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Water Quality Report For 2020

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. I'm pleased to report that our drinking water is safe and meets federal and state requirements.

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 with no monitoring violations. 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, 2020.

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			Endothall	100 ppb	ND to < 9 ppb
Total Coliform Bacteria	< 5%	< 0.05%	Endrin	2 ppb	ND to < 2 ppb
Turbidity	TT	0.01 to 7.2	Epichlorohydrin	TT	ND
Radiological			Glyphosate	700 ppb	ND to < 6 ppb
Beta/photon emitters (pCi/L)	4	0.6 to 2.13	Heptachlor	400 ppt	ND to 40 ppt
Alpha emitters (pci/l)	15	0.267 to .78	Heptachlor epoxide	200 ppt	ND to < 20 ppt
Combined radium (pci/l)	5	0.235 to 0.39	Hexachlorobenzene	1 ppb	ND to < 0.1 ppb
Inorganic			Lindane	200 ppt	ND to < 40 ppt
Antimony	6 ppb	< 1 ppb	Methoxychlor	40 ppb	ND to < 40 ppb
Arsenic	10 ppb	ND to 0.5 ppb	Oxamyl [Vydate]	200 ppb	ND to < 2 ppb
Asbestos (MFL)	7	Waived	PCBs	500 ppt	ND to < 100 ppt
Barium	2 ppm	ND to 0.03 ppm	Pentachlorophenol	1 ppb	ND to < 0.4 ppb
Beryllium	4 ppb	< 0.15 ppb	Picloram	500 ppb	ND to < 0.1 ppb
Cadmium	5 ppb	< 1 ppb	Simazine	4 ppb	ND to < 0.07 ppb
Chromium	100 ppb	ND to 0.4 ppb	Toxaphene	3 ppb	ND to < 1 ppb
Copper	AL=1.3 ppm	ND to 0.038 ppm	Benzene	5 ppb	ND to < 0.5 ppb
Cyanide	200 ppb	< 5 ppb	Carbon Tetrachloride	5 ppb	ND to < 0.5 ppb
Fluoride	4 ppm	ND to 2.31 ppm	Chlorobenzene	100 ppb	ND to < 0.1 ppb
Lead	AL=15 ppb	ND to 0.02 ppb	Dibromochloropropane	200 ppt	ND to < 20 ppt
Mercury	2 ppb	< 0.2 ppb	0-Dichlorobenzene	600 ppb	ND to < 0.5 ppb
Nitrate	10 ppb	0.124 to 1.1 ppb	p-Dichlorobenzene	75 ppb	ND to < 0.5 ppb
Nitrite	1 ppm	< 0.05	1,2-Dichloroethane	5 ppb	ND to < 0.5 ppb
Selenium	50 ppb	< 1 ppb	1,1-Dichloroethylene	7 ppb	ND to < 0.5 ppb
Thallium	2 ppb	< 1 ppb	Cis-1,2-Dichloroethylene	70 ppb	ND to < 0.5 ppb
Organic Chemicals			trans-1,2-Dichloroethylene	100 ppb	ND to < 0.5 ppb
2,4-D	70 ppb	ND to ≤ 0.1 ppb	Dichloromethane	5 ppb	ND to ≤ 0.5 ppb
2,4,5-TP (Silvex)	50 ppb	ND to $< 0.2 \text{ ppb}$	1,2-Dichloropropane	5 ppb	ND to < 0.5 ppb
Acrylamide	TT	ND	Ethylbenzene	700 ppb	ND to < 0.5 ppb
Alachlor	2 ppb	ND to < 0.1 ppb	Ethylene dibromide [EDB]	50 ppt	ND to <10 ppt
Atrazine	3 ppb	ND to < 0.1 ppb	Styrene	100 ppb	ND to < 0.5 ppb
Benzo(a)pyrene[PHAs]	200 ppt	ND to ≤ 20 ppt	Tetrachloroethylene	5 ppb	ND to $< 0.5 \text{ ppb}$
Carbofuran	40 ppb	ND to < 0.9 ppb	1,2,4-Trichlorobenzene	70 ppb	ND to < 0.5 ppb
Chlordane	2 ppb	ND to < 0.1 ppb	1,1,1-Trichloroethane	200 ppb	ND to < 0.5 ppb
Dalapon	200 ppb	ND to < 1 ppb	1,1,2-Trichloroethane	5 ppb	ND to < 1.6 ppb
Di-(2-ethylhexyl)adipate	400 ppb	ND to < 0.6 ppb	Trichloroethylene	5 ppb	ND to < 0.5 ppb
Di(2-ethylhexyl)phthlates	6 ppb	ND to < 0.6 ppb	TTHM / HAA5	80 ppb	(See Note 1)
Dinoseb	7 ppb	ND to < 0.2 ppb	Toluene	1 ppb	ND to 0.000092 ppm
Diquat	20 ppb	ND to < 0.4 ppb	Vinyl Chloride	2 ppb	ND to < 0.5 ppb
Dioxin[2,3,7,8-TCDD]	30 ppq	Waived	Xylenes	10 ppm	ND to < 0.0010 ppm

