Definitions—terms and abbreviations you may not be familiar with that are used in water testing.

PPM (parts per million) Milligrams per liter (mg/l). One part per million corresponds to one minute in two years or a single penny in $10,000.

PPB (parts per billion) Micrograms per liter (ug/l). One part per billion corresponds to one minute in 2,000 years, or a single penny in $ 10,000,000.

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

ND Not detectable at testing levels.

AL (Action Level) Concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

MCLG (Maximum Contaminant Level Goal) Level of a contaminant in drinking water below which there is no known or expected risk to health. The MCLG allows for a margin of safety.

MCL (Maximum Contaminant Level) Highest level of a contaminant allowed in drinking water; the MCLs are set as close to the MCLG as feasible using best available treatment technology.

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

ug/l Micrograms per liter (ppb).

90th Percentile 90% of samples are equal to or less than the number in the chart.

PCi/L (picocuries per liter) Measure of radioactivity.

MRDL Maximum residual disinfectant level.

MRDLG Maximum residual disinfectant level goal.

CDC Center for Disease Control.

EPA Environmental Protection Agency.

ADEM Alabama Dept. of Environmental Management.

NR Not regulated.

Variance and Exemption State permission not to meet an MCL or a treatment technique under certain circumstances.

The City of Fairhope regularly monitors for contaminants in the water as regulated by ADEM. Of the many contaminants tested, only these few were at level of detection.

Contaminant	Avg. Detected	Range Detected	Likely Source of Contamination	MCL
Nitrate-N (mg/l)	2.7	0.2 to 5.8	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	10ppm
Lead	90% tile) below action level	0of 30 samples above AL	Corrosion of household plumbing systems; erosion of natural deposits	Al = 15ug/l at 90th percentile
Copper	90% tile) below action level	0 of 30 samples above AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	AL = 1.3 ppm
UNREGULATED				
Calcium	6	3 to 7.5	Erosion of natural deposits	Corrosivity
Turbidity	0.39	0.13 to 1	Soil run off	TT
Phosphate (ppm)	1.28	0.89 to 1.68	Water additive to control the corrosion rate	Corrosivity
Magnesium	0.99	0.69 to 1.4	Erosion of natural deposits	Corrosivity
Zinc	0.17	0.037 to 0.27	Erosion of natural deposits	5 mg/L
Chromium 5	0.51	0.4 to 0.6		
Cobalt	1.28	1.0 to 2.4		
Strontium	25.42	13 to 39		
Chromium, Hexavalent	0.25	0.1 to 0.6		
SECONDARY REGULATION				
Hardness	19.6	11 to 24	Leaching from natural deposits	Not regulated
Sodium	3.8	2.8 to 4.6	Erosion of natural deposits	Not regulated
Chlorine (ppm)	1.16	0.85 to 1.47	Water Additive used to control microbes.	MRDL=4ppm
pH	8.1	7.7 to 8.5	The pH value defined as the negative logarithm of the concentration of hydrogen ions measured in moles per liter.	Scale forming
Total Alkalinity (ppm)	10	3.1 to 16	The alkalinity of a water is a measure of its capacity to neutralize acids. It is also the buffer capacity of the water.	Corrosivity
Iron	0.15	0.15 to 0.15	Corrosion of household plumbing; Erosion of natural deposits	0.3mg/l
Fluoride (ppm)	0.98	0.93 to 1.08	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer.	4ppm
Manganese	0.036	0.010 to 0.063	Erosion of natural deposits	0.05ppm
Carbon dioxide, free	2.7	2.7 to 2.7	Naturally occuring in water	Corrosivity
Sulfate	8.7	8.7 to 8.7	Erosion of natural deposits	Not regulated
Total Dissolved Solids	30.2	18 to 38	Constituents in the water	500 mg/l
Chloride	7.9	5.9 to 9.6	Erosion of natural deposits	250mg/l
RADIONUCLIDES				
Gross Alpha	3.6 ± 0.7	2.4 ± 0.9	Erosion of natural deposits	15 pCi/L
Gross Beta	2.9 ± 0.6	2.4 ± 1.1	Erosion of natural deposits	15 pCi/L
Radium - 226	0.5 ± 0.1	0.2 ± 0.2	Erosion of natural deposits	5 pCi/L
Radium - 228	1.0 ± 0.8	3.9 ± 1.0	Erosion of natural deposits	5 pCi/L
MICROBIOLOGICAL				
Total Coliform	0	0 of 520 Samples	Coliforms are naturally present in the environment, as well as in feces. Fecal coliforms and E. coli only come from human and animal fecal waste.	<5%
DISINFECTION BYPRODUCTS				
TTHM [Total trihalomethanes]	0.55	0.5 to 0.6	By-product of drinking water disinfection	80ppb
Bromodichloromethane	0.55	0.5 to 0.6	By-product of drinking water disinfection	80ppb
Haloacetic Acid (HAA5)			By-product of drinking water disinfection	60ppb
Monochloroacetic acid	14	14 to 14	By-product of drinking water disinfection	60ppb

