

## ARIZONA WATER COMPANY

### – 2011 ANNUAL WATER QUALITY REPORT FOR MIAMI, ARIZONA, PWSID #04-002 –

This report contains important information about your drinking water. *Este informe contiene información importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.*

Arizona Water Company provides groundwater to its Miami customers from wells located throughout the Miami and Globe areas. **The water supplied by Arizona Water Company complies with 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	Range of Levels Detected	Sample Year	Typical Source of Detected Constituent
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##### Inorganics

Arsenic	ppb	0	10	nd – 9	2009 - 2011	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
				Highest Running Annual Average - 8		
Nitrate (as Nitrogen)	ppm	10	10	0.7 - 5	2011	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

##### Radionuclides

Alpha Emitters	pCi/L	0	15	2 - 7	2009	Erosion of natural deposits
Combined Radium	pCi/L	0	5	nd - 1	2009	Erosion of natural deposits
Uranium	ppb	0	30	2 - 5	2007 - 2008	Erosion of natural deposits

##### Disinfectants and Disinfection Byproducts

Water Quality Constituent	Units	MRDLG	MRDL	Average Level Detected	Range of Levels Detected	Sample Year	Typical Source of Detected Constituent
Chlorine	ppm	4	4	0.6	0.3 - 1.9	2011	Water additive used to control microbes
Water Quality Constituent	Units	MCLG	MCL	Average Level Detected	Range of Levels Detected	Sample Year	Typical Source of Detected Constituent
Total Trihalomethanes	ppb	na	80	2	nd - 5	2010	By-product of drinking water disinfection

##### Unregulated Synthetic Organics, Unregulated Volatile Organics, and Other Unregulated Constituents

Water Quality Constituent	Units	Average Level Detected	Range of Levels Detected	Sample Year	Typical Source of Detected Constituent
Nickel	ppb	1	nd - 4	2009	Unknown
Sodium	ppm	59	40 - 75	2009	Unknown

##### Constituents Subject to an Action Level

Water Quality Constituent	Units	MCLG	Action Level	90 <sup>th</sup> Percentile of Sample Results	Number of Samples That Exceeded the Action Level	Sample Year	Typical Source of Detected Constituent
Copper	ppm	1.3	1.3	0.2	0	2010	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	0	15	2	0	2010	Corrosion of household plumbing systems; erosion of natural deposits

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, Antimony, Asbestos, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Mercury (Inorganic), Nitrite (as Nitrogen), Selenium, 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, Sima-zine, Toxaphene, Benzene, Carbon Tetrachloride, (Mono)Chlorobenzene, o-Dichlorobenzene, p-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, 1,2,4-Trichloro-benzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Toluene, Vinyl Chloride, Xylenes, Aldicarb, Aldicarb Sulfone, Aldicarb Sulfoxide, Al-drin, Bromobenzene, Bromodichloromethane, Bromoform, Bromomethane (Methyl Bromide), Butachlor, Carbaryl, Chlorodibromomethane, Chloroethane, Chloroform, Chloromethane, o-Chlorotoluene, p-Chlorotoluene, Dibromomethane, Dicamba, m-Dichlorobenzene, 1,1-Dichloroethane, 2,2-Dichloropropane, 1,3-Dichloropropane, 1,1-Dichloropropene, 1,3-Dichloropropene, Dieldrin, 3-Hydroxycarbofuran, Methomyl, Metholachlor, Metribuzin, Propachlor, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, and Haloacetic Acids (five).

In developing new drinking water standards, the EPA has proposed including Radon on the regulated contaminant list. Arizona Water Company collected samples at five of its wells in its Miami water system in 2000 and found the average level of Radon to be 552 pCi/L with a range from no detect to 920 pCi/L. Additional information on Radon is available from the Safe Drinking Water Hotline (800-426-4791).

Your drinking water complies with EPA's safe drinking water standard for arsenic, though it contains low levels of arsenic. EPA's safe drinking water 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.

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 Regina Lynde, Environmental Compliance Supervisor, Arizona Water Company, P. O. Box 29006, Phoenix, Arizona 85038-9006, telephone (602) 240-6860 or e-mail mail@azwater.com.

In 2003, the Arizona Department of Environmental Quality (ADEQ) completed a Source Water Assessment of the water sources used by Arizona Water Company's Miami water system. ADEQ reviewed the adjacent land uses that may pose a potential risk to the water sources. The result of the Assessment was a low risk to fourteen water sources. Activity on an adjacent land use poses a high risk to three water sources. Arizona Water Company's routine monitoring shows no sign of land use impacting the water sources.

Residents can help protect water sources by practicing good septic system maintenance, taking hazardous household chemicals to hazardous material collection sites, and limiting pesticide and fertilizer use. The complete Assessment is available for inspection at ADEQ, 1110 West Washington Street, Phoenix, Arizona 85007, between the hours of 8:00 a.m. and 5:00 p.m. Electronic copies are available from ADEQ at [dml@azdeq.gov](mailto:dml@azdeq.gov). For more information visit ADEQ's Source Water Assessment and Protection Unit website at: [www.azdeq.gov/environ/water/dw/swap.html](http://www.azdeq.gov/environ/water/dw/swap.html).

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

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of various constituents does not necessarily indicate that water poses a health risk. More information about constituents 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 constituents 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 constituents 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
CDC	=	The United States Centers For Disease Control
EPA	=	The United States Environmental Protection Agency
FDA	=	The United States Food and Drug Administration
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 drinking water disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of the disinfectants to control microbial constituents.
na	=	None adopted
nd	=	None detected
pCi/L	=	Picocuries per liter
ppb	=	Parts per billion, or micrograms per liter (µg/l)
ppm	=	Parts per million, or milligrams per liter (mg/l)