

2009 Annual Drinking Water Quality Report The City of Port St. Joe

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable 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. Our water source is ground water from 4 wells. The deep wells draw from the Floridan Aquifer and the shallow wells from a surficial aquifer. From January 1, 2009 thru September 14, 2009 your water was aerated, lime softened, sand filtered and disinfected using the old ground water treatment plant. Beginning September 15, 2009 the water from the City's new Surface Water Treatment Plant (SWTP) went to distribution. The new system uses surface water from the Chipola River Canal. This water is treated by enhanced coagulation and flocculation, clarification, submerged membrane micro-filtration, disinfection, pH adjustment and dosed with a corrosion inhibitor.

In 2009 the Department of Environmental Protection performed a Source Water Assessment on our groundwater system and a search of the data sources indicated no potential sources of contamination near our wells. To date no source water assessment has been conducted for our surface water source. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If you have any questions about this report or concerning your water utility, please contact Glenn Davis at 850-229-6395. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled City commission meetings. They are held on first and third Tuesdays of the month at 6:00 pm in the Commission meeting room at City Hall, 305 Cecil Costin Sr. Blvd.

The City of Port St. Joe routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2009. Data obtained before January 1, 2009, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Initial Distribution System Evaluation (IDSE): *An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR*

Maximum Contaminant Level or MCL: *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 or MCLG: *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.*

Action Level (AL): *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.*

Picocurie per liter (pCi/L) - *measure of the radioactivity in water.*

"ND" *means not detected and indicates that the substance was not found by laboratory analysis.*

Parts per million (ppm) or Milligrams per liter (mg/l) - *one part by weight of analyte to 1 million parts by weight of the water sample.*

Parts per billion (ppb) or Micrograms per liter (µg/l) – one part by weight of analyte to 1 billion parts by weight of the water sample.

Maximum residual disinfectant level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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

2009 TEST RESULTS TABLE

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radiological Contaminants							
Alpha emitters (pCi/L)	4-09,9-09,12-09	N	0.5	0-0.5	0	15	Erosion of natural deposits
Radium 226 or combined radium (pCi/l)	4-09,9-09,12-09	N	1.4	0.4-1.4	0	5	Erosion of natural deposits
Inorganic Contaminants							
Antimony (ppb)	4-09	N	0.2	NA	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Sodium (ppm)	4-09	N	39	NA	N/A	160	Salt water intrusion, leaching from soil
Nitrate (as Nitrogen) (ppm)	Jan-Dec 09	N	0.07	ND-0.22	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium (ppm)	4-09	N	0.01	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	4-09	N	0.8	NA	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide	4-09	N	5.8	NA	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Nickel (ppb)	4-09	N	2.8	NA	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Selenium (ppb)	4-09	N	0.2	NA	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Synthetic Organic Contaminants including Pesticides and Herbicides							
Dalapon (ppb)	4-09,9-09,12-09	N	1.4	ND-1.4	200	200	Runoff from herbicide used on rights of way

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Exceeded Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	Jul-Dec. 09	N	0.42	0 of 60	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	Jul-Dec. 09	N	5.2	1 of 60	0	15	Corrosion of household plumbing systems, erosion of natural deposits

TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	Jan-Dec 09	N	0.85	0.41-1.05	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Jan-Dec. 09	N	59.9	30.1 – 102.5	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Jan – Dec 09	Y	97.2	49.99-151.5	NA	MCL = 80	By-product of drinking water disinfection
Contaminant and Unit of Measurement	Dates of sampling (mo./yr)	TT Violation Y/N	Level Detected	Range of Monthly Removal Ratios	MCLG	MCL	Likely Source of Contamination
Total organic carbon	Sep-Dec 09	N	1.295 Average	1.29-1.3	N/A	TT	Naturally present in the environment

Microbiological Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	Sep-Dec 09	Y	0.51	93.6	N/A	TT	Soil runoff

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 Port St. Joe 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>.

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.*
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.*

(D) 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 stormwater runoff, and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

We constantly monitor for various contaminants in our water supply to meet all regulatory requirements. The City did exceed the MCL for TTHMs [Total Trihalomethanes] in 2009. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. Because the City had this violation, they "Public Noticed" each customer in each quarter with a direct mailing explaining the situation and the actions taken to correct it. We are working to solve the problem and may begin adding ammonia and switch to chloramination as our disinfection method.

Turbidity is a measure of cloudiness of the water and has no health effects. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. The turbidity spike experience in September 2009 was caused by an incorrect piping arrangement and has been corrected.

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

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.

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

We at the City of Port St. Joe work diligently 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.

The City of Port St. Joe is committed to insuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed.