

## *The City of Sheldon Water Department Annual Drinking Water Quality Report*

We're pleased to present to you this year's Annual Quality Water 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 provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The Sheldon water supply obtains its water from the alluvial aquifer. The alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials allow contaminants to move through the aquifer fairly quickly. Sheldon wells will be most susceptible to activities such as underground storage tanks and pesticide storage and usage. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources, and is available from the City of Sheldon Water Department at 712-324-2845.

The Sheldon water supply also obtains its water from the Dakota Aquifer. The Dakota Aquifer was determined to be not susceptible to contamination because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer. The Sheldon Dakota wells will not be susceptible to most contaminant sources except through pathways to the aquifer such as abandoned or poorly maintained wells. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources, and is available from the City of Sheldon Water Department at 712-324-2845

We have a source water assessment plan available from our office that provides more information such as potential sources of contamination.

We are pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact the City Manager at 324-4651 or the Water Superintendent at 324-2845. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the First and Third Wednesday of the month at 4:30pm at the city's Community Services Center Building. Located at 416 9<sup>th</sup> Street Sheldon Iowa.

The Sheldon Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup>, 2010 to December 31<sup>st</sup>, 2010. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.

*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* - 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.

*Millirems per year (mrem/yr)* - measure of radiation absorbed by the body.

*Million Fibers per Liter (MFL)* - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Maximum Contaminant Level* -The "Maximum Allowed" (MCL) 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 Contaminant Level Goal** -The "Goal"(MCLG) 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 contaminants.

| TEST RESULTS                    |               |   |                  |              |             |   |
|---------------------------------|---------------|---|------------------|--------------|-------------|---|
| Contaminant                     | Violation Y/N | Level Detected  | Unit Measurement | MCLG         | MCL         | Likely Source of Contamination  |
| <b>Radioactive Contaminants</b> |               |   |                  |              |             |   |
| 1. Alpha emitters               | N             | 8.8<br>5/04/09  | pCi/l            | 0            | 15          | Erosion of natural deposits   |
| <b>Inorganic Contaminants</b>   |               |   |                  |              |             |   |
| 2. Barium                       | N             | .1<br>11/29/06  | ppm              | 2            | 2           | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits  |
| 3. Copper                       | N             | .98<br>One sample exceeded AL<br>Sample ranges 0.2-1.4<br>9/30/09 | ppm              | 1.3          | AL=1.3      | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives  |
| 4. Fluoride                     | N             | .83<br>11/29/06   | ppm              | 4            | 4           | Water additive which promotes strong teeth. Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| 5. Lead                         | N             | 3<br>Sample ranges 0-14<br>9/30/09                                | ppb              | 0            | AL=15       | Corrosion of household plumbing systems, erosion of natural deposits  |
| 6. Sodium                       | N             | 12.9<br>10/20/09  | ppb              | NA           | NA          | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland   |
| 7. Nitrate (as Nitrogen)        | N             | 1.5<br>12/31/10   | ppm              | 10           | 10          | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits   |
| 8. Total Trihalomethanes        | N             | 56<br>8/10/09   | ppb              | NA           | 80          | By-products of drinking water disinfection  |
| 9. Total Haloacetic Acids       | N             | 17<br>8/10/09   | ppb              | NA           | 60          | By-products of drinking water disinfection  |
| 10. Chlorine                    | N             | 0.92<br>9/2011  | ppm              | mrdlg<br>4.0 | mrdl<br>4.0 | Water Additives to control Microbes   |

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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. More

information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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. City of Sheldon is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been setting 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>.

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).

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

Please call our office if you have questions.

We at the Sheldon Water Department work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.