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**2020 Annual Water Quality Report**  
(Testing Performed January through December 2019)

**KUSHLA WATER DISTRICT**  
PWSID AL0000993  
6210 Hwy 45  
Eight Mile, AL 36613  
Phone 251-675-2297  
*kushlawater.com*

*As a convenience to you, payments are now being accepted on our website! Just click the "PAY NOW" button on our home page and follow instructions. Alternatively, you may mail your remittance and bill to the office or use the after-hours depository box, located at the left of the drive-up window. Current office hours are 8:00 a.m. - 5:00 p.m. Monday through Friday.*

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 continually need to make improvements that will benefit all of our customers. Some of those improvements include extending our water lines to new customers, replacing old or damaged water lines, cleaning and painting our storage tanks, replacing old or defective water meters, and upgrading our pumping stations. These improvements sometimes require interruptions in service. We are committed to ensuring the quality of your water. Thank you for understanding.

<b>Water Source</b>	Two (2) groundwater wells producing from the Miocene series
<b>Water Treatment</b>	Chlorination for disinfection
<b>Number of Customers</b>	Approximately 2060
<b>Certified Operator</b>	Dave Jones
<b>Water Board</b>	William Silver, Chairman Michael Robitzsch, Vice-Chairman Earl Hudson, Treasurer Tommy Vice Christopher Williams Mattie Smith Nathaniel Cotton Charlotte Lambert

**Source Water Assessment**

In compliance with the Alabama Department of Environmental Management (ADEM), Kushla Water District has developed a Source Water Assessment plan that will assist in protecting our water sources. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible to contaminating the water source. The assessment has been performed, public notification has been completed, and the plan has been approved by ADEM. A copy of the report is available in our office for review during normal business hours, or you may purchase a copy upon request for a nominal reproduction fee.

Please help us make this effort worthwhile by protecting our source water. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints and waste oil.

**Questions?**

If you have any questions about this report or concerning your water utility, please contact Dave Jones at 251-675-2297 or via email at [kushla13@bellsouth.net](mailto:kushla13@bellsouth.net). We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held the last Monday of each month at the water office at 4:00 p.m. at the water office at 6210 Hwy 45, Eight Mile. Please call the water office for the exact day of the month.

**KUSHLA WATER DISTRICT**  
6210 Hwy 45  
Eight Mile, AL 36613

## Monitoring Schedule

Kushla Water District *routinely* monitors for constituents in your drinking water according to Federal and State laws in accordance with the regulatory schedule. This report contains results from monitoring as listed below:

Constituents Monitored	Date Monitored
Inorganic Contaminants	2019
Lead/Copper	2019
Microbiological Contaminants	current
Nitrates	2019
Radioactive Contaminants	2017
Synthetic Organic Contaminants (including herbicides and pesticides)	2019
Volatile Organic Contaminants	2019
Disinfection By-products	2019
DSE Disinfection By-products	2019

## Detected Contaminants

As you can see by the table below, our system had no violations. We have learned through our monitoring and testing that some constituents have been detected. We are pleased to report that our drinking water meets or exceeds federal and state requirements.

TABLE OF DETECTED DRINKING WATER CONTAMINANTS						
Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Alpha emitters	NO	0.4 ± 1.1	PCi/l	0	15	Erosion of natural deposits
Copper	NO	0.160* 0>AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	NO	0.001**	ppm	0	AL=0.015	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate	NO	0.15-0.16	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHM [Total trihalomethanes]	NO	Range 12.0-87.0	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	Range 9.20-30.0	ppb	0	60	By-product of drinking water chlorination
<b>Unregulated Contaminants</b>						
Chloroform	NO	0.86-17.0	ppb	70	n/a	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Bromodichloromethane	NO	ND-19.0	ppb	0	n/a	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Chlorodibromomethane	NO	ND-16.0	ppb	60	n/a	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Bromoform	NO	ND-1.80	ppb	n/a	n/a	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
<b>Secondary Contaminants</b>						
Chloride	NO	8.35	ppm	n/a	250	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
pH	NO	8.19	S.U.	n/a	n/a	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	NO	54.3	ppm	n/a	n/a	Naturally occurring in the environment
Sulfate	NO	3.12	ppm	n/a	250	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Total Dissolved Solids	NO	136	ppm	n/a	500	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
<b>DSE Disinfection Byproducts</b>						
TTHM [Total trihalomethanes]		12.0-58.0	ppb	By-product of drinking water chlorination		
HAA5 [Total haloacetic acids]		11.1-19.8	ppb	By-product of drinking water chlorination		

