2016 ZELIENOPLE BOROUGH ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 5100093 NAME: BOROUGH OF ZELIENOPLE

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 your water utility, please contact the Public Works Director at 724-452-6610 ext 242 or pwzelieboro@zoominternet.net**.** 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 2nd and last Monday of the Month at 7:30 p.m. at the Municipal Building.

PROVIDER AND SOURCE OF WATER:

The Borough of Zelienople is consecutive water system which purchases its water from Beaver Falls Municipal Authority (BFMA) for its customers. The source of water for BFMA is the Beaver River, which is formed by the confluence of the Mahoning and Shenango Rivers near New Castle. There are also several smaller tributaries, including the Connoquenessing Creek, Pymatuning Creek and Brush Creek, that feed into the watershed that supplies the water treatment plant.

A *Source Water Assessment* of the Beaver River was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that the Beaver River is potentially most susceptible to accidental spills along roads and railways that border the river for almost its entire length. Overall, our source has a high risk of significant contamination. A summary report of the Assessment is available on the *Source Water Assessment & Protection Web* page at (http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm). Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Pittsburgh 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, 2016. 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.

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

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

ppm = parts per million, or milligrams per liter (mg/L) ***ppb =*** parts per billion, or micrograms per liter (µg/L)

DETECTED SAMPLE RESULTS: Borough of Zelienople

Chemical Contaminants - Borough Zelienople								
Contaminant	**MCL in CCR Units**	**MCLG**	**Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation Y/N**	**Sources of Contamination**
Chlorine	4	4	1.28	0.23 – 1.28	ppm	02/16	N	Water additive used to control microbes
TTHMs (Total trihalomethanes)	80	0.0	47.8	25.6 – 81	ppb	Quarterly	N	By-product of drinking water disinfection
Haloacetic Acids (HAA)	60	0.0	14.2	12 - 31	ppb	Quarterly	N	By-product of drinking water disinfection
Nitrate	10	10	0.3	0.3	ppm	9/10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Lead and Copper - Borough of Zelienople							
Contaminant	**Action Level (AL)**	**MCLG**	**90th Percentile Value**	**Units**	**# of Sites Above AL of Total Sites**	**Violation Y/N**	**Sources of Contamination**
Lead	15	0	5.0	ppb	2	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.099	ppb	0	N	Corrosion of household plumbing.

Microbial- Borough of Zelienople					
Contaminants	**MCL**	**MCLG**	**Highest # or % of Positive Samples**	**Violation Y/N**	**Sources of Contamination**
Total Coliform Bacteria	For systems that collect <40 samples/month: • More than 1 positive monthly sample	0	0	N	Naturally present in the environment.

DETECTED SAMPLE RESULTS: Beaver Falls Municipal Authority (BFMA)

Chemical Contaminants- BFMA								
Contaminant	**MCL in CCR**	**MCLG**	**Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation Y/N**	**Sources of Contamination**
Copper	AL=1.3	1.3	0.329 (b)	0 – 1.03	ppm	6/16	N	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	AL=15	0.0	0.0 (b)	0.0 – 1.5	ppb	6/16	N	Corrosion of household plumbing systems; Erosion of natural deposits

Nitrate	10.0	10.0	0.97	0.97	ppm	6/16	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Barium	2	2	0.045	0.045	ppm	10/16	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sulfate	250	N/A	95.78	71.58-95.78	ppm	10/12	N	Erosion of natural deposits
Fluoride	2*	2	0.64	0.37-0.64	ppm	11/16	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Chlorine	4.0 = MRDL	4.0 = MRDLG	0.78(c)	1.1 – 1.29	ppm	Sampled Monthly	N	Water additive used to control microbes
Chloramine	4.0 = MRDL	4.0 = MRDLG	1.42(c)	0.78 – 1.42	ppm	Sampled Monthly	N	Water additive used to control microbes
Haloacetic Acids	60	N/A	46.5	12.5 – 76.0	ppb	Sampled Quarterly	N	By-product of drinking water chlorination
Total Trihalomethanes	80	N/A	55.4	14.7 – 80.1	ppb	Sampled Quarterly	N	By-product of drinking water chlorination

*EPA"s MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual-BFMA

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.2	1.38	1.38 – 2.80	ppm	Low in 6/24/16	N	Water additive used to control microbes.

Turbidity-BFMA

Contaminant	MCL	MCLG	Level Detecte	Sample Date	Violation Y/N	Source of Contamination
Turbidity	TT=1 NTU for a single measurement	0	100%(a)	Continuous Monitoring	N	Soil runoff.
	TT= at least 95% of monthly samples≤0.3 NTU		0.072	09/09/16	N	

Total Organic Carbon (TOC)-BFMA

Contaminant	Range of % Removal Required	Range of percent removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	25-45	34.1-46.7	0	N	Naturally present in the environment.

(a) The lowest monthly percentage of samples meeting turbidity limits specified by DEP regulations

(b) These ate 90th percentile results. One of the forty-six samples for lead exceeded the minimum action level. None of the forty-six copper samples exceeded the action level.

(c) DEP regulations require that a 'detectable' amount of disinfectant be maintained in the distribution system at all times.

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 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 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 Borough of Zelienople Water Department 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*

Violations: Borough of Zelienople

Our system failed to report/file monitoring plans on time in April and June 2016. All of the required water quality tests where preformed and the sample results were in compliance.

Violations: Beaver Falls Municipal Authority

Beaver Falls Municipal Authority has no violations to report for 2016

A paper copy of this report can be picked up at the Zelienople Municipal Building or you may request a copy by calling the Borough office at 724-452-6610.