MOON TOWNSHIP MUNICIPAL AUTHORITY

Public Water Supply

2013 Water Quality Report

This report is designed to inform you about the quality of water and the service we deliver to you every day. Our constant goal is to provide you with a dependable supply of excellent quality drinking water that meets or exceeds all federal and state requirements.

The Moon Township Municipal Authority (MTMA) water supply is obtained from an alluvium deposit of sand and gravel in the flood plain of and beneath the Ohio River and from the Ohio River. A radial well, two vertical wells and a surface water intake are located along the southern bank of the Ohio River. The treatment facility is operated to provide very reliable treatment of a blend of groundwater and surface water.

In 2009, the PA Department of Environmental Protection (PADEP) approved the Source Water Protection Plan for our three (3) groundwater wells and surface water supply. These provide water to the MTMA Water Filtration Plant. The assessment has found that our sources are potentially susceptible to a spill from the CSX Railroad and PA Route 51 as the primary sources of contamination risk. Copies of the complete report are available for review at the PADEP Pittsburgh Regional Office or on the PADEP website at www.dep.state.pa.us (Keyword: "DEP source water").

We encourage public interest and participation in our community's decisions affecting drinking water. Regular Municipal Authority meetings occur on the third Wednesday of each month, at 7:00 p.m. in the second floor meeting room at the Moon Township Community Service Center 1700 Beaver Grade Road. The public is welcome.

We are pleased to report that our drinking water meets or exceeds all federal and state requirements. MTMA (Public Water Supply #5020011) routinely monitors for contaminants in your drinking water according to Federal and State laws. The tables on the following pages show the results of monitoring for the period of January 1st to December 31st 2013. As you can see by the data table, our system had no water quality violations for 2013.

All sources of drinking water are subject to potential contamination, either naturally occurring or manmade. Contamination of a ground water supply may occur as a result of a transportation or industrial spill on land near the area of the wells. Wellhead protection practices are in place to reduce the potential for groundwater contamination. Surface water contamination may result from a spill reaching the Ohio River or one of its tributaries. In the event of surface water contamination, the system can utilize 100% well water until the river contamination has cleared.

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

If you have any questions about this report or concerning your water utility, please contact John Riley, MTMA General Manager, at 412-264-4300 ext. 114 between the hours 8 a.m. and 4:45 p.m.

John J. Wink
President

In the following tables you will find many terms and abbreviations that may not be familiar. To help you better understand these terms, we have provided the following definitions.

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

Entry Point **– When potable water first enters the distribution system.**

LRAA**-Locational Running Annual Average.**

Maximum Contaminant Level (MCL) **- The "Maximum Allowed" 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 (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 contaminate.

Minimum Residual Disinfectant Level (MinRDL) – The minimum level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Max Residence Time – Longest contact time or the furthest distance from the Entry Point.

NA **- Not Applicable**

Nephelometric Turbidity Unit (NTU) **- Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.**

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.**

Parts per million (PPM) **or milligrams per liter - One part per million corresponds to one minute in two years or a single penny in $10,000.**

RAA-Running Annual Average.

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

Less Than (<) **- It usually indicates that the result was below the detection level for that parameter.**

90^{th} Percentile: The highest concentration of lead or copper in tap water that is exceeded by 10% of the sites sampled during the monitoring period. This value is compared to the lead and copper action levels (AL) to determine whether an AL has been exceeded.

Unregulated Contaminants – not currently subject to any proposed or promulgated national drinking water standard.

Microbiological Contaminants

Contaminant	Year Tested	Unit	Violation Yes\No	MCL	MCLG	Detected Level	Range	Major Sources in Drinking Water
Turbidity	2013	NTU	No	TT = 1 for a single measurement	NA	.1	.02 -.1	Soil erosion and run off
				TT = at least 95% of monthly samples <0.3 NTU		100 %	(a)	
Total Coliform Bacteria	2013		No	<40 samples/month more than 1 positive monthly sample.	0	0	NA	Naturally present in the environment.

Inorganic Contaminants

Contaminant	Year Tested	Unit	Violation Yes\No	MCL	MCLG	Detected Level	Range	Major Sources in Drinking Water
Fluoride	2013	PPM	No	2	2	0.62	(b)	**Water additive which promotes strong teeth**; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Nitrate	2013	PPM	No	10	10	0.7	(b)	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Copper	2013	PPM	No	AL=1.3	1.3	90th percentile = 0.099	.02 -.14 (c)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead	2013	PPM	No	AL=.015	0	90th percentile = 0	0 – 0.026 (c)	Corrosion of household plumbing systems; Erosion of natural deposits.

