

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 levels of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

Lead in Drinking Water

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. Your 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 www.epa.gov/safewater/lead. 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. People at risk should seek advice about drinking water from their health care providers.

Definitions:

Action Level - the concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

Coliform Absent (ca) - Laboratory analysis indicates that the contaminant is not present.

Cryptosporidium - a microscopic parasite that can cause disease, mainly diarrhea, if swallowed.

Disinfection byproducts (DBPs) - are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.

Initial Distribution System Evaluation (IDSE) - a four quarter study conducted by water systems to identify distribution system locations with high concentrations of THMs and HAAs.

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.

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.

Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water

Micrograms per liter (ug/L) - Equivalent to **parts per billion (ppb)** since one liter of water is equal in weight to one billion micrograms.

Milligrams per liter (mg/L) – Equivalent to parts per million

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

Nephelometric Turbidity Unit (NTU)-a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-Detect (ND) - laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.

Not Reported (NR) - laboratory analysis, usually Secondary Contaminants, not reported by water system.

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

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

RAA – Running annual average – average of DBP results in the water system

Standard Units (S.U.)-pH of water measures the water's balances of acids and bases. Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.

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

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



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City of Saraland Board of Water and Sewer Commissioners
307 Shelton Beach Road
P. O. Box 837
Saraland, AL 36571

2022 Annual Water Quality Report
(Testing Performed January through December 2021)

**Board of Water and Sewer
Commissioners of the City of Saraland**
307 Shelton Beach Road • P. O. Box 837 • Saraland, AL 36571
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We at Saraland Water Service 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.

We are pleased to report that our drinking water meets or exceeds Federal and State requirements. This report is designed to inform you about the quality water and services we deliver to you every day. We are committed to ensuring the quality of your water.

Water Sources	Four groundwater wells producing from the Coastal Planes Deposit Holocene Aquifer
Water Treatment	Lime for pH adjustment, phosphate to sequester iron and provide corrosion control, chlorine for disinfection, and fluoride for dental protection. In addition, well #1 includes aeration, pre-chlorination and potassium permanganate, and filtration
Interconnections	Mobile Area Water & Sewer
Storage Capacity	Four (4) storage tanks; capacity 3,750,000 gallons
# of Customers	Approximately 4868
Board of Directors	James E. Davis Jackie R. Haines Ron K. Mitchell H. O'Neil Robinson Scooter Thronson
Utilities Director	John Vaughn

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was signed into law on December 16, 1974. The purpose of the law is to assure that the nation's water supply systems serving the public meet minimum national standards for the protection of public health. The SDWA directed the U. S. Environmental Protection Agency (EPA) to establish national drinking water standards. The 1996 Amendments to the SDWA created a need for Consumer Confidence Reports (Annual Water Quality Reports) to reveal to consumers the detected amounts of contaminants in their drinking water.

Source Water Assessment

Saraland Water Service completed a Source Water Assessment Plan, which 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 ADEM-approved plan is available in our office for review during normal business hours, or you may purchase a copy upon request for a nominal reproduction fee.

As you can see, we are very actively involved in protecting our water supply. You can help us protect our water resources by disposing of waste in the proper manner and reporting someone else who might not be doing so. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints and waste oil. Please help us protect our water supply.

Water Conservation

Due to recent increased precipitation and your cooperative efforts, we have been able to successfully avoid a critical water supply shortage; however, our long-term precipitation deficit continues and calls for ongoing vigilance in the protection of our water resources. We encourage you to continue to use water wisely and conscientiously in the common interest of all our citizens.

Monitoring Schedule

Saraland Water Service routinely monitors for constituents in your drinking water according to Federal and State laws in accordance with the regulatory schedule. The EPA or ADEM requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

