



### Consumer Confidence Report (CCR) Certification Form

Name of CWS: South Pymatuning township PWSID Number: 6430077

The community water system (CWS) named above confirms that its CCR for the period of January 1, 2018 through December 31, 2018 has been distributed to customers (and appropriate notices of availability have been given). The system also confirms that the information in the CCR is correct and consistent with the compliance monitoring data previously submitted to the Pennsylvania Department of Environmental Protection (DEP).

Please check all items that apply to your CCR delivery.

CCR was hand-delivered to customers. Date delivered: \_\_\_\_\_

CCR was distributed by mail. Date mailed: \_\_\_\_\_

CCR was distributed by other direct delivery method(s). (check all that apply):

Mail notification that CCR is available on website via a direct uniform resource locator (URL)\*

Direct URL address: www.southpy.com Date mailed: 6-21-19

E-mail – direct URL to CCR\*

E-mail – CCR sent as an attachment to the e-mail\* } Date(s) email sent: \_\_\_\_\_

E-mail – CCR sent embedded in the e-mail\*

\* If the CCR was provided electronically, attach a description of how a customer requests a paper copy.

"Good faith" efforts were used to reach non-bill paying consumers:

posting the CCR on the Internet at www.southpy.com

mailing the CCR to postal patrons within the service area (attach a list of zip codes used)

advertising the availability of the CCR in news media (attach copy of announcement)

publication of CCR in local newspaper (attach copy of newspaper announcement)

posting the CCR in public places (attach a list of locations)

delivery of multiple copies to single bill addresses serving several persons

delivery to community organizations (attach a list)

electronic newsletter or listserv (attach a copy of the article or notice)

electronic announcement of CCR availability via social media outlets (attach list of outlets utilized)

The CCR was posted on a publicly-accessible Internet site because this system serves 100,000 or more.

Internet site address: www.\_\_\_\_\_

Delivered CCR to other agencies as required by the state/primacy agency (attach a list)

A copy of the CCR and a completed CCR Certification Form have been sent to the DEP district office (or the Allegheny County Health Department) that provides oversight and support of this water system. (See back of form for addresses.)

Certified by: Signature: [Signature] Print Name: Michael Kudecka

Title: Water system operator Phone: 724-962-7856 Date: 6-21-19

For DEP use only. Checked by: \_\_\_\_\_ Date: \_\_\_\_\_



2018 ANNUAL DRINKING WATER QUALITY REPORT  
PWSID #: 6430077 NAME: South Pymatuning Township

*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 Mike Kudelko at 724-962-7856. 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 second wed. of every month at 6:30 pm.

**SOURCE(S) OF WATER:**

Our water source(s) is/are: (Name-Type-Location)

Our water source is the Shenango River. S. Pym. twp. purchases water from the borough of Sharpsville (6430055) who purchases bulk water from aqua PA Shenango Valley Div. (6430054)

A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) of is/are potentially most susceptible to [insert potential Sources of Contamination listed in your Source Water Assessment Summary]. Overall, our source(s) has/have [little, moderate, high] risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: [www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045](http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045). 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

Regional Office, Records Management Unit at ( )

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, \_\_\_\_\_. 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*= parts per trillion, or nanograms per liter

The following table lists contaminants that were detected during 2018 (unless otherwise noted) in your water system. The table provides the level found and the range of detections of regulated contaminants.

