

## The Water We Drink

### CITY OF ALEXANDRIA WATER SYSTEM

Public Water Supply 10: LA 1079001

We are pleased to present to you the Annual Water Quality Report for the year 2016. This report is designed to inform you about the quality of your water and services we deliver to you every day (Este informe contiene informacio'n muy importante sobre su agua potable. Tradu'zcalo o hable con alguien que lo entienda bien). Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Our water source(s) are listed below:

Source Name	Source Water Type
BEECH AND HICKORY WELL	Ground Water
WELL R 1210	Ground Water
LEE AND MASONIC WEST WELL	Ground Water
HWY 1 WELL (BY RAILROAD TRACKS)	Ground Water
WELL R 937	Ground Water
EAST WELL @ ARMORY (HWY 28)	Ground Water
WELL R 928	Ground Water
WELL R 909	Ground Water
WELL R 1432	Ground Water
WELL R 907	Ground Water
BETTY STREET WELL	Ground Water
WELL R 912	Ground Water
WELL R 910	Ground Water
WELL R 936	Ground Water
WELL R 924	Ground Water
WELL R 1292	Ground Water
WELL R 906	Ground Water
WELL R 927	Ground Water
WELL R 921	Ground Water
HIGHWAY 1 WELL	Ground Water
HAROLD MILES PARK WELL	Ground Water
WELL R 918	Ground Water
WELL R 914	Ground Water
WELL R 925	Ground Water
WELL @ LANNY DRIVE AND KATHY STREET	Ground Water
WELL R 929	Ground Water
WELL R 920	Ground Water
WELL R 1475	Ground Water
STERKX WELL	Ground Water
WELL ON CALVIN GORDY ROAD	Ground Water
LEE AND MASONIC EAST WELL	Ground Water
WELL R 1431	Ground Water
WELL R 916	Ground Water
WELL R 932	Ground Water
WELL R 922	Ground Water
WELL R 933	Ground Water
WELL R 905	Ground Water
WELL R 915	Ground Water
WELL @ GOLF COURSE NEAR AIRPORT	Ground Water

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 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 runoff, 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.

A Source Water Assessment Plan (SWAP) is now available from our office. This plan is an assessment of a delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment Plan, our water system had a susceptibility rating of 'MEDIUM'. If you would like to review the Source Water Assessment Plan, please feel free to contact our office.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. We want our valued customers to be informed about their water utility. If you have any questions about this report, want to attend any scheduled meetings, or simply want to learn more about your drinking water, please contact MICHAEL MARCOTTE at 318-449-5008.

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. CITY OF ALEXANDRIA WATER SYSTEM 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>.

The Louisiana Department of Health and Hospitals – Office of Public Health routinely monitors for constituents in your drinking water according to Federal and State laws. The tables that follow show the results of our monitoring during the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2016. 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.

In the tables below, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following definitions.

Parts per million (ppm) or Milligrams per liter (mg/L) – one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) – Picocuries per liter is a measure of the radioactivity in water.

Treatment Technique (TT) – an enforceable procedure or level of technological performance which public water systems must follow to ensure control of a contaminant.

Action level (AL) – the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum contaminant level (MCL) – the “Maximum Allowed” MCL is the highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

Maximum contaminant level goal (MCLG) – the “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLG’S 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 contaminates.

Maximum residual disinfectant level goal (MRDLG) – The level of a drinking water disinfectant below which there is no known expected risk to health . MRDLG’s do not reflect the benefits of the use of disinfectants to control microbial contaminates.

Level 1 Assessment – 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 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.

During the period covered by this report we had the below noted violations.

Compliance Period	Analyte	Type
No violations Occurred in the Calendar Year of 2016		

Our water system tested a minimum of 60 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. During the monitoring period covered by this report, we had the following noted detections for microbiological contaminants:

Microbiological	Result	MCL	MCLG	Typical Source
COLIFORM (TCR)	In the month of September, 1.59% of samples returned as positive	MCL: Systems that collect 40 or more samples per month – no more than 5% positive monthly samples;	0	Naturally present in the environment

In the tables below, we have shown the regulated contaminants that were detected. Chemical Sampling of our drinking water may not be required on an annual basis; therefore, information provided in this table refers back to the latest year of chemical sampling results.