\* Figure shown is 90<sup>th</sup> percentile and # of sites above Action Level = 0

\*\* Figure shown is 90<sup>th</sup> percentile and # of sites above Action Level = 1

Below is a table of contaminants for which the Environmental Protection Agency and the Alabama Department of Environmental Management require testing. These contaminants were not detected in your drinking water unless they are also listed in the Detected Drinking Water Contaminants table elsewhere in this report.

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS					
Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
<b>Bacteriological Contaminants</b>			trans-1,2-Dichloroethylene	100	ppb
Total Coliform Bacteria	<5%	present/absent	Dichloromethane	5	ppb
Fecal Coliform and E. coli	0	present/absent	1,2-Dichloropropane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	Calc.organisms/l	Di (2-ethylhexyl)phthalate	6	ppb
<b>Radiological Contaminants</b>			Dinoseb	7	ppb
Beta/alpha emitters	4	mrem/yr	Dioxin [2,3,7,8-TCDD]	30	ppq
Alpha emitters	15	pCi/l	Diquat	20	ppb
Combined radium	5	pCi/l	Endothall	100	ppb
Uranium	30	pCi/l	Endrin	2	ppb
<b>Inorganic Chemicals</b>			Epichlorohydrin	TT	TT
Antimony	6	ppb	Ethylbenzene	700	ppb
Arsenic	10	ppb	Ethylene dibromide	50	ppt
Asbestos	7	MFL	Glyphosate	700	ppb
Barium	2	ppm	Heptachlor	400	ppt
Beryllium	4	ppb	Heptachlor epoxide	200	ppt
Cadmium	5	ppb	Hexachlorobenzene	1	ppb
Chromium	100	ppb	Hexachlorocyclopentadiene	50	ppb
Copper	AL=1.3	ppm	Lindane	200	ppt
Cyanide	200	ppb	Methoxychlor	40	ppb
Fluoride	4	ppm	Oxamyl [Vydate]	200	ppb
Lead	AL=15	ppb	Polychlorinated biphenyls	0.5	ppb
Mercury	2	ppb	Pentachlorophenol	1	ppb
Nitrate	10	ppm	Picloram	500	ppb
Nitrite	1	ppm	Simazine	4	ppb
Selenium	.05	ppm	Styrene	100	ppb
Thallium	.002	ppm	Tetrachloroethylene	5	ppb
<b>Organic Contaminants</b>			Toluene	1	ppm
2,4-D	70	ppb	Toxaphene	3	ppb
Acrylamide	TT	TT	2,4,5-TP(Silvex)	50	ppb
Alachlor	2	ppb	1,2,4-Trichlorobenzene	.07	ppm
Benzene	5	ppb	1,1,1-Trichloroethane	200	ppb
Benzo(a)pyrene [PAHs]	200	ppt	1,1,2-Trichloroethane	5	ppb
Carbofuran	40	ppb	Trichloroethylene	5	ppb
Carbon tetrachloride	5	ppb	Vinyl Chloride	2	ppb
Chlordane	2	ppb	Xylenes	10	ppm
Chlorobenzene	100	ppb	<b>Disinfectants &amp; Disinfection Byproducts</b>		
Dalapon	200	ppb	Chlorine	4	ppm
Dibromochloropropane	200	ppt	Chlorine Dioxide	800	ppb
1,2-Dichlorobenzene	1000	ppb	Chloramines	4	ppm
1,4-Dichlorobenzene (para)	75	ppb	Bromate	10	ppb
o-Dichlorobenzene	600	ppb	Chlorite	1	ppm
1,2-Dichloroethane	5	ppb	HAA5 [Total haloacetic acids]	60	ppb
1,1-Dichloroethylene	7	ppb	TTHM [Total trihalomethanes]	80	ppb
cis-1,2-Dichloroethylene	70	ppb			
<b>LIST OF UNREGULATED CONTAMINANTS</b>					
1,1 - Dichloropropene	Aldicarb	Chloroform	Metolachlor		
1,1,1,2-Tetrachloroethane	Aldicarb Sulfone	Chloromethane	Metribuzin		
1,1,2,2-Tetrachloroethane	Aldicarb Sulfoxide	Dibromochloromethane	N - Butylbenzene		
1,1-Dichloroethane	Aldrin	Dibromomethane	Naphthalene		
1,2,3 - Trichlorobenzene	Bromobenzene	Dicamba	N-Propylbenzene		
1,2,3 - Trichloropropane	Bromochloromethane	Dichlorodifluoromethane	O-Chlorotoluene		
1,2,4 - Trimethylbenzene	Bromodichloromethane	Dieldrin	P-Chlorotoluene		
1,3 - Dichloropropane	Bromoform	Hexachlorobutadiene	P-Isopropyltoluene		
1,3 - Dichloropropene	Bromomethane	Isopropylbenzene	Propachlor		
1,3,5 - Trimethylbenzene	Butachlor	M-Dichlorobenzene	Sec - Butylbenzene		
2,2 - Dichloropropane	Carbaryl	Methomyl	Tert - Butylbenzene		
3-Hydroxycarbofuran	Chloroethane	MTBE	Trichlorofluoromethane		
<b>LIST OF SECONDARY CONTAMINANTS</b>					
Alkalinity, Total (as CA, CO <sub>3</sub> )	Copper	Magnesium	Silver		
Aluminum	Corrosivity	Manganese	Sodium		
Calcium, as Ca	Foaming agents (MBAS)	Odor	Sulfate		
Chloride	Hardness	Nickel	Total Dissolved Solids		
Color	Iron	pH	Zinc		

