



Water Quality Report For 2022 Spanish Fort Water System Inc.

We're pleased to present to you this year's Annual Water Quality Report. This report 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 supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Message to Our Customers

We are committed to the quality of your drinking water. As in the past, your drinking water has been and remains safe to drink. 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.

Table of Primary Contaminants

Spanish Fort Water System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of the combined monitoring of Spanish Fort Water System, North Baldwin Utilities, and Mobile Area Water And Sewer System, for the period of January 1st thru December 31st, 2022.

At high levels some primary contaminants are known to pose a health risks to humans.
This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological					
Total Coliform Bacteria	< 5%	0.14%	Endothal	100 ppb	ND
Turbidity	TT	ND to 0.999	Endrin	2 ppb	ND
Radiological					
Beta photon emitters (pCi/L)	4	-1.58 to -1.21	Epichlorohydrin	TT	ND
Alpha emitters (pCi/l)	15	-1.72 to 1.98	Glyphosate	700 ppb	ND
Combined radium (pCi/l)	5	-0.11 to 0.9	Heptachlor	400 ppt	ND
Inorganic					
Antimony	6 ppb	ND	Heptachlor epoxide	200 ppt	ND
Arsenic	10 ppb	ND	Hexachlorobenzene	1 ppb	ND
Asbestos (MFL)	7	Waived	Lindane	200 ppt	ND
Barium	2 ppm	0.035	Methoxychlor	40 ppb	ND
Beryllium	4 ppb	ND	Osamyl [Vydate]	200 ppb	ND
Cadmium	5 ppb	ND	PCBs	500 ppt	ND
Chromium	100 ppb	ND	Pentachlorophenol	1 ppb	ND
Copper	AL=1.3 ppm	ND to 0.17	Picloram	500 ppb	ND
Cyanide	200 ppb	ND	Sinaxane	4 ppb	ND
Fluoride	4 ppm	ND to 1.95	Toxaphene	3 ppb	ND
Lead	AL=15 ppb	ND to 1.1	benzene	5 ppb	ND
Mercury	2 ppb	ND	Carbon Tetrachloride	5 ppb	ND
Nitrate	10 ppb	ND to 0.350	Chlorobenzene	100 ppb	ND
Nitrite	1 ppm	ND	Dibromochloropropane	200 ppt	ND
Selenium	50 ppb	ND	o-Dichlorobenzene	600 ppb	ND
Thallium	2 ppb	ND	p-Dichlorobenzene	75 ppb	ND
Organic Chemicals					
2,4-D	70 ppb	ND	1,2-Dichloroethane	5 ppb	ND
2,4,5-TP (Silvex)	50 ppb	ND	1,1-Dichloroethylene	7 ppb	ND
Acrylamide	TT	ND	Cis-1,2-Dichloroethylene	70 ppb	ND
Alachlor	2 ppb	ND	trans-1,2-Dichloroethylene	100 ppb	ND
Azinphos	3 ppb	ND	Dichloromethane	5 ppb	ND
Benzo(a)pyrene (PLAs)	200 ppt	ND	1,2-Dichloropropane	5 ppb	ND
Carbofuran	40 ppb	ND	Ethylbenzene	700 ppb	ND
Chlordane	2 ppb	ND	Ethylene dibromide (EDB)	50 ppt	ND
Chlorine	4 ppm	0.39 to 2.68 ppm	Styrene	100 ppb	ND
Dalapon	200 ppb	ND	Tetrachloroethylene	5 ppb	ND
Di-(2-ethylhexyl)adipate	400 ppb	ND	1,2,4-Trichlorobenzene	70 ppb	ND
Di(2-ethylhexyl)phthalates	6 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND
Dinoseb	7 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND
Diquat	20 ppb	ND	Trichloroethylene	5 ppb	ND
			TTM / HAA5	80 ppb	(See Note 1)
			Toluene	1 ppb	ND
			Vinyl Chloride	2 ppb	ND
			Xylenes	10 ppm	ND

Note 1 = See Table of Detected Contaminants for Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5) analytical results.

