



Annual Drinking Water Quality Report
CITY OF RAWLINS WATER SYSTEM
2016

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We currently have three water sources. Our primary source is a collection of springs in the Sage Creek Basin approximately thirty miles south of the City. Our secondary sources are three wells into the Nugget Formation near Miller Hill, also south of the City, and the North Platte River.

If you have any questions about this report or concerning your water utility, please contact Daniel Rodriguez, water plant Supervisor at 307-328-4564. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled City Council meetings. They are held on the first and third Tuesday of the month at 7:30 PM in the City Council Chambers, City Hall, 521 Cedar Street, Rawlins, WY 82301.

The City of Rawlins routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2016. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In order to insure that tap water is safe to drink, EPA establishes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration establishes limits for contaminants found in bottled water.

TEST RESULTS TABLE

In this table you will find many terms and abbreviations that might not be familiar to you. To help you better understand these terms we've provided the following definitions:

Not Applicable (NA) – Not required to test for this item every year.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Million Fibers per Liter (MFL) – million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is 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 - The “Goal”(MCLG) is 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 (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 (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.

We test for a total of 75 contaminants. Those, which were undetected, are not included in the table, but a list is available upon request.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria	N	0	sat/unsat	0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	N	0	sat/unsat	0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
3. Turbidity	N	1.00	NTU	n/a	TT	Soil runoff
Radioactive Contaminants						
4. Beta/photon emitters	N	NA	mrem/yr	0	4	Decay of natural and man-made deposits
5. Alpha emitters	N	NA	pCi/l	0	15	Erosion of natural deposits
5b. Gross Alpha Including Radium	N	NA	pCi/l	0	15	Erosion of natural deposits
6. Combined radium	N	NA	pCi/l	0	5	Erosion of natural deposits
7. Uranium ¹	N	NA	µg/L	0 ¹	30 ¹	Erosion of natural deposits
Inorganic Contaminants						
8. Antimony	N	ND	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
9. Arsenic ²	N	.006	ppb	n/a ²	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
10. Asbestos	N	ND	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits

11. Barium	N	ND	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
12. Beryllium	N	ND	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
13. Cadmium	N	ND	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
14. Chromium	N	ND	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
15. Copper	N	NA	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Cyanide	N	ND	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
17. Fluoride	N	.1	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
18. Lead	N	NA	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
19. Mercury (inorganic)	N	ND	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
20. Nitrate (as Nitrogen)	N	.1	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
21. Nitrite (as Nitrogen)	N	.2	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
22. Selenium	N	.009	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
23. Thallium	N	ND	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides						
24. 2,4-D	N	ND	ppb	70	70	Runoff from herbicide used on row crops
25. 2,4,5-TP (Silvex)	N	ND	ppb	50	50	Residue of banned herbicide
26. Acrylamide	N	ND		0	TT	Added to water during sewage/wastewater treatment
27. Alachlor	N	ND	ppb	0	2	Runoff from herbicide used on row crops
28. Atrazine	N	ND	ppb	3	3	Runoff from herbicide used on row crops
29. Benzo(a)pyrene (PAH)	N	ND	nanograms/l	0	200	Leaching from linings of water storage tanks and distribution lines
30. Carbofuran	N	ND	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
31. Chlordane	N	ND	ppb	0	2	Residue of banned termiticide
32. Dalapon	N	ND	ppb	200	200	Runoff from herbicide used on rights of way
33. Di(2-ethylhexyl) adipate	N	ND	ppb	400	400	Discharge from chemical factories
34. Di(2-ethylhexyl) phthalate	N	ND	ppb	0	6	Discharge from rubber and chemical factories

35. Dibromochloropropane	N	ND	nanograms/l	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
36. Dinoseb	N	ND	ppb	7	7	Runoff from herbicide used on soybeans and vegetables
37. Diquat	N	NA	ppb	20	20	Runoff from herbicide use
38. Dioxin [2,3,7,8-TCDD]	N	NA	picograms/l	0	30	Emissions from waste incineration and other combustion; discharge from chemical factories
39. Endothall	N	NA	ppb	100	100	Runoff from herbicide use
40. Endrin	N	ND	ppb	2	2	Residue of banned insecticide
41. Epichlorohydrin	N	NA		0	TT	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
42. Ethylene dibromide	N	NA	nanograms/l	0	50	Discharge from petroleum refineries
43. Glyphosate	N	NA	ppb	700	700	Runoff from herbicide use
44. Heptachlor	N	ND	nanograms/l	0	400	Residue of banned termiticide
45. Heptachlor epoxide	N	ND	nanograms/l	0	200	Breakdown of heptachlor
46. Hexachlorobenzene	N	ND	ppb	0	1	Discharge from metal refineries and agricultural chemical factories
47. Hexachlorocyclopentadiene	N	ND	ppb	50	50	Discharge from chemical factories
48. Lindane	N	NA	nanograms/l	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
49. Methoxychlor	N	ND	ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
50. Oxamyl [Vydate]	N	ND	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
51. PCBs [Polychlorinated biphenyls]	N	NA	nanograms/l	0	500	Runoff from landfills; discharge of waste chemicals
52. Pentachlorophenol	N	ND	ppb	0	1	Discharge from wood preserving factories
53. Picloram	N	ND	ppb	500	500	Herbicide runoff
54. Simazine	N	ND	ppb	4	4	Herbicide runoff
55. Toxaphene	N	ND	ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants						
56. Benzene	N	ND	ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
57. Carbon tetrachloride	N	ND	ppb	0	5	Discharge from chemical plants and other industrial activities
58. 1,2 - Dichloroethane	N	ND	ppb	0	5	Discharge from industrial chemical factories
59. 1,1 - Dichloroethylene	N	ND	ppb	7	7	Discharge from industrial chemical factories
60. cis-1,2-Dichloroethylene	N	ND	ppb	70	70	Discharge from industrial chemical factories
61. trans - 1,2 - Dichloroethylene	N	ND	ppb	100	100	Discharge from industrial chemical factories
62. Dichloromethane	N	ND	ppb	0	5	Discharge from pharmaceutical and chemical factories

63. 1,2-Dichloropropane	N	ND	ppb	0	5	Discharge from industrial chemical factories
64. Ethylbenzene	N	ND	ppb	700	700	Discharge from petroleum refineries
65. Styrene	N	ND	ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
66. Tetrachloroethylene	N	ND	ppb	0	5	Discharge from factories and dry cleaners
67. 1,2,4 -Trichlorobenzene	N	ND	ppb	70	70	Discharge from textile-finishing factories
68. 1,1,1 - Trichloroethane	N	ND	ppb	200	200	Discharge from metal degreasing sites and other factories
69. 1,1,2 -Trichloroethane	N	ND	ppb	3	5	Discharge from industrial chemical factories
70. Trichloroethylene	N	ND	ppb	0	5	Discharge from metal degreasing sites and other factories
71. TTHM [Total trihalomethanes]	N	9.1	ppb	0	80	By-product of drinking water chlorination
72. Toluene	N	ND	ppm	1	1	Discharge from petroleum factories
73. Vinyl Chloride	N	ND	ppb	0	2	Leaching from PVC piping; discharge from plastics factories
74. Xylenes	N	ND	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories
75. Haloacetic acids	N	2.0	ppb	0	60	By-product of drinking water chlorination

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 the water poses a health risk. For more information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Total Coliform: Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified

and removed, replaced or reduced.

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. [Name of utility] 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 drinking 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>.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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.

We at the City of Rawlins Utilities and Treatment Systems, work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.