

Lehigh County Authority Annual Water Quality Report 2016

Upper Milford Central Division
PWSID: 3390076

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

LCA Commitment to Safe Drinking Water

LCA is a public, nonprofit water and sewer utility dedicated to a single mission – to provide continually improved, affordable, reliable and sustainable services to our customers.

Continuous improvement comes from our ongoing participation in programs and associations such as the Partnership for Safe Water program, Lehigh Valley Water Suppliers, American Water Works Association, the PA-DEP Source Water Protection Technical Assistance Program and the Pennsylvania Association of Accredited Environmental Laboratories. It also comes from our professional staff of water plant operators, laboratory technicians, customer service personnel and distribution system operators who provide the highest quality service possible every single day.

This report contains detailed information about your water quality. As you review this information, please feel free to contact LCA to ask questions and learn more about our commitment to our customers. Thank you!

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About Your Water System

Service Area: The Buss Acres, Deer Run and Crest developments in Upper Milford Township.

Number of Customers: 100 properties served.

Water Supply: Two deep wells located in the Upper Milford Township produce an average of 27,481 gallons per day of groundwater.

Water Treatment: Water from LCA's wells is disinfected with chlorine to kill bacteria. Sodium hydroxide is also added to adjust the pH of the water slightly. This treatment helps to prevent lead and copper leaching from customers' home plumbing systems.

Why this report is important!

The information contained in this report may be especially important for some groups of people, such as the elderly, people with compromised immune systems and infants. If you are viewing this report, but the water LCA provides is actually provided to tenants, patients, customers or employees who use your property, please make a copy of this report available to them as well.

Thank you!

2016 Water Quality Test Results

Abbreviations & Definitions

| | |
|---------------------|---|
| MCL: | Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs (definition below) as feasible using the best available treatment technology. |
| MCLG: | Maximum Contaminant Level Goal. 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. |
| MinRDL: | Minimum Residual Disinfectant Level. The minimum level of residual disinfectant required at the entry point to the distribution system. |
| MaxRDL: | Maximum Residual Disinfectant Level. 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. |
| MaxRDLG: | Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MaxRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination. |
| AL: | Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| TT: | Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water. |
| mg/L: | Milligrams per liter. |
| NTU: | Nephelometric turbidity units (measure of water's cloudiness) |
| pCi/L: | Picocuries per liter (a measure of radiation). |
| ppm: | Parts per million (equal to milligrams per liter). |
| ppb: | Parts per billion. |
| ug/L: | Micrograms per liter. |
| N/A: | Not applicable. |
| ND: | Not detected. |
| < or > | < = Less than. > = Greater than. |

2016 Water Quality Test Results

Entry Point Disinfectant Residual

| Contaminant Name | MCL (Maximum Allowed) | MCLG (Goal) | LCA's Water Test Results | Range of LCA's Test Results | Sample Date | Pass or Fail? | Sources of Contamination |
|--------------------------------------|-----------------------------|----------------|------------------------------------|--------------------------------|----------------|------------------|--|
| Chlorine (as Cl ₂) (ppm) | MinRDL = 0.42 | N/A | Lowest Detected Level = 0.56 | 0.56 – 1.34 | 2016 | Pass | Water additive used to control microbes |

2016 Water Quality Test Results

Chemical Contaminants

| Contaminant Name | MCL (Maximum Allowed) | MCLG (Goal) | LCA's Water Test Results | Range of LCA's Test Results | Sample Date | Pass or Fail? | Sources of Contamination |
|--------------------------------------|-----------------------------|----------------|--------------------------------|--------------------------------|----------------|------------------|--|
| Chlorine (as Cl ₂) (ppm) | MaxRDL = 4 | MaxRDLG = 4 | 1.49 | 0.32 – 1.49 | 2016 | Pass | Water additive used to control microbes |
| Total Trihalomethanes (ppb) | 80 | N/A | 26.8 | N/A | 2015 | Pass | By-product of water system chlorination |
| Haloacetic Acids (ppb) | 60 | N/A | 5.58 | N/A | 2015 | Pass | By-product of water system disinfection |