## General Information

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. Maximum Contaminant Levels (MCLs - defined in the List of Definitions in this report) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 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. 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 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, storm water run-off, 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.

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 (FDA) regulations establish limits for contaminants in bottled water.

## Information about Lead

Lead in drinking water is rarely found in source water but is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is more likely to cause leaching of lead from plumbing materials. 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. These recommended actions are very important to the health of your family.

Lead levels in your drinking water are likely to be higher if:

- Your home or water system has lead pipes, or
- Your home has faucets or fittings made of brass which contains some lead, or
- Your home has copper pipes with lead solder and you have naturally soft water, and
- Water often sits in the pipes for several hours.

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 (1-800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Definitions

**Action Level** - the concentration of a contaminant that, if exceeded, triggers some follow-up action

**ADEM** - Alabama Department of Environmental Management - Alabama's environmental regulatory agency

**AWPCA** - Alabama Water Pollution Control Association

**Disinfection byproducts** - produced when disinfectants used in water treatment react with natural organic matter present in the source water

**Distribution System Evaluation (DSE)** - a one-year study conducted by water systems to monitor disinfection byproducts.

**EPA** - the United States Environmental Protection Agency.

**Maximum Contaminant Level (MCL)** - highest level of contaminant allowed in drinking water.

**Maximum Contaminant Level Goal (MCLG)** - the level of a contaminant in drinking water below which there is no known or expected risk to health.

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

**Minimum Reporting Limit (MRL)** - either not detected or is smallest measured concentration that can be measured by using a given analytical method

**Nephelometric Turbidity Unit (NTU)** - a measure of the clarity of water.

**Not Applicable (NA)** - Not applicable to water system because not required.

**Non-Detect (ND)** - laboratory analysis indicates that the contaminant is not present at a detectable level; less than the MRL.

**Not Required (NR)** - laboratory analysis not required due to waiver.

**Parts per billion (ppb) or Micrograms per liter ( $\mu\text{g}/\text{l}$ )** - corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per million (ppm) or Milligrams per liter ( $\text{mg}/\text{l}$ )** - corresponds to one minute in two years or a single penny in \$10,000.

**Parts per quadrillion (ppq) or Picograms per liter (picograms/l)** - corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.

**Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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

**Running annual average (RAA)** - the required method of calculating compliance on disinfection byproducts, TTHM and HAA5.

**Treatment Technique (TT)** - a required process to reduce a contaminant.

**UCMR** - Unregulated Contaminant Monitoring Rule.

**Variances & Exemptions (V&E)** - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).**