

**ELECTRIC PLANT BOARD OF
THE CITY OF VANCEBURG**

**WATER QUALITY REPORT
FOR YEAR 2010**

Visit us online @ www.epb-vanceburg.com

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Meeting location and time:

Electric Plant Board Administrative Office

Second Tuesday each month at 6:00 PM



This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product.



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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or 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. FDA regulations establish

The Electric Plant Board's water supply comes from a ground water source and draws from five wells within the Ohio River Alluvium, located 3 miles east of Vanceburg in the community of Black Oak. The following is a summary of the system's source of water assessment and its availability and susceptibility to contamination, which is part of the completed Source Water Plan (SWAP). The completed plan is available for inspection at the Electric Plant Board Office. An analysis of the overall susceptibility to contamination of the Vanceburg Utilities' water supply indicated that this susceptibility is moderate. There are a total of 127 potential sources of contamination within the wellhead protection area following susceptibility rankings: 7 high, 120 medium, and 0 low. Sources of high potential impact include: Highway 8, agricultural land use, underground storage tanks, above ground storage tanks, and a railroad. Sources of moderate potential impact include: septic systems, wastewater package plants, and above ground storage tanks. This is a summary of the susceptibility analysis. The complete Susceptibility Analysis Report is available at the Buffalo Trace Area Development District and at the Division of Water.



limits for contaminants in bottled water to provide the same protection for public health.

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

Some or all of these definitions may be found in this report:

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.

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 Residual Disinfectant Level (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 (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.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

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

Information About 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. Your local public water system 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>.

WATER FACTS

A hot water faucet that leaks 60 drops per minute can waste 192 gallons of water and 48 kilowatt hours of electricity per month.

Preliminary research indicates that 8 - 10 glasses of water a day could significantly ease back and joint pain up to 80% of sufferers.

Only one percent of the water on Earth is fresh and accessible for human use. The remaining 99% is either unusable brine or ice.



The data in the report is from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by the EPA, the State has reduced monitoring requirements for certain contaminants to less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

Regulated Contaminant Test Results							
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Inorganic Contaminants							
Copper [1022] (ppm) Sites Exceeding Action Level 0	AL = 1.3	1.3	.80 (90 th Percentile)	0.04 to 0.90	09/2009	NO	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	6.06	0.18-6.06	2010	YES	On 12/8/2010, a fluoride pump did not shut down properly. Repairs were made and tests were completed on 12/17/2010. Test results showed that levels were within range
Lead [1030] (ppb) Sites Exceeding Action Level 0	AL = 15	0	1 (90 th Percentile)	1 to 3	09/2009	NO	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	1.62	1.62 to 1.62	03/2010	NO	Runoff from fertilizer user; leaching from septic tanks, sewage, erosion of natural deposits
Nitrite [1041] (ppm)	1	1	0.05	0.05 to 0.05	03/2007	NO	Runoff from fertilizer user; leaching from septic tanks, sewage, erosion of natural deposits
Disinfectants/Disinfection Byproducts and Precursors							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	0.92 (Highest Average)	.26 to 1.38	2010	NO	Water additive used to control microbes
HAA (ppb) (All Sites) [Haloacetic] TTHM	60	N/A	1 (System Average)	1 to 1	08/14/2010	NO	Byproduct of drinking water disinfection
(ppb) (All Sites) [total trihalomethane]	60	N/A	4 (System Average)	7 to 7	08/14/2010	NO	Byproduct of drinking water disinfection
Radioactive Contaminants							
Alpha Emitters [000] (pci/L)	15	0	1.30	1.3 to 1.3	04/2008	NO	Erosion of Natural Deposits
Combined Radium	5	0	0.10	0.1 to 0.1	04/2008	NO	Erosion of Natural Deposits

ADDITIONAL INFORMATION

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers.

We at the Electric Plant Board of the City of Vanceburg work diligently to provide top quality water to every tap. Our water operators are highly trained, tested and certified by the State of Kentucky. The Board's licensed operator has 17 years experience in the water treatment profession. We ask that all customers help us protect our water resources, which are the heart of our community, our way of life, and our children's future.

A copy of this report is available at the Electric Plant Board of the City of Vanceburg's administrative office and will be mailed upon request or by visiting our website at: <http://www.epb-vanceburg.com>

The Electric Plant Board of the City of Vanceburg is located at 191 Front Street in Vanceburg, Kentucky. Questions and inquiries are welcomed.



IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER: ELEVATED LEVELS OF FLUORIDE ABOVE DRINKING WATER STANDARDS

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We routinely monitor for the presence of drinking water contaminants. Testing results we received on December 15, 2010 show that our system exceeded the standard, or maximum contaminant level (MCL), for fluoride. The average level of fluoride in samples taken during the last year was 1.09 mg/L. The standard for fluoride is that the average of samples taken over the last year may not exceed 4 mg/L.

WHAT SHOULD I DO?

Children under the age of nine should use an alternative source of water that is low in fluoride. In addition, you may want to consult your dentist about whether to avoid dental products containing fluoride. Adults and children over age nine should consult their dentist or doctor and show him/her this notice to determine if an alternate source of water low in fluoride should be used.

WHAT DOES THIS MEAN?

This is not an emergency. If it had been, you would have been notified immediately. Fluoride in small amounts helps prevent tooth decay. However, *some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or greater may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums.* Although it takes many years of exposure to fluoride for bone disease to develop, mottling can occur after a relatively short period of exposure.

**WHAT HAPPENED?
WHEN WILL THIS BE RESOLVED?**

On December 8, 2010, a fluoride pump did not shut down properly which caused an elevated fluoride reading. The Electric Plant Board of the City of Vanceburg was notified by the lab of these elevated readings on December 15, 2010. A fluoride sample was mailed to the lab on December 15, 2010 and tested on December 17, 2010. The Electric Plant Board of the City of Vanceburg's local reading was .96 ppm. Appalachian States Analytical tested the sample sent at 0.96 ppm verifying that fluoride levels were within range on December 17, 2010. We are continuing to monitor fluoride levels. We will inform you if they exceed the limit of 4 mg/l. Some hot water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP. For more information contact: **Danny Enix**, Telephone: (606) 796-2641, Mailing Address: 191 Front Street, P.O. Box 489, Vanceburg, Kentucky 41179

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.