**SOUTH PYM. TWP. - PWSID# PA6430077**

Contaminants	Level Found	Range of Detections	MCL	MCLG	Sample Date	Violation Y/N	Major Sources in Drinking Water
Total Chlorine, ppm	2.2	1.35-2.2	MRDL = 4	MRDLG = 4	2018	N	Water additive used to control microbes
Turbidity, % meeting plant performance level	100.0%	100.0 - 100.0%	TT	NA	2018	N	Soil runoff
Turbidity, NTU	0.27	0.02 - 0.27	TT	NA	2018	N	Soil runoff
<b>Inorganic Contaminants</b>							
Arsenic, ppb	1.2	NA	10	0	2018	N	Erosion from natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium, ppm	0.022	NA	2	2	2018	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium, ppb	1.8	NA	100	100	2018	N	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride, ppm	0.89	NA	2	2	2018	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Synthetic Organic Contaminants</b>							
Atrazine, ppb	0.60	NA	3	3	2018	N	Runoff from herbicide used on row crops
<b>Disinfection Byproducts-</b> For Haloacetic Acids and Total Trihalomethanes, the Level Found is the highest annual average of the quarterly averages. Compliance is based on a running annual average of quarterly results, not a single sample. The Range of Results lists the highest and lowest values among all individual samples.							
<b>Haloacetic acids, ppb</b>	<b>49.0</b>	<b>31.0-93.1</b>	<b>60</b>	<b>NA</b>	<b>2018</b>	<b>N</b>	<b>Byproduct of drinking water chlorination</b>
<b>Total Trihalo-methanes, ppb</b>	<b>53.9</b>	<b>32.1-96.6</b>	<b>80</b>	<b>NA</b>	<b>2018</b>	<b>N</b>	<b>Byproduct of drinking water chlorination</b>
Chlorite, ppm (distribution system)	0.33	ND - 0.67	1	0.8	2018	N	Byproduct of drinking water chlorination
Chlorite, ppm (entry point)	0.97	ND - 0.97	1	0.8	2018	N	Byproduct of drinking water chlorination

<b>Entry Point Disinfectant Residual</b>						
Contaminants	Minimum Level Found	Minimum Disinfectant Residual	Range of Detection	Sample Date	Violation Y/N	Major Sources in Drinking Water
Total Chlorine, ppm	1.3	0.2	1.3 - 3.4	2018	N	Water additive used to control microbes
Chlorine Dioxide, ppm	ND (a)	0.2	ND - 0.56	2018	N	

a) Chlorine Dioxide used for pre-oxidation, not disinfection.

**Violation:** On January 16, 2018, we inadvertently missed collecting a daily chlorine dioxide and chlorite sample. Because the test was not done, we cannot be certain of the water quality as it pertains to chlorine dioxide and chlorite on that day. Required monitoring resumed on 1/17/2018 and the results were within our required limits. A public notice was sent to customers in May 2018.

The following table lists contaminants that were detected during 2018 (unless otherwise noted) in your water system. This table provides the level found and the range of detections of regulated contaminants.

**SOUTH PYM. TWP.- PWSID# PA6430077**

Contaminants	Level Found	Range of Detections	MCL	MCLG	Sample Date	Violation Y/N	Major Sources in Drinking Water
Total Chlorine, ppm	2.2	1.35-2.2	MRDL = 4	MRDLG = 4	2018	N	Water additive used to control microbes
Turbidity, % meeting plant performance level	100.0%	100.0 - 100.0%	TT	NA	2018	N	Soil runoff
Turbidity, NTU	0.27	0.02 - 0.27	TT	NA	2018	N	Soil runoff
<b>Inorganic Contaminants</b>							
Arsenic, ppb	1.2	NA	10	0	2018	N	Erosion from natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium, ppm	0.022	NA	2	2	2018	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium, ppb	1.8	NA	100	100	2018	N	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride, ppm	0.89	NA	2	2	2018	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Synthetic Organic Contaminants</b>							
Atrazine, ppb	0.60	NA	3	3	2018	N	Runoff from herbicide used on row crops
<b>Disinfection Byproducts-</b> For Haloacetic Acids and Total Trihalomethanes, the Level Found is the highest annual average of the quarterly averages. Compliance is based on a running annual average of quarterly results, not a single sample. The Range of Results lists the highest and lowest values among all individual samples.							
<b>Haloacetic acids, ppb</b>	<b>49.0</b>	<b>31.0-93.1</b>	<b>60</b>	<b>NA</b>	<b>2018</b>	<b>N</b>	<b>Byproduct of drinking water chlorination</b>
<b>Total Trihalomethanes, ppb</b>	<b>53.9</b>	<b>32.1-96.6</b>	<b>80</b>	<b>NA</b>	<b>2018</b>	<b>N</b>	<b>Byproduct of drinking water chlorination</b>
Chlorite, ppm (distribution system)	0.33	ND - 0.67	1	0.8	2018	N	Byproduct of drinking water chlorination
Chlorite, ppm (entry point)	0.97	ND - 0.97	1	0.8	2018	N	Byproduct of drinking water chlorination

<b>Entry Point Disinfectant Residual</b>						
Contaminants	Minimum Level Found	Minimum Disinfectant Residual	Range of Detection	Sample Date	Violation Y/N	Major Sources in Drinking Water
Total Chlorine, ppm	1.3	0.2	1.3 - 3.4	2018	N	Water additive used to control microbes
Chlorine Dioxide, ppm	ND (a)	0.2	ND - 0.56	2018	N	

a) Chlorine Dioxide used for pre-oxidation, not disinfection.

**Violation:** On January 16, 2018, we inadvertently missed collecting a daily chlorine dioxide and chlorite sample. Because the test was not done, we cannot be certain of the water quality as it pertains to chlorine dioxide and chlorite on that day. Required monitoring resumed on 1/17/2018 and the results were within our required limits. A public notice was sent to customers in May 2018.

Total Organic Carbon (TOC)						
Contaminant	Range of Removal Required	Range of Percent Removal Achieved	Number of Quarters out of compliance	Sample Date	Violation Y/N	Sources of Contamination
TOC	35 - 45	29.0 - 53.8 (b)	0	2018	N	Naturally present in the environment

b) Compliance is determined by a running annual average (RAA) computed quarterly. All of the quarterly RAAs met compliance.

Monitoring for Cryptosporidium (a naturally occurring microbial pathogen) was conducted between 2016 – 2018 under a national program that was instituted in 2009 on raw (untreated) water samples from our source, the Shenango River. Cryptosporidium was detected in 7 of 24 raw water samples, with an average count of 0.115 per liter. These levels are in the second to lowest (Bin 2) category of risk for raw (untreated) water. Our water treatment processes are designed to remove Cryptosporidium. However, since this program has detected elevated levels of this organism in our raw water we will be instituting higher standards in 2019 to ensure the treatment process is optimized for the removal of Cryptosporidium. Complete removal of all organisms at all times cannot be guaranteed. For this reason, immuno-compromised individuals (people with weakened immune systems) are encouraged to consult their doctor regarding appropriate precautions to avoid infection.

#### Lead and Copper Results (Tap Samples)

Lead and Copper	90th Percentile	Total Number of Samples	Samples Exceeding Action Level	Action Level	MCLG	Sample Date	Violation Y/N	Major Sources in Drinking Water
Copper, ppm	.36	5	0	.7	1.3	2016	N	Corrosion of household plumbing systems; erosion of natural deposits
Lead, ppb	2.15	5	0	.7	0	2016	N	

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. Aqua 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 cold water 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>.

Contaminants	Level Found	Range of Detections	MCL	MCLG	Sample Date	Violation Y/N	Major Sources in Drinking Water
<b>Microbiological Contaminants</b>							
Microcystins, ppb	0.477 (c)	ND - 0.477	0.3/1.6	NA	2018	N	Produced by some naturally occurring cyanobacteria, also known as blue green algae, which under certain conditions (i.e., high nutrient concentrations and light intensity) may produce microcystins
0.3 AL for Children under 6 and sensitive populations, 1.6 AL for children 6 and older and adults							

c) A single Microcystin sample result, received on 2/26/2018, was above the Action Level. A resample was collected on 3/1/2018 and microcystins were not detected. According to regulatory guidelines, if a water system detects Microcystin above the Action Level, a repeat sample is required within 24 hours of receiving the results. Guidelines also recommend the public water system issue a public notification, including health effect language and use restrictions, if the Action Level is exceeded in the repeat sample; which did not occur. Consuming water containing concentrations of Microcystin over the Action Level may result in abnormal liver function, diarrhea, vomiting, nausea, numbness or dizziness. Children younger than school age, pregnant women, nursing mothers, the elderly, immune-compromised individual, those with pre-existing liver conditions and those receiving dialysis treatment may be more susceptible than the general population to the health effects of Microcystin.