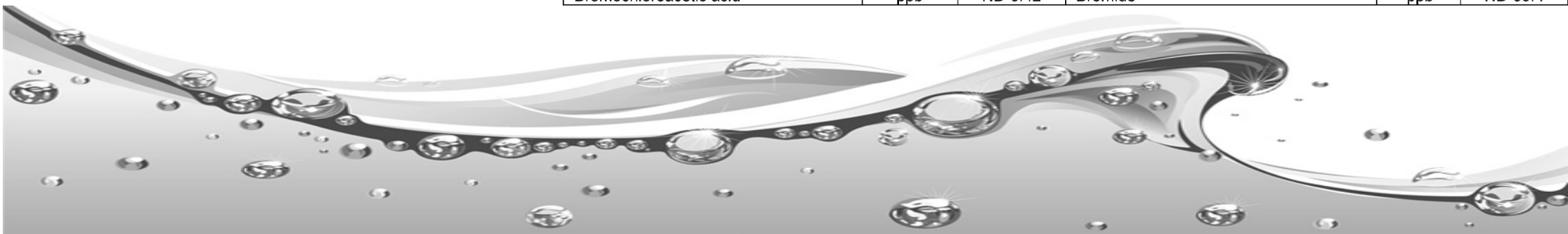
This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Constituents Monitored	Date Monitored
Inorganic Contaminants	2019
Lead/Copper	2019
Microbiological Contaminants	current
Nitrates	2020
Radioactive Contaminants	2013
Synthetic Organic Contaminants	2021
Volatile Organic Contaminants	2021
Disinfection By-products	2021
UCMR4 Contaminants	2018

Questions

If you have any questions about this report or your water utility, please contact John Vaughn at 251-675-5126. We want our valued customers to be informed about their water utility. If you wish to learn more, please attend any of our regularly scheduled meetings. They are held on the 1st and 3rd Thursdays of each month at the Saraland Water Service office at 5:30 p.m.

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).



Detected Contaminants Tables

Saraland Water Service regularly monitors for contaminants in the water, as required by ADEM. Of the many contaminants tested, only these were at a level of detection. All drinking water may be reasonably expected to contain at least small amounts of contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk.

DETECTED DRINKING WATER CONTAMINANTS						
Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Alpha emitters	NO	1.1 ± 0.6	PCI/l	0	15	Erosion of natural deposits
Radium 228	NO	0.4 ± 0.7	PCI/l	0	5	Erosion of natural deposits
Barium	NO	ND-0.08	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	NO	0.550 * 0>AL	ppm	1.30	AL=1.30	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	NO	Avg. 2.29 0.53-8.79	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from factories
Lead	NO	0.003 * 0>AL	ppm	0	AL=0.015	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	NO	ND-0.82	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
HAA5 [Haloacetic Acids]	NO	ND-1.4	ppb	0	60	By-product of drinking water chlorination
Unregulated Contaminants						
Chloroform	NO	ND-1.50	ppb	n/a	n/a	Naturally occurring; factory discharge; runoff
Bromodichloromethane	NO	ND-1.50	ppb	n/a	n/a	Naturally occurring; factory discharge; runoff
Secondary Contaminants						
Aluminum	NO	ND-0.06	ppm	n/a	0.2	Erosion of natural deposits or as a result of treatment
Chloride	NO	8.22-17.3	ppm	n/a	250	Naturally occurring in the environment or from runoff
Hardness	NO	10.6-35.7	ppm	n/a	n/a	Naturally occurring; treatment with water additives
Iron	NO	ND-0.28	ppm	n/a	0.30	Naturally occurring; erosion; leaching from pipes
Manganese	NO	ND-0.03	ppm	n/a	0.05	Naturally occurring; erosion; leaching from pipes
pH	NO	5.69-6.87	S.U.	n/a	n/a	Naturally occurring; treatment with water additives
Sodium	NO	5.46-18.7	ppm	n/a	n/a	Naturally occurring in the environment
Sulfate	NO	5.07-10.3	ppm	n/a	250	Naturally occurring in the environment or from runoff
Total Dissolved Solids	NO	52.0-104	ppm	n/a	500	Naturally occurring in the environment or from runoff
Zinc	NO	ND-0.09	ppm	none	5	Erosion; refinery & factory discharge; landfill runoff

* Figure shown is 90th percentile of distribution sites sampled. Number of sites above the Action Level = 0

UCMR4

The EPA Fourth Unregulated Contaminant Monitoring Rule (UCMR4) required PWSs serving more than 10,000 people to monitor for a list of unregulated contaminants during January 2018 through December 2020, with each PWS assigned a monitoring period. The following table lists the UCMR4 contaminants we tested and those contaminants for which there was some level of detection.

