



2009 Water Quality Report PWS 11-136

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Spanish (Español): Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo o hable con alguien que lo entienda bien.

We are pleased to present to you this past year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

Information About Drinking Water: 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. 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 of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

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 that 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** that 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 byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, that 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, the Arizona Department of Environmental Quality ("ADEQ") prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Source of Water: Groundwater is the sole source of water for PWS 11-136 and it is within the Pinal Active Management Area. Please contact us at (480) 987-9870 to learn more about what you can do to help protect your drinking water sources, any questions about the annual drinking water quality report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Health Effects Information:

Nitrate in drinking water at levels above 10 ppm is a potential health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detect nitrate levels above 5 ppm, you should ask advice from your health care provider. If **arsenic** is less than the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Water Quality Data:

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The State of Arizona 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, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.

These tables show the results of our monitoring for the period of January 1 to December 31, 2009, unless otherwise noted.

Microbiological Contaminants							
Contaminant	MCL	MCLG	Unit	Result	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Total Coliform Bacteria for Systems that collects <40 samples per month	No more than 1 positive monthly sample.	0	Absent or Present	Absent	No	Monthly 2009	Naturally present in the environment

Radionuclides							
Contaminant	MCL	MCLG	Units	Level Detected/Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Gross Alpha	15	0	pCi/l	3.2 – 6.1	No	2008	Decay of natural and man-made deposits
Combined Radium	5	0	pCi/l	0	No	2008	Erosion of natural deposits

Lead and Copper

Contaminant	AL	ALG	Units	90 th Percentile	Number of Sites over AL	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Copper	1.3	1.3	ppm	.06	0	No	2009	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	15	0	ppb	2.8	0	No	2009	Corrosion of household plumbing systems, erosion of natural deposits

Disinfectants

	MRDL	MRDLG	Units	Level Detected/ Range	Violation (Yes or No)	Sample Date/Year	Source
Chlorine	4	4	ppm	0.22 – 1.55	No	2009	Water additive used to control microbes

Inorganic Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Arsenic	10	0	ppb	2	No	2008	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2	2	ppm	0.011	No	2008	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	100	100	ppb	2	No	2008	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	4	4	ppm	0.46	No	2008	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	10	10	ppm	5.4 – 5.9	No	2009	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Secondary Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/Range	Violation (Yes or No)	Sample Date	Reason for Monitoring
Sodium	N/A	N/A	ppm	130	N/A	2008	Required for suppliers of water

Stage 1 Disinfection Byproducts

Contaminant	MCL	MCLG	Units	Average	Range	Highest RAA	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Haloacetic Acids (HAA5)	60	N/A	ppb	<2	<2	<2	No	2009	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	80	N/A	ppb	1.6	1.6 – 4.3	3.0	No	2009	By-product of drinking water disinfection

Stage 2 Disinfectants and Disinfection Byproducts Rule

Stage 2 DBP Rule requires some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBP Rule compliance. The following table summarizes the individual sample results for the IDSE monitoring in 2009:

Contaminant	Number of Analyses	Units	Minimum Level Detected	Highest Level Detected
Haloacetic Acids (HAA5)	8	ppb	0	2.3
Total Trihalomethanes (TTHM)	8	ppb	0	7.2

Terms and Abbreviations:

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- **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 (µg/L):** One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Picocuries per liter (pCi/L):** Picocuries per liter is a measure of the radioactivity in water.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Action Level Goal (ALG):** The “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a margin of safety.
- **Maximum Contaminant Level Goal (MCLG):** The “Goal” 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 Contaminant Level (MCL):** The “Maximum Allowed” 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 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.
- **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.
- **Running Annual Average (RAA):** An average of monitoring results for the previous 12 calendar months.



Water Conservation: Think you’ve done everything possible to save water but still looking for ways to do more? Are you a “gadget person” who likes to tinker with technology, from the simple to the complex? You might be surprised to learn that there’s even more ways to save water by looking into new technologies. The Water – Use It Wisely Web site, www.wateruseitwisely.com has a listing of innovative technologies that can help you conserve water and ultimately save money.