

2003

Annual Consumer Confidence Report on the Quality of SUBASE Bangor Drinking Water Naval Submarine Base, Bangor

This is an annual report on the quality of water delivered by the Naval Submarine Base, Bangor (SUBASE Bangor) Drinking Water System. Under the “Consumer Confidence Reporting Rule” of the Federal Safe Drinking Water Act (SDWA), community water systems are required to report this water quality information to their customers. Presented in this report is information on the source of our water, its constituents, and the health risks associated with any contaminants. Our water is safe to drink. Please read on for a full explanation of the quality of our water.

Background Information

In general, 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. It can also 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, or 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Department of Agriculture’s regulations establishes 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 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 800-426-4791.

At SUBASE Bangor, we continually monitor the drinking water for contaminants. The table below shows the results of our monitoring for the period of January 1st to December 31st, 2003. Our water is safe to drink; however, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people 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 at 800-426-4791.

Our water system provides drinking water to over 15,000 people, drawing water from the Sea Level Aquifer through four groundwater source wells. The depths of the wells range from 300 to 500 feet below the ground surface. Access to the lower base well locations is limited. Groundwater wells are also safeguarded through wellhead protection efforts. All water facilities are monitored and patrolled. Access to the water system within the SUBASE Bangor boundaries is secured, and limited to water supply activities. **Any suspicious activities should be noted and called in to the trouble desk at (360) 396-4341 or (360) 396-4312.**

Monitoring of Your Drinking Water

The water system uses only EPA-approved laboratory methods to analyze your drinking water. Samples are drawn from the wellhead and designated sample sites in the distribution system by Johnson Controls personnel. The samples are then shipped to an accredited laboratory where a full spectrum of water quality analyses is performed. The contaminant groups listed in column 1 in the table below are monitored using EPA approved methods. Column 2 of the table specifies the monitoring frequency.

Analyte Groups and Monitoring Frequency Table

Analyte/Contaminate Group	Monitoring Frequency
Biological contaminants (total coliform group)*	15 samples every month
Asbestos	1 sample collected every 9 years
Lead and copper	Per DOH direction
Volatile Organic Compounds	State Waiver for two sources, 1 sample every 3 years for two sources
Inorganic contaminants (IOC)**	1 sample between Jan 2002-Dec 2010
Herbicides	State Waiver for all sources
General Pesticides	State Waiver through 12/2004
Insecticides	State Waiver for all sources
EDB and other soil fumigants	State Waiver through 12/2004
Synthetic Organic Chemicals	State Waiver through 12/2004
Nitrates	1 sample every year for all sources
Radionuclides	2 samples every 10 months

*Contaminants in this group include total coliform, fecal coliform, and heterotrophic bacteria

**Contaminants in this group include metals, nitrate, and asbestos
360-396-4843.

Definitions of Key Terms

To gain a better understanding of the content of this report, several key terms must be defined. These are as follows:

Maximum Contaminant Level Goal (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 Contaminant Level (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. Under the Safe Drinking water Act, the EPA establishes these MCLs for compliance purposes.

The SUBASE Bangor water system is analyzed for contaminants such as lead and copper, which are governed by action levels (ALs), and not MCLs. Additionally, the water system is analyzed for contaminants that are subject to treatment techniques. To aid in understanding, definitions of these terms are provided below:

Action Level (AL) – The concentration of a contaminant, which, if exceeded, triggers treatment techniques or other requirements, which must be followed.

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

Additional Acronyms/Terms Used in This Report

Below is a listing of acronyms and terms (with explanations) used in this Consumer Confidence Report:

CCR	Consumer Confidence Report
SDWA	Safe Drinking Water Act: Federal law setting drinking water requirements
ppm	Parts per million; a unit of measure equivalent to a single penny in \$10,000
ppb	Parts per billion; a unit of measure equivalent to a single penny in \$10,000,000
ppt	Parts per trillion; a unit of measure equivalent to a single penny in \$10,000,000,000,000
mg/kg	Milligrams per kilogram; a unit of measure equivalent to a part per million (ppm)
mg/L	Milligrams per liter; a unit of measure equivalent to a part per million (ppm)
µg/L	Micrograms per liter; a unit of measure equivalent to a part per billion (ppb)
mrem/yr	Millirem per year; a measure of radioactivity in water
pCi/L	Picocuries per liter; a measure of radioactivity in water
MFL	A million fibers per liter; a measure of asbestos in water.
NTU	Nephelometric turbidity unit; a measure of turbidity in water
TTHMs	Total trihalomethanes; by-products of drinking water disinfection
Level Found	Laboratory analytical result for a contaminant; this value is evaluated against an MCL or AL to determine compliance
Range	The range of the highest and lowest analytical values of a reported contaminant. For example, the range of reported analytical detection for an unregulated contaminant may be 10.1 ppm (lowest value) to 13.4 ppm (highest value). EPA requires this range to be reported for certain analytes.
N/A	Not applicable

The following table presents the results of our most recent monitoring showing detections.

Chemical	MCL	Level detected	Range	Sample Date	Exceeded Standard ?	Likely Source of Contaminant
Arsenic-Well # S04 S03 S02 S01	0.05	0.003 <(0.002) 0.004 0.002	n/a	9/13/02	no	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Manganese	0.05 mg/L	0.03	n/a	8/22/02	no	Naturally occurring in water
Lead	15ppb (AL)	4ppb*	0***	10/02 **	no	Corrosion of household plumbing systems, erosion of natural deposits
Copper	1300ppb (AL)	31ppb*	0***	10/02 **	no	Corrosion of household plumbing

						systems, erosion of natural deposits
Total Trihalomethanes	100 µg/L	10.1 µg/L	n/a	11/2/00 **	no	By product of drinking water chlorination
Total coliform	1****	0	n/a	N/A	no	Naturally present in the environment

*This value represents the 90th percentile value of the 2002 round of sampling

**This 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 representative, are more than one year old.

*** This value represents the total number of sampling sites that exceed the action level

****MCL represents the presence of coliform bacteria in one or more samples per month

Detected Contaminants

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The table only lists those contaminants that had some level of detection. Many other contaminants were analyzed, but were not present or were below the detection limits of the lab equipment.

Our system experienced one bacteriological elevation in the 15 samples taken in December. It was reported to the State Department of Health immediately while secondary and investigative samples were taken. The results of the repeat samples were well within the State's guidelines, and required no further action.

Public Involvement

Sampling results, water system construction data and planning information can be obtained by contacting Paul Taylor, SUBASE Bangor Public Affairs Office, Building 1100, at 360-396-4843.