



**2019** ANNUAL DRINKING WATER QUALITY REPORT

**PWSID #: 7360017**

**NAME: Denver Borough**

*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 Michael Hession, Borough Manager/Secretary at 717-336-2831, Ext. 5. 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 On the second and last Monday of every month at 7:00 p.m. at the Denver Borough Municipal Building, 501 Main Street, Denver, PA 17517.

**SOURCE(S) OF WATER:**

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

Cocalico Creek – Surface – Main Street, Denver, PA

Well #1 – Ground – Smokestown Road; Well #2 – Ground, Smokestown Road;

Well #3 – Ground – Smokestown Road; Well #4 – Ground – Tamarack Drive.

A *Source Water Assessment* of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP) in November, 2012. The Assessment has found that our source(s) are potentially most susceptible to wastewater discharge, USEPA Superfunds, Land Application, Land Recycling/Brownfields, and Underground Storage Tanks. Overall, our surface water source has a high risk of contamination from grazing and crop related agriculture and NPDES locations; a moderate risk from animal feedlots, road deicing, transportation corridors, landfills, pipelines; and little risk auto repair and household chemicals. The groundwater sources have a high risk of contamination from underground storage tanks; moderate risk from NPDES locations, transportation corridors, landfills, pipelines, and auto repair/service stations; and little risk from animal feedlots and road deicing. 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 Southcentral Regional Office, Records Management Unit.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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, 2019. 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.

**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)

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

**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>
Chlorine	4	4	1.55	0.8 to 1.55	ppm	2019	N	Water additive used to control microbes
Nitrate	10	10	3.84	1.84 to 3.84	ppm	2019	N	Runoff from fertilizer use
HAA5	60	60	13.3	5.2 – 13.3	ppb	2019	N	By-product of drinking water disinfection
TTHM	80	80	26.1	6.6 to 26.1	ppb	2019	N	By-product of drinking water disinfection

Chromium	100	100	2	0 to 2	ppb	2018	N	Discharge from steel and pulp mills; Erosion of natural deposits
Arsenic	10	0	2	0 to 2	ppb	2019	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2	2	0.121	0.117 to 0.121	ppm	2019	N	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Uranium	30	30	1.03	0 to 1.03	ug/L	2017	N	Erosion of natural deposits

\*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 – Entry Point 100</b>							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.2	0.80	0.80 to 2.1	ppm	2019	N	Water additive used to control microbes.
<b>Entry Point Disinfectant Residual – Entry point 101</b>							
Chlorine	0.4	0.87	0.87 to 2.9	ppm	2019	N	Water additive used to control microbes.

<b>Lead and Copper</b>							
Contaminant	Action Level (AL)	MCLG	90 <sup>th</sup> Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	4 2019	ppb	0 out of 30	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.808 2019	ppm	0 out of 30	N	Corrosion of household plumbing.

<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	1	Y	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	0.09	2019	N	Soil runoff
	TT= at least 95% of monthly samples ≤ 0.3 NTU		100%		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%	40-45%	0	N	Naturally present in the environment

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

During the past year the Borough was required to conduct one (1) Level 1 Assessment. One (1) Level 1 Assessment was completed. The reason for the Level 1 Assessment was that during September, 2019, the Borough failed to take three (3) check samples in response to a routine sample collected on September 25, 2019 being Total Coliform positive and therefore could not be sure of the quality of the drinking water at that time. The Borough did take two (2) check samples after being notified of the Total Coliform positive routine sample at Site 804 (820 South 4th Street, Cocalico Service Center Breakroom). The two (2) samples the Borough did collect on September 27, 2019 were all Total Coliform negative. A make-up third check sample was collected on October 1, 2019 and that sample also was Total Coliform negative. Please note, the Borough's Total Coliform Sampling Site Plan, which was approved by the Department of Environmental Protection (DEP) in 2016, lists two (2) site sample locations for the Borough. After receiving notice of the positive sample, as indicated above, the Borough had samples taken and tested at these two (2) sites and both samples were negative. The Borough subsequently was informed by DEP that the public water system shall collect at least three (3) check samples for each routine Total Coliform positive result. The Borough then updated our Total Coliform Sample Siting Plan to include a third testing location as per PA Code Chapter 109. A Public Notice stating that Monitoring requirements Not met for Denver Borough was distributed to every Borough property in the November, 2019 Denver Express Newsletter.

**OTHER VIOLATIONS:**

The Borough failed to monitor for weekly distribution chlorine during the week of 5/26/19 – 6/1/19. The distribution chlorine sample was taken 6/6/2019 and was in compliance with regulations and showed that we are meeting drinking water standards.

**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. Denver Borough \_\_\_\_\_ 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:**

All violations are located on the CCR System web page. (<http://www.drinkingwater.state.pa.us/ccr/index.html>). At the bottom of the introductory page, click on "Continue to CCR" link. 1) Select System (s) based on: (a) PWSID (#7360017). 2) Click on the "Submit button. 3) Use the drop down box to select the violation report. 4) Click on the "Submit" button. 5) If a violation is present it will appear in a table.

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