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 any of these contaminants was not required. The state allows us to monitor for some contaminants less than once per year because the concentrations of these does not change frequently. Some of our data, though accurate, is more than one year old. The City of Fairhope has completed its source water assessment as regulated by ADEM. To obtain or view information, please contact Dan McCrory, Water Department Superintendent, at 928-8003 or by writing City of Fairhope, P.O. Drawer 429, Fairhope, AL 36533.The City of Fairhope also has in place a Wellhead Protection Plan to safeguard our valuable ground source water system.

Nitrate in drinking water at levels above 10ppm is a health risk for infants less than 6 months old. High nitrate levels in drinking water can cause Blue Baby Syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, ask advice from your health care provider.

Radon is a naturally-occurring radioactive gas that may cause cancer, and may be found in drinking water and indoor air. Some people who are exposed to radon in drinking water may have increased risk of getting cancer over the course of their lifetime, especially lung cancer. Radon in soil under homes is the biggest source of radon in indoor air, and presents a greater risk of lung cancer than radon in drinking water.

Lead, if present in elevated levels, 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. The City of Fairhope Water Department is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has not been used 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.

Cryptosporidium is a parasite commonly found in lakes and rivers, especially if the water is contaminated with sewage and animal wastes. Cryptosporidium is very resistant to disinfection, and even a well-operated water treatment system cannot ensure that drinking water will be completely free of this parasite.

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

The US Environmental Protection Agency (EPA) wants you to know:

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

Sources of drinking water (both tap and bottled) 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, in some cases, radioactive material, and can pick up substances resulting in 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 that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities.

Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production and also can come from gas stations, urban storm water runoff, and septic systems. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

To ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

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. 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Fairhope's Drinking Water Named Best Tasting in State

Fairhope's drinking water continues to win awards. In 2013, our water won the ARWA (Alabama Rural Water Association) award for best tasting water in the state. This follows a regional win in 2012 for the Alabama/Mississippi Section of the American Water Works Assoc. Different conference, different judges? Must be something in the water! To compete, a utility must meet with ADEM approval having no violations of bacteriological or chemical monitoring during the year prior to the taste test. The water samples are evaluated by taste, clarity and odor.

Fairhope Water Superintendent Dan McCrory says a water's taste is affected in part by its source. "A groundwater source (such as Fairhope's) can be affected by naturally occurring minerals and their concentration in the drinking water, and that depends in part on how deep the aquifer is. But a lot goes in to how water tastes, including how it is treated, and I'm very proud of our crew for helping make Fairhope's water the best tasting in the state."

Report. This report is designed to inform you about the water quality and services we deliver to you every day. We strive daily to provide you with a safe and dependable supply of drinking water. We want you to understand the endless efforts we make to improve the quality of the water through the treatment process and in protecting all our water resources.

FOR MORE INFORMATION about your drinking water and for an opportunity to get involved, please contact Dan McCrory, Water Department Superintendent, or Jay Whitman, Water Department Assistant Supervisor, at 928-8003 or by writing to City of Fairhope, PO. Drawer 429, Fairhope, AL 36533. You are our valued customer, and we want you to be informed. We welcome and encourage you to attend the City of Fairhope Council meetings, which also serve as Utility Board meetings, on the second and fourth Monday of the month at 6:00pm at City Hall, 161 North Section Street in Fairhope.

