



Oakman Water Works, Inc.

2018 Annual Water Quality Report

Oakman Water Works Inc. is pleased to present to you our 2018 Annual Water Quality Report. We want to keep you informed about the excellent water service we have delivered to you. This report is for the **calendar year of 2017** and is designed to inform you about the quality of water and services we deliver to you every day. 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 quality and protect our water resources.

If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Monday of each month at 4:30 p.m. in our office located at 10250 Main Street - Oakman, AL 35579. The Oakman Water Works Board members are Edward Swanigan, Jonathon Harbin, and Randy Woods. If you have any specific questions about this report or your water utility, please contact Chris O'Rear or our office staff at (205) 622-3230.

In case of EMERGENCY after 4:30 p.m. Monday through Friday or on Weekends and Holidays, call the following numbers: (205) 388-1032, (205) 388-1185 or (205) 388-2858 and your emergency will be handled by our on call personnel. Security of our water system continues to be a concern. Our personnel along with law enforcement monitor all our facilities. We have taken steps to improve our security, but we need all our customers and the general public to assist in reporting any suspicious activities around our facilities to us immediately. We will promptly investigate any reported activity

Oakman Water Works, Inc. and our water supplier routinely monitor for constituents in your drinking water according to federal and state laws. The tables in this report shows the results of our most current monitoring for the **period ending December 31, 2017**. We strive to comply with federal and state requirements. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. ***It is important to remember that the presence of these constituents does not necessarily pose a health risk.*** Based on a study conducted by ADEM with the approval of EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

The EPA has determined that your water is safe at the levels indicated in the following tables. MCL's are set at very stringent levels. *To understand the possible health effects described for many regulated constituents, a person would have to drink 1/2 gallon of water every day at the MCL level for their entire lifetime to have a one-in-a-million chance of having any adverse health effect.*

Health Information

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 microbiological contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

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 Oakman Water Works Inc. is responsible for providing high quality drinking water, but cannot control the variety of materials used in your 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 at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

All drinking water, **including bottled water**, may reasonably be expected to contain at least small amounts of some contaminants. 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 human activity. These substances can be microbes, organic or inorganic chemicals, pesticides, herbicides, or radioactive materials. The presence of contaminants does not necessarily indicate that the 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 at 1-800-426-4791 or at <http://www.epa.gov/safewater>.

Source of Water & Water Treatment Techniques

We purchase our water from the Jasper Waterworks and Sewer Board. The source of their water is from the Mulberry Fork of the Warrior River. The Alabama Department of Environmental Management classifies the water facility as a Surface Water Source. The water is treated at the Laye-Williams Water Treatment Plant which has a capacity of 18 million gallons per day (MGD) of potable water. Raw water from the river is pumped to the water treatment plant where it is aerated to oxidize taste and odor compounds. Chlorine Dioxide is fed in the raw water either at the raw water pump station or prior to the rapid mix basin as a pre-oxidant to reduce disinfection by-product formation and to address potential taste and odor issues. Lime is added for pH adjustment and potassium permanganate is used to aid in the oxidation process and for organics removal. As water enters the rapid mix chamber, alum is added as a coagulant. The water flows through three flocculation basins and three settling basins prior to entering the mixed-media filters. Chlorine is added after filtration for disinfection and fluoride is added for protection of teeth. Finished water is stored in clearwells with a total storage capacity of 4,785,000 gallons. The water is then pumped from the clearwells to the transmission and distribution system.

Source Water Assessment

Our water supplier, the Jasper Waterworks and Sewer Board, has completed an extensive source water assessment as required by the Alabama Department of Environmental Management. No sites evaluated pose a significant risk to our customers. Anyone wishing to view this report should contact their office at (205) 221-2141. It has been determined by the assessment that the source water susceptibility ranking has a LOW risk potential.

Plain Language Definitions

In the following tables, you will find many terms and abbreviations that may not be familiar to you. To help you better understand these terms we've provided the following definitions:

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Contaminant- Any substance other than water. Note that contaminants as defined, include dissolved minerals, purifying and dental health promotion additives.

Locational Running Annual Average (LRAA) - The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a million chance of having the described health effect.

Maximum Contaminant Level Goal (MCLG) - The "Goal" (MCLG) is the level of a contaminant in drinking water 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 the addition of a disinfectant is necessary for control of microbiological 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. MRDLG's do not reflect the benefits of the use of disinfection to control microbial contaminants.