2016 Water Quality Test Results

Chemical Contaminants (cont'd)

| Contaminant Name | MCL (Maximum Allowed) | MCLG (Goal) | LCA's Water Test Results | Range of LCA's Test Results | Sample Date | Pass or Fail? | Sources of Contamination |
|------------------|-----------------------------|----------------|--------------------------------|--------------------------------|----------------|------------------|---|
| Barium (ppm) | 2 | 2 | 0.045 | 0.03 – 0.045 | 2015 | Pass | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium (ppb) | 100 | 100 | 2 | 1 – 2 | 2015 | Pass | Discharge from steel and pulp mills; Erosion of natural deposits |
| Nitrate (ppm) | 10 | 10 | 6.28 | 5.34 – 6.28 | 2016 | Pass | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |

2016 Water Quality Test Results

Lead & Copper Testing

| Contaminant Name | MCL (Maximum Allowed) | MCLG (Goal) | LCA's Water Test Results | Range of LCA's Test Results | Sample Date | Pass or Fail? | Sources of Contamination |
|------------------|-----------------------------|----------------|-----------------------------|--------------------------------|----------------|------------------|--|
| Copper (ppm) | AL = 1.3 | 1.3 | 0.243 | All samples were < AL | 2016 | Pass | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead (ppb) | AL = 15 | 0 | 3.5 | All samples were < AL | 2016 | Pass | Corrosion of household plumbing systems; Erosion of natural deposits |

2016 Water Quality Test Results

Radioactive Contaminants

| Contaminant Name | MCL (Maximum Allowed) | MCLG (Goal) | LCA's Water Test Results | Range of LCA's Test Results | Sample Date | Pass or Fail? | Sources of Contamination |
|----------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------|----------------|------------------|---|
| Combined Uranium (ug/L) | 30 | 0 | 3.3 | 2.6 – 3.3 | 2013 | Pass | Erosion of natural deposits |
| Alpha Emitters (pCi/L) | 15 | 0 | 4.02 | 0 – 4.02 | 2013/2016 | Pass | Decay of natural and manmade deposits |
| Combined Radium (pCi/L) | 5 | 0 | 1.33 | 0 – 1.33 | 2013/2016 | Pass | Erosion of natural deposits |



What does this report mean?

The information in this report shows only those substances that were detected in your water. All of them “passed” because they fall within acceptable limits for health and safety as determined by state and federal regulations. These regulations are put in place to protect the public’s health, and we are pleased to show that our water met these standards in 2016!



Any violations in 2016?

LCA faced no water quality violations in your water system in 2016!

What's NOT in your water?

In addition to the substances shown in this report, LCA tests your water for many other substances which were NOT detected in your water. These tests are routinely conducted according to schedules and procedures outlined in state and federal regulations for safe drinking water.

Substances LCA tests for include:

Microbiological Contaminants

Radioactive Contaminants

Inorganic Contaminants

Disinfection By-Products

Volatile Organic Contaminants

Synthetic Organic Contaminants

With the exception of those listed in the charts in this report, none of the substances we have tested for have been detected in your drinking water. For detailed information about our water quality monitoring program, please give us a call at 610-398-1444 any time with your questions.

Other Important Information

Water Testing Frequency

The monitoring results shown in this report includes information from calendar year 2016. Annual testing is not required for all contaminants. Some are on multi-year cycles based on schedules determined by state and federal regulations. We also test for some contaminants such as total coliform and chlorine many times throughout the year as results may change as environmental conditions change.

