

**2017 ANNUAL DRINKING WATER QUALITY REPORT
MUNICIPAL AUTHORITY BOROUGH OF MIDLAND
PWSID# 5040038**

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, 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 our water utility, please contact Richard Corradi, Plant Manager at 724-643-4920 or at 946 Railroad Avenue, Midland, Pennsylvania. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held the second Monday of each month at 5:30PM at the Authority's office.

SOURCE(S) OF WATER:

Our source water is the Ohio River MP 36.2 and is a surface water source. The water is now supplied by the Authority's temporary water intake pumps. A Source Water Assessment of our source was completed by the PA Department of Environmental Protection (Pa. DEP) in 2002. The Assessment has found that our source is potentially most susceptible to contamination from transportation corridors, bridges, boating, marine, barge traffic, auto repair shops, utility substations, power plants and residential developments. Overall, our source has a moderate risk of significant

contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports e-Library web page:

www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045 . Complete reports were distributed to municipalities, water suppliers, local planning agencies and PADEP offices. Copies of the complete report are available for review at the PA DEP Regional Office, Records Management Unit at (412) 442-4000.

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).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2017. 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:

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 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.

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

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

mrem/year = millirems per year (a measure of radiation absorbed by the body)

ppm = parts per million, or milligrams per liter (mg/L)

pCi/L = picocuries per liter (a measure of radioactivity)

ppq = parts per quadrillion, or picograms per liter

ppb = parts per billion, or micrograms per liter (µg/L)

ppt Bariu = parts per trillion, or nanograms per liter

Our water system violated drinking water requirements during 2017. In the 1st, 2nd and 3rd quarter of 2017 we were unable to meet the RAA (running Annual Average) for trihalomethanes. The report for total alkalinity was received past the due date during the first quarter of 2017. The Authority again missed the due date for reporting TOC's and turbidity in 3rd quarter of 2017. Water quality was not effected in these violations.

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Barium	2	2	0.03	Single Sample	ppm	5/10/2017	N	Discharge of drilling wastes, metal refineries, erosion natural deposits
Sulfate	250	NA	75.9	50.8 – 75.9	ppm	5-13-13	N	Erosion of natural deposits
Dalapon	200	200	1.19	1.01-1.19	ppb	4-25-2017	N	Runoff from herbicide used on right of ways.
Beta/photon Emitters* 2017	4mem/yr 50 pCi/L	50	0	0	pCi/L	5-10-2017	N	Decay of natural and man-made deposits
Nitrate	10	10	7.9	0	ppm	6-14-2017	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite	1	1	0	0	ppm	6-14-2017	N	Runoff from fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits
Chlorine	4.0	4.0	0.48	.48-1.83	Ppm	3-2017	N	Water additive used to control microbes

*EPA's considers 50 pCi/L to be the level of concern for beta particles. Beta photon includes Strontium and Tritium.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.2	0.7	0.7 – 2.3	ppm	8/2/2017	N	Water additive used to control microbes.

Lead and Copper							
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	7.26	ppb	0 OF 10	N	Corrosion of household plumbing systems; Erosion of natural deposits
Copper 2016	1.3	1.3	0.624	ppm	1 OF 10	N	Corrosion of household Plumbing systems; Erosion of natural deposits

Disinfection byproducts	MCL	MCLG	Highest quarterly detect	Lowest quarterly detect	Highest running average	UNIT	Violation	Source
Trihalomethanes	80	0	128 3rd Quarter	30.30 1st Quarter	85.0 2 ND Quarter	ppb	Y	By-product of drinking water disinfection
Haloacetic Acids	60	0	55.20 2 nd Quarter	28.0 4 th Quarter	50.0 2 nd Quarter	ppb	Y	By-product of drinking water disinfection

CONTAMINATION	MCL	MCLG	LEVEL DETECTED	SAMPLE DATE	VIOLATION OF TT	SOURCE OF CONTAMINATION
TURBIDITY	TT = 1 NTU FOR A SINGLE MEASURE	0	1.7	AUGUST 2017	N	SOIL RUNOFF
	TT = AT LEAST 95% OF MONTHLY SAMPLE <0.3 NTU	0	100%		N	SOIL RUNOFF

Turbidity is a measure of cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Total Organic Carbon (TOC)					
Contaminant	Range of % Removal Required	Range of percent removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	25% TO 35%	30.01 TO 40.9	4	Y	Naturally present in the environment

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

Total organic carbon (TOC) has no health effect. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes, (THM's) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Total trihalomethanes if some people who drink water containing haloacetics acids in excess of the MCL over many years may have an increased risk of getting cancer.

Haloacetic Acids (HAA) in some people who drink water containing haloacetics acids in excess of the MCL over many years may have an increased risk of getting cancer.

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 material, 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 storm water 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 storm water 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 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 and DEP prescribes 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 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 the Environmental Protection Agency's *Safe Drinking Water Hotline* (800-426-4791).

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. The Authority 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>.

Reminders for customers of the Midland Authority:

Fire hydrants are flushed twice a year – once in the spring and once in the fall. The schedule will be posted in the Beaver County Times. After the hydrants are flushed, there may be discoloration of the water. It is recommended that customers test the water before laundering or drawing large quantities of water during that time period. Make sure no stopper is in the sink, and open a cold water faucet and let it run about 5- 7 minutes or until the line runs clear. This procedure should also be followed after the Authority has repaired a line break in the system.

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Municipal Authority of the Borough of Midland
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