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every 5 years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWS). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. These data serve as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions. If a PWS monitoring for UCMR4 finds contaminants in its drinking water, it must provide the information to its customers in this annual water quality report. Below is a table of the results of our UCMR4 monitoring in 2018. All other contaminants tested during UCMR4 were Not Detected.

Unregulated Contaminants Detected During 2018			
Unregulated Contaminant	Average Detection	Range of Detections	MCL
<b>Raw Samples (untreated)</b>			
Bromide, ppb	13.9	ND - 27.8	NA
Total Organic Carbon, ppb	5555	3800 - 7310	NA
<b>Entry Point Samples</b>			
Manganese, ppb	1.27	0.7 - 1.83	NA
<b>Distribution Samples</b>			
Bromochloroacetic acid, ppb	2.45	2.21 - 3.29	NA
Bromodichloroacetic acid, ppb	4.80	4.64 - 5.03	NA
Dichloroacetic acid, ppb	31.08	25.4 - 41.0	NA
Trichloroacetic acid, ppb	61.2	58.3 - 63.6	NA

#### Notes:

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

**Fluoride:** Fluoride may help prevent tooth decay for children, but can be harmful in excess. Customers in the Shenango Division receive water from fluoridated supplies. This information may be helpful to you, your pediatrician, or your dentist in determining whether fluoride supplements or treatment are appropriate.

**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 –** The minimum level of residual disinfectant required at the entry point to the distribution system.

**NA:** Not applicable.

**ND:** Not detected.

**NTU:** Nephelometric turbidity unit (cloudiness of water).

**ppb:** A unit of concentration equal to one part per billion.

**ppm:** A unit of concentration equal to one part per million.

**PWSID:** Public water supply identification number.

**Total Organic Carbon:** The level reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value greater than one indicates that the water system is in compliance with the TOC removal requirements. A value of less than one indicates a Treatment Technique violation of the TOC removal requirements.

**Turbidity:** Monitored as a measure of treatment efficiency for removal of particles. Plant Performance Level: 0.3 NTU.

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

**DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:**

no health effects violations took place

**OTHER VIOLATIONS:**

S. Pym. Jwp had no violations

**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. S. Pym. twp. 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>.

**OTHER INFORMATION:**

The borough of Sharpville (6430055) and Aqua PA. Shenango Valley Div. (6430054) have provided S. Pym. twp (6430077) with water quality info. monitored during 2018, the info is attached as part of S. Pym. twp. annual Drinking water Quality report.

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## 2018 ANNUAL DRINKING WATER QUALITY REPORT

**PWSID #: 6430055**      **NAME: Borough of Sharpsville**

*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 Ken Robertson, Sharpsville Borough at (724)-962-7896. 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 Wednesday of every month at 7pm at the Borough Building located at 1 South Walnut Street.

### **SOURCE(S) OF WATER:**

Our water source(s) is/are: (Name-Type-Location)

Our water source is the Shenango River. The Borough of Sharpsville purchases bulk water from Aqua Pennsylvania's Shenango Valley Division (Aqua). Water for the Shenango Valley Division comes from the Shenango River, which is fed by the 650-mile watershed located North of Sharon, Pennsylvania.

A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) of is/are potentially most susceptible to [insert potential Sources of Contamination listed in your Source Water Assessment Summary]. Overall, our source(s) has/have [little, moderate, high] risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: [www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045](http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045). 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 Northeast Regional Office, Records Management Unit at (814)332-6899.

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

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*ppb* = parts per billion, or micrograms per liter ( $\mu\text{g/L}$ )