(a) TT=95 % of all monthly samples taken must be equal or less than 0.3NTU. 100% of monthly samples tested were <0.3NTU.
(b) Only one sample was required per monitoring period.
(c) Thirty one (31) samples were taken. All samples except one were below the action limit.
(d) Highest running annual average for individual sample points, required to have four quarters to obtain RAA.
(e) Range represents sampling at individual sample points.
(f) The detected level is the lowest entry point chlorine residual leaving the water plant. Minimum Limit 0.2 ppm.
(g) The detected level is the highest monthly average chlorine residual in the distribution system.
(h) Stage 1 includes data from last quarter of 2012.
(i) Only one quarter of Stage 2 data available. Four quarters are needed to obtain LRAA.
(j) TOC quarterly monitoring meets the Alternative Compliance Criteria (Acc).
(k) Last two quarters sampled. The locations are Entry Point and Max Residence time in the distribution system.

Disinfection Byproducts								
Contaminant	Year Tested	Unit	Violation Yes\No	MCL	MCLG	Detected RAA	Range	Major Sources in Drinking Water
Total Trihalomethanes (TTHM) Stage 1	2013 1st thru 3rd qtrs. (h)	PPB	No	80	NA	43.2 (d)	19 – 86 (e)	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5) Stage 1	2013 1st thru 3rd qtrs. (h)	PPB	No	60	NA	13.4 (d)	8 – 24 (e)	
Total Trihalomethanes (TTHM) Stage 2	2013 4th qtr	PPB	No	80	NA	95 (i)	59 – 95 (e)	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5) Stage 2	2013 4th qtr	PPB	No	60	NA	26 (i)	22 – 26 (e)	
Disinfectant Residual		UNIT	Violation	MRDL	MinRDL	Result	Range	SOURCE
Free Chlorine (Entry Point)	2013	PPM	No	4	0.2	0.2 (f)	0.2 – 1.61	Added as a disinfectant to control microbes
Total Chlorine (Distribution)	2013	PPM	No	4	Trace	1.13 (g)	0.91 – 1.13	

Contaminant	Year Tested	Unit	Violation Yes\No	MCL	Range Percent of Removal		Major Sources in Drinking Water
					Required	Achieved	
Total Organic Carbon(TOC)	2013	Percent Removal	No	TT	25 - 35%	31.9 – 35.5 (j)	Naturally present in the environment.

Unregulated Contaminant Monitoring Data								
Contaminant	Year Tested	Unit	Violation Yes\No	MCL	MCLG	Detected Avg.	Range	Major Sources in Drinking Water
Chlorate (k)	2013	PPB	NA	NA	NA	193	100 – 290	Used in Agriculture as defoliant . May occur in drinking water related to Chlorine disinfectants.
Chromium 6 (k) Hexavalent	2013	PPB	NA	NA	NA	0.057	0.036-0.081	Discharge from Steel and Pulp Mills.
Molybdenum (k)	2013	PPB	NA	NA	NA	0.65	<0.01 - 1.3	Used in Electroplating of metals.
Strontium (k)	2013	PPB	NA	NA	NA	155	130 – 180	Used in steel production.

Monitoring Data for Unregulated Contaminants: The Moon Township Municipal Authority water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard. As our customers, you have the right to know the results of sampling.

TTHMs (Total trihalomethanes) PPB: Byproduct of the disinfection of water. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of cancer. To reduce TTHM formations in the Moon Township Municipal water distribution system, all storage tanks are having air mixing systems installed.

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. MTMA 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.

All sources of drinking water are subject to potential contamination, either naturally occurring or manmade. Contaminants that may be present include: microbial contaminants such as bacteria and viruses; inorganic contaminants such as salts and metals; pesticides and herbicides and organic chemical contaminants including synthetic and volatiles organic chemicals.

Fluoride concentration in your drinking water has a targeted residual of 0.7 as recommended by the U.S. Department of Health and Human Services and the Environmental Protection Agency (EPA).

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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 microbiological contaminants are available from the Safe Drinking Water Hotline.