikar
Boron (B)	µg/l	1,000		ALS	<10	<10	<10	<10	<10	<10	<10
Barium (Ba)	µg/l	700	(3)	ALS	0.0122	0.0681	0.0916	0.0615	0.037	0.0282	0.0836
Cadmium (Cd)	µg/l	5.0		ALS	0.0029	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt (Co)	µg/l		(4)	ALS	<0.005	<0.005	<0.005	0.00653	<0.005	<0.005	<0.005
Chromium (Cr)	µg/l	50		ALS	0.968	1.1	0.953	1.03	1.54	0.962	1.05
Copper (Cu)	µg/l	2,000		ALS	1.39	0.202	<0.1	0.151	<0.1	<0.1	<0.1
Mercury (Hg)	µg/l	1.0		ALS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese (Mn)	µg/l	50		ALS	0.0409	0.0591	0.049	<0.03	<0.03	<0.03	<0.03
Molybdenum (Mo)	µg/l		(4)	ALS	0.0719	0.0696	0.082	0.0722	0.0897	0.0759	0.0886
Nickel (Ni)	µg/l	20		ALS	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08
Phosphorus (P)	µg/l	5,000	(3)	ALS	18.4	16.9	21	14.7	19.8	18.4	22.3
Lead (Pb)	µg/l	10		ALS	0.183	<0.01	<0.01	0.0119	<0.01	<0.01	0.0107
Antimon (Sb)	µg/l	5.0		ALS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selen (Se)	µg/l	10		ALS	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Strontium (Sr)	µg/l		(4)	ALS	<2	3.27	3.49	3	2.98	<2	2.93
Sink (Zn)	µg/l	3,000	(3)	ALS	5.95	0.562	<0.2	2.73	0.668	<0.2	1.27
Vanadium (V)	µg/l			ALS	16	15.5	19.3	14.2	21	14	18.7
Benzene	µg/l	1.0		ALS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	µg/l			ALS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	µg/l			ALS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-xylene	µg/l			ALS							
o-xylene	µg/l			ALS							
Sum xylene	µg/l			ALS	<0.2	<0.2	<0.2	0.7	<0.2	<0.2	<0.2
Dichloromethane	µg/l			ALS	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
1,1 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trans 1,2 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Well V-13, Myllulækur	Well V-05, Jadar area	Well VK-05, Vatnsenda-krikar	Arbaer Dam	Well V-03 Jadar area	Well V-14 Myllulækur	Well VK-01, Vatnsenda-krikar
Cis 1,2 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2 - dichloropropane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichloromethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloromethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1 - trichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2 - trichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichloroethane	µg/l	0.1	(5)	ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethane	µg/l	0.1	(5)	ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl chloride	µg/l	0.01		ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1 - dichloroethane	µg/l			ALS	<0.00060	<0.00060	<0.00060	<0.00060	<0.00060	<0.00060	<0.00060
Naphtalen	µg/l	0.1	(5)	ALS	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Acenaphtylene	µg/l		(5)	ALS	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Acenaphtene	µg/l			ALS	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101
Fluorene	µg/l			ALS	<0.00295	<0.00295	<0.00295	<0.00295	<0.00295	<0.00295	<0.00295
Phenanthrene	µg/l			ALS	<0.00715	<0.00715	<0.00715	<0.00715	<0.00715	<0.00715	<0.00715
Anthracene	µg/l			ALS							
Fluoroathene	µg/l			ALS	<0.00450	<0.00450	<0.00450	<0.00450	<0.00450	<0.00450	<0.00450
Pyrene	µg/l			ALS	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250
Benz(a)anthracene	µg/l			ALS	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310
Chrysene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/l	3		ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(123-cd)pyrene	µg/l	100		ALS	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sum PAH 16 (EPA)	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Well V-13, Myllulækur	Well V-05, Jadar area	Well VK-05, Vatnsenda-krikar	Arbaer Dam	Well V-03 Jadar area	Well V-14 Myllulækur	Well VK-01, Vatnsenda-krikar
Sum PAH cancerogene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH other	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH 4	µg/l	10	(2)	ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH L	µg/l	10	(2)	ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH M	µg/l	0.5		ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH H	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tribromomethane	µg/l			ALS	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/l			ALS	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bromodichloromethane	µg/l			ALS	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sum trihalomethane	µg/l			ALS	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Cyanide (CN total)	µg/l	1.0		ALS	<0.005	<0.005	<0.005	<0.005	<0.0010	<0.0010	<0.0010

