

City of Belle Fourche Drinking Water Information

(System Information, Sampling Requirements, and Compliance Report)

This system is not a candidate for an award:

Violation

Population Served:	5,594	System Population:	5,594
Certified Operator:	Mr Dirk Hoffman 511 Sixth Ave Belle Fourche, SD 57717	Work Phone:	(605)892-2494
		Home Phone:	
		Cell Phone:	
		Fax:	(605)892-2784
		Email:	pubworks@bellefourche.org
Financial Contact:	Ms Sharon Mins 511 Sixth Ave Belle Fourche, SD 57717	Work Phone:	(605)892-2494
		Home Phone:	
		Cell Phone:	
		Fax:	
		Email:	sharon@bellefourche.org
Other Contacts:	Mayor Gloria Landphere 511 Sixth Ave Belle Fourche, SD 57717	Work Phone:	
		Home Phone:	
		Cell Phone:	
		Fax:	
		Email:	
Last Inspection:	April 23, 2015		
Type of System:	Community	Area Served:	Butte County
Number of Service Connections:	2,343	Contamination Risk:	low
Water Produced And Used By The City of Belle Fourche Public Water System			
PWS Owner Type:	Local Government	Service Area:	Municipality
Contract Laboratory:			Midcontinent Laboratory

Monitoring/Reporting - Entry Point

City of Belle Fourche

EPA ID: 0037

SAMPLING

Entry point: Treat Site - Well #2

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Triennially	No	Sep-15		
	B. Arsenic	Triennially	No	Sep-15		
	C. Barium	Triennially	No	Sep-15		
	D. Beryllium	Triennially	No	Sep-15		
	E. Cadmium	Triennially	No	Sep-15		
	F. Chromium	Triennially	No	Sep-15		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride		No			This system fluoridates
	I. Mercury	Triennially	No	Sep-15		
	J. Nickel	Triennially	No	Sep-15		
	K. Selenium	Triennially	No	Sep-15		
	L. Thallium	Triennially	No	Sep-15		
2	Radiological Chemicals	Every nine years	N/A			
3	VOC Chemicals	Quarterly	No	Feb-17	2017	
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	Apr-17		
	B. Method 524	Triennially	No	Apr-17		
	C. Method 525	Triennially	No	Apr-17		
	D. Method 531.1	Triennially	No	Apr-17		
	E. Method 547	Triennially	No	Apr-17		
	F. Method 548	Triennially	No	Apr-17		
	G. Method 549	Triennially	No	Apr-17		
5	Nitrate	Annually	N/A	Feb-17		
6	Nitrite	Triennially	N/A	Sep-15		

(These values are calculated from available data. Check correspondence for verification.)

Monitoring/Reporting - Entry Point

City of Belle Fourche

EPA ID: 0037

SAMPLING

Entry point: Treat Site - Well #1

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Triennially	No	Sep-15		
	B. Arsenic	Triennially	No	Sep-15		
	C. Barium	Triennially	No	Sep-15		
	D. Beryllium	Triennially	No	Sep-15		
	E. Cadmium	Triennially	No	Sep-15		
	F. Chromium	Triennially	No	Sep-15		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride		No			This system fluoridates
	I. Mercury	Triennially	No	Sep-15		
	J. Nickel	Triennially	No	Sep-15		
	K. Selenium	Triennially	No	Sep-15		
	L. Thallium	Triennially	No	Sep-15		
2	Radiological Chemicals	Every six years	N/A			
3	VOC Chemicals	Quarterly	No	Feb-17	2017	
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	Apr-17		
	B. Method 524	Triennially	No	Apr-17		
	C. Method 525	Triennially	No	Apr-17		
	D. Method 531.1	Triennially	No	Apr-17		
	E. Method 547	Triennially	No	Apr-17		
	F. Method 548	Triennially	No	Apr-17		
	G. Method 549	Triennially	No	Apr-17		
5	Nitrate	Annually	N/A	Feb-17		
6	Nitrite	Triennially	N/A	Sep-15		

(These values are calculated from available data. Check correspondence for verification.)

