



Annual Drinking Water Quality Report for the year 2012

Perry Water Works Perry, Iowa

Public Water System Identification (PWSID) number: 2561036

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water.

Source Water Assessment Information

The Perry Water Works obtains approximately 15% of its source water from an alluvial aquifer and approximately 85% of its source water from a Pleistocene aquifer. The alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials provide little protection from contamination at the ground surface.. The alluvial wells will be highly susceptible to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. The Pleistocene aquifer was determined to be slightly susceptible to contamination because the characteristics of the aquifer and overlying materials limit the rate at which contaminants can move through the aquifer. The Pleistocene wells will be somewhat susceptible to activities such as leaking underground storage tanks, and hazardous waste generators. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources, and is available from the Perry Water Works at its Administration Building at 1101 West Third in Perry.

If you have any questions about this report or concerning your water utility, please contact our office at 515-465-2562. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our Water Works Trustees meetings. They are held at the Water Works Administration Building located at 1101 West Third Street in Perry. Call 515-465-2562 for dates and times of these meetings.

The Perry Water Works routinely monitors for contaminants in your drinking water according to Federal and State laws. The table on the next page lists all the drinking water contaminants that we detected during the 2012 calendar year. However, some of the data, though representative of the water quality, is more than one year old. It is important to remember that the presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 to December 31, 2012. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

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:

NA - Not applicable

ND - non detect

IDSE - Initial Distribution System Evaluation

ppm - *Parts per million or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years.

ppb - *Parts per billion or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years.

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

MCL - *Maximum Contaminant Level* - The "Maximum Allowed" () is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the

MCLG - *Maximum Contaminant Level Goal* - 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.

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 disinfectant allowed in drinking water.

There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

RAA - *Running Annual Average* - The Running Annual Average of Maximum Residual Disinfectant Level **SGL** - *Single Sample Result*

Lead and Copper Sampled in the Distribution System

Contaminant	Type / Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Unit of Measure	MCL	MCLG	Date	MCL Violation?	Typical Sources
Lead	90 th % 0.00	ND - 15	ppb	AL = 15	0	09/30/2010	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	90 th % 0.0555	ND – 0.115	ppm	AL = 1.3	1.3	09/30/2010	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Contaminants found in the Distribution System

Contaminant	Type / Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Unit of Measure	MCL	MCLG	Date	MCL Violation?	Typical Sources
Chlorine	RAA 3.2	0.15 – 4.38	ppm	4.0	4.0	06/30/2012	No	Water additive used to control microbes
Total Haloacetic Acids(HAA5)	RAA 11.10	ND - 33	ppb	60	N/A	03/31/2012	No	By-product of drinking water disinfection.
Total Trihalomethanes TTHM	RAA 28.90	ND - 87	ppb	80	N/A	03/31/2012	No	Byproduct of drinking water disinfection.
Nitrite [as N]	SGL 2.3	2.0 – 2.5	ppm	1	1	12/31/2012	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Contaminants found at the Entry Point to Distribution, After Treatment Plant

Contaminant	Type / Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Unit of Measure	MCL	MCLG	Date	MCL Violation?	Typical Sources
Barium	SGL	0.0539	ppm	2	2	06/12/2012	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	SGL	0.4	ppm	4	4	06/12/2012	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Thallium	SGL	0.40	ppb	2	0.5	06/12/2012	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Arsenic	SGL	2.70	ppb	10	N/A	06/12/2012	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Sodium	SGL	40.6	ppm	N/A	N/A	06/12/2012	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N]	SGL	0.300	ppm	10	10	12/31/2012	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [as N]	SGL	0.220 ND – 0.220	ppm	1	1	12/31/2012	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Violation Type	Contaminant	Begin Date	End Date
MCL (Chemical)	Nitrite (as N)	07/01/2012	07/31/2012
<p>On July 11th 2012 Our water system violated a drinking water standard for Nitrite (as N). Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.</p> <p>To correct this problem we: we went to “breakpoint” chlorination, monitored high residence locations, flushed the water mains as needed, and changed operating levels at the water tower to help keep the water fresh. These corrective actions were successful and on July 17th 2012 testing indicated that the Nitrite levels had been reduced to <0.10 at all testing locations.</p>			

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.