Commentary:

(1) Adequate for consumption and no uncharacteristic changes

(2) Maximum value for sum of trichloroethane and tetrachloroethene

(3) Maximum value in older Icelandic regulations 319/1995 (void)

(4) Maximum value not in Icelandic regulations

(5) Maximum value for the sum of the following substances: benzo(b)fluoranthene, benzo(k) fluoranthene, benzo(ghi)perylene, indeno(123cd)pyrene

Laboratories:

MATÍS: Matís ohf, Research laboratory

ALS: ALS Scandinavia AB (Sweden)

Microbes and chemical composition of potable water in West and South Iceland in 2024

Local health departments in each area regularly collect samples to monitor the quality of water. Samples are also collected for complete chemical composition and microbial analysis.

Microbe analysis

Microbial properties	Unit	Max. recommended value	Lab	Akranes	Grabrok	Grundarfjörður	Reykholtsdalur	Stykkisholmur	Hellisheidi	Nesjavellir
Total number of microbes	Number			8	6	4	5	15	3	1
Total microbes 22°C	Average	100/ml	MATÍS	3.9	1.3	0.25	1	4.2	0	0
	Highest value	100/ml	MATÍS	17	7	1	4	15	0	0
	Lowest value	100/ml	MATÍS	0	0	0	0	0	0	0
Escherichia coli (E. Coli)	Average	0/100 ml	MATÍS	0.25	0	0	0	0	0	0
	Highest value	0/100 ml	MATÍS	2	0	0	0	0	0	0
	Lowest value	0/100 ml	MATÍS	0	0	0	0	0	0	0
Enterococci	Average	0/100 ml	MATÍS	0.25	0	0	0	0.2	0	0
	Highest value	0/100 ml	MATÍS	2	0	0	0	1	0	0
	Lowest value	0/100 ml	MATÍS	0	0	0	0	0	0	0

Chemical composition of potable water

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Akranes	Grabrok	Grundarfjörður	Reykholtisdalur	Stykkisholmur	Hellisheidi	Nesjavellir
Sample no.					R24018130006	R24002450002	R24002620004	R24007120001	R24002620002	R24030220002	R24030220001
Date					8.8.2024	6.2.2024	7.2.2024	9.4.2024	7.2.2024	11.12.2024	11.12.2024
Colour of sample	mgPt/l			ALS	11.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Turbidity	NTU	adequate	(1)	MATÍS		0.14	0.46	0.24	0.12		
Temperature	°C	25		MATÍS	6.40	3.40	4.90	2.40	2.90	7.50	7.20
Acidity (pH)	pH			MATÍS	7.70	8.52	8.05	8.45	8.40	8.44	8.66
Conductivity	µS/cm	2,500		MATÍS	141.6	94.12	73.7	94.61	66.14	97.79	112.20
Chloride (Cl)	mg/l	250		ALS	16.8	13.7	10.1	8.64	8.51	7.4	7.19
Sulphate (SO4)	mg/l	250		ALS	<5.00	<4.0	<5.00	<5.00	<5.00	<5.00	<5.00
Fluoride (F)	mg/l	1.5		ALS	<0.200	<0.10	<0.200	<0.200	<0.200	<0.200	<0.200
Nitrate (NO3)	mg/l	50		ALS	0.292	0.22	0.434	0.0221	0.664	0.177	0.177
Nitrite (NO2)	mg/l	0.5		ALS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ammonium (NH4-N)	mg/l	0.5		ALS	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
TOC	mg/l	no abnormal changes		ALS	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Calcium (Ca)	mg/l	100	(3)	ALS	8.08	3.95	3.01	4.28	2.1	4.83	5.11
Iron (Fe)	mg/l	0.2		ALS	0.00205	0.00165	0.00765	0.00163	0.00142	<0.0004	<0.0004
Potassium (K)	mg/l	12	(3)	ALS	0.417	<0.4	0.583	<0.4	0.626	0.868	0.884
Magnesium (Mg)	mg/l	50	(3)	ALS	2.74	1.68	1.55	2.13	1.38	2.7	2.21
Sodium (Na)	mg/l	200		ALS	13.7	8.17	5.76	9.18	5.71	6.36	10.2
Sulphur (S)	mg/l		(4)	ALS	1.43	0.711	0.551	0.505	0.488	1.05	1.23
Silica (Si)	mg/l		(4)	ALS	8.53	4.05	4.36	6.87	5.01	10.5	7.52
Aluminium (Al)	µg/l	200		ALS	2.29	1.39	0.629	0.904	3.34	1.08	13.7
Arsenic (As)	µg/l	10		ALS	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.252