Sources of Water

We have a Source Water Protection Plan available from our office that provides more information such as potential sources of contamination. Operating under permit by the Alabama Department of Environmental Management, the Spanish Fort Water System has two wells that draw from the Miocene Aquifer. Well #5 is located on Water Tower Rd., and Well #4 is located behind the Rotuses Shopping Center. Spanish Fort Water System also purchased water from The Mobile Area Water and Sewer System and North Baldwin Utilities and the City of Loxley. The source of MAWSS customers' drinking water is Converse Reservoir (Big Creek Lake), which is fed by springs, streams, and rainfall in the Converse Reservoir Watershed. North Baldwin Utilities obtains its drinking water through the use of nine (9) public water supply wells. The wells produce groundwater from sand units in the aquifer known regionally as the Pliocene-Miocene Aquifer. The source of recharge to the aquifers is precipitation. The City of Loxley Utilities obtains its drinking water through the use of three (3) public water supply wells. The wells produce groundwater from sand units in the aquifer known regionally as the Miocene Aquifer. The source of recharge to the aquifers is precipitation.

Educational Information

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 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. 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 infection. 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 (800-426-4791). 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 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. 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.

Definitions

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

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 a million years or a single penny in \$10,000,000.

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 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.

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

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

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

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.

Results of Radon Monitoring

Radon is radioactive gas that you can't see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix Your Home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-505-RADON).

Dioxin and Asbestos

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. This monitoring for these contaminants is not required.

If you have any questions about this report, please contact Terry Evans at 676-3067. 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 Board meetings. They are held on the second Tuesday of each month at 5:00 pm. Our Board Members are: Hank Bauer Jr. (President), Robbins Flynn (Vice President), Jimmy Ashcraft, Bob Robbins and Boyd Pugh.

Table of Detected Contaminants

CONTAMINANT	MCLG	MCL	Range	Highest Amount Detected	Units	Likely Source of Contamination
Turbidity	N/A	TT	0.010 to 0.999 (TT not exceeded)	0.999	NTU	Soil runoff
Nitrate	10	10	ND to 3.50	3.50	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Lead (every 3 years)	0	AL=15	(AL not exceeded)	ND to 8.8	ppb	Corrosion of household plumbing systems; erosion of natural deposits
Copper (every 3 years)	1.3	AL=1.3	(AL not exceeded)	ND to 0.17	ppm	
Arsenic	10	10	ND	ND	ppb	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizers and aluminum factories
Fluoride	4	4	0.21 to 0.96	0.96	ppm	
Chlorite	N/A	N/A	0.24 to 0.84	0.84	ppm	Disinfection By-Product
THM	0	80	10.2 to 72 Highest Average = 56.88	HA = 56.88	ppb	
HAA5	N/A	60	ND to 64 Highest Average = 38.70	HA = 38.70	ppb	
Total Organic Carbon (TOC)	N/A	TT	Lowest Performance Ratio 1.14	2.3	TT	Naturally present in the environment
Total Dissolved Solids	N/A	500	ND to 96	96	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Barium	2	2	ND to 0.035	0.035	ppm	
Chlorine Dioxide	MDRLO = 800	MDRL = 800	ND to 90.0	90.0	ppb	Water additive used to control microbes
Gross Alpha	0	15	-1.72 to 1.98	1.98	(pCi/l)	Erosion of natural deposits
Gross Beta	0	50	-1.58 to -1.21	-1.21	(pCi/l)	
Combined Radium	0	5	-0.11 to 0.9	1.95	(pCi/l)	
Aluminum	N/A	0.2	ND to 0.41	0.41	ppm	Secondary Contaminant
Chloride	N/A	250	ND to 7.4	7.4	ppm	
Iron	N/A	0.3	ND to 0.95	0.95	ppm	Special Corrosivity Monitoring
Manganese	N/A	0.05	ND to 0.070	0.070	ppm	
Temperature, C	N/A	N/A	11.0 to 40.2	40.2	C	Special Corrosivity Monitoring
Alkalinity as CaCO ₃ **	N/A	N/A	ND to 22.7	22.7	ppm	
Sodium **	N/A	N/A	ND to 5.2	5.2	ppm	
Sulfate as SO ₄ **	N/A	N/A	2.6 to 25	25	ppm	
Calcium **	N/A	N/A	ND to 15	15	ppm	
Magnesium **	N/A	N/A	ND to 1.2	1.2	ppm	
Hardness as CaCO ₃ **	N/A	N/A	ND to 42	42	ppm	
Specific Conductance	N/A	N/A	ND to 120	120	uOhms	
pH **	N/A	N/A	7.3 to 10.1	10.1		
Corrosivity (saturation index) **	N/A	N/A	-2.4 to -0.02	-0.02	(LSI)	
Orthophosphate	N/A	N/A	0.10	0.10	ppm	

* EPA removed the zero MCLG for chloroform from its National Primary Drinking Water Regulations, effective May 30, 2000, in accordance with an order of the U.S. Court of Appeals for the District of Columbia Circuit.

