

The Water Works Board of the City of Leeds

8651 Thornton Avenue; Leeds, Alabama 35094

PWSID # AL0000753

2016 Annual Drinking Water Quality Report

The U.S. Environmental Protection Agency (EPA) wants you to know:

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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 that must provide the same protection for public health. All 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). 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 radioactive material, and it 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 storm water 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 storm water 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 storm water runoff, and septic systems. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Important 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. Leeds Water Works Board 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>.

Notes:

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 (1-800-426-4791).

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, though accurate, are more than one year old. For the monitoring performed in 2016, no violations occurred.

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

Table of Primary Contaminants

At high levels, primary contaminants are known to pose health risks to humans. This table indicates any primary contaminant detections.

CONTAMINANT	MCL	Amount Detected	CONTAMINANT	MCL	Amount Detected
Bacteriological			Endothall	100 ppb	ND
Total Coliform Bacteria	< 5%	ND	Endrin	2 ppb	ND
Turbidity	TT	3.80	Epichlorohydrin	TT	ND
Radiological			Glyphosate	700 ppb	ND
Beta/photon emitters (mrem/yr)	4	ND	Heptachlor	400 ppt	ND
Alpha emitters (pCi/L)	15	2.1	Heptachlor epoxide	200 ppt	ND
Combined radium (pCi/L)	5	0.7	Hexachlorobenzene	1 ppb	ND
Inorganic			Lindane	200 ppt	ND
Antimony (ppb)	6 ppb	ND	Methoxychlor	40 ppb	ND
Arsenic (ppb)	10 ppb	ND	Oxamyl [Vydate]	200 ppb	ND
Barium (ppm)	2 ppm	0.039	PCBs	500 ppt	ND
Beryllium (ppb)	4 ppb	ND	Pentachlorophenol	1 ppb	ND
Cadmium	5 ppb	ND	Picloram	500 ppb	ND
Chromium	100 ppb	ND	Simazine	4 ppb	ND
Copper *	1.3 ppm	0.73	Toxaphene	3 ppb	ND
Cyanide	200 ppb	ND	Benzene	5 ppb	ND
Fluoride	4 ppm	ND	Carbon Tetrachloride	5 ppb	ND
Lead (ppb) *	AL=15	ND	Chlorobenzene	100 ppb	ND
Mercury	2 ppb	ND	Dibromochloropropane	200 ppt	ND
Nitrate	10 ppm	0.87	0-Dichlorobenzene	600 ppb	ND
Nitrite	1 ppm	ND	p-Dichlorobenzene	75 ppb	ND
Selenium	50 ppb	ND	1,2-Dichloroethane	5 ppb	ND
Thallium	2 ppb	ND	1,1-Dichloroethylene	7 ppb	ND
* 90th percentile of the most recent sampling event.			Cis-1,2-Dichloroethylene	70 ppb	ND
Organic Chemicals			trans-1,2-Dichloroethylene	100 ppb	ND
2,4-D	70 ppb	ND	Dichloromethane	5 ppb	ND
2,4,5-TP (Silvex)	50 ppb	ND	1,2-Dichloropropane	5 ppb	ND
Acrylamide	TT	ND	Ethylbenzene	700 ppb	ND
Alachlor	2 ppb	ND	Ethylene dibromide	50 ppt	ND
Atrazine	3 ppb	ND	Styrene	100 ppb	ND
Benzo(a)pyrene[PAHs]	200 ppt	ND	Tetrachloroethylene	5 ppb	ND
Carbofuran	40 ppb	ND	1,2,4-Trichlorobenzene	70 ppb	ND
Chlordane	2 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND
Dalapon	200 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND
Di-(2-ethylhexyl)adipate	400 ppb	ND	Trichloroethylene	5 ppb	ND
Di(2-ethylhexyl)phthlates	6 ppb	ND	TTHM	80 ppb	6
Dinoseb	7 ppb	ND	Toluene	1 ppm	ND
Diquat	20 ppb	ND	Vinyl Chloride	2 ppb	ND
Chloramines	4 ppm	ND	Xylenes	10 ppm	ND
Chlorite	1 ppm	ND	TOC	TT	0.5
HAA5(ppb)	60 ppb	ND	Chlorine	4 ppm	2.0
Unregulated Contaminants Table					
CONTAMINANT	Low Result	High Result	CONTAMINANT	Low Result	High Result
1,1 - Dichloropropene	ND	ND	Chloroform	ND	0.0031
1,1,1,2-Tetrachloroethane	ND	ND	Chloromethane	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	Dibromochloromethane	ND	0.0010
1,1-Dichloroethane	ND	ND	Dibromomethane	ND	ND
1,2,3 - Trichlorobenzene	ND	ND	Dicamba	ND	ND
1,2,3 - Trichloropropane	ND	ND	Dichlorodifluoromethane	ND	ND
1,2,4 - Trimethylbenzene	ND	ND	Dieldrin	ND	ND
1,3 - Dichloropropane	ND	ND	Hexachlorobutadiene	ND	ND
1,3 - Dichloropropene	ND	ND	p-Isopropylbenzene	ND	ND
1,3,5 - Trimethylbenzene	ND	ND	M-Dichlorobenzene	ND	ND
2,2 - Dichloropropane	ND	ND	Methomyl	ND	ND
3-Hydroxycarbofuran	ND	ND	MTBE	ND	ND
Aldicarb	ND	ND	Metolachlor	ND	ND
Aldicarb Sulfone	ND	ND	Metribuzin	ND	ND
Aldicarb Sulfoxide	ND	ND	N - Butylbenzene	ND	ND
Aldrin	ND	ND	Naphthalene	ND	ND
Bromobenzene	ND	ND	N-Propylbenzene	ND	ND
Bromochloromethane	ND	ND	O-Chlorotoluene	ND	ND
Bromodichloromethane	ND	0.0022	P-Chlorotoluene	ND	ND
Bromoform	ND	ND	P-Isopropyltoluene	ND	ND
Bromomethane	ND	ND	Propachlor	ND	ND
Butachlor	ND	ND	Sec - Butylbenzene	ND	ND
Carbaryl	ND	ND	Tert - Butylbenzene	ND	ND
Chloroethane	ND	ND	Trichlorofluoromethane	ND	ND

