Columbia Adair Utilities District
Water Quality Report for year 2012

KY0010702

Water - Essential for Life

PO Box 567, 109 Grant Lane
Columbia, Kentucky 42718
Meetings: Columbia Adair Utilities Office
Meeting Dates and Time: Second Thursday each month 6:00 PM

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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 our customers with 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. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

In 2012 Columbia Adair Utilities District(A=table page) purchased water from four different sources. Columbia Adair Water Commission(B=table page), pumps its water from Green River. City of Russell Springs(C=table page), which purchases its water from the regional water plant in Jamestown KY; City of Jamestown(D=table page), which pumps its raw water from Lake Cumberland; Campbellsville Municiple Water & Sewer(E=table page), which pumps its water from two sources, the City Lake and Green River Reservoir. All of our producers are treating moderate rated surface waters which would have a low contamination susceptability. All of our suppliers meet or excede EPA standards in water treatment technologies and practices. The complete source water assessment for all of our suppliers can be obtained at the Lake Cumberland Area Development District office located in Russell Springs, KY. Telephone number 270-866-4200.

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 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.

Variances & 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.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often 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.

A=Columbia Adair Utilities District KY 0010702 B=Columbia Adair Water Commission KY0011016

C=City of Russell Springs KY1040377 D=City of Jamestown KY1040210 E=Campbellsville Water & Sewer KY1090060

	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT	No more than 1 NTU*	B=	0.08	100	No	
* Representative samples	Less than 0.3 NTU in	C=	0.05	100	No	Soil runoff
of filtered water	95% monthly samples	D=	0.05	100	No	
		E=	0.32	99	No	

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Microbiological Contaminants								
Total Coliform Bacteria # or % positive samples	1	0	E=	1	N/A	Nov	No	Naturally present in the environment
Radioactive Contaminants								
Alpha emitters [4000] (pCi/L)	15	0	B=	0.2	0.2 to 0.2	Aug-09	No	Erosion of natural deposits
			E=	0.4	0.2 to 0.7	May-09		
Combined radium (pCi/L)	5	0	B=	0.28	0.28 to 0.28	Aug-09	No	Erosion of natural deposits
			E=	0.1	0 to 0.2	Nov-09	No	
Uranium (µg/L)	30	0	E=	0.625	0.1 to 0.9	Feb-09	No	Erosion of natural deposits
Inorganic Contaminants								
Barium [1010] (ppm)	2	2	B=	0.017	0.017 to 0.017	Apr-12	No	Drilling wastes; metal refineries; erosion of natural deposits
			E=	0.015	0.015 to 0.015	Feb-12	No	
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	A=	0.235 (90^{th} percentile)	0.002 to 0.515	Jul-11	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	B=	0.9264	0.5 to 1.09	Aug Jul 05	No	Water additive which promotes strong teeth
			C=	1.05	0.83 to 1.24	Three times	No	
			D=	1.05	0.83 to 1.24	Twice 2012	No	
			E=	0.97	0.8 to 1.22	Oct-12	No	
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	A=	5 (90^{th} percentile)	2 to 9	Jul-11	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	B=	1.2	0.1 to 1.2	Jan-12	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
			C=	0.36	N/A	2012	No	
			D=	0.36	N/A	2012	No	
			E=	0.550	0.55 to 0.55	May-12	No	
Synthetic Organic Contaminants including Pesticides and Herbicides								
Atrazine [2050] (ppb)	3	3	E=	0.09	BDL to 0.2	May-13	No	Runoff from herbicide used on row crops
Disinfectants/Disinfection Byproducts and Precursors								
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	B=	1.16	0.86 to 2.46	N/A	No	Naturally present in environment.
			C=	2.25	1.00 to 1.26	Monthly	No	
			D=	1.05	1.00 to 1.26	Monthly	No	
			E=	1.13	0.65 to 1.88	N/A	No	
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.								
Chlorine (ppm)	MRDL = 4	MRDLG = 4	A=	1.42 (highest average)	0.57 to 2.2	N/A	No	Water additive used to control microbes.

HAA (ppb) (all sites)			B=	47	19	to	58	N/A	No	Byproduct of drinking water disinfection
[Haloacetic acids]	60	N/A	C=	51	29	to	82	Quarterly	No	
			D=	51	29	to	82	Quarterly	No	
			E=	40	2	to	72	N/A	No	
				(system averag	(range of system sites)					
TTHM (ppb) (all sites)			B=	48	15	to	84	N/A	No	Byproduct of drinking water disinfection
[total trihalomethanes]	80	N/A	C=	31	18	to	40	Quarterly		
			D=	31	18	to	40	Quarterly	No	
			E=	49	0	to	98	N/A	No	
TTHM (ppb)			B=	63.75	15	to	84			Byproduct of drinking water disinfection.
[total trihalomethanes]	80	N/A		(locational				N/A	No	
(Individual Sites)				average)	(range of individual sites)					

EPA has not established drinking water standards for unregulated contaminants. There are no MCL's and therefore no violations if found.

Our water system or any one of the systems we purchase water from violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations. The Columbia/Adair Water Commission did not complete all monitoring of total coliform by failing to report February sample results, resulting in a violation of the Coliform rule and therefore cannot be sure of the quality of our drinking water during that time. There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply. They have redoubled their efforts to stay in closer touch with the laboratory to insure this failure won't happen in the future. The Campbellsville Water Company received a Monitoring and Reporting Violation, Total Coliform Rule for failure to submit the required number of samples in June 2012. At no time was there any risk to the public health from this incident.