Mobile County Water, Sewer & Fire Protection Authority

Annual Drinking Water

Quality Report 2020
Issue 22

It is time again for our Annual Drinking Water Report and Authority Newsletter. This report is designed to inform you about the quality of water and services we deliver to you daily. The Authority continues adding and upgrading infrastructure and facilities to stay ahead of growth within our service area. Please make sure you read the back of this report for important tips should a hurricane threaten our area this year.

The Authority currently has 13,192 customers. Our distribution system has 300 miles of water lines. Theodore, Tillman's Corner, Cypress Shores, Dawes, Fowl River, Mon Luis Island and Coden are only some of the areas served by the Authority. Our Board of Directors are as follows:

George Callahan, Chairman
Michael Burdine, Vice-Chairman
Audie Tillman, Treasurer
Jack Boatman, Secretary
Jim White, Member

In 1974 the Safe Drinking Water Act (SDWA) was signed into law requiring all water systems that serve the public to meet national standards for water quality. These standards established limits for certain contaminants and required all public water systems to monitor for these contaminants. Mobile County Water, Sewer and Fire Protection Authority routinely tests for these contaminants in your drinking water according to federal and state laws.

The tables in this report show the monitoring results beginning January 1, 2019 thru December 31, 2019. If you have any questions concerning water quality please contact our System Operator, Mr. Andy Ladner or our General Manager, Mr. Joe Summersgill at (251)653-7346, Monday thru Thursday from 7 am to 5 pm. You may also attend the monthly board meeting held on the third Thursday of each month at 12:00 pm at the water office located at 5780 Theodore Dawes Rd. Please call to be placed on the agenda 1 week prior to the meeting. This meeting is subject to change.

Sources of Water

Operating under permit by the Alabama Department of Environmental Management, Mobile County Water, Sewer and Fire Protection Authority operates 8 groundwater wells. All of our wells draw water from the Pliocene-Miocene aquifer. These wells together have a total permitted pumping capacity of 7,168,320 gallons a day. We currently have 6 storage tanks with a capacity of 3,950,000 gallons. A.D.E.M. regulations require that all public water supply systems disinfect their water supplies. Water from our wells is treated with chlorine for disinfection, Aqua Mag (for corrosion control) and sodium hydroxide (50% solution) at Well 6 & 8 for ph adjustment.

Source Water Assessment

Mobile County Water, Sewer and Fire Protection Authority in conjunction with O'Donnell & Associates, Inc., a Professional Hydrogeologic and Environmental Consulting firm, has completed an extensive source water assessment that identifies potential contaminant sites. Anyone wishing to view this report should contact this office at (251)653-7346.

MOBILE COUNTY WATER & FIRE PROTECTION AUTHORITY

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

Mobile County Water & Fire Protection Authority *routinely* monitors for constituents in your drinking water according to Federal and State laws. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Constituent Monitored	Date Monitored
Inorganic Contaminants	2019
Lead/Copper	2019
Microbiological Contaminants	current
Nitrates	2019
Radioactive Contaminants	2019
Synthetic Organic Contaminants (including pesticides and herbicides)	2019
Volatile Organic Contaminants	2019
Disinfection By-products	2019
DSE Disinfection By-products	2018
Unregulated Contaminant Monitoring Rule 4 (UCMR4) contaminants	2019

DETECTED DRINKING WATER CONTAMINANTS

Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Alpha emitters	NO	Annual Avg 1.56	PCi/l	0	15	Erosion of natural deposits
Combined radium	NO	Annual Avg 1.04	PCi/l	0	5	Erosion of natural deposits
Barium	NO	ND-0.05	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper *	NO	0.410*	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Dalapon	NO	ND-1.50	ppb	200	200	Runoff from herbicide used on rights of way
Ethylbenzene	NO	ND-0.52	ppb	700	700	Discharge from petroleum refineries
Fluoride	NO	ND-0.35	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from factories
Lead	NO	0.001*	ppm	0	AL=0.015	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen)	NO	ND-0.16	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHM [Total trihalomethanes]	NO	LRAA 67.4 (42.0-82.0)	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	LRAA28.2 (15.5-42.0)	ppb	0	60	By-product of drinking water chlorination
Unregulated Contaminants						
Chloroform	NO	ND-18.0	ppb	70	n/a	Naturally occurring in the environment or from runoff
Bromodichloromethane	NO	ND-15.0	ppb	n/a	n/a	Naturally occurring in the environment or from runoff
Chlorodibromomethane	NO	ND-9.00	ppb	n/a	n/a	Naturally occurring in the environment or from runoff
Bromoform	NO	ND-2.80	ppb	n/a	n/a	Naturally occurring in the environment or from runoff
Chloromethane	NO	ND-1.40	ppb	n/a	n/a	Naturally occurring in the environment or from runoff
Secondary Contaminants						
Chloride	NO	42.9-170	ppm	n/a	250	Naturally occurring in environment or from runoff
Hardness	NO	4.20-37.5	ppm	n/a	n/a	Naturally occurring in environment or from water treatment
Iron	NO	ND-1.10	ppm	n/a	0.30	Naturally occurring in the environment; erosion; leaching from pipes
Manganese	NO	ND-0.04	ppm	n/a	0.05	Erosion of natural deposits; leaching from pipes
pH	NO	7.20-8.13	S.U.	n/a	n/a	Naturally occurring in environment or from water treatment
Sodium	NO	19.8-171	ppm	n/a	n/a	Naturally occurring in the environment
Sulfate	NO	0.68-5.80	ppm	n/a	250	Naturally occurring in the environment or from runoff
Total Dissolved Solids	NO	74.0-440	ppm	n/a	500	Naturally occurring in the environment or from runoff