Millirems per year (mrem/year) - A measure of radiation absorbed by the body.

Minimum Detection Limit (MDL) - The Minimum Detectable Level for the contaminant.

Nephelometric Turbidity Unit (NTU) – A nephelometric turbidity unit is a measure of the clarity of water as it relates to particle count. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-Detects (ND) - Laboratory analysis indicates that the constituent was not detected in the water.

Non-Applicable (N/A) - MCL's or MCLG's are not applicable to these substances.

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.

Running Annual Average (RAA) – A compliance period where an average of four consecutive quarterly samples is used.

Total Haloacetic Acids (HAA5) - By-product of drinking water chlorination.

Total Trihalomethanes (TTHM) - By-product of drinking water chlorination.

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

TOC- Total Organic Carbon

Variations and Exemptions –ADEM and EPA permission not to meet an MCL or a treatment technique under certain conditions.

Table of Primary Contaminants			
CONTAMINANT	UNITS	MCL	AMOUNT DETECTED
Bacteriological			
Total Coliform Bacteria		5%	0
Turbidity	TT=5NTU		.24
Cryptosporidium	0		0
Radiological			
Alpha Emitters	pCi/L	15	**
Radium 226	pCi/L	5	**
Radium 228	pCi/L	5	**
Beta/photo emitters	mrem/year	4	**

Note: Percent of total samples that test positive for total coliform. No sample can test positive for fecal coliform or e-coli.

** Testing for this contaminant not required in 2017

Inorganic Chemicals				Inorganic Chemicals			
Contaminant	Units	MCL	Amount Detected	Contaminant	Units	MCL	Amount Detected
Alkalinity	ppm	*	46	Copper	ppm AL=	1.3	.121
Antimony	ppm	0.006	<MDL	Cyanide	ppm	0.2	<MDL
Aluminum	ppm	0.2	<MDL	Fluoride	ppm	4.0	.56
Arsenic	ppm	0.010	<MDL	Lead	ppm AL=	0.015	<MDL
Barium	ppm	2	<MDL	Mercury	ppm	0.002	<MDL
Nickel	ppm	0.1	<MDL	Total Dissolved Solids	ppm	500	96
Iron	ppm	0.3	<MDL	Nitrate	ppm	10	.57
Beryllium	ppm	0.004	<MDL	Nitrite	ppm	1	<MDL
Langlier index		*	-1.7	MBAS	ppm	500	<MDL
Manganese	ppm	0.05	<MDL	pH	su	7.2-7.6	7.7
Magnesium	ppm	*	3.24	Hardness	ppm	*	49.3
Cadmium	ppm	0.005	<MDL	Selenium	ppm	0.05	<MDL
Chromium	ppm	0.1	<MDL	Sodium	ppm	*	4.26
Chloride	ppm	250	16	Silver	ppm	0.10	<MDL
Calcium	ppm	*	14.4	Sulfate	ppm	250	16.1
Conductance	umhos@25	*	158	Thallium	ppm	.002	<MDL
Carbon Dioxide	ppm	*	2.1	Zinc	ppm	5	0.513
Color	Color Units	15	<MDL				