Fairhope Public Utilities

We are pleased to bring you this year's Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every

Mayor, City of Fairhope
Timothy M. Kant, ACMO

Council Members
Kevin G. Boone, ACMC • Diana J. Brewer
Jack Burrell • Michael A. Ford, ACMC
Richard A. Mueller

2013 Water Quality Report
City of Fairhope
P.O. Box 429
Fairhope, AL 36533

CITY OF FAIRHOPE ALABAMA

Contaminants Tested For But Not Detected In Our Water System

1,4-Dichlorobenzene	Monobromoacetic acid
Dichlorodifluoromethane	Methoxychlor
1,1-Dichloroethane	Alachlor
1,2-Dichloroethane	Atrazine
1,1-Dichloroethene	Benzo[a]pryne
cis-1,2-Dichloroethene	Butachlor
trans-1,2-Dichloroethene	Di(2-ethylhexyl)adipate
1,2-Dichloropropane	Hexachlorobenzene
cis-1,3-Dichloropropene	Hexachlorocyclopentadiene
trans-1,3-Dichloropropene	Metolachlor
Ethylbenzene	Metribuzin
1,3-Dichloropropane	Propachlor
2,2-Dichloropropane	Simazine
1,1-Dichloropropene	Aldrin
Bromoform	Dieldrin
Methylene Chloride	Endrin
Methyl-tert-butyl ether	Lindane
Naphthalene	Heptachlor
Hexachlorobutadiene	Heptachlor epoxide
Styrene	Chlordane-alpha
p-Isopropyltoluene	Dibromoacetic Acid
1,1,2,2-Tetrachloroethane	Total Haloacetic Acids
Tetrachloroethene	1,2,3-Trichloroethane
1,1,1,2-Tetrachloroethane	Perfluorobutanesulfonic acid
Toluene	Perfluoroheptanoic acid
n-Propylbenzene	Perfluorohexanesulfonic acid
1,2,4-Trichlorobenzene	Perfluorononanoic acid
1,1,1-Trichloroethane	Perfluorooctane sulfonate
1,1,2-Trichloroethane	Perfluorooctanoic acid
Trichloroethene	Carbon Tetrachloride
Di(2-ethylhexyl)phthalate	Chlorobenzene
Bromochloromethane	Trichlorofluoromethane
Chloroform	1,2,3-Trichloropropane
Isopropylbenzene	1,2,3-Trichlorobenzene
Dibromochloromethane	Vinyl chloride
Chlorate	m,p-Xylene
Bromobenzene	o-Xylene
Benzene	1,2,4-Trimethylbenzene
n-Butylbenzene	1,3,5-Trimethylbenzene
Bromomethane	Chlordane-gamma
sec-Butylbenzene	4-Chlorotoluene
tert-Butylbenzene	1,4-Dioxane
Chloroethane	Molybdenum
2-Chlorotoluene	Vanadium
Chloromethane	1,3-Butadiene
Dibromomethane	Chlorodifluoromethane
1,2-Dichlorobenzene	Dichloroacetic acid
1,3-Dichlorobenzene	Trichloroacetic acid
1,4-Dichlorobenzene	Monobromoacetic acid
Dichlorodifluoromethane	Methoxychlor

Where Our Water Comes From

In 2013 the Fairhope Water Department pumped 1,444,223,000 gallons of water to you, our customers, for an average of 3,959,515 gallons per day. The City of Fairhope pumps our water from ten wells sources, all which are groundwater systems. The wells are located throughout our system: Wells #1, #7, and #8 are on Fairhope Avenue; wells #2 and #9 are on Highway 48, just east of Highway 181; wells #3 and #10 are on Highway 33; well #4 is on So. Section Street and Dairy Road; well #5 is on Highway 32 by the Fairhope Airport; and well #6 is on Manley Road near Fairhope High School.

How We Treat Our Water

The Fairhope Water Department treats your water first by pre-aeration before pumping it into a containment basin, which reduces the CO2. This also is important in the removal of two minerals, iron and manganese. The rest of the treatment process continues in the containment basin. First, we add chlorine for the disinfecting process, to remove and/or reduce harmful contaminants that come from the water source; second, we add a solution of hydrated lime to raise the pH level to a stable point; third, we add fluoride to help reduce tooth decay; fourth, we add phosphate to reduce the corrosion rate of the water; and finally, we add a liquid polyphosphate to control deposition of iron and manganese.