Monitoring/Reporting - Entry Point

City of Belle Fourche

EPA ID: 0037

SAMPLING

Entry point: Treat Site - Gallery

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Triennially	No	Sep-15		
	B. Arsenic	Triennially	No	Sep-15		
	C. Barium	Triennially	No	Sep-15		
	D. Beryllium	Triennially	No	Sep-15		
	E. Cadmium	Triennially	No	Sep-15		
	F. Chromium	Triennially	No	Sep-15		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride		No			This system fluoridates
	I. Mercury	Triennially	No	Sep-15		
	J. Nickel	Triennially	No	Sep-15		
	K. Selenium	Triennially	No	Sep-15		
	L. Thallium	Triennially	No	Sep-15		
2	Radiological Chemicals	Every nine years	N/A			
3	VOC Chemicals	Quarterly	No	Feb-17	2017	
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	Apr-17		
	B. Method 524	Triennially	No	Apr-17		
	C. Method 525	Triennially	No	Apr-17		
	D. Method 531.1	Triennially	No	Apr-17		
	E. Method 547	Triennially	No	Apr-17		
	F. Method 548	Triennially	No	Apr-17		
	G. Method 549	Triennially	No	Apr-17		
5	Nitrate	Annually	N/A	Feb-17		
6	Nitrite	Triennially	N/A	Sep-15		

(These values are calculated from available data. Check correspondence for verification.)

Bacteriological Monitoring

Bacteriological sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	<u>78</u>
B	Samples required:	<u>Six Samples Each Month.</u>
C	Survey samples:	<u>0</u>
D	Safe samples:	<u>74</u>
E	Unsafe samples:	<u>4</u>
F	Repeat samples:	<u>6</u>
H	Groundwater Samples:	

Lead and Copper Monitoring

(These values are calculated from available data. Check correspondence for verification.)

A	Date Last Tested:	<u>September 20, 2014</u>
B	Samples required:	<u>20</u>
C	Sampling Frequency	<u>Annually</u>
D	Date Due Next	<u>2015</u>
E	Lead - 90% Level	<u>3</u> Action Level - 15 ug/l
F	Copper 90% Level	<u>0.17</u> Action Level - 1.3 mg/l

Disinfectant Residual Monitoring

Residual sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	<u>78</u>
B	Samples required:	<u>Six Samples Each Month.</u>
C	Last Qtr Cl Residual:	<u>0.95</u> mg/l
D	Running Annual Average:	<u>0.59</u> mg/l
E	Date of last DBP test:	<u>August 28, 2017</u>
F	THM - Qtr Average:	<u>1.74</u> ug/l
G	Haa5 - Qtr Average:	<u>0</u> ug/l

Asbestos

A	Date of last test:	<u>Waiver - Testing Not Required</u>
B	Asbestos Result:	<u></u> million fibers per liter

Comments

Violations and Significant Deficiencies

City of Belle Fourche

EPA ID: 0037

Violations From **January 1, 2013** To **January 1, 2018**

Violation Type	Parameter	Date	Status
Follow-up Tap Sample Monitoring Violation	Lead/Copper	10/01/2017	Public Notice Requested

Significant Deficiency	Date Identified	Date Corrected

EPA ID#: 0037 System Name: City of Belle Fourche

Sampler- Mr Dirk Hoffman Work Phone-(605)892-2494
 Title- Public Works Directo
 Address- 511 Sixth Ave
 Belle Fourche SD 57717

Location- City: Belle Fourche County: Butte
 Service Area- Municipality
 PWS Owner Type- Local Government
 Water Supply Type- Groundwater Supply