* Level detected is 90th percentile and # of sites above the Action Level = 0

Detected DSE Disinfection Byproducts

Contaminants	Level Detected	Unit Msmt.	Likely Source of Contamination
TTHM [Total trihalomethanes]	24.5-89.4	ppb	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	10.9-31.2	ppb	By-product of drinking water chlorination

Detected UCMR4 Contaminant					
Entry Point					
Contaminant	Unit Msmt	Level Detected	Contaminant	Unit Msmt	Level Detected
Germanium	ppb	ND-0.54	Total permethrin (cis- & trans-)	ppb	ND
Manganese	ppb	ND-110	Tribufos	ppb	ND
Alpha-hexachlorocyclohexane	ppb	ND	1-butanol	ppb	ND
Chlorpyrifos	ppb	ND	2-methoxyethanol	ppb	ND
Dimethipin	ppb	ND	2-propen-1-ol	ppb	ND
Ethoprop	ppb	ND	Butylated hydroxyanisole	ppb	ND
Oxyfluorfen	ppb	ND	O-toluidine	ppb	ND
Profenofos	ppb	ND	Quinoline	ppb	ND-0.072
Tebuconazole	ppb	ND			
Distribution System					
HAA9	ppb	ND-48.9	Total organic carbon (TOC)	ppb	ND-1750
HAA6Br	ppb	0.93-28.2	Bromide	ppb	ND-208
HAA5	ppb	0.93-25.4			

Definitions

In the table 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.

1. *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.
2. *Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
3. Nephelometric *Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
4. *Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
5. *Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
6. *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.
7. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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.
8. *Maximum Contaminant Level Goal* - The "Goal" (MCLG) is 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
9. *ND* = Not Detected

Educational Information

As you can see by the tables, our system met all testing requirements set forth by ADEM. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water **IS SAFE** at these levels. 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.

Mobile County Water, Sewer and Fire Protection Authority personnel work around the clock to provide quality water to every tap. We ask that all our customers help us protect our water sources.

Some people who drink water contaminated with trihalomethanes (TTHMs) in **excess of the MCL** over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Since most surface water treatment plants use chlorine for disinfection, TTHMs have become a national problem. Our system uses groundwater; therefore, the risk for exceeding MCL for TTHMs is significantly less likely.

Now available to Mobile County Water Customers is online bill payment at www.mocowater.org and the convenience of paying your bill by phone just call 1(866)514-4924.

For your convenience, we offer bank draft services. Save money on gas and or postage. Become a bank draft customer today. Please fill out form on website at www.mocowater.org and submit to office with a cancelled check.

Following is a list of *Primary Drinking Water Contaminants* and a list of *Unregulated Contaminants* for which our water system routinely monitors. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants*

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS					
Contaminant	**MCL**	**Unit of Msmt**	**Contaminant**	**MC**	**Unit of Msmt**
Bacteriological Contaminants			trans-1,2-Dichloroethylene	100	ppb
Total Coliform Bacteria	<5%	present or absent	Dichloromethane	5	ppb
Fecal Coliform and E. coli	0	present or absent	1,2-Dichloropropane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	TT	Di (2-ethylhexyl)phthalate	6	ppb
Radiological Contaminants			Dinoseb	7	ppb
Beta/photon emitters	4	mrem/yr	Dioxin [2,3,7,8-TCDD]	30	Picograms/l
Alpha emitters	15	pCi/l	Diquat	20	ppb
Combined radium	5	pCi/l	Endothall	100	ppb
Uranium	30	pCi/l	Endrin	2	ppb
Inorganic Chemicals			Epichlorohydrin	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	Nanograms/l
Beryllium	4	ppb	Heptachlor epoxide	200	Nanograms/l
Cadmium	5	ppb	Hexachlorobenzene	1	ppb
Chromium	100	ppb	Hexachlorocyclopentadiene	50	ppb
Copper	AL=1.3	ppm	Lindane	200	Nanograms/l
Cyanide	200	ppb	Methoxychlor	40	ppb
Fluoride	4	ppm	Oxamyl [Vydate]	200	ppb
Lead	AL=15	ppb	Polychlorinated biphenyls (PCBs)	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
Organic Contaminants			Toluene	1	ppm
2,4-D	70	ppb	Toxaphene	3	ppb
Acrylamide	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	Disinfectants & Disinfection Byproducts		
Dalapon	200	ppb	Chlorine	4	ppm
Dibromochloropropane	200	ppt	Chlorine Dioxide	800	ppb
o-Dichlorobenzene	600	ppb	Chloramines	4	ppm
p-Dichlorobenzene	75	ppb	Bromate	10	ppb
1,2-Dichloroethane	5	ppb	Chlorite	1	ppm
1,1-Dichloroethylene	7	ppb	HAA5 [Total haloacetic acids]	60	ppb
cis-1,2-Dichloroethylene	70	ppb	TTHM [Total trihalomethanes]	80	ppb

UNREGULATED CONTAMINANTS			
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	Isoprpylbenzene	Propachlor
1,3,5 - Trimethylbenzene	Butachlor	M-Dichlorobenzene	Sec - Butylbenzene
2,2 – Dichloropropane	Carbaryl	Methomyl	Tert - Butylbenzene
3-Hydroxycarbofuran	Chloroethane	MTBE	Trichlorfluoromethane