

SGS INSTITUT FRESENIUS GmbH P.O.Box D-65220 Taunusstein

CHORTOQ MINERAL WATER
Salomatlik street 115
163003 CHARTAK CITY
USBKISTAN

Test Report 6017816
Order No. 6276281
Customer No. 10160062



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Health & Nutrition, Food
SGS INSTITUT FRESENIUS GmbH
Im Maisel 14
D-65232 Taunusstein

Taunusstein, 13.10.2022

Your order/project: New well water #2222
Your purchase order number: Andrey Belenkov
Your purchase order date: 07.10.2022

Inspection period from 19.07.2022 until 16.08.2022

This (e)Report cancels and supersedes the (e)Report No. 6013504 dated 11.10.2022 issued by SGS INSTITUT FRESENIUS GmbH.
Customer address was corrected

Sample No. 220825265

Chortoq Mineral Water
Raw water - Well head
Birlashgan well No. 2613

Date of receipt: 27.07.2022 Type of receipt sent by you
Date of sampling 19.07.2022 14:30:00 Sampler CUSTOMER

Parameter	Unit	Result	Limit of quantification	Method	Lab Requirements
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Sensory Tests

Smell, sensoric		no smell			
Taste		no strange taste			

Phys.-chem. and phys. Parameters

Water temperature	°C	27,0		DIN 38404-4	
pH-value		7,52		DIN 38404-5	
Conductivity (25°C)	µS/cm	419	3	DIN EN 27888	TS
Redox potential	mV	271		DIN 38404-6	

New well water #2222
Andrey Belenkov

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Sample Chortoq Mineral Water
Continuation Raw water - Well head
Birlashgan well No. 2613

Parameter	Unit	Result	Limit of quant.	Method	Lab Limit value
Cations					
Lithium (Li)	mg/l	< 0,005	0,005	DIN EN ISO 11885	TS
Sodium (Na)	mg/l	23,3	0,1	DIN EN ISO 11885	TS
Potassium (K)	mg/l	1,0	0,1	DIN EN ISO 11885	TS
Ammonium (NH ₄)	mg/l	< 0,02	0,02	DIN EN ISO 11732	TS
Magnesium (Mg)	mg/l	19,1	0,1	DIN EN ISO 11885	TS
Calcium (Ca)	mg/l	37,2	0,1	DIN EN ISO 11885	TS
Barium (Ba)	mg/l	0,047	0,005	DIN EN ISO 11885	TS
Strontium (Sr)	mg/l	0,71	0,005	DIN EN ISO 11885	TS
Manganese (Mn)	mg/l	< 0,005	0,005	DIN EN ISO 11885	TS
Iron (Fe)	mg/l	0,006	0,005	DIN EN ISO 11885	TS
Anions					
Fluoride (F)	mg/l	0,28	0,02	DIN 38405-4	TS
Chloride (Cl)	mg/l	10	1	DIN EN ISO 10304-1	TS
Bromide (Br)	mg/l	0,028	0,005	Inhouse method, IC	TS
Iodide (I) (I)	mg/l	< 0,005	0,005	DIN 38405-33	TS
Nitrite (NO ₂)	mg/l	0,009	0,005	DIN EN 26777	TS
Nitrate (NO ₃)	mg/l	8,2	0,3	DIN EN ISO 10304-1	TS
Sulfate (SO ₄)	mg/l	58	1	DIN EN ISO 10304-1	TS
Hydrogen Phosphate (HPO ₄)	mg/l	< 0,04	0,04	DIN EN ISO 6878	TS
Hydrogencarbonate (HCO ₃)	mg/l	175	3	DEV D8	TS
Carbonate (CO ₃)	mg/l	< 3	3	DEV D8	TS
Sulphur hydride (HS)	mg/l	< 0,005	0,005	DIN 38405-26	TS
Undissociated Substances					
Silicic Acid (H ₂ SiO ₃)	mg/l	23,4	0,3	DIN EN ISO 11885	TS
Boric acid (HBO ₂)	mg/l	0,20	0,08	DIN EN ISO 11885	TS
Total Dissolved Minerals					
Total dissolved minerals	mg/l	356			
Dissolved Gases					
Carbon dioxide (CO ₂)	mg/l	2	2	DEV D8	TS
Hydrogen sulfide (H ₂ S)	mg/l	< 0,005	0,005	DIN 38405-26	TS

