2013 ANNUAL DRINKING WATER QUALITY REPORT
Warwick Township Municipal Authority
"Rothsville" Water System
PWSID# 7360120

Este informe contiene informacion muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.
(This report contains very important information about your drinking water. Translate it, or speak with someone who understands it.)

WATER SYSTEM INFORMATION
This report shows our water quality and what it means. **If you have any questions about this report or concerning your water utility, please call the Warwick Township Municipal Authority ("WTMA") office at (717) 627-2379.** We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings, held on the third Tuesday of each month at 7 p.m. at the Warwick Township Municipal Building, 315 Clay Road, Lititz, PA. **You can also visit www.warwicktownship.org and click on "sewer/water" for information about the Authority and your water supply and/or sanitary sewer service.**

SOURCES OF WATER - The Rothsville Water System serves 753 connections within the village of Rothsville. The water source for WTMA's Rothsville Water System is a well located within Rothsville. The well is permitted by the Pennsylvania Department of Environmental Protection (" PA DEP") to produce 288,000 gallons of water per day. There are two 440,000 gallon storage tanks which provide an emergency water supply. Following the recommendations of the Wellhead Protection Plan, WTMA drilled, tested, and is seeking approval of a second well that will provide a backup source for the Rothsville system if approved by PA DEP and the Susquehanna River Basin Commission (SRBC). The Rothsville recharge zone can easily be identified by signs indicating the water supply area. **Please be mindful that pollution affects your water supply.**

WTMA continues its efforts to protect your drinking water through its Wellhead Protection Program which was approved by the PA DEP in 2002. The Wellhead Protection Committee consists of representatives of municipal and county government and agencies, local businesses and interested citizens. The group meets annually to discuss the status of existing programs and to suggest additional ways in which we can protect our precious resource. Due to the success of its "Ag-Management" Program, WTMA has been invited to share the results of this innovative partnership with others through forums such as Pennsylvania Municipal Authorities Association, PA DEP, and SRBC Seminars. The Ag-Management Program owes a large portion of its success to the outstanding cooperation provided by our farming partner.

In 2005, the PA Dept. Of Environmental Protection (PA DEP) prepared a Source Water Assessment Report which identified the primary activities to which the water source is susceptible. On a scale from A (high priority) to F (low priority) the report rated Agricultural activities B and Residential activities C. The report is available for review at the Authority office upon request.

EDUCATIONAL INFORMATION - 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 materials, and can pick up substances resulting from the presence 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 salts and metals, which can be naturally occurring or result from urban stormwater run-off, 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 run-off 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 and DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottle 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 Environmental Protection Agency's *Safe Drinking Water Hotline* at (800) 426-4701.

MONITORING AND TREATMENT

Our goal is and always has been to provide to you a safe and dependable supply of drinking water. Four of WTMA's employees are State certified water operators who routinely monitor for contaminants in your drinking water according to federal and state laws. In addition, an outside laboratory takes random water samples throughout the system on a monthly basis. Test results are reported to PA DEP. Water from the Rothsville well is treated using chlorine and a nitrate removal process. Fluoride is **not** added to the treated water. Due to the limestone geology, water in the Rothsville system is hard, having between 21 and 24 grains of hardness.

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).

The following tables show the monitoring results for the period of **January 1 to December 31, 2013**. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

DEFINITIONS AND ABBREVIATIONS

Action Level (AL) - The concentration of a contaminant which, 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 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 the addition of 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.

Definitions continued:

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

mg/L - milligrams per liter

mfl - millions of fiber per liter

ppq - parts per quadrillion or picograms per liter

ppm - parts per million

ppt - parts per trillion or nanograms per liter

ppb - parts per billion or micrograms per miter (µG/L)

CHEMICAL CONTAMINANTS								
Contaminant	**MCL**	**MCLG**	**Highest Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation**	**Sources of Contamination**
TTHM (total trihalomethanes)	80	NA	16	N/A	ppb	2013	No	By-product of drinking water chlorination.
HAA5 Haloacetic acid	60	NA	N/D	N/D	ppb	2013	No	
Chlorine (as C12)	MRDL = 4	MRDLG = 4	0.75	.48 to .75	ppm	2013	No	Water additive used to control microbes

INORGANIC CONTAMINANTS								
Contaminant	**MCL**	**MCLG**	**Highest Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation**	**Sources of Contamination**
Nitrates	10	10	5.5	5.4 to 5.5	ppm	2013	No	Run off from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Nitrite (lb.)	1	1	N/D	N/D	ppm	2013	No	
Barium	2	2	0.047	N/A	ppm	2012	No	Discharge of Drilling Wastes Discharge from metal refineries, Erosion of natural deposits
Asbestos	7mfl	0	N/D	N/D	ppm	2013	No	Decay of asbestos cement in water mains; erosion of natural deposits

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for a short period of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

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. WTMA 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.*

LEAD AND COPPER								
Contaminant	**Action Level**	**MCLG**	**90th Percentile Value**	**# of Sites Above AL of Total Sites**	**Units**	**Sample Date**	**Violation**	**Sources of Contamination**
Copper	1.3	1.3	.21	0 of 10	ppm	2013	No	Corrosion of household plumbing systems, Erosion of natural deposits, Leaching from wood preservatives (lead)
Lead	15	0	11	0 of 10	ppb	2013	No	

OTHER ORGANIC CONTAMINANTS								
Contaminant	**MCL**	**MCLG**	**Highest Level Detected**	**Range of Detections**	**Units**	**Sample date**	**Violation**	**Sources of Contaminants**
Synthetic Organic Chemicals (SOCs) (lb.)	Various concentrations depending on chemical		ND	All SOCs tested were below detection limits	ppb	2011	No	Potential residue from pesticides, herbicides, insecticides, discharge from chemical factories, discharge from petroleum factories.
Volatile Organic Chemicals (VOCs) (lb.)	Various concentrations depending on chemical		ND	All VOCs tested were below detection limits	ppb	2011	No	Potential discharge from industrial chemical factories, petroleum factories, textile-finishing factories, pharmaceutical factories, rubber/plastic factories, dry cleaners.

WTMA is required to randomly test water throughout our distribution system. Jean Kruis of Owl Hill Laboratories collects and tests these samples on behalf of WTMA. We appreciate your cooperation in allowing Ms. Kruis to draw water at your property should she knock at your door. Do not hesitate to ask her for identification. Please call the office if you have any questions. Thank you.

WHAT THIS MEANS

As you can see under the 'violations' heading in the first table, the "Rothsville" water system had **no** violations in 2013. WTMA has learned through monitoring and testing that a very small amount of a few constituents have been detected. All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. MCL's are set at very stringent levels for health effects. The EPA has determined that your water is safe at these levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two 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. WTMA is proud that your drinking water meets or exceeds all Federal and State requirements.