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

*ppq* = parts per quadrillion, or picograms per liter

*ppt* = parts per trillion, or nanograms per liter

**DETECTED SAMPLE RESULTS:**

<b>Chemical Contaminants</b>								
<b>Contaminant</b>	<b>MCL in CCR Units</b>	<b>MCLG</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>Units</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Turbidity (Aqua)	TT ≤ 0	N/A	0.27	0.02-0.27	NTU	2018	N	Soil runoff
Arsenic (Aqua)	10	0	1.2	NA	ppb	2018	N	Erosion from natural deposits; Runoff from orchards; Runoff from glass and electronics production.
Barium (Aqua)	2	2	0.022	NA	ppm	2018	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (Aqua)	100	100	1.8	NA	ppb	2018	N	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (Aqua)	2	2	0.89	NA	ppm	2018	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Atrazine (Aqua)	3	3	0.60	NA	ppb	2018	N	Runoff from herbicide used on row crops.
Chlorite (Aqua)	1	1	0.78	0.091-0.78	ppm	2018	N	By-Product of drinking water chlorination.
Chlorine-Distribution System	MRDL=4	MRDLG= 4	1.8	1.6-1.8	ppm	2018	N	Water additive used to control microbes.
HAA5	60	N/A	39.777	28.4-52.75	ppb	2018	N	By-product of drinking water disinfection.
TTHM	80	N/A	54.8	33.25-89.85	ppb	2018	N	By-product of drinking water disinfection.

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

<b>Entry Point Disinfectant Residual</b>							
<b>Contaminant</b>	<b>Minimum Disinfectant Residual</b>	<b>Lowest Level Detected</b>	<b>Range of Detections</b>	<b>Units</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Total Chlorine Entry Point (Aqua)	0.2	1.3	1.3-3.4	ppm	2018	N	Water additive used to control microbes.
Chlorine Dioxide* Entry Point (Aqua)	0	0.2	0-0.56	ppm	2018	N	Water additive used to control microbes.

\*Chlorine Dioxide used for pre-oxidation, not disinfection.

<b>Lead and Copper</b>							
<b>Contaminant</b>	<b>Action Level (AL)</b>	<b>MCLG</b>	<b>90<sup>th</sup> Percentile Value</b>	<b>Units</b>	<b># of Sites Above AL of Total Sites</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Lead	15	0	2.8	ppb	0	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.18	ppm	0	N	Corrosion of household plumbing.

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. Aqua 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 and 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 <http://www.epa.gov/safewater/lead>.

Monitoring for Cryptosporidium (a naturally occurring microbial pathogen) was conducted between 2016-2018 for Aqua PA Shenango Valley Water Treatment Plant under a national program that was instituted in 2009 on raw (untreated) water samples from our source, the Shenango River, Cryptosporidium was detected in 7 of 24 raw water samples, with an average count of 0.115 per liter. These levels are in the second lowest (Bin 2) category of risk raw (untreated) water. Our water treatment processes are designed to remove Cryptosporidium. However, since this program has detected elevated levels of this organism in our raw water, we will be instituting higher standards in 2019 to ensure the treatment process is optimized for the removal of Cryptosporidium. Complete removal of all organisms at all times cannot be guaranteed. For this reason, immune-compromised individuals (people with weakened immune systems) are encouraged to consult their doctor precautions to avoid infection.

<b>Microbiological Contaminants</b>								
<b>Contaminant</b>	<b>Level Detected</b>	<b>Range</b>	<b>Action Level (AL)</b>	<b>Units</b>	<b>MCL</b>	<b>Violation Y/N</b>	<b>Sample Date</b>	<b>Sources of Contamination</b>
Microcystins	0.477	ND-0.477	0.3/1.6	ppb	N/A	N	2018	Produced by some naturally occurring cyanobacteria, also known as blue green algae, which under certain conditions (i.e., high nutrient concentrations and light intensity) may produce microcystins.

A single Microcystin sample result, received on 2/26/2018, was above the Action Level. A resample was collected on 03/1/2018 and microcystins were not detected. According to regulatory guidelines, if a water system detects Microcystin above the Action Level, a repeat sample is required within 24 hours of receiving the results. Guideline also recommended the public water system issue a public notification, including health effect language and use restrictions, if the Action Level is exceeded in the repeat sample; which did not occur. Consuming water containing concentrations of Microcystin over the Action Level may result in abnormal liver function, diarrhea, vomiting, nausea, numbness or dizziness. Children younger than school-age, pregnant women, nursing mothers, the elderly, immune-compromised individual, those with pre-existing liver conditions and those receiving dialysis treatment may be more susceptible than the general population to the health effects of Microcystin.