UCMR 4 Contaminants					
Contaminant	Msmt	Detected	Contaminant	Msmt	Detected
Germanium	ppb	ND	Total permethrin (cis- & trans-)	ppb	ND
Manganese	ppb	ND-7.44	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
Tebuconazole	ppb	ND			
HAA5	ppb	ND	Dibromoacetic acid	ppb	ND-0.41
HAA6Br	ppb	ND	Dichloroacetic acid	ppb	ND-0.28
HAA9	ppb	ND	Total organic carbon (TOC)	ppb	ND-1450
Bromochloroacetic acid	ppb	ND-0.42	Bromide	ppb	ND-39.4

The following table is a list of *Primary Drinking Water Contaminants*, *Unregulated Contaminants*, and *Secondary Contaminants* for which our water system routinely monitors according to our regulatory schedule. 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	MCL	Unit of Msmt
Bacteriological Contaminants					
Total Coliform Bacteria	<5%	present or absent	trans-1,2-Dichloroethylene	100	ppb
Fecal Coliform and E. coli	0	present or absent	Dichloromethane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	Calculated organisms/liter	Di (2-ethylhexyl)phthalate	6	ppb
Radiological Contaminants					
Beta/photon emitters	4	mrem/yr	Dinoseb	7	ppb
Alpha emitters	15	pCi/l	Dioxin [2,3,7,8-TCDD]	30	ppq
Combined radium	5	pCi/l	Diquat	20	ppb
Uranium	30	pCi/l	Endothal	100	ppb
Inorganic Chemicals					
Antimony	6	ppb	Epichlorohydrin	TT	TT
Arsenic	10	ppb	Ethylbenzene	700	ppb
Asbestos	7	MFL	Ethylene dibromide	50	ppt
Barium	2	ppm	Glyphosate	700	ppb
Beryllium	4	ppb	Heptachlor	400	ppt
Cadmium	5	ppb	Heptachlor epoxide	200	ppt
Chromium	100	ppb	Hexachlorobenzene	1	ppb
Copper	AL=1.3	ppm	Hexachlorocyclopentadiene	50	ppb
Cyanide	200	ppb	Lindane	200	ppt
Fluoride	4	ppm	Methoxychlor	40	ppb
Lead	AL=15	ppb	Oxamyl [Vydate]	200	ppb
Mercury	2	ppb	Polychlorinated biphenyls (PCBs)	0.5	ppb
Nitrate	10	ppm	Pentachlorophenol	1	ppb
Nitrite	1	ppm	Picloram	500	ppb
Selenium	.05	ppm	Simazine	4	ppb
Thallium	.002	ppm	Styrene	100	ppb
Organic Contaminants					
2,4-D	70	ppb	Tetrachloroethylene	5	ppb
Acrylamide	TT	TT	Toluene	1	ppm
Alachlor	2	ppb	Toxaphene	3	ppb
Benzene	5	ppb	2,4,5-TP(Silvex)	50	ppb
Benzo[a]pyrene [PAHs]	200	ppt	1,2,4-Trichlorobenzene	.07	ppm
Carbofuran	40	ppb	1,1,1-Trichloroethane	200	ppb
Carbon tetrachloride	5	ppb	1,1,2-Trichloroethane	5	ppb
Chlordane	2	ppb	Trichloroethylene	5	ppb
Chlorobenzene	100	ppb	Vinyl Chloride	2	ppb
Dalapon	200	ppb	Xylenes	10	ppm
Dibromochloropropane	200	ppt	Disinfectants & Disinfection Byproducts		
o-Dichlorobenzene	600	ppb	Chlorine	4	ppm
p-Dichlorobenzene	75	ppb	Chlorine Dioxide	800	ppb
1,2-Dichloroethane	5	ppb	Chloramines	4	ppm
1,1-Dichloroethylene	7	ppb	Bromate	10	ppb
cis-1,2-Dichloroethylene	70	ppb	Chlorite	1	ppm
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	Isopropylbenzene	Propachlor		
1,3,5 - Trimethylbenzene	Butachlor	M-Dichlorobenzene	Sec - Butylbenzene		
2,2 – Dichloropropane	Carbaryl	Methomyl	Tert - Butylbenzene		
3-Hydroxycarbofuran	Chloroethane	MTBE	Trichlorfluoromethane		