

THE COMMUNITY OF
BAGDAD
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<https://bagdadatown.com/CCR>



2023 DRINKING WATER CONSUMER CONFIDENCE REPORT

Public Water System Name:
Freeport-McMoRan Bagdad Town

Public Water System ID:
AZ04-13011

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Este informe contiene informacion muy importante sobre la calidad de su agua potable. Tradúscalo o hable con alguien que lo entienda bien.

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 from their healthcare advisors about drinking water. The Environmental Protection Agency (EPA)/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

How can I get involved?

If you would like more information on the quality of your drinking water, have questions regarding this report, or require additional copies, please contact Christina M. Baker, Environmental Scientist II, at 928-925-4860.

We want our valued customers to be informed about their water quality. If you would like to learn more about public participation or to attend any of our regularly scheduled meetings, please contact Roberto Camacho, Utilities Supervisor, at 928-925-2287 for additional opportunities and meeting dates and times.

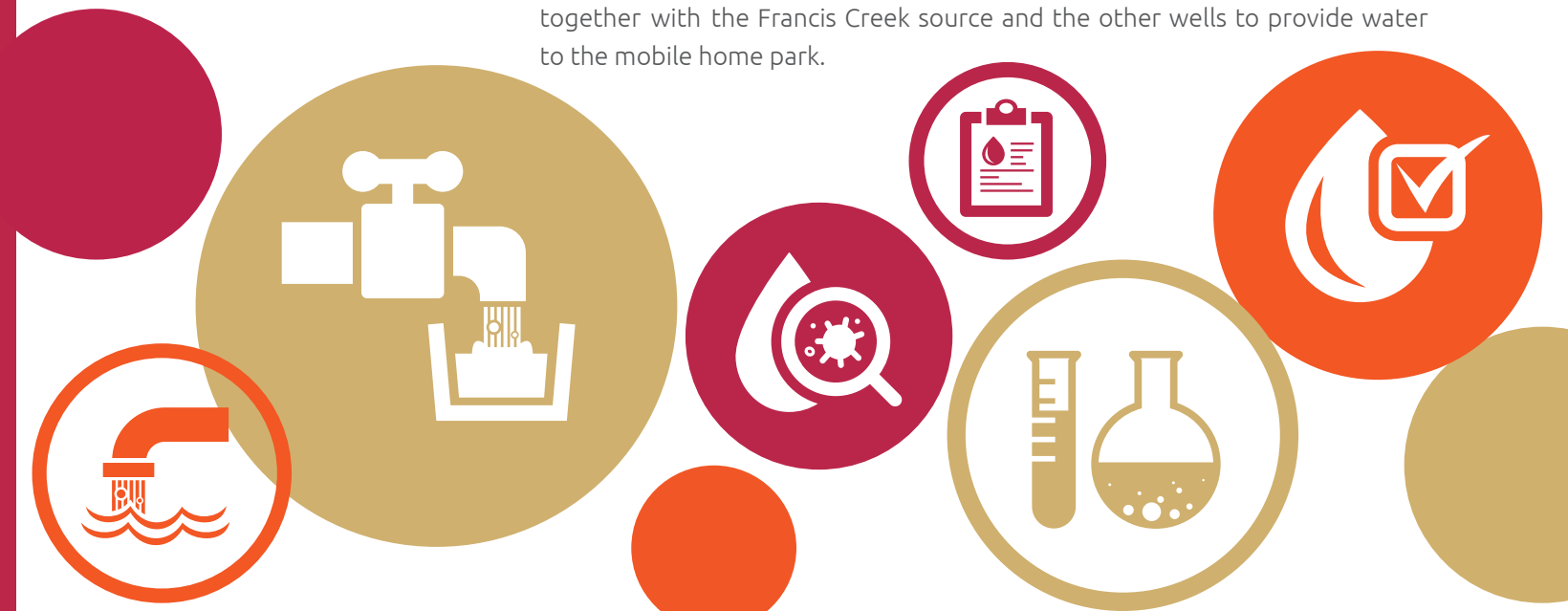


WHERE DOES MY WATER COME FROM?

The sources of drinking water (both tap 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.

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. United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our major water source is Francis Creek Springs located 15 miles northwest of the town of Bagdad. This source, because of its approved encasements, is considered "groundwater" by the Arizona Department of Environmental Quality (ADEQ). We have six groundwater wells that provide additional water and range from 400 to 700 feet in depth. Four of the wells are located 3 to 6 miles northeast of Bagdad. The wells can be operated independently or together with the Francis Creek source to provide water to the town and mine. The remaining two wells are located 1 mile east of Sycamore Mobile Home Park. These wells can be operated independently or together with the Francis Creek source and the other wells to provide water to the mobile home park.



