



CITY OF POLSON, MT 2016 CCR REPORT

Water Quality Consumer Confidence Report



Polson Water and Sewer Projects in 2016

Improvements on municipal water and sewer lines were carried out in several areas of the city in 2016. The center addition project replaced 3 ½ blocks of sewer main. The pipe will be replaced at a lower grade helping to repair sewer flow issues in the area. In addition to sewer improvements, the center addition project also carried out maintenance on some city water lines which had to be moved during the project.

In 2016 the new waste water treatment plant continued through its preliminary design phase. The lagoon areas were beginning to see some change as operators prepared for full construction slated for 2017. The new waste water treatment plant will bring Polson up to current waste water treatment standards, and provide a cleaner effluent discharge benefitting the Flathead River.

The 2016 Annual Water Quality Report is for the period of January 1 to December 31, 2016. This report is intended to provide you with important information about your drinking water and the efforts made by the Polson Water & Sewer department to provide safe drinking water.

We encourage public participation in decisions that may affect the quality of Polson`s water. Please attend regular Polson City Commission meetings to stay informed on current issues. Commission meetings occur the first and third Monday of every month.

-Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.



Annual Drinking Water Quality Report

POLSON CITY OF (PUBLIC WATER SYSTEM IDENTIFIER)

MT0000308

Annual Water Quality Report for the period of January 1 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by POLSON CITY OF is **Ground Water**

For more information regarding this report contact:

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Phone (406) 883-8202

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Source of Drinking Water

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, in some cases, radioactive material, 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

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.

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 are available from the 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. We 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>.

<http://sdwisdww.mt.gov:8080/DWW/>

Drinking Water Watch provides online water testing data for Montana public water supply systems.

Table 4
Source Well Information for City of Polson Public Water System (#00308)
Valley-Fill Aquifer Wells

Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4	Well No. 5
PWS Source Code	004	003	005	006	007
Well Location (T, R, Sec or lat, long)	SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 2, T22N R20W	NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 10, T22N R20W	NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 10, T22N R20W	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 10, T22N R20W	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 10, T22N R20W
MBMG #	76955	76956	76957	NA	NA
Water Right #	214453-76LJ	148956-76LJ	148956-76LJ	099791-76LJ	099791-76LJ

Source Water Name	Type of Water	Report Status	Location
WELL 2 1960 UPPER BOOSTER STATION	GW	IN	UPPER BOOSTER STATION BLDG 15 AVE E POLSON
WELL 3 1976 DOWNHILL FRM BOOSTER	GW	DOWN HILL FROM	UPPER BOOSTER STATION BLDG 15TH AVE EPOLSON
WELL 4 2000 MAR AT RESERVOIR 1920	GW	NE 1/4 SEC 11 T 22N R 20E	
WELL 5 2000 APR AT RESERVOIR 1920	GW	NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 10,	T22N R20W
WELL 6 1999 AIRPORT WELL	GW	S05, T22 N, R20 W, TRS IN	NE4 & NW4SE4, Irvine flats rd
WELL 7 2001 AIRPORT	GW	S05, T22 N, R20 W, TRS IN	NE4 & NW4SE4, Irvine flats rd

Lead and Copper

Definitions:
 Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/27/2014	1.3	1.3	0.15	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/27/2014	0	15	2	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.



Workers installing new sewer lines and manhole.
 Center Addition Project 2016

General Description of the Source Water

Source water for the City of Polson Municipal Water Supply is groundwater from seven wells. Wells No. 1 through 5 derive groundwater from a confined unconsolidated to semi-consolidated valley-fill aquifer, whereas Wells No. 6 and 7 obtain water from a confined bedrock aquifer. Source water protection areas are divided into zones or regions per the amount of time water takes to reach the water supply intake. Intakes for the Polson water supply are the water supply wells. Source water protection areas for groundwater-based systems, in order of increasing size and time of travel to intakes are the control zone, inventory region, and recharge region. (Source Water Delineation and Assessment Report,2002)



Violation No.	Status	Violation Type	Violation Name	Analyte Code	Analyte Name	Water System Facility State Asgn ID	Water System Facility Name
2016-5352427	V	MS	STATE CHLORINE MONITORING DAILY	0999	CHLORINE	TP006	TREATMENT PLANT 6 FOR WELLS 6 7

The chlorine sample was not submitted on time to the DEQ
Action Taken: Generated public notices, displayed them at City hall and Post office.

Water Quality Test Result definitions

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Avg: Regulatory compliance with some MCLs (Maximum Contaminant Levels) are based on running annual average of monthly samples.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

(Maximum Contaminant Level) or 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.

(Maximum Contaminant Level Goal) or 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 residual disinfectant level) or MRDL:

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

mrem: millirems per year (a measure of radiation absorbed by the body)

na: not applicable.

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Hydrogeologic Conditions

Hydrogeologic conditions are markedly different between the area east of the Flathead River (Wells No. 1, 2, 3, 4, and 5) and the area west of the Flathead River (Wells No. 6 and 7). The area east of the river is predominately unconsolidated to semi-consolidated valley-fill deposits (sand and gravel with varying amounts of silt and clay, cemented or lithified in places) whereas the area west of the river consists of a fractured bedrock aquifer that is overlain by a thin layer of lake deposits (varved clay and silt). Because of the differences between the areas, hydrogeologic conditions and delineation of source water protection zones for the eastern and western areas are discussed separately in this report. (Source Water Delineation and Assessment Report, 2002)

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2016	0.6	0.4 - 0.6	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2016	0.79	0 - 0.79	No goal for the total	60	ppb	N	By-product of drinking water disinfection
Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future								
Haloacetic Acids (HAA5)	2016	0.79	0 - 0.79	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future								
Haloacetic Acids (HAA5)*	2016	0.79	0 - 0.79	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future								
Total Trihalomethanes (TTHM)	2016	6.3	0 - 6.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection
Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future								
Total Trihalomethanes (TTHM)	2016	6.3	0 - 6.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future								
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2016	0.22	0.22 - 0.22	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2016	0.12	0.12 - 0.12	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2016	4	0.21 - 4.46	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2016	2.9	1.4 - 2.9	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2016	8.9	0 - 8.9	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2016	3	3 - 3	0	30	ug/l	N	Erosion of natural deposits.

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Xylenes	2016	0.001	0 - 0.001	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.

**The link below will open a page with the complete City of Polson Public Water System
Source Water Delineation and
Assessment Report**

<http://deq.mt.gov/Portals/112/Water/WPB/NRISReports/MT0000308.pdf>

City of Polson

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