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

MONITORING NON-COMPLIANCE NOTICE

The Board of Water and Sewer Commissioners of the City of Mobile (MAWSS) 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 the January 2020 - March 2020 monitoring period, Volatile Organic Chemicals (VOCs) were not analyzed during the monitoring period, and therefore, cannot be sure of the quality of your drinking water at this time. 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. Samples were collected by MAWSS within the monitoring period on March 11, 2020, as required. The samples were delivered to a contracted third-party certified laboratory. The third-party laboratory failed to transport the samples within its network of laboratories. Consequently, the samples were neither analyzed within the required holding time nor were test results uploaded to the Alabama Department of Environmental Management's (ADEM) database. MAWSS recognized that it had not received a report from the third-party laboratory by the end of the reporting period. Upon checking into the matter, the error was discovered. On May 4, MAWSS collected samples again, and the VOC analysis was properly performed by a different third-party laboratory. The results indicated VOCs to be well below the Maximum Contaminant Level and, thus, compliant with ADEM regulations. Should you have any questions concerning this Monitoring Non-Compliance Notice, please contact Douglas Cote, Assistant Director @ 694-3188.

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

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

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

Parts per billion (ppb) or Micrograms per liter (mg/l) - one part per billion corresponds to one minute in a million years or a single penny in \$10,000,000.

<u>Maximum Contaminant Level Goal</u> - 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.

<u>Maximum Contaminant Level</u> - 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.

<u>Variances and Exemptions</u> – ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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

<u>Action Level</u> - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must

<u>Nephelometric Turbidity Unit (NTU)</u> - <u>N</u>ephelometric <u>Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.</u>

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 (pCl/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-SOS-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. Thus monitoring for these contaminants is not required.

If you have any questions about this report , please contact Terry Evans at 626-3067. 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 pm. Our Board Members are: Doug Miles (President), Hank Bauer (Vice President), Jimmy Ashcraft, Robbins Flynn. And Bob Robbins

Table of Detected Contaminants

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CONTAMINANT	MCLG	MCL	Range	Highest Amount Detected	Units	Likely Source of Contamination	
Bromide	N/A	N/A	ND to 40.6	40.6	ppb	Not Listed	
Turbidity	N/A	TT	0.24 to 7.2 (TT not exceeded)	7.2	NTU	Soil runoff	
Copper (every 3 years)	1.3	AL=1.3	(AL not exceeded)	ND - 0.17	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead (every 3 years)	0	AL=15	(AL not exceeded)	ND - 0.02	ppb	Corrosion of household plumbing systems, erosion of natural deposits	
Zinc	5	5	ND to 0.29	0.29	ppm		
Nitrate	10	10	0.09 to 1.1	1.1	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage erosion of natural deposits	
Arsenic	10	10	< 037 to 0.51	0.51	ppb	Erosion of natural deposits; water additive which promotes stro- teeth; discharge from fertilizer and aluminum factories	
Fluoride	4	4	ND to 2.31	2.31	ppm		
Chlorite	N/A	N/A	0.24 to 0.72	0.72	ppm		
ТТНМ	0	80	ND to 55.5	55.5	ppb	Disinfection By-Product	
HAA5	N/A	60	ND to 52.117	52.117	ppb	1	
Threshold Odor Number	N/A	3	<1 to 1	1	T.O.N.	Naturally present in the environment	
Total Organic Carbon (TOC)	N/A	TT	Lowest Performance Ratio 0.79	1.64	TT		
Total Dissolved Solids	N/A	500	41 to 392	392	ppm		
Barium	2	2	0.02 to 0.03	0.03	ppm	Discharge of drilling wastes, Discharge from metal refineries Erosion of natural deposits	
Chlorine Dioxide	MDRLG =800	MDRL= 800	0 to 90.0	90	ppb	Water additive used to control microbes	
PFAS (total)			ND to 0.015	0.015	ppb	Man made chemicals persistent in the environment	
Gross Alpha	0	15	ND to 7.8	78	(pci/l)	Erosion of natural deposits	
Gross Beta	0	50	ND to 1.29	1.29	(pci/l)		
Combined Radium	0	5	ND to 1.3	1.3	pci/l		
Aluminum	N/A	0.2	0.08 to 0.28	0.28	ppm		
Chloride	N/A	250	7.3 to 149	149	ppm		
Iron	N/A	0.3	ND to 5.29	5.29	ppm	Secondary Contaminant	
Manganese	N/A	0.05	ND to 1.09	1.09	ppm	1	
Temperature, C	N/A	N/A	14.0 to 34.0	34	C		
Alkalinity as CaCo3 **	NA	N/A	7.3 to 125	125	ppm		
Carbon Dioxide **	N/A	N/A	ND to 3.6	3.6	ppm]	
Sodium **	N/A	N/A	3.3 to 118	118	ppm	1	
Sulfate as SO4 **	N/A	N/A	3.95 to 25	25	ppm]	
Calcium **	N/A	N/A	3.39 to 15	15	ppm	Special Corrosivity Monitoring	
Magnesium **	N/A	N/A	0.00051 to 1.3	1.3	ppm		
Hardness as CaCo3 **	N/A	N/A	7.9 to 42.7	42.7	ppm		
Specific Conductance	N/A	N/A	29.3 to 748	748	uOhms		
pH **	N/A	N/A	6.5 to 10.2	10.2			
Corrosivity (saturation index) **	N/A	N/A	-0.78 to -2.43	-2.43	(LSI)		
Orthophosphate	N/A	N/A	ND to 0.28	0.28	ppm	1	