Organic Chemicals				Organic Chemicals			
Contaminant	Units	MCL	Amount Detected	Contaminant	Units	MCL	Amount Detected
Alachlor	ppb	2	<MDL	Glyphosate	ppb	700	<MDL
Acifluorfen	ppb	*	**	Heptachlor	ppb	0.4	<MDL
Aldrin	ppb	*	<MDL	Heptachlor Epoxide	ppb	0.2	<MDL
Aldicarb	ppb	*	<MDL	Hexachlorobutadiene	ppb	*	<MDL
Aldicarb Sulfone	ppb	*	<MDL	Hexachlorobenzene	ppb	1	<MDL
Aldicarb Sulfoxide	ppb	*	<MDL	Hexachlorocyclopentadiene	ppb	50	<MDL
Atrazine	ppb	3	<MDL	3-Hydroxycarbofuran	ppb	*	<MDL
Benzene	ppb	5	<MDL	4-Isopropyltoluene	ppb	*	<MDL
Benzo(a)pyrene	ppb	200	<MDL	Isopropylbenzene	ppb	*	<MDL
bis(2-Ethylhexyl)adipate	ppb	400	<MDL	Lindane (gama-BHC)	ppb	0.2	**
bIS(2-Ethylhexyl)phthalate	ppb	.6	<MDL	meta-Xylene	ppb	*	**
Bromobenzene	ppb	*	<MDL	Methomyl	ppb	*	<MDL
Bromochloromethane	ppb	*	<MDL	Methyl t-Butyl Ether	ppb	*	<MDL
Bromodichloromethane	ppb	100	4.43	Methylene Chloride	ppb	5	<MDL
Bromoform	ppb	*	<MDL	Methoxychlor	ppb	40	<MDL
Bromomethane	ppb	*	<MDL	Metolachlor	ppb	*	<MDL
Butachlor	ppb	*	<MDL	Metribuzin	ppb	*	<MDL
Carbaryl (Sevin)	ppb	8	<MDL	n-Butylbenzene	ppb	*	<MDL
Carbofuran	ppb	.04	<MDL	n-Propylbenzene	ppb	*	<MDL
2-Chlorotoluene	ppb	*	<MDL	Napthalene	ppb	*	<MDL
4-Chlorotoluene	ppb	*	<MDL	ortho-Xylene	ppb	*	<MDL
Carbon Tetrachloride	ppb	5	<MDL	Oxamyl	ppb	200	<MDL
Chlorobenzene	ppb	100	<MDL	Para-Xylene	ppb	*	**
Chlordane	ppb	2	<MDL	PCBs Total	ppb	*	**
Chloroethane	ppb	*	<MDL	Pentachlorophenol	ppb	1	<MDL
Chloroform	ppb	50	10.8	Picloram	ppb	500	<MDL
Chloromethane	ppb	*	<MDL	Propachlor	ppb	*	<MDL
Dalapon	ppb	200	<MDL	sec-Butylbenzene	ppb	*	<MDL
Dicamba	ppb	*	<MDL	Simazine	ppb	4	<MDL
1,2-Dibromo-3-Chloropropane	ppb	0.2	<MDL	Styrene	ppb	100	<MDL
cis-1,2 Dichloroethene	ppb	70	<MDL	Toxaphene	ppb	3	<MDL
1,2-Dibromoethane (EDB)	ppb	0.013	<MDL	1,1,1,2-Tetrachloroethane	ppb	*	<MDL
1,3 Dichloropropene	ppb	*	<MDL	1,1,2,2-Tetrachloroethane	ppb	*	<MDL
1,1- Dichloroethane	ppb	*	<MDL	Haloacetic Acids	ppb	60	25.6
1,1-Dichloroethene	ppb	7	<MDL	1,2,3-Trichlorobenzene	ppb	*	<MDL
1,2-Dichloroethane	ppb	5	<MDL	1,2,4-Trichlorobenzene	ppb	70	<MDL
1,2-Dichlorobenzene	ppb	600	<MDL	1,1,1-Trichloroethane	ppb	200	<MDL
1,3-Dichlorobenzene	ppb	*	<MDL	1,1,2 Trichloroethane	ppb	5	<MDL
1,4-Dichlorobenzene	ppb	75	<MDL	1,2,3-Trichloropropane	ppb	*	<MDL
1,1-Dichloropropene	ppb	*	<MDL	1,2,4-Trimethylbenzene	ppb	*	<MDL
Trans-1,2- Dichloroethene	ppb	10	<MDL	1,3,5-Trimethylbenzene	ppb	*	<MDL
1,2-Dichloropropane	ppb	5	<MDL	2,4,5-TP(Silvex)	ppb	50	<MDL
1,3-Dichloropropane	ppb	*	<MDL	2,4-D	ppb	70	<MDL
2,2-Dichloropropane	ppb	*	<MDL	tert-Butylbenzene	ppb	*	<MDL
Dibromochloromethane	ppb	*	.960	Tetrachloroethene	ppb	5	<MDL
Dibromomethane	ppb	*	<MDL	TTHM	ppb	80	33.8
Dichloridfluoromethane	ppb	*	<MDL	Toluene	ppm	1	<MDL
Dinoseb	ppb	7	<MDL	1,2Dichloroethene	ppb	5	<MDL
Dieldrin	ppb	*	<MDL	1,3Dichloropropene	ppb	*	**
Diquat	ppb	20	<MDL	Trichloroethene	ppb	5	<MDL
Endrin	ppb	2	**	Total Polychlorinated Biphenyls	ppb	.5	<MDL
3-Hydroxycarbofuran	ppb	*	<MDL	Trichlorofluoromethane	ppb	*	<MDL
Endothal	ppb	100	<MDL	Xylenes	ppm	10	<MDL
Ethylbenzene	ppb	700	<MDL	Vinyl Chloride	ppb	2	<MDL
Gamma-BHC	ppb	.2	<MDL				
Glyphosate	ppb	700	<MDL				