SOURCE WATER ASSESSMENT AND ITS AVAILABILITY

The Source Water Assessment (SWA) Program, developed and implemented by ADEQ under EPA guidance, was created to promote community awareness of water quality issues and to encourage the protection of drinking water sources at the community level. ADEQ gathers information on drinking water sources – including wells, surface water intakes, and springs – and evaluates the extent to which the water source is vulnerable to natural or man-made contamination from sources such as gas stations, landfills, dry cleaners, agriculture fields, wastewater treatment plants, and mining activities.

ADEQ has evaluated the source water areas in Yavapai County including the source waters for the Freeport-McMoRan Bagdad Town (FMBT) drinking water system. The SWA for the FMBT drinking water system has been designated as low risk. A low-risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Further source water assessment documentation can be obtained by contacting ADEQ or visiting the Surface Water Monitoring and Assessment web page at <https://www.azdeq.gov/SW-monitoring-n-assessment>.

DESCRIPTION OF WATER TREATMENT PROCESS

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

WHY ARE THERE CONTAMINANTS IN MY DRINKING WATER?


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 EPA's 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: 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, which 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.



WATER CONSERVATION TIPS


Did you know that the average US household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

Visit <https://www.epa.gov/watersense> for more information.




TAKE SHORT SHOWERS

a 5-minute shower uses 4-5 gallons of water compared to up to 50 gallons for a bath.



SHUT OFF WATER WHILE...

brushing your teeth, washing your hands, and shaving can save up to 500 gallons a month




RUN YOUR CLOTHES WASHER AND DISHWASHER

only when they are full. You can save up to 1,000 gallons a month.




FIX LEAKY TOILETS AND FAUCETS

fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.



TEACH YOUR KIDS...

about water conservation to ensure a future generation that uses water wisely.



WATER OUTDOOR PLANTS...

during the cool part of the day to prevent evaporation

MONITORING AND REPORTING OF COMPLIANCE DATA VIOLATIONS

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards.

During the first quarter of 2023, we did not monitor for arsenic and therefore cannot be sure of the quality of our drinking water during that time.

Below lists the contaminant we did not properly test for during the last year; how often we are supposed to sample and how many samples we are supposed to take; how many samples we took; when samples should have been taken; and the date on which follow-up samples were taken.

Contaminant: Arsenic
Required sampling frequency: 1 sample every three months
Number of samples taken: 0
When samples should have been taken: January 2023
When samples were taken: April 5, 2023

What is being done?
Automated work order schedules have been put in place to ensure samples are collected on time.

For more information, please contact Christina M. Baker at 928-925-4860 or PO Box 245, Bagdad, AZ 86321

ADDITIONAL INFORMATION

LEAD

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Freeport-McMoRan Bagdad Town 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. 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 www.epa.gov/safewater/lead.

ARSENIC

While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. 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 TABLE

To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of contaminants in water provided by public water systems. The following tables list all the drinking water contaminants detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed were found in your water.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels.

Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

In this table, you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.



DEFINITIONS

| Unit Description | |
|------------------|---|
| Term | Definition |
| 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) |
| NA | not applicable |
| ND | not detected |

| Important Drinking Water Definitions | |
|--------------------------------------|--|
| Term | Definition |
| MCLG | Maximum Contaminant Level Goal: 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. |
| MCL | Maximum Contaminant Level: 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. |
| TT | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. |
| AL | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| Variances and Exemptions | State or EPA permission not to meet an MCL or a treatment technique under certain conditions. |
| MRDLG | Maximum residual disinfection level goal: 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. |
| MRDL | Maximum residual disinfectant level: 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. |

EPDS #002 - Sycamore Mobile Home Park Tank

| Contaminants | MCLG or MRDLG | MCL, TT, or MRDL | Detect In Your Water | Range | | Sample Date | Violation | Typical Source |
|---|---------------|------------------|----------------------|-------------|------|------------------------|------------|---|
| | | | | Low | High | | | |
| Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants) | | | | | | | | |
| Chlorine (ppm) | 4 | 4 | 0.92 | 0.52 | 1.27 | 2023 | No | Water additive used to control microbes |
| TTHMs [total tri-halomethanes] (ppb) | NA | 80 | 7.4 | 3.3 | 7.4 | 2023 | No | By-product of drinking water disinfection |
| Microbiological Contaminants | | | | | | | | |
| Total Coliform (RTCR) | 0 | 0 | 0 | 0 | 0 | 2023 | No | Naturally present in the environment |
| Inorganic Contaminants | | | | | | | | |
| Arsenic (ppb) | 0 | 10 | 5.7 | 5.5 | 6.0 | 2023 | No | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | 0.015 | NA | NA | 2023 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium (ppb) | 100 | 100 | 1.3 | NA | NA | 2023 | No | Discharge from steel and pulp mills; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.78 | NA | NA | 2023 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate [measured as Nitrogen] (ppm) | 10 | 10 | 0.79 | NA | NA | 2023 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Sodium (ppm) | NA | NA | 37 | NA | NA | 2023 | No | Erosion of natural deposits; Leaching |
| Contaminants | MCLG | AL | Your Water | Sample Date | | # Samples Exceeding AL | Exceeds AL | Typical Source |
| Inorganic Contaminants | | | | | | | | |
| Copper - action level at consumer taps (ppm) | 1.3 | 1.3 | 0.3 | 2021 | | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead - action level at consumer taps (ppb) | 15 | 0 | <5 | 2021 | | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |

EPDS #003 - Francis Creek Chlorinator Post Chlorination

| Contaminants | MCLG or MRDLG | MCL, TT, or MRDL | Detect In Your Water | Range | | Sample Date | Violation | Typical Source |
|---|---------------------|------------------------|----------------------------|-------------|------------------------|-------------|--|---|
| | | | | Low | High | | | |
| Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants) | | | | | | | | |
| Chlorine (ppm) | 4 | 4 | 1.14 | 0.55 | 1.42 | 2023 | No | Water additive used to control microbes |
| TTHMs [total tri-halomethanes] (ppb) | NA | 80 | 7.4 | 3.3 | 7.4 | 2023 | No | By-product of drinking water disinfection |
| Microbiological Contaminants | | | | | | | | |
| Total Coliform (RTCR) | 0 | 0 | 0 | 0 | 0 | 2023 | No | Naturally present in the environment |
| Inorganic Contaminants | | | | | | | | |
| Arsenic (ppb) | 0 | 10 | 5.8 | 5.2 | 6.8 | 2023 | No | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | 0.048 | NA | NA | 2020 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium (ppb) | 100 | 100 | 1.3 | NA | NA | 2020 | No | Discharge from steel and pulp mills; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.27 | NA | NA | 2020 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate [measured as Nitrogen] (ppm) | 10 | 10 | 1.2 | NA | NA | 2023 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Sodium (ppm) | NA | NA | 18 | NA | NA | 2021 | No | Erosion of natural deposits; Leaching |
| Radioactive Contaminants | | | | | | | | |
| Radium (combined 226/228) (pCi/L) | 0 | 5 | 0.926 | NA | NA | 2023 | No | Erosion of natural deposits |
| Contaminants | MCLG | AL | Your Water | Sample Date | # Samples Exceeding AL | Exceeds AL | Typical Source | |
| Inorganic Contaminants | | | | | | | | |
| Copper - action level at consumer taps (ppm) | 1.3 | 1.3 | 0.3 | 2021 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits | |
| Lead - action level at consumer taps (ppb) | 15 | 0 | <5 | 2021 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits | |

EPDS #004 - Tungstona RO Plant Post Chlorination

| Contaminants | MCLG or MRDLG | MCL, TT, or MRDL | Detect In Your Water | Range | | Sample Date | Violation | Typical Source |
|---|---------------------|------------------------|----------------------------|-------------|------------------------|-------------|----------------|---|
| | | | | Low | High | | | |
| Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants) | | | | | | | | |
| Chlorine (ppm) | 4 | 4 | 1.14 | 0.55 | 1.42 | 2023 | No | Water additive used to control microbes |
| TTHMs [total tri-halomethanes] (ppb) | NA | 80 | 7.4 | 3.3 | 7.4 | 2023 | No | By-product of drinking water disinfection |
| Microbiological Contaminants | | | | | | | | |
| Total Coliform (RTCR) | 0 | 0 | 0 | 0 | 0 | 2023 | No | Naturally present in the environment |
| Inorganic Contaminants | | | | | | | | |
| Arsenic (ppb) | 0 | 10 | 3.7 | 2.7 | 4.3 | 2023 | No | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | ND | NA | NA | 2020 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium (ppb) | 100 | 100 | 1.3 | NA | NA | 2023 | No | Discharge from steel and pulp mills; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.95 | NA | NA | 2020 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate [measured as Nitrogen] (ppm) | 10 | 10 | 0.47 | NA | NA | 2023 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Sodium (ppm) | NA | NA | 10 | NA | NA | 2021 | No | Erosion of natural deposits; Leaching |
| Contaminants | MCLG | AL | Your Water | Sample Date | # Samples Exceeding AL | Exceeds AL | Typical Source | |
| Inorganic Contaminants | | | | | | | | |
| Copper - action level at consumer taps (ppm) | 1.3 | 1.3 | 0.3 | 2021 | | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead - action level at consumer taps (ppb) | 15 | 0 | <5 | 2021 | | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |

OTHER WATER RESOURCES

Arizona Safe Drinking Water Database - View all regulated water quality sampling results of any drinking water system.
https://azsdwis.azdeq.gov/DWW_EXT/

Water Use it Wisely - Arizona-based water conservation campaign with water saving tips, calculators, and games.
<https://wateruseitwisely.com/>

Arizona Department of Environmental Quality - My Community - Find out what environmental issues are going on in your community and around the state.
<http://www.azdeq.gov/MyCommunity>