Population Served- 5,594 Service Connections- 2,343

Sources for Belle Fourche

Source	Name	Year Built	Depth (feet)	Diameter (inches)	Availability	Type	Vulnerability	Treatment
01	TREAT SITE - GALLERY				Permanent	Treatment Plant	Non-Vulnerable	Aeration Disinfection - Gas Chlorine Fluoridation - H2SiF6
02	TREAT SITE - WELL #1				Permanent	Treatment Plant	Non-Vulnerable	Disinfection - Gas Chlorine
03	TREAT SITE - WELL #2				Permanent	Treatment Plant	Non-Vulnerable	Aeration Disinfection - Gas Chlorine Fluoridation - H2SiF6
07	GALLERY	1907	18	8	Permanent	Groundwater	Vulnerable	Treatment At Plant
08	WELL #1	1981	3319	10	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
09	WELL #2	1991	2850	10	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant

EPA ID#: 0037 System Name: City of Belle Fourche

Common Ion Data

(All chemical data are reported in milligrams per liter (mg/l) except pH and Langlier Index)

Please refer to Private Well Data for more information about these test results.

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
01	Raw	06/21/94	382	650	7.45	254	0	3	1.0	96.0	32.0	0.05	0.03	7.0	97	310	0	0	+0.37	0.8	0.20
02	Raw	06/21/94	362	620	7.33	192	0	3	2.0	79.0	34.0	0.05	0.03	1.0	123	234	0	338	+0.05	0.2	1.12
03	Raw	06/21/94	232	450	7.85	230	0	2	1.0	70.0	24.0	0.05	0.03	1.0	11	281	0	274	+0.62	0.1	0.21
01	Raw	06/04/97	352	640	7.90	250	0	4	2.0	82.0	31.0	0.05	0.03	5.0	88	305	0	333	+0.80	0.8	0.20
02	Raw	06/04/97	318	239	8.00	196	0	3	2.0	72.0	34.0	0.05	0.03	1.0	124	239	0	320	+0.70	0.2	1.00
03	Raw	02/02/00	388	665	7.63	278	0	2	2.0	62.0	30.0	0.03	0.01	4.0	98	339	0	280	+0.30	0.2	0.30
02	Raw	02/02/00	218	452	7.63	246	0	1	1.0	49.0	19.0	0.03	0.01	1.0	10	300	0	200	+0.18	0.1	1.20
Averages			322	531	7.68	235	0	3	1.6	72.9	29.1	0.04	0.02	2.9	79	287	0	249		0.4	0.60

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
03	Treated	06/04/97	216	470	7.90	232	0	2	1.0	60.0	22.0	0.05	0.03	2.0	6	283	0	241	+0.60	0.2	1.10
01	Treated	02/02/00	368	597	7.68	210	0	3	1.0	73.0	26.0	0.03	0.01	1.0	126	256	0	290	+0.31	0.9	1.20
02	Treated	11/13/02	381	596	7.92	203	0	3	1.6	64.8	32.7	0.05	0.05	1.3	118	248	0	296	+0.54	0.2	1.15
03	Treated	11/13/02	234	450	7.74	232	0	2	0.9	52.6	23.1	0.05	0.05	2.0	11	283	0	226	+0.32	0.3	1.73
01	Treated	11/13/02	392	630	7.62	265	0	5	1.2	76.8	30.0	0.05	0.05	5.0	71	324	0	293	+0.37	0.6	0.19
02	Treated	06/27/06	391	613	8.04	202	0	3	1.5	61.9	34.6	0.05	0.01	1.0	113	246	0	297	+0.63	0.2	1.14
03	Treated	06/27/06	260	457	8.07	234	0	2	0.6	52.0	23.2	0.05	0.01	1.8	12	285	0	225	+0.65	0.5	1.32
01	Treated	06/27/06	421	656	8.08	250	0	5	1.1	76.8	32.4	0.05	0.01	10.3	78	305	0	325	+0.86	0.8	0.18
03	Treated	10/19/11	249	461	7.64	229	0	5	0.9	49.3	22.1	0.05	0.01	6.6	10	279	0	214	+0.19	0.3	0.91
02	Treated	10/19/11	381	610	7.74	199	0	4	1.7	61.1	33.6	0.05	0.01	1.7	118	243	0	291	+0.32	0.2	1.14
01	Treated	10/19/11	430	704	7.86	262	0	7	1.5	79.2	33.1	0.15	0.01	12.3	99	319	0	334	+0.67	0.9	0.19
Averages			338	568	7.84	229	0	4	1.2	64.3	28.4	0.06	0.02	4.1	69	279	0	276		0.5	0.93

You can contact us by calling
(605)892-2494 or write us at
511 Sixth Ave
Belle Fourche SD 57717

City of Belle Fourche

2017 Drinking Water Report

It's your tap water!