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ARSENIC	10/5/2016	2.5	0.5 – 2.5	ppb	10	0	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM	11/9/2016	0.093	0.0053 – 0.093	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
DI (2-ETHYLHEXYL) PHTHALATE	6/15/2016	1.8	0.74- 1.8	ppb	6	0	Discharge from rubber and chemical factories

FLUORIDE	6/15/2016	2.6	0.054 – 2.6	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE-NITRITE	6/6/2016	0.31	0.025 – 0.31	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SELENIUM	7/19/2016	1.6	1.6	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
COMBINED RADIUM (-226 & -228)	5/10/2016	1.61	0.209 – 1.61	pCi/l	5	0	Erosion of natural deposits
COMBINED URANIUM	6/15/2016	1.1	0.61 – 1.1	µg/l	30	0	Erosion of natural deposits
GROSS ALPHA PARTICLE ACTIVITY	8/9/2016	60.7	5.86 – 60.7	pCi/l	15	0	Erosion of natural deposits
GROSS ALPHA, EXCL. RADON & U	8/9/2016	60.7	5.86 – 60.7	pCi/l	15	0	Erosion of natural deposits
GROSS BETA PARTICLE ACTIVITY	11/9/2016	2.65	0.755 – 2.65	pCi/l	50	0	Decay of natural and man-made deposits. Note: The gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

Lead and Copper	Date	90 <sup>th</sup> Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2014 – 2016	0.5	0.1 – 0.7	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2014 – 2016	6	1 – 19	ppb	15	2	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Period	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2125 AIRBASE ROAD	2016	9	8.5 – 9	ppb	60	0	By-product of drinking water disinfection
TTHM	2125 AIRBASE ROAD	2016	41	40.7 – 41.7	ppb	80	0	By-product of drinking water chlorination

Unresolved significant deficiencies that were identified during a survey done on the water system are shown below.					
Date Identified	Facility	Code	Activity	Due Date	Description
02/24/2016	WELL R 426	SW17			SRC GE – LAC 51:XII.331.A – Well Abandonment
02/24/2016	HWY 1 WELL (NORTH OF GOLF COURSE)	SW17			SRC GE – LAC 51:XII.331.A – Well Abandonment

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	SMCL
ALUMINUM	05/28/2013	0.01	0.01	MG/L	0.05
CHLORIDE	05/18/2016	333	3.6 - 333	MG/L	250
IRON	07/19/2016	6.6	0.026 – 6.6	MG/L	0.3
MANGANESE	07/19/2016	0.054	0.0035 – 0.054	MG/L	0.05
PH	06/15/2016	8.4	5.6 – 8.4	SU	8.5
SULFATE	06/15/2016	11.2	2.6 – 11.2	MG/L	250
ZINC	07/19/2016	0.085	0.01 – 0.085	MG/L	5

+++++Environmental Protection Agency Required Health Effects Language+++++

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).

Additional Required Health Effects Language:

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine (9) years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than two (2) milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system has a fluoride concentration greater than 2.0 mg/L. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine (9) should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water. Drinking water containing more than four (4) mg/L of fluoride (the maximum contaminant level for fluoride) can increase your risk of developing bone disease. Your drinking water does not contain more than four (4) mg/L of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed two (2) mg/L because of this cosmetic dental problem. For more information, please call at the phone number located under the heading "How might I become actively involved?" on page 1 of this report. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4761).

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Disinfectants – Maximum Residual Disinfectant Level (MRDL) and Disinfection By-products – Maximum Contaminant Level (MCL)

Contaminants	Date	Result	Unit	Range	MRDL or MCL	MRDLG or MCLG	Typical Source
CHLORINE	2016	1.37	ppm	0.50 – 2.70	4	4	Water additive used to control Microbes

There are no additional required health effects violation notices.

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Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers.

We at the CITY OF ALEXANDRIA WATER SYSTEM work around the clock to provide top quality drinking water to every tap. We ask that all our customers help us protect and conserve our water sources, which are the heart of our community, our way of life, and our children’s future. Please call our office if you have any questions.