

Definitions -- terms and abbreviations used in water testing that you may not be familiar with

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.

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.

ND Not detectable at testing levels.

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.

Detected Substances Table

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

Contaminant	Avg. Detected	Range Detected	Likely Source of Contamination	MCL
Nitrate-N (mg/l)	2.1	0.23 to 5.1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	10ppm
Lead	90% tile) below AL	1 of 30 samples above AL	Corrosion of household plumbing systems; erosion of natural deposits	AL = 15ug/l at 90% tile
Copper	90% tile) below AL	0 of 30 samples above AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	AL = 1.3 ppm
Bis (2-ethylhexyl) phthalate	4.5	<2.0 to 18	Discharge from rubber and chemical factories	6 ppb
UNREGULATED				
Calcium	7.38	4.5 to 9.3	Erosion of natural deposits	Corrosivity
Turbidity	1.06	0.24 to 2.5	Soil run off	TT
Phosphate (ppm)	1.58	0.72 to 2.44	Water additive to control the corrosion rate	Corrosivity
Magnesium	1.3	0.76 to 2.1	Erosion of natural deposits	Corrosivity
Zinc	0.26	0.21 to 0.35	Erosion of natural deposits	5 mg/L
SECONDARY REGULATION				
Hardness	24	15 to 32	Leaching from natural deposits	Not regulated
Sulfate	5.8	5.8 to 5.8	Erosion of natural deposits	Not regulated
Sodium	3.4	2.8 to 3.7	Erosion of natural deposits	Not regulated
Chlorine (ppm)	1.59	0.51 to 2.67	Water Additive used to control microbes	MRDL=4ppm
pH	8	6.8 to 9.2	The pH value is defined as the negative logarithm of the concentration of hydrogen ions measured in moles per liter.	Scale forming
Total Alkalinity (ppm)	23.74	8.9 to 70	The alkalinity of a water is a measure of its capacity to neutralize acids. It is also the buffer capacity of the water.	Corrosivity
Fluoride (ppm)	0.99	0.80 to 1.19	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer	4ppm
Manganese	0.046	0.018 to 0.057	Erosion of natural deposits	0.05ppm
Iron	0.098	0.098 to 0.098	Corrosion of household plumbing systems; erosion of natural deposits	.3mg/l
Total Dissolved Solids	53.8	44 to 57	Constituents in the water	500 mg/l
Chloride	6.86	4.6 to 9.0	Erosion of natural deposits	250mg/l
Carbon dioxide, free	6.06	2.2 to 15	Natural occurring in water	Corrosivity
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	0.06 ± 0.1	0.5 ± 0.2	Erosion of natural deposits	5 pCi/L
Radium - 228	1.2 ± 0.7	0.0 ± 0.8	Erosion of natural deposits	5 pCi/L
MICROBIOLOGICAL				
Total Coliform	0	0 of 504 Samples	Coliforms are naturally present in the environment, and in feces. Fecal coliforms and E. coli only come from human and animal fecal waste.	<5%
INORGANICS				
Barium	0.0358	0.022 To 0.047	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits	2mg/l
Chlorodibromomethane	0.57	0.57 To 0.57	By-product of drinking water disinfection	80ug/l
Chloroform	0.77	0.77 to 0.77	By-product of drinking water disinfection	80ug/l
Dichlorobromomethane	0.7	0.7 to 0.7	Discharge from pharmaceutical and chemical factories	5ug/l

Nitrate in drinking water at levels above 10ppm is a health risk for infants less than six 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, you should 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.

Cryptosporidium is a parasite commonly found in

lakes and rivers, especially when 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.

Lead. 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.

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 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>.

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.

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.

Monitoring Violation
We are 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 second quarter of 2010, we did not monitor or test for Volatile Organic Chemicals at one of our well treatment sites and therefore cannot be sure of the quality of your

drinking water during that time. Although we did test in the third quarter of 2010 for Volatile Organic Chemicals at this site with negative results.

The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.