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Akranes	Grabrok	Grundarfjörður	Reykholtsdalur	Stykkisholmur	Hellisheidi	Nesjavellir
Boron (B)	µg/l	1.000		ALS	<10	<10	<10	<10	<10	<10	16.8
Barium (Ba)	µg/l	700	(3)	ALS	0.0381	0.432	0.863	0.025	0.533	0.578	0.201
Cadmium (Cd)	µg/l	5.0		ALS	<0.002	<0.002	0.00508	<0.002	0.0101	<0.002	<0.002
Cobalt (Co)	µg/l		(4)	ALS	0.007	0.0061	0.0661	<0.005	<0.005	<0.005	<0.005
Chromium (Cr)	µg/l	50		ALS	0.57	0.0246	0.485	0.608	0.182	0.524	0.946
Copper (Cu)	µg/l	2,000		ALS	0.219	1.83	1.54	0.557	0.421	2.02	0.533
Mercury (Hg)	µg/l	1.0		ALS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese (Mn)	µg/l	50		ALS	0.303	0.125	0.327	0.0617	0.246	<0.03	0.0436
Molybdenum (Mo)	µg/l		(4)	ALS	0.0683	0.262	0.16	0.0693	0.302	0.17	0.236
Nickel (Ni)	µg/l	20		ALS	<0.05	0.175	1.65	0.107	0.308	0.0586	0.0748
Phosphorus (P)	µg/l	5,000	(3)	ALS	24.7	2.27	8.63	2.32	50.2	51.4	32.8
Lead (Pb)	µg/l	10		ALS	0.041	0.125	0.764	0.0941	0.0188	0.0813	0.0179
Antimon (Sb)	µg/l	5.0		ALS	<0.01	0.0192	<0.01	<0.01	0.0132	<0.01	0.0167
Selen (Se)	µg/l	10		ALS	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.47
Strontium (Sr)	µg/l		(4)	ALS	2.24	10.5	13.1	6.14	9	11	7.82
Sink (Zn)	µg/l	3,000	(3)	ALS	7.07	4.56	18	4.87	5.73	4.28	5.19
Vanadium (V)	µg/l			ALS	4.53	0.414	0.456	3.25	18.2	9.26	21.3
Benzene	µg/l	1.0		ALS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	µg/l			ALS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	µg/l			ALS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-xylene	µg/l			ALS							
o-xylene	µg/l			ALS							
Sum xylene	µg/l			ALS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichloromethane	µg/l			ALS	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
1,1 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trans 1,2 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Akranes	Grabrok	Grundarfjörður	Reykholtsdalur	Stykkisholmur	Hellisheidi	Nesjavellir
Cis 1,2 - dichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2 - dichloropropane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichloromethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloromethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1 - trichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2 - trichloroethane	µg/l			ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichloroethane	µg/l	0.1	(5)	ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethane	µg/l	0.1	(5)	ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl chloride	µg/l	0.01		ALS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1 - dichloroethane	µg/l			ALS	<0.00060	<0.00060	<0.00060	<0.00060	<0.00060	<0.00060	<0.00060
Naphtalen	µg/l	0.1	(5)	ALS	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Acenaphthylene	µg/l		(5)	ALS	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Acenaphtene	µg/l			ALS	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101
Fluorene	µg/l			ALS	<0.00295	<0.00295	<0.00295	<0.00295	<0.00295	<0.00295	<0.00295
Phenanthrene	µg/l			ALS	<0.00715	<0.00715	<0.00715	<0.00715	<0.00715	<0.00715	<0.00715
Anthracene	µg/l			ALS							
Fluoroathene	µg/l			ALS	<0.00450	<0.00450	<0.00450	<0.00450	<0.00450	<0.00450	<0.00450
Pyrene	µg/l			ALS	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250	<0.00250
Benz(a)anthracene	µg/l			ALS	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310	<0.00310
Chrysene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/l	3		ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(123-cd)pyrene	µg/l	100		ALS	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sum PAH 16 (EPA)	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Physiological and chemical properties	Unit	Max. recommended value	Sk.	Lab	Akranes	Grabrok	Grundarfjörður	Reykholtsdalur	Stykkisholmur	Hellisheidi	Nesjavellir
Sum PAH cancerogene	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH other	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH 4	µg/l	10	(2)	ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH L	µg/l	10	(2)	ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH M	µg/l	0.5		ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sum PAH H	µg/l			ALS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tribromomethane	µg/l			ALS	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/l			ALS	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bromodichloromethane	µg/l			ALS	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sum trihalomethane	µg/l			ALS	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Cyanide (CN total)	mgPt/l			ALS	<0.0010	<0.0010	<0.005	<0.005	<0.005	<0.005	<0.005