* 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.				
Unregulated Contaminant Monitoring Rule (UCMR 4)*						
Contaminant	Units	MRL**	Range Detected	Average Detected		
Germanium	ug/L	0.300	< 0.300	< 0.300		
Manganese	ug/L	0.400	<0.400 to 1.45	1072		
Alpha hexachlorocyclohexane	ug/L	0.010	< 0.0100	< 0.100		
Chloropyrifos	ug/L	0.030	< 0.030	< 0.0300		
Dimethipin	ug/L	0.200	< 0.200	< 0.200		
Ethoprop	ug/L	0.030	< 0.300	< 0.300		
Oxyflourfen	ug/L	0.050	< 0.0500	< 0.0500		
Profenofos	ug/L	0.300	< 0.300	< 0.300		
Tebuconazole	ug/L	0.200	< 0.200	< 0.200		
Total Permethrin (cis- & trans-)	ug/L	0.040	< 0.0400	< 0.0400		
Tribufos	ug/L	0.070	< 0.0700	< 0.0700		
1-butanol	ug/L	2.000	<2.00	< 2.00		
2-methoxyethanol	ug/L	0.400	< 0.400	< 0.400		
2-proben-1-ol	ug/L	0.500	< 0.500	< 0.500		
Bultylated hydroxyanisole	ug/L	0.030	< 0.0300	< 0.0300		
0-tuludine	ug/L	0.007	< 0.00700	< 0.00700		
Quinoline	ug/L	0.020	< 0.0200	< 0.0200		
Total Organic Carbon	ug/L	1000.000	3850 to 3930	3890		
Bromide	ug/L	20.000	< 20.0	< 20.0		
HAA5	ug/L	N/A	22.2 to 52.117	52.117		
HAA6Br	ug/L	N/A	5.13 to 10.6	7.75		
HAA9	ug/L	N/A	2.50 to 51.4	51.4		

*EPA Uses the Unregulated Contaminant Monitoring Rule (UCMR) program to collect nationally representative data for contaminants suspected to be present in drinking water, but that do not have regulatory standards. The 1996 Safe Drinking Water Act (SDWA) amendments require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWS's). The fourth Unregulated Contaminant Monitoring Rule (UCMR 4) was published in the Federal Register on December 20, 2016. UCMR 4 requires monitoring for 30 chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. This monitoring is used by EPA to understand the frequency and level of occurrence of unregulated contaminants in the nation's public water systems (PWS's) and provides a basis for future actions to protect public health.

**EPA has established UCMR 4 Minimum Reporting Levels (MRL.s) based on the capability of laboratories to perform the analytical method, not based on a level established as "significant" or "harmful". UCMR 4 results reported at or above those MRL's should be interpreted accordingly. The detection of a UCMR 4 contaminant does not represent cause for concern, in and of itself.

Contaminants Tested For, But Not Detected

Contaminants Tested	For, But Not Detected
1,1-Dichloroethane	Chlorodibromomethane
1,1-Dichloropropene	Chloroethane
1,1,2,2-Tetrachloroethane	Chloromethane
1,2,3-Trichlorobenzene	Dibromomethane
1,2,4-Trichlorobenzene	Dicamba
1,2,3-Trichloropropane	Dieldren
1,2,4-Trimethylbenzene	Dichlorodifluoromethane
1,3,5-Trimethylbenzene	Fluorotrichloromethane
1,3-Dichlorobenzene	Hexachlorobutadiene
1,3-Dichloropropane	Isopropybenzene
1,3-Dichloropropene	Methyl-tert-butyl ether
2,2-Dichloropropane	Methomyl
2-Chlorotoluene	Metolachlor
3-Hydroxcarbofuran	Metribuzin
4-Chlorotoluene	Naphthalene
Aldicarb	Nickel
Aldicarb sulfone	n-Butylbenzene
Aldicarb sulfoxide	n-Propylbenzene
Aldrin	p-Isopropyltoluene
Bromobenzene	Propachlor
Bromochloromethane	sec-Butylbenzene
Bromomethane (Methyl bromide)	tert-Butylbenzene
Butachlor	Zinc
Carbaryl	

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 Rouses Shopping Center. Spanish Fort Water System also purchased water from The Mobile Area Water and Sewer System and North Baldwin Utilities. 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 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 produced groundwater is treated with chlorination, fluoridation and corrosion control prior to distribution.

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 2020. Sampling Schedule beginning January 1 through December 31 of 2020.

Lead Notice

Every report shall contain the following leadspecific 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 or at http://www.epa.gov/safewater/lead.