

# **2009 ANNUAL DRINKING WATER QUALITY REPORT SOUTH MARTIN REGIONAL UTILITY (SMRU)**

Dear Customer:

South Martin Regional Utility is pleased to present its 2009 Annual Water Quality Report, and to inform you that your public drinking water meets or exceeds all federal, state and local drinking water standards.

This report is designed to inform you about your water quality. SMRU is committed to providing you with a safe and dependable supply of drinking water, with a mission to continually improve the water treatment process and conserve our water resources.

## **WATER SOURCE AND TREATMENT**

Your drinking water is obtained from two different sources, the surficial aquifer system using shallow wells, and the deeper Floridan aquifer. The water from shallow wells is treated at two different water treatment plants by disinfection with chloramines. Water from the Floridan wells is treated by SMRU's reverse osmosis facility. This deep groundwater is 'pressed' through membranes: filters with tiny holes, stopping constituents in the water, and allowing only the clean water to pass through. The reverse osmosis product water is blended with water from the shallow well water treatment facilities. After measures are taken to decrease the corrosion potential of the finished water, it is distributed for your enjoyment.

In 2009 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are seven potential sources of contamination identified for this system with a low to moderate susceptibility level or range; however, these wells are being carefully monitored. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) or they can be obtained from South Martin Regional Utility, 9000 SE Athena Street, Hobe Sound, Florida 33455.

## **MONITORING AND WATER QUALITY**

SMRU routinely monitors for over 100 constituents in your drinking water in accordance with Federal and State regulations. The following tables show only constituents that were detected in the drinking water by laboratory analysis. It shows that these detections are below the maximum levels allowed by regulatory agencies for safe drinking water. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup> 2009. As authorized and approved by the Environmental Protection Agency (EPA), the State has reduced monitoring requirements for certain constituents to less than once per year because the concentrations of these constituents do not vary significantly from year to year. Some of our data (e.g., for fluoride), though representative, are more than one year old.

## South Martin Regional Utility – 2009 Laboratory Results Table

<b>Inorganic Contaminants</b>							
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
Barium (ppm)	12/08	N	0.00593	0.003 - 0.006	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	12/08	N	10	8 - 10	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Nickel (ppb)	12/08	N	2	1 - 2	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil.
Nitrate (as Nitrogen) (ppm)	01/09 & 7/09	N	0.798	0.201– 1.28	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	12/08	N	2	ND - 2	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	12/08	N	27.4	26.0 – 27.4	N/A	160	Salt water intrusion, leaching from soil
<b>TTHMs , HAA5s and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Contaminants</b>							
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
Chloramines (ppm)	monthly 09	N	2.2	0.6 – 3.9	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
TTHM [Total trihalomethanes] (ppb)	7/2009	N	27.15	10.5 - 35	NA	MCL = 80	By-product of drinking water disinfection
HAA5 [Halo Acetic Acid] (ppb)	7/2009	N	37.3	3.3 – 55.8	NA	MCL = 60	By-product of drinking water disinfection
<b>Lead and Copper (Tap Water)</b>							
Contaminant and Unit of Measurement	Dates of sampling (mo. /yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MC LG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	06/08	N	0.618	0	1.3	1.3	Corrosion of household plumbing systems
Lead (tap water) (ppb)	06/08	N	3.02	1	0	15	Corrosion of household plumbing systems

## South Martin Regional Utility – 2009 Laboratory Results Table

### Radiological Contaminants

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
Alpha emitters (pCi/L)	12/2008	N	2.0	0.8-2.0	0	15	Erosion of natural deposits

For bromate, chloramines, or chlorine, the level detected is the the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitored quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations, including Initial Distribution System Evaluation (IDSE) results as well as Stage 1 compliance results.

Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and younger children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. South Martin Regional Utility 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>.

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

**MCL** - Maximum Contaminant Level: 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.

**MCLG** - Maximum Contaminant Level Goal: 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.

**MRDL** - Maximum Residual Disinfectant Level: 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.

**MRDLG** - Maximum Residual Disinfectant Level Goal: 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.

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

**ND** - Not Detected: Indicates that the substance was not found by laboratory analysis.

**ppm** - Parts per million, or milligrams per liter (mg/L): One part by weight of the contaminant to 1 million parts by weight of the water sample.

**ppb** - Parts per billion, or micrograms per liter (µg/L): One part by weight of contaminant to 1 billion parts by weight of the water sample.

**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.

## **HEALTH INFORMATION**

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.

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 / Center for Disease Control and Prevention (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).

## **QUESTIONS?**

South Martin Regional Utility staff work around the clock to provide top quality water to our valued customers. 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. If you have any questions about this report or South Martin Regional Utility, please contact the SMRU Customer Service office at 772-546-2511. We encourage our customers to be informed about their drinking water.