** Testing for this contaminant not required in 2017.

Water Distribution Samples							
Disinfection Byproducts - Stage 2							
Contaminant	Violation	MCLG	MCL	Range of Detection	Amount Detected	Units	Likely Source of Contamination
Total Trihalomethanes	No	0	**80	44.6 – 51.3	51.3 ***44.1 (RAA)	ppb	Byproduct of drinking water Chlorination
Total Haloacetic Acid	No	0	**60	19.2 – 36	36 ***27.4 (RAA)	ppb	Byproduct of drinking water Chlorination
Lead / Copper Rule							
Lead (Tested 7/6 / 2017)	No	AL=15	TT= Treatment Technique	0 - <5	<5 No. of sites above action level= 0	ppb	Corrosion of household plumbing
Copper (Tested 7/6 / 2017)	No	AL=1.3	1.0	0.054 – 0.126	0.126 No. of sites above action level= 0	ppm	Corrosion of household plumbing
Chlorine Residual & Bacteriological Test Results							
Chlorine	No	MRDLG =4	MRDLG =4	0.5 - 1.8	1.8	ppm	Water additive to control microbes
Total Coliform	No	0	See Note 1	Coliform Absent	Absent	Present or Absent	Naturally present in the environment
Note1: 5% except systems collecting <40 samples per month MCL=1. No sample can test positive for fecal coliform or E. Coli. *No Standard ** Site specific MCL for Stage 2 *** System wide running annual average (RAA)							

Table of Detected Contaminants

CONTAMINANT	VIOLATION Y/N	RANGE	LEVEL DETECTED	UNIT MEASUREMENT	MCLG	MCL	LIKELY SOURCE
<i>Bacteriological</i>							
Total Coliform	No	0	0	present or absent	0	<5%	Present in the environment
<i>Inorganics</i>							
Alkalinity	No	17-46	46	ppm	*	*	Erosion of natural deposits.
Conductance	No	ND – 158	158	umhos@25c	*	*	Substances that form ions when in water
pH	No	7.1-7.7	7.7	su	*	*	
Carbon Dioxide	No	0.9 – 2.1	2.1	ppm	*	*	
Total Dissolved Solids	No	ND – 96	96	ppm	*	500	Erosion of natural deposits.
Sodium	No	ND – 4.26	4.26	ppm	*	*	Erosion of natural deposits
Sulfate	No	ND – 16.1	16.1	ppm	*	*	Runoff/leaching from natural deposits
Chloride	No	ND – 16	16	ppm	*	250	Runoff /leaching from natural deposits
Chlorine	No	.7 - 2.0	2.0	ppm	0	4	Water additive to control microbes
Copper	No	ND-.121	.121	ppm	*	1.3	Corrosion of household plumbing
Fluoride	No	.17-.56	.56	ppm	*	4	Additive that promotes strong teeth.
Nitrate	No	ND – .57	.57	ppm	*	10	Run-off from fertilizer use.
Total Calcium	No	ND – 14.4	14.4	ppm	*	*	Erosion of natural deposits.
Total Thallium	No	**	<MDL	ppb	*	2	Erosion of natural deposits
Hardness	No	21– 49.3	49.3	ppm	*	*	Erosion of natural deposits.
Total Magnesium	No	ND – 3.24	3.24	ppm	*	*	Erosion of natural deposits.
<i>Drinking Water Volatiles</i>							
Bromodichloromethane	No	4.43	4.43	ppb	*	100	By-product of drinking water chlorination
Chloroform	No	10.8	10.8	ppb	*	70	By-product of drinking water chlorination
Dibromochloromethane	No	.960	.960	ppb	*	80	By –product of drinking water chlorination
<i>Volatile Organic Contaminants</i>							
Total Trihalomethanes	No	10.4 – 33.8	33.8	ppb	*	80	By-product of drinking chlorination
			RAA 32.6				
Total Haloacetic Acids	No	6.7 – 25.6	25.6	ppb	*	60	By-product of drinking chlorination
			RAA 20.5				
Total Organic Carbon	No	1.2 – 1.8	1.8	ppm	*	TT	Naturally present in the environment

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**Oakman Water Works, Inc.
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