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Sample Chortoq Mineral Water
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Birlashgan well No. 2613

Parameter	Unit	Result	Limit of quant.	Method	Lab Limit value
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Inorganic Trace Substances

Aluminium (Al)	mg/l	< 0,005	0,005	DIN EN ISO 17294-2	TS
Antimony (Sb)	mg/l	< 0,001	0,001	DIN EN ISO 17294-2	TS
Arsenic (As)	mg/l	0,002	0,001	DIN EN ISO 17294-2	TS
Beryllium (Be)	mg/l	< 0,0005	0,0005	DIN EN ISO 17294-2	TS
Lead (Pb)	mg/l	< 0,0005	0,0005	DIN EN ISO 17294-2	TS
Boron (B)	mg/l	0,05	0,02	DIN EN ISO 11885	TS
Cadmium (Cd)	mg/l	< 0,0002	0,0002	DIN EN ISO 17294-2	TS
Caesium (Cs)	mg/l	< 0,005	0,005	DIN EN ISO 17294-2	TS
Chromium VI	µg/l	9,9	0,02	EPA 218.7	TS
Chromium (Cr)	mg/l	0,008	0,001	DIN EN ISO 17294-2	TS
Cobalt (Co)	mg/l	< 0,001	0,001	DIN EN ISO 17294-2	TS
Copper (Cu)	mg/l	< 0,001	0,001	DIN EN ISO 17294-2	TS
Molybdenum (Mo)	mg/l	0,002	0,001	DIN EN ISO 17294-2	TS
Nickel (Ni)	mg/l	< 0,001	0,001	DIN EN ISO 17294-2	TS
Mercury (Hg)	mg/l	< 0,0001	0,0001	DIN EN ISO 12846	TS
Rubidium (Rb)	mg/l	< 0,005	0,005	DIN EN ISO 17294-2	TS
Selenium (Se)	mg/l	< 0,001	0,001	DIN EN ISO 17294-2	TS
Silver (Ag)	mg/l	< 0,0005	0,0005	DIN EN ISO 17294-2	TS
Silicon (Si)	mg/l	8,4	0,1	DIN EN ISO 11885	TS
Sulfide (S)	mg/l	< 0,005	0,005	DIN 38405-26	TS
Thallium (Tl)	mg/l	< 0,0002	0,0002	DIN EN ISO 17294-2	TS
Titanium (Ti)	mg/l	< 0,001	0,001	DIN 38406-26	TS
Uranium (U)	mg/l	0,0028	0,0002	DIN EN ISO 17294-2	TS
Vanadium	mg/l	0,002	0,001	DIN EN ISO 17294-2	TS
Zinc (Zn)	mg/l	< 0,005	0,005	DIN EN ISO 11885	TS
Tin (Sn)	mg/l	< 0,001	0,001	DIN EN ISO 17294-2	TS

Group Parameters

DOC	mg/l	0,8	0,2	DIN EN 1484	TS
KMnO ₄ consumption	mg/l	3	1	DIN EN ISO 8467	TS
Oxidizability as O ₂ consumption	mg/l	0,8	0,3	DIN EN ISO 8467	TS
Hydrocarbon-index	mg/l	< 0,1	0,1	DIN EN ISO 9377-2	HE
Spectr. Absorpt. Coefficient at 436 nm	1/m	< 0,05	0,05	DIN EN ISO 7887	TS
Spectr. Absorpt. Coefficient at 254 nm	1/m	0,55	0,05	DIN 38404-3	TS
Cyanides (CN)	mg/l	< 0,005	0,005	DIN EN ISO 14403-2	TS

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Sample Chortoq Mineral Water
Continuation Raw water - Well head
Birlashgan well No. 2613