MAWSS Per-Polyfluoroalkyl Substances (PFAS)

Substance	MCGL	Health Advisory Level	Highest Detected	Range	Major Sources
Hexafluoropropylene oxide dimer acid (HFPO-DA), ppt	N/A	10	0.59	0.4 - 0.59	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS), ppt	N/A	2000	1.5	1.1 - 1.5	Discharge and waste from industrial facilities; Stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS), ppt	N/A	N/A	0.73	0.52 - 0.73	Firefighting foam; Discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA), ppt	N/A	N/A	1.4	1.1 - 1.4	Firefighting foam; Discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA), ppt	N/A	N/A	0.59	0.46 - 0.59	Discharge from waste and industrial facilities; Breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS), ppt	N/A	0.02	1.6	0.97-1.6	Firefighting foam; Discharge from electroplating; facilities; Discharge and waste from industrial facilities
Perfluorooctane acid (PFOA), ppt	N/A	0.004	2.2	1.8 - 2.2	"Discharge and waste from industrial facilities; Stain-resistant treatments"

* The Environmental Protection Agency (EPA) does not have an enforceable MCL for PFOA and PFOS. The EPA initiated the process in 2019 to evaluate the need for a MCL for PFOA and PFOS. This process is expected to take a minimum of two (2) years. The EPA anticipates finalizing the rule by the end of 2023. On June 15, 2022 the EPA issued new lifetime health advisories for four (4) PFAS compounds. Recent testing by MAWSS has indicated the presence of at least one (1) of these compounds in our drinking water, at the levels above the new advisories.

NBU 2022 PFAS* Monitoring Results	Well # 2 Mar	WELL # 5 Jun	Well # 2 Sept	Well # 12 Sept	Well # 2 Dec
Perfluorohexane sulfonic acid, ppb	0.0049	0.0076	0.0041		0.0044
Perfluorooctane sulfonic acid, ppb	0.0080	0.0092	0.0078	0.0020	0.0082
Total PFAS, ppb	0.0130	0.017	0.0120	0.0020	0.0130

MONITORING NON-COMPLIANCE NOTICE

Spanish Fort Water System is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During July-September 2021, we did not monitor for disinfection byproducts (DBP) during the required time frame, and therefore cannot be sure of the quality of your drinking water during that time.

Because DPBS from these quarters will be used in determining compliance with DBP MCLs in the quarters of October-December 2021, January-March 2022, and April-June 2022 Spanish Fort Water System will incur monitoring violations for those quarters. Due to an employee leaving our contracted third-party lab, samples that were scheduled to be taken during the required time frame failed to be collected. We have worked with our third-party lab to insure that this does not happen in the future by having multiple members of the Spanish Fort Water System, along with multiple members of our third-party lab keeping track of all required testing dates.

REPORTING NON-COMPLIANCE NOTICE

The Spanish Fort Water System has incurred an inorganics reporting non-compliance. The non-compliance resulted from a failure to submit the January 2020 - December 2022 results by January 10, 2023. All testing was done for this time and was in compliance. All test results are included in this report.

Spanish Fort Water System is continuing to monitor for the required contaminants. Should you have any questions concerning this non-compliance or monitoring requirements, please contact Terry Evans at 30686 Driftwood Lane in Spanish Fort or call (251) 626-3067.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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 set the limits for certain contaminants and require all public water systems to monitor for these contaminants. Spanish Fort Water System routinely tests for these constituents in your drinking water according to Federal and State laws. The tables in this report show the monitoring results of the Calendar Year 2022. Sampling Schedule beginning January 1 through December 31 of 2022.

Lead Notice

Every report shall contain the following lead-specific information: If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Spanish Fort 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