# *ARIZONA WATER COMPANY*

## – 2009 ANNUAL WATER QUALITY REPORT FOR SAN MANUEL, ARIZONA, PWSID #11-020 –

This report contains important information about your drinking water. *Este informe contiene información muy importante sobre su agua beber.* Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Arizona Water Company provides groundwater to its San Manuel customers from water purchased from BHP. ***The water supplied by the Company meets all state and federal safe drinking water standards.***

The data in the accompanying tables are from water samples that have been analyzed by independent laboratories, which are certified by the Arizona Department of Health Services.

DETECTED WATER QUALITY CONSTITUENTS

| Water Quality Constituent | Units | MCLG | MCL | Highest Level Detected | Range of Levels Detected | Sample Year | Likely Source of Detected Constituent ** |
|---|---|---|---|---|---|---|---|
| **Inorganics** | | | | | | | |
| 1. Arsenic | ppb | 0 | 10 | 6.7 | 5.3 - 6.7 * | 2009 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| 2. Barium | ppm | 2 | 2 | 0.021 | 0.021 | 2009 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| 3. Chromium | ppb | 100 | 100 | 6.7 | 6.7 | 2009 | Discharge from steel and pulp mills; erosion of natural deposits |
| 4. Fluoride | ppm | 4 | 4 | 2.2 | 1.7 - 2.2 | 2005 & 2006 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| 5. Nitrate (as Nitrogen) | ppm | 10 | 10 | 0.9 | 0.9 | 2009 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| 6. Selenium | ppb | 50 | 50 | 7.8 | 7.8 | 2009 | Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines |
| **Radionuclides** | | | | | | | |
| 7. Alpha Emitters | pCi/L | 0 | 15 | 6.5 | 6.5 * | 2009 | Erosion of natural deposits |
| **Disinfectants and Disinfection Byproducts** | | | | | | | |
| Water Quality Constituent | Units | MRDLG | MRDL | Average Level Detected | Range of Levels Detected | Sample Year | Likely Source of Detected Constituent ** |
| 8. Chlorine | ppm | 4 | 4 | 0.67 | 0.43 - 1.04 * | 2009 | Water additive used to control microbes |
| Water Quality Constituent | Units | MCLG | MCL | Average Level Detected | Range of Levels Detected | Sample Year | Likely Source of Detected Constituent ** |
| 9. Haloacetic Acids (five) | ppb | n/a | 60 | 2 | 2 * | 2009 | Byproduct of drinking water disinfection |
| 10.Total Trihalomethanes | ppb | n/a | 80 | 9 | 9 * | 2009 | Byproduct of drinking water chlorination |
| **Unregulated Synthetic Organics, Unregulated Volatile Organics, and Other Unregulated Constituents** | | | | | | | |
| Water Quality Constituent | Units | Average Level Detected | | | Range of Levels Detected | Sample Year | Likely Source of Detected Constituent ** |
| 11. Nickel | ppb | 2.8 | | | 1.9 - 3.8 | 2005 | Unknown |
| 12. Sodium | ppm | 110 | | | 110 | 2006 | Unknown |
| 13. Sulfate | ppm | 246 | | | 220 - 280 | 2005 | Unknown |
| **Constituents Subject to an Action Level** | | | | | | | |
| Water Quality Constituent | Units | Action Level | $90^{th}$ Percentile of Sample Results | Number of Samples That Exceeded the Action Level | | Sample Year | Likely Source of Detected Constituent ** |
| 14. Copper | ppm | 1.3 | 0.055 | 0 * | | 2007 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |

** The Company took samples in the San Manuel system. The other samples were taken by the state at BHP sources.*

*** Sources of constituents are unknown, but are generally believed to be resulting from those sources listed.*

In addition to the water quality constituents listed in the above table, Arizona Water Company's water supplies were tested for the following constituents and such constituents were **not detected**: Total Coliform Bacteria, Fecal Coliform and *E. Coli*, Antimony, Asbestos, Beryllium, Cadmium, Cyanide, Lead, Mercury (inorganic), Nitrite, Thallium, 2,4-D, 2,4,5-TP (Silvex), Alachlor, Atrazine, Benzo(a)pyrene (PAH), Carbofuran, Chlordane, Dalapon, Di(2-ethylhexyl)adipate, Di(2-ethylhexyl) phthalate, Dibromochloropropane, Dinoseb, Diquat, Endothall, Endrin, Ethylene Dibromide, Glyphosate, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl(Vydate), PCBs (Polychlorinated Biphenyls), Pentachlorophenol, Picloram, Simazine, Toxaphene, Benzene, Carbon Tetrachloride, (Mono) Chlorobenzene, o-Dichlorobenzene, p-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis-1,2-Dichloro-ethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane,

1,1,2-Trichloroethane, Trichloroethylene, Toluene, Vinyl Chloride, Xylenes, Aldicarb, Aldicarb Sulfone, Aldicarb Sulfoxide, Aldrin, Butachlor, Carbaryl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Metho-myl, Metholachlor, Metribuzin, Propachlor, Radium 226, and Radium 228.

**REQUIRED NOTICE FOR FLUORIDE**

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system has a fluoride concentration of 2.2 mg/l.

Dental fluorosis in its moderate or severe forms may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic problem.

For more information, please call Freddy Rios of Arizona Water Company's San Manuel Division at 520-385-2226. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Note: Data presented are from the most recent testing done in accordance with applicable regulations. Some constituents are monitored less frequently than once a year because either their concentrations do not change frequently or they are not likely to be detected. Therefore, some of the water quality testing data contained herein, although representative, may be more than one year old. If you have questions about this water quality report please contact Judd Williams, Vice President of Operations, Arizona Water Company, P. O. Box 29006, Phoenix, Arizona 85038-9006. Telephone (602) 240-6860 or email mail@azwater.com.

## The EPA requires that Arizona Water Company provide the following information:

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of various 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 are available from the Safe Drinking Water Hotline (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.

Constituents that may be present in source water include: (A) Microbials, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. (B) Inorganics, 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. (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. (D) Organics, 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. (E) Radionuclides, 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 constituents in water provided by public water systems. FDA regulations establish limits for constituents in bottled water which must provide the same protection for public health.

**DEFINITIONS, ABBREVIATIONS, AND UNIT DESCRIPTIONS:**

| | | |
|---|---|---|
| AL | = | Action Level, the concentration of a constituent, which, if exceeded, triggers treatment, or other requirements, which a water system must follow |
| MCL | = | Maximum Contaminant Level, the highest level of a constituent that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. |
| MCLG | = | Maximum Contaminant Level Goal, the level of a constituent in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. |
| MRDL | = | Maximum Residual Disinfection Level, the highest level of a constituent that is allowed in drinking water |
| MRDLG | = | Maximum Residual Disinfection Level Goal, the level of a constituent in drinking water below which there is no known or expected risk to health. MRDLGs allow for a margin of safety. |
| MFL | = | Million fibres per liter |
| EPA | = | The United States Environmental Protection Agency |
| FDA | = | The United States Food And Drug Administration |
| CDC | = | The United States Centers For Disease Control |
| ppm | = | Parts per million, or milligrams per liter (mg/l) |
| ppb | = | Parts per billion, or micrograms per liter (µg/l) |
| pCi/L | = | Picocuries per liter (a measure of radioactivity) |
| n/a | = | None adopted |
| nd | = | None detected |

Distributed in March 2010 with the water bills.