Commentary:

(1) Adequate for consumption and no uncharacteristic changes

(2) Maximum value for sum of trichloroethane and tetrachloroethene

(3) Maximum value in older Icelandic regulations 319/1995 (void)

(4) Maximum value not in Icelandic regulations

(5) Maximum value for the sum of the following substances: benzo(b)fluoranthene, benzo(k) fluoranthene, benzo(ghi)perylene, indeno(123cd)pyrene

Laboratories:

MATÍS: Matís ohf, Research laboratory

ALS: ALS Scandinavia AB (Sweden)

Transport of hazardous substances

The quantity of gasoline and sludge transported through the capital area's water protection areas under supervision 2021-2024 is marked by *. Quantity of asbestos transported for landfilling in Fíflholt, West Iceland and sludge in West Iceland for Veitur Utilities. Quantity of gasoline, chlorine and sludge transported for ON Power's geothermal power plants in the Hengill area.

Site	Category	Unit	2021	2022	2023	2024
Nesjavellir power plant	Oil	liters	13,400	2,500	9,700	1,540
Hellisheidi power plant	Oil	liters	2,200			4,700
Bláfjöll, ski area*	Oil	liters	27,000	93,400	100,000	72,400
Ellidavatn, forestry*	Oil	liters	1,700	2,400	2,200	800
Vatnsendakrikar*	Oil	liters				
Construction Heidmork	Oil	liters	2,500		1,400	
Total oil		liters	46,800	98,300	113,300	74,440
Bláfjöll, ski area*	Gasoline	liters	2,000	2,000	3,000	4,200
Total gasoline		liters	2,000	2,000	3,000	4,200
Hellisheidi power plant	Sludge	liters	32,000	15,600	18,900	27,000
Nesjavellir power plant	Sludge	liters	76,000	69,000	72,800	132,000
West Iceland	Sludge	liters	161,000	237,500	210,300	134,100
Ellidavatn, forestry*	Sludge	liters				
Gvendarbrunnar*	Sludge	liters	2,000		1,800	2,000
Vatnsendakrikar*	Sludge	liters				
Water tank T-4*	Sludge	liters			2,000	
Total sludge		liters	271,000	322,100	305,800	295,100
Hellisheidi power plant	Chlorine	liters	14,000	13,000	24,000	16,000
Nesjavellir power plant	Chlorine	liters	11,000	8,000	14,000	7,000
Total chlorine		liters	25,000	21,000	38,000	23,000
West Iceland	Asbestos	kg	120,000	453,200	389,640	305,880
Total asbestos		kg	120,000	453,200	389,640	305,880

* The water protection supervisor escorted 31 transports of hazardous substances in 2024.