

# 2009 Water Quality Report

Apple Canyon Utility Co.

PWS #0855150

We are pleased to provide you with the 2009 Water Quality Report. This report is designed to inform you of the quality of water we delivered to you over the past year. Our goal is to provide you a safe and dependable supply of drinking water. Our wells draw water from the St. Peter Sandstone and Trenton aquifers in Jo Daviess County. An aquifer is a geological formation that contains water.

Apple Canyon Utility Co. routinely monitors for components in your drinking water according to Federal and State laws. This report covers the period of January 1 to December 31, 2009.

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. Apple Canyon Utility Co. 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. Do not boil your water to remove lead. Excessive boiling makes the lead more concentrated – the lead remains when the water evaporates. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. If you are concerned about lead in your drinking 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Apple Canyon Utility Co. does not hold regular public meetings. If you have any questions about this report or your water utility, please contact customer service at 1-800-831-2359. We want our customers to be informed so that you can help us protect our water sources which are the heart of our community, our way of life and our children's future.

## **Source of Drinking Water**

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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 pickup 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

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 storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must 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).

## **Source Water Assessment**

A Source Water Assessment summary is included below for your convenience. To determine the Apple Canyon's susceptibility to groundwater contamination, a Well Site Survey, published in June, 1989 by the Illinois EPA, was reviewed. Well construction and depth are different for each well. Therefore, the Illinois EPA considers wells #1 and #3 as not susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution

system; and the available hydrogeology and well construction data on the wells. The Illinois Environmental Protection Act provides a minimum protection zone of 200 feet for wells #1 and #3. These minimum protection zones are regulated by the Illinois EPA. In addition to the setback zones, the supply has enacted a cross-connection control ordinance. Cross connection protection is crucial to a water system because a cross connection to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives provided by the supply. To further minimize the risk to the community water supply's groundwater source, the Illinois EPA recommends that three additional activities be assessed. First, the supply may wish to petition local government to enact a "maximum setback zone" ordinance. These ordinances are authorized by the Illinois Environmental Protection Act and allow county and municipal officials the opportunity to provide additional protection up to 1,000 feet from their wells. Second, the water supply should adopt a wellhead protection plan to reduce the risk of contamination to the water supply. Third, the water supply staff may wish to revisit their contingency planning documents in order to ensure the plans are kept current and the water department and emergency response staff are aware of and adequately trained to implement emergency procedures. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a water supply will minimize their risk of being without safe and adequate water.

Further information on our community water supply's source water assessment is available on the IL EPA web site at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl> or by contacting the Groundwater Section of the Illinois EPA at 217-785-4787.

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal 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. MCLG's allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant in drinking water below which there is no known

**Avg:** Regulatory compliance with some MCL's are based on running annual average of monthly samples.

**mg/l or ppm:** milligrams per litre or parts per million - or one ounce in 7,350 gallons of water.

**n/a:** not applicable.

**pCi/L:** Picocuries per liter is a measure of the radioactivity in water

**ug/l or ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

## 2009 Regulated Contaminants Detected

### Regulated Contaminants

#### Lead and Copper

Definitions:

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Lead and Copper	Collection Date	MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Units	Violation	Likely Source of Contamination
Copper	9-8-2009	1.3	1.3	0.111	0	ppm	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	1-5-2009	1.17	0.36-1.17	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Total Trihalomethanes (TTHM)*	6-15-2009	1	1-1	No goal for the total	80	ppb	No	By-product of drinking water chlorination

\*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
<b>Barium</b>	10-22-2009	0.103	0.0712-0.103	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Fluoride</b>	10-22-2009	0.676	0.13-0.676	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
<b>Combined Radium 226/228</b>	7-7-2009	1.38	1.38-1.38	0	5	pCi/L	No	Erosion of natural deposits
<b>Gross alpha excluding radon and uranium</b>	7-7-2009	6.4	6.4-6.4	0	15	pCi/L	No	Erosion of natural deposits

State Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
<b>Iron</b>	10-22-2009	0.745	0.355-0.745	n/a	1.0	ppm	No	Erosion from naturally occurring deposits

Iron: This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

<b>Sodium</b>	10-22-2009	5.74	3.26-5.74	n/a	n/a	ppm	No	Erosion of naturally occurring deposits; used in water softener regeneration
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Sodium: There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

**Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.**

## 2009 Violation Summary Table:

### Violation Description

**No drinking water violations were recorded during 2009.**

*Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.*