

2014 Annual Drinking Water Quality Report

Naval Air Station Pensacola/Corry

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is ground water from ten (10) wells. The wells draw from the Sand and Gravel Aquifer. Because of the excellent quality of our water, the only treatments applied are chlorine for disinfection purposes, fluoride for dental health purposes, Orthophosphate for corrosion control, and caustic soda for pH adjustment.

In 2014 the Florida 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 four (4) potential sources of contamination identified for this system with low to moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from Joelle O'Daniel-Lopez 452-3131 x3027.

If you have any questions about this report or concerning your water utility, please contact Joelle O'Daniel-Lopez 452-3131 x3027. We encourage our valued customers to be informed about their water utility.

Naval Air Station Pensacola 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, 2014. Data obtained before January 1, 2014, 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:

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

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.*

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.*

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

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g}/\text{l}$) – *one part by weight of analyte to 1 billion parts by weight of the water sample.*

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.*

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

2014 CONTAMINANTS TABLE

Microbiological Contaminants						
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Highest Monthly Percentage / Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	Jan – Dec 2014	No	1	0	For systems collecting fewer than 40 samples per month: presence of coliform bacteria in 1 sample collected during a month.	Naturally present in the environment

Radioactive Contaminants							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	Apr 2008 – Aug 2014	No	5.8	ND-5.8	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	Apr 2008 – Dec 2014	No	*6.7	0.2-6.7	0	5	Erosion of natural deposits

*On quarter results, not in violation until four quarters are averaged.

Synthetic Organic Contaminants including Pesticides and Herbicides							
2,4-Dichlorophenylacetic acid (ppb)	Mar-Dec 2014	No	0.17	ND-0.17	70	70	Runoff from herbicide used on row crops

Inorganic Contaminants							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb)	Mar-Aug 2014	No	4.8	ND-4.8	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	Mar-Aug 2014	No	0.052	0.0081-0.052	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide (ppb)	Mar-Aug 2014	No	2.5	ND-2.5	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	Mar-Aug 2014	No	0.82	ND-0.82	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7ppm
Lead (point of entry) (ppb)	Mar-Aug 2014	No	1.9	ND-1.9	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Mercury (ppb)	Mar-Aug 2014	No	0.1	ND-0.1	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel (ppb)	Mar-Aug 2014	No	4	ND-4	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil.
Nitrate (as Nitrogen) (ppm)	Jan – Mar 2014	No	4.3	0.049-4.3	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	Mar-Aug 2014	No	1.5	ND-1.5	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	Mar-Aug 2014	No	15	3.6-15	N/A	160	Salt water intrusion, leaching from soil

Stage 2 Disinfectants and Disinfection By-Products							
Disinfectant or Contaminant and Unit of Measurement	Dates of sampling	MCL or MRDL Violation	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)(Stage 1)	Jan-Dec 2014	No	RAA= 0.84	0.7-0.95	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Oct 2013 - Jul 2014	No	2.3	ND - 2.34	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Oct 2013 - Jul 2014	No	16.2	1.65 – 15.6	NA	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	Dates of sampling	AL Exceeded	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	Jun-Sep 2014	No	0.11	1 of 30	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	Jun-Sep 2014	No	0.9	1 of 30	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Secondary Contaminants							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Highest Result	Range of Results	MCLG	MCL	Likely Source of Contamination
Color (color units)	Mar-Dec 2014	No*	17	ND-17	NA	15	Naturally occurring organics
Iron (ppm)	Mar-Dec 2014	Yes	1.4	ND-1.4	NA	0.3	Natural occurrence from soil leaching
Manganese (ppm)	Mar-Dec 2014	Yes	0.13	0.0019-0.13	NA	0.05	Natural occurrence from soil leaching

**The State of Florida Department of Environmental Protection (FDEP) sets drinking water standard for secondary contaminants and has determined that color is an aesthetic concern at certain levels of exposure. Color was sampled in March – December 2014 and was found in higher levels than are allowed by the State (an MCL violation). However, the original and recheck samples were averaged and the results were below the MCL and thus not a violation. Color, as a secondary drinking water contaminant, does not pose a health risk. We will continue to sample as required by rule.*

Secondary MCL:

The State of Florida Department of Environmental Protection (FDEP) sets drinking water standards for secondary contaminants and has determined that manganese and iron are aesthetic concerns at certain levels of exposure. Manganese and iron were sampled in March- December 2014 and were found in higher levels than are allowed by the State (an MCL violation). Manganese and iron, as secondary drinking water contaminants, do not pose health risks and in small amounts are essential to human health. We will continue to sample as required by rule and work with the Department as needed.

Naval Air Station Pensacola constantly monitors for various contaminants in the water supply to meet all regulatory requirements. Due to an administrative oversight, our office failed to sample for microbiological contaminants (coliforms) at one of our ten (10) wells in May 2014. With this, we did not complete all required monitoring of our wells for total coliform for the month, and we could not be sure of

the quality of the drinking water produced by Well 9 during May 2014. Please note that a sample from Well 9 on June 3, 2014 (immediately after this monitoring violation was discovered) was absent for total coliforms, as were all distribution samples taken throughout the system in May 2014. We have since enhanced our sampling procedures and communications to assure proper sampling in the future.

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. Naval Air Station Pensacola 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.*

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).