EPA ID: 0037



Water Quality

Last year, the City of Belle Fourche monitored your drinking water for possible contaminants. This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.

Water Source

We serve more than 5,594 customers an average of 1,012,000 gallons of water per day. Our water is groundwater that we produce from local wells. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Belle Fourche public water supply system is low.

For more information about your water and information on opportunities to participate in public meetings, call (605)892-2494 and ask for Sharon Mins.

Additional Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants can be obtained by calling the Environment Protection Agency's Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Belle Fourche public water supply system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Detected Contaminants

The attached table lists all the drinking water contaminants that we detected during the 2017 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2017. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Violations

Your system had violations in 2017 and this report is being used as a public notice. Although these incidences were not an emergency, as customers, you have the right to know what happened and what we did to correct the situation. An alternative water supply was never needed and there is nothing you need to do at this time.

Information concerning these violations can be found on the attached Table of Violations. For additional information concerning any violation, please contact us. Please share this information with all the people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and business). You can do this by posting this notice in a public place or distributing copies by hand or by mail.

2017 Table of Detected Contaminants For Belle Fourche (EPA ID 0037)

Terms and abbreviations used in this table:

- * **Maximum Contaminant Level Goal(MCLG):** the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- * **Maximum Contaminant Level(MCL):** the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- * **Action Level(AL):** the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.
- * **Treatment Technique(TT):** A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU
- * **Running Annual Average(RAA):** Compliance is calculated using the running annual average of samples from designated monitoring locations.

Units:

- *MFL: million fibers per liter
- *mrem/year: millirems per year(a measure of radiation absorbed by the body)
- *NTU: Nephelometric Turbidity Units
- *pCi/l: picocuries per liter(a measure of radioactivity)
- *ppm: parts per million, or milligrams per liter(mg/l)
- *ppb: parts per billion, or micrograms per liter(ug/l)
- *ppt: parts per trillion, or nanograms per liter
- *ppq: parts per quadrillion, or picograms per liter
- *pspm: positive samples per month

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.2	0	07/24/14	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	3	0	09/19/14	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Alpha emitters	5	ND - 5	09/08/14	15	0	pCi/l	Erosion of natural deposits.
Barium	0.043	0.118 - 0.043	09/24/15	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	2.42	0.21 - 2.42	11/27/17	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Selenium	5	ND - 5	09/24/15	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Total Coliform Bacteria	3	positive samples		5%	0	pspm	Naturally present in the environment.
Total trihalomethanes (RAA)	3.48		08/28/17	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.

Please direct questions regarding this information to Mr Dirk Hoffman with the Belle Fourche public water system at (605)892-2494.

2017 Information on Violations For Belle Fourche (EPA ID 0037)

(This Drinking Water Report can be used as a Tier III Public Notice if distributed to each customer within 12 months of when the system was notified of the violation.)

Violation Type	Parameter	Date System Notified	Duration In Months	Health Effects Language	Action Taken By Your System
Follow-up Tap Sample Monitoring Violation	Lead/Copper	10/27/17		We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. Since we did not monitor for these contaminants we cannot be sure of the quality of the drinking water.	Corrective action taken by your system: <input checked="" type="checkbox"/> We have since completed the required compliance measures. <input type="checkbox"/> We have taken additional measures within the water system administration to be sure that samples are taken properly in the future. <input type="checkbox"/> The proper number of samples was taken in the following month and we are now back in compliance with the sampling regulations. <input type="checkbox"/> Other(specify)_____

For additional information concerning any violation please contact Mr Dirk Hoffman with the Belle Fourche public water system at (605)892-2494.