Table of Detected Contaminants

CONTAMINANT	MCLG	MCL	Range Detected	Amount Detected	Likely Source of Contamination
Bacteriological			min max		
Turbidity	0	TT (5 NTU)	0.06 - 3.80	1.93 NTU	Soil Runoff
Radiological			min max		
Combined Radium	0	5	0.7	0.7 Pci/Yr	Erosion of natural deposits
Alpha Emitters	0	15	1.3 - 2.1	1.70 pCi/L	Erosion of natural deposits
Inorganic Chemicals			min max		
Barium	2	2	ND - 0.039	0.020 ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	1.3	AL=1.3	0.03 - 1.10	0.56 ppm	Corrosion of household plumbing systems; 90th % value from Pb & Cu study. Erosion of natural deposits; leaching from wood preservatives
Nitrate	10	10	0.23 - 0.87	0.55 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Organic Chemicals			min max		
TTHM	0	80	3 - 6	5 ppb	Drinking water additive for bacterial disinfection
Chlorine		4	0.5 - 2.0	1.3 ppm	By-product of drinking water chlorination
TOC	TT	TT	0.3 - 0.5	0.4 ppm	Runoff from industrial, urban and natural soils; Decomposition of plant material in surface water

Secondary Drinking Water Standards Table

Parameters (mg/L)	MCLG	MCL	Low Result	High Result	Parameters (mg/L)	MCLG	MCL	Low Result	High Result
Aluminum	0	0.2	ND	ND	Manganese	0	0.05	ND	ND
Chloride	N/A	250	2.89	6.85	Odor	N/A	3	ND	ND
Color, APHA (units)	N/A	15	ND	ND	pH	7	Monitored	6.25	7.4
Copper	N/A	1	ND	0.011	Silver	0	0.1	ND	ND
Corrosivity	N/A	N/A	Corrosive	Corrosive	Sulfate	0	250	2.18	41.8
Fluoride	N/A	2.0	ND	ND	TDS	0	500	46	220
Foaming Agents	N/A	0.5	ND	ND	Zinc	0	5	ND	ND
Iron	0	0.3	ND	ND	Total Hardness	0	Monitored	105	170

Leeds Water Works Board
PWS ID #AL0000753
205-699-5151

What's the Quality of My Water?

The Leeds Water Works Board has been providing clean water to your community since 1943, helping to keep you and your family healthy. We take this mission very seriously. Our constant goal is to provide you with a safe and dependable supply of drinking water. This report covers January 1 through December 31, 2016. The Leeds Water Works drinking water supply surpassed the strict regulations of both the State of Alabama and the U.S. Environmental Protection Agency (EPA), which requires all water suppliers to prepare reports like this every year.

Our water source is groundwater pumped from five wells and two springs located throughout the city. We treat your water with Chlorine to remove or reduce harmful contaminants that may come from the source water. During 2016 we experienced no violations.

At Leeds Water Works, we work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please feel free to visit us during our working hours or call if you have questions regarding the contents of this report.

If you have any questions about this report or concerning your water quality or our monitoring, please contact Bill Morris at (205) 699-5151. We want our valued customers to be informed about their water quality. Please feel free to attend any of our regularly scheduled meetings held on the third Thursday of each month at 9:00 AM at the Leeds Water Board Office at 8651 Thornton Ave, Leeds, AL.

LWWB, Board of Directors:

Michael L. Hall, Chairman
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Cary Kennedy, Secretary

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Crickett Ford, Administration Manager
Melia White, Customer Service
Cindi Barnett, Customer Service Rep
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Becky Mackey, Customer Service
Matt Lochridge, Crewman
Billy Carpenetti, Crewman
Patricia Vandergrift, Data Processing

Tony Moore, Crew Leader
Sam Pike, Crew Leader
Brian Attaway, Crewman
Dennis Abernathy, Operator

Visit our website at: www.lwwb.com

Leeds has completed a Source Water Assessment Plan (SWAP). The SWAP is designed to tell us certain information about our source water so that we as a water service and you as a water consumer can better preserve and protect our source water. For more information on the SWAP, please contact Bill Morris at 205-699-5151.

Definitions

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 Goal or 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.

Maximum Residual Disinfectant Level or 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.

Action Level (or AL): The concentration of a contaminant that triggers treatment or other requirement, a water system shall follow.

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

NTU (or Nephelometric Turbidity Units): A measure of clarity.

ND: Not detectable at testing limits.

PPB (or parts per billion): micrograms per liter (ug/l). One part per billion corresponds to a single penny in \$10,000,000.

PPM (or parts per million): milligrams per liter (mg/l). One part per million corresponds to a single penny in \$10,000.

pCi/L (or picocuries per liter): a measure of radioactivity.

FDA: Food and Drug Administration.

CDC: Centers for Disease Control.

EPA: Environmental Protection Agency.

ADEM: Alabama Department of Environmental Management.