<b>Microbial (related to Assessments/Corrective Actions regarding TC positive results)</b>					
<b>Contaminants</b>	<b>TT</b>	<b>MCLG</b>	<b>Assessments/ Corrective Actions</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Naturally present in the environment.

<b>Microbial (related to E. coli)</b>					
<b>Contaminants</b>	<b>MCL</b>	<b>MCLG</b>	<b>Positive Sample(s)</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
<i>E. coli</i>	Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .	0	0	N	Human and animal fecal waste.
<b>Contaminants</b>	<b>TT</b>	<b>MCLG</b>	<b>Assessments/ Corrective Actions</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
<i>E. coli</i>	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Human and animal fecal waste.

<b>Turbidity</b>						
<b>Contaminant</b>	<b>MCL</b>	<b>MCLG</b>	<b>Level Detected</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Source of Contamination</b>
Turbidity	TT=1 NTU for a single measurement	0			N	Soil runoff
	TT= at least 95% of monthly samples ≤ 0.3 NTU				N	

<b>Total Organic Carbon (TOC)</b>					
<b>Contaminant</b>	<b>Range of % Removal Required</b>	<b>Range of percent removal achieved</b>	<b>Number of quarters out of compliance</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
TOC	35-45	25.0-44.4	0	N	Naturally present in

(Aqua)					the environment
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**DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:**

No violations took place. As such, no health effects are noted.

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**OTHER VIOLATIONS:**

The Borough of Sharpshville had no other violations.

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**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 Sharpshville 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>.

**OTHER INFORMATION:**

Monitoring for Cryptosporidium (a naturally occurring microbial pathogen) was conducted between 2016-2018 under a national program in 2009 on raw (untreated) water samples from our source, the Shenango River. Cryptosporidium was detected in 7 of 24 raw water samples, with an average count of 0.115 oocysts per liter. These levels are in the second to lowest (Bin 2) category of risk for raw (untreated) water. Aqua's water treatment processes are designed to remove Cryptosporidium. However, since this program has detected elevated levels of this organisms in our raw water, we will be instituting higher standards in 2019 to ensure the treatment process is optimized for the removal of Cryptosporidium. Complete removal of all organisms cannot be guaranteed. For this reason, immune-compromised individuals (people with weakened immune systems) are encouraged to consult their doctor regarding appropriate precautions to avoid infection.

The 1996 amendments to the Safe Water Drinking Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 **unregulated contaminants** to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. This data serves as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions. If a PWS monitoring for UCMR finds contaminants in drinking water, it must provide the information to its customers in this annual water quality report. Below is a table of the results of Aqua PA's UCMR monitoring in 2018. All other contaminants tested during UCMR were not detected.

<i>Unregulated Contaminants Detected During 2018</i>			
<i>Unregulated Contaminant</i>	<i>Average Detection</i>	<i>Range of Detections</i>	<i>MCL</i>
<i>Raw Samples (untreated)</i>			
<b>Bromide, ppb</b>	<b>13.9</b>	<b>ND – 27.8</b>	<b>N/A</b>
<b>Total Organic Carbon, ppb</b>	<b>5555</b>	<b>3800-7310</b>	<b>N/A</b>
<i>Entry Point Samples</i>			
<b>Manganese, ppb</b>	<b>1.27</b>	<b>0.7-1.83</b>	<b>N/A</b>
<i>Distribution Samples</i>			
<b>Bromochloroacetic Acid, ppb</b>	<b>2.45</b>	<b>2.21-3.29</b>	<b>N/A</b>
<b>Bromodichloroacetic Acid, ppb</b>	<b>4.80</b>	<b>4.64-5.03</b>	<b>N/A</b>
<b>Dichloroacetic Acid, ppb</b>	<b>31.08</b>	<b>25.4-41.0</b>	<b>N/A</b>
<b>Trichloroacetic Acid, ppb</b>	<b>61.2</b>	<b>58.3-63.6</b>	<b>N/A</b>

Note: At this time, results for all the samples taken for the UCMR in 2018 are not yet available. This table has only been updated with the results we have received thus far. Aqua PA and Sharpsville Borough will update this data as it becomes available.