Other Important Information

Nitrates in Drinking Water

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Other Important Information

Lead in Drinking Water

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. LCA 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Other Important Information

Radon in Drinking Water

As a follow-up to the statewide program to assess radon levels in drinking water sources in 2007, LCA also tested your drinking water for radon in 2008 and found levels ranging from 19,660 to 33,140 picocuries per liter (pCi/L). At this time, radon is not regulated for drinking water, and no standards have been adopted for safe drinking water. LCA has worked with the community to provide education to homeowners as well as air-testing kits to provide additional information to the community about this important issue. At this time, discussions are still ongoing regarding water treatment options, which are very costly to install and maintain. Customers are encouraged to review the information below and consider installing radon remediation systems in their homes to remove radon from the air in the home, which is the primary health risk the community faces.

Other Important Information

Educational Info About Radon

Radon is a radioactive gas that you can't see, taste or smell and can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause an increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 pCi/L or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

A Note From EPA

Where drinking water contamination comes from, and how EPA protects public health

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 microbes, organic or inorganic chemicals, pesticides and herbicides or radioactive materials.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

A Note From EPA (cont'd)

Where drinking water contamination comes from, and how EPA protects 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).

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).

Water Hardness, pH & Other Useful Info

Water “hardness” is a measure of the mineral content in your water. These minerals, such as calcium and magnesium, are essential to human health and do not need to be removed from your drinking water. However, some customers prefer to remove these minerals with a water softener to avoid mineral deposits on faucets and other fixtures.

Hardness Scale:

0 - 5 grains per gallon = Soft Water

6 - 10 grains per gallon = Moderately Hard Water

> 11 grains per gallon = Hard Water

Water Hardness, pH & Other Useful Info

Secondary Contaminant Analysis

Secondary contaminants are associated with the aesthetic qualities of drinking water, such as taste, smell, color and formation of deposits on plumbing fixtures. When a secondary contaminant MCL is exceeded, you may notice a change in the color, smell or taste of your tap water.

| Contaminant Name | MCL | Your Water Results |
|------------------------------------|-----------|--------------------|
| pH (standard units) | 6.5 – 8.5 | 7.06 – 7.18 |
| Iron (ppm) | 0.3 | Not detected |
| Magnesium (ppm) | N/A | 17 – 18 * |
| Manganese (ppm) | 0.05 | Not detected |
| Sodium (ppm) | N/A | 56 – 58.3 |
| Total Dissolved Solids (ppm) | 500 | 303 – 345 |
| Total Hardness (grains per gallon) | N/A | 8 – 11 |
| Alkalinity (ppm) | N/A | 131 – 157 |
| Calcium (ppm) | N/A | 44 – 46 * |

* 2014 results

Protecting Your Drinking Water

The Pennsylvania Department of Environmental Protection (PA-DEP) completed a Source Water Assessment of the groundwater wells that supply water to your water system in 2004.

The assessment found that LCA's sources of water are located within residential, commercial and industrial areas and, therefore, are susceptible to potential sources of contamination from related activities. Examples include leaking underground storage tanks, wintertime road salt applications and household activities such as lawn fertilizing and improper disposal of household hazardous wastes.

Public meetings were held in 2005 to review the assessment, and completed reports were distributed to LCA, municipalities served by LCA's water systems, and local planning agencies. A summary of the report is available by contacting LCA, and additional information is available on the PA-DEP web site at www.dep.state.pa.us (use Keyword "Source Water Protection").

Protecting Your Drinking Water

Here are a few ideas about how you can help:

Don't Dump: Anything you put on the ground or down a storm drain can make its way into our groundwater or other water sources. Contact the Lehigh County Office of Solid Waste at 610-799-4177 to find out how to dispose of household hazardous wastes.

Lawn Care: Use only as much fertilizer as your lawn or garden really needs, and be sure to pick up after your pets!

Care for Your Car: Oil spots left on driveways and parking lots can wash away with the rain and will end up back in the environment.

Report Spills: Call 9-1-1 if you witness accidental or intentional dumping of unknown substances into our environment!

Got Questions? How to reach LCA:

Please contact Lehigh County Authority at 610-398-1444,
or visit us online at www.lehighcountyauthority.org!

Board meetings are open to the public! Please visit us
online for a meeting schedule and agendas!