Parameter	Unit	Result	Limit of quant.	Method	Lab Limit value
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Acenaphthylene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Anthracene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Benzo(a)anthracene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Benzo(b)fluoranthene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Benzo(k)fluoranthene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Benzo(g,h,i)perylene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Benzo(a)pyrene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Chrysene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Dibenzo(a,h)-anthracene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Fluoranthene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Fluorene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Indeno(1,2,3-c,d)pyrene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Methylnaphthalene (1-)	µg/l	< 0,002	0,002	DIN 38407-39	HE
Methylnaphthalene (2-)	µg/l	< 0,002	0,002	DIN 38407-39	HE
Naphthalene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Phenanthrene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Pyrene	µg/l	< 0,002	0,002	DIN 38407-39	HE
Total PAH according to DWO	µg/l	-		DIN 38407-39	HE
Total PAH EPA	µg/l	-		DIN 38407-39	HE
Disinfectants and Byproducts					
Bromate (BrO ₃)	mg/l	< 0,001	0,001	DIN EN ISO 11206:2013-05	TS
Calculated / additional Parameters					
Total Phosphate	mg/l	< 0,04	0,04	DIN EN ISO 6878	TS
Borate (BO ₃)	mg/l	0,27	0,11	DIN EN ISO 11885	TS
Boric acid (H ₃ BO ₃)	mg/l	0,29	0,11	DIN EN ISO 11885	TS
Silicon dioxide (SiO ₂)	mg/l	18,0	0,2	DIN EN ISO 11885	TS
Acid capacity until pH 4,3	mmol/l	2,86	0,05	DIN 38409-7	TS
Acid capacity until pH 8,2	mmol/l	< 0,05	0,05	DIN 38409-7	TS
Sulfide dissolved	mg/l	< 0,005	0,005	DIN 38405-26	TS

Ionic-Balance

Cations:

Parameter	mg/l	meq/l	meq%
Lithium	< 0,005		
Sodium	23,3	1,013	22,60
Potassium	1,0	0,026	0,57
Rubidium (Rb)	< 0,005		
Cesium (Cs)	< 0,005		
Ammonium	< 0,02		
Magnesium	19,1	1,571	35,04
Calcium	37,2	1,856	41,40
Strontium	0,71	0,0162	0,36
Barium	0,047	0,00068	0,02
Manganese	< 0,005		
Iron	0,006	0,00021	< 0,01
total:	81,4	4,484	100

Anions:

Parameter	mg/l	meq/l	meq%
Fluoride	0,28	0,0147	0,33
Chloride	10	0,28	6,26
Bromide	0,028	0,00035	0,01
Iodine	< 0,005		
Nitrite	0,009	0,00020	< 0,01
Nitrate	8,2	0,132	2,94
Sulfate	58	1,21	26,80
Hydrogen Phosphate	< 0,04		
Hydrogencarbonate	175	2,87	63,66
Carbonate	< 3		
Sulphur hydride	< 0,005		
total:	252	4,51	100

The laboratory sites of the SGS group Germany according to the abbreviations mentioned above including the corresponding accreditation process numbers are listed at http://www.institut-fresenius.de/filestore/89/laborstandortkuer_zelsgs.pdf.

SGS INSTITUT FRESENIUS GmbH

i.A. Rebecca Schröter
Customer Service Consultant Beverages

Summary of used test methods:

DEV D8 1971
DIN 38404-3 2005-07

DIN 38404-4	1976-12
DIN 38404-5	2009-07
DIN 38404-6	1984-05
DIN 38405-26	1989-04
DIN 38405-33	2001-02
DIN 38405-4	1985-07
DIN 38406-26	
DIN 38407-39	2011-09
DIN 38409-7	2005-12
DIN EN 1484	1997-08
DIN EN 26777	1993-04
DIN EN 27888	1993-11
DIN EN ISO 10304-1	2009-07
DIN EN ISO 11206:2013-05	
DIN EN ISO 11732	2005-05
DIN EN ISO 11885	2009-09
DIN EN ISO 12846	2012-08
DIN EN ISO 14403-2	2012-10
DIN EN ISO 17294-2	2017-01
DIN EN ISO 6878	2004-09
DIN EN ISO 7887	2012-04
DIN EN ISO 8467	1995-05
DIN EN ISO 9377-2	2001-07
EPA 218.7	
Inhouse method, IC	

*** End of test report ***

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