

2016 ANNUAL WATER QUALITY REPORT

FROM THE MARS BOROUGH WATER DEPARTMENT

PWS # 5100049

Este informe contiene informacion muy importante sobre su aqua potable. Traduzcalo o hable con alguien que lo entienda bien. . (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

We are pleased to present to you this annual consumer confidence 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 supply you with a dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. We are committed to ensuring the quality of your water. Our water source is ground water wells. The Borough wells and treatment plant are located south of town along the Mars Valencia Road.

A ground water protection plan has been developed for Mars Borough. Copies are available from our office at 598 Spring Avenue. This plan can supply more information such as potential sources of contamination. We are pleased to report that our drinking water meets state and federal requirements. If you have any questions concerning this report, please contact Ed Dorsey at (724) 625-1480 or the Borough office at (724) 625-1858.

We want our valued customers to be informed about their water utility. You are welcome to attend any of our regularly scheduled meetings. They are held on the first Monday of each month, at 7:00 pm, at the Mars Municipal Building located at 598 Spring Avenue.

Mars Borough routinely monitors for contaminants in your drinking water according to Federal and State laws. The table on page 2 shows the results of our monitoring for the period January 1, 2016 to December 31, 2016.

In this table, you will find many terms and abbreviations that you may not be familiar with. To help you better understand these terms 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) – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level (AL) - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Contaminant Level (MCL) – 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 (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 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 contamination.

Minimum Residual Disinfectant Level (MinRDL) - The minimum level of residual disinfectant required at the entry point to the distribution system.

| Entry Point Disinfectant Residual | | | | | | | |
|--|-------------------------------|-----------------------|---------------------|-------|--------------------|---------------|--|
| Contaminant | Minimum Disinfectant Residual | Lowest Level Detected | Range of Detections | Units | Lowest Sample Date | Violation Y/N | Sources of Contamination |
| Chlorine (2016) | 0.53 | 0.54 | 0.54-1.22 | ppm | 5/11/2016 | N | Water additive used to control microbes. |

DETECTED SAMPLE RESULTS:

| <i>Chemical Contaminants</i> | | | | | | | | |
|-------------------------------|------------------|----------|------------------------|---------------------|-------|-------------|---------------|---|
| Contaminant | MCL in CCR Units | MCLG | Highest Level Detected | Range of Detections | Units | Sample Date | Violation Y/N | Sources of Contamination |
| Barium | 2 | 2 | 0.20 | N/A | ppm | 8/5/15 | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Fluoride | 2* | 2* | 0.26 | N/A | ppm | 8/5/15 | N | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate | 10 | 10 | 0.16 | N/A | ppm | 10/14/16 | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| cis-1,2-Dichloroethylene | 70 | 70 | 3.0 | N/A | ppb | 11/14/16 | N | Discharge from industrial chemical factories |
| TTHMs [Total trihalomethanes] | 80 | N/A | 19.0 | 6.0-19.0 | ppb | 8/5/16 | N | By-product of drinking water chlorination |
| Haloacetic Acids (HAA) | 60 | N/A | 7.0 | 0-7.0 | ppb | 8/5/16 | N | By-product of drinking water chlorination |
| Chlorine (Distribution) | MRDL = 4 | MRDL G=4 | 1.07 (December) | 0.56-1.07 | ppm | 2016 | N | Water additive used to control microbes |

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

| <i>Lead and Copper</i> | | | | | | | |
|------------------------|-------------------|------|-----------------------------------|-------|------------------------------------|---------------|--|
| Contaminant | Action Level (AL) | MCLG | 90 th Percentile Value | Units | # of Sites Above AL of Total Sites | Violation Y/N | Sources of Contamination |
| Lead (2016) | 15 | 0 | 0 | ppb | 0 out of 10 | N | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper (2016) | 1.3 | 1.3 | 0.515 | ppm | 0 out of 10 | N | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |

Information about Lead

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. Borough of Mars Water Department 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 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>.

Violations

By April 1st. of 2016 we were required to submit a Revised Total Coliform Rule Monitoring Plan to the Department of Environmental Protection but failed to report by this date. This resulted in a violation.

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 EPA's Safe Drinking Water Hotline.

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/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 Drinking Water Hotline. You may also visit EPA's website at (www.epa.gov/safewater/).

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 presents of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salt and metals, which can be naturally-occurring or result from urban storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial process and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- 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 which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

It is important to understand that MCLs are set at very stringent levels for health effects. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day, at the MCL level, for a lifetime, to have a one in one million chance of having the described health effect.

In our continuing effort to maintain a dependable water supply it may be necessary to make improvements in the water system.

In 2008, the Borough established a connection to the Municipal Water Authority of Adams Township. This connection may be used as a "back-up" source of supply to assure that our customers will never be without clean safe drinking water in the event of an emergency.

In 2016, the Borough replaced 400ft of old 4-inch cast iron pipe with new 6-inch plastic pipe on Lincoln Avenue.

The costs of these improvements will impact the operating budget and may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

**Mars Borough Water Department
PO Box 395
598 Spring Street
Mars, Pa. 16046**