

# ANNUAL DRINKING WATER QUALITY REPORT – CARBON CLIFF – IL1610100

Dear Water Consumer:

The following is a copy of the Village of Carbon Cliff Water Quality Report. This report has been published to comply with USEPA drinking water standards and to inform all residents connected to the Carbon Cliff Water System. We have in the past and will continue to use the highest of standards to insure the best quality of drinking water. The test results contained within this report are not something that is new, however the test results are being shared with the water consumers. As the report states "We are committed to providing you with information because informed customers are our best allies." Should you have any question regarding this report, please feel free to contact us.

Sincerely,



Kenneth A. Williams – Village President

## Annual Water Quality Report for the period of January 1 to December 31, 2005

This report is intended to provide you with important information about your drinking water and the efforts made by the CARBON CLIFF water system to provide safe drinking water. The source of drinking water used by CARBON CLIFF is Ground Water. For more information regarding this report contact: Leonard Warner @ (309) 792-8235. Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

### SOURCE OF DRINKING WATER

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.**

Based on information obtained in a Well Site Survey published in 1989 by the Illinois EPA, several potential sources are located within 1,000 feet of two of the wells. The Illinois EPA has determined that the Carbon Cliff Community Water Supply's source water is 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 available hydro geologic data on the wells. Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the Carbon Cliff Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper sitting conditions; a hydraulic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics was not considered to be a significant factor in the susceptibility determination. Hence, well hydraulics were not evaluated for this system ground water supply. The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for your wells. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to source water, the Facility has implemented a wellhead protection program which includes the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA which allows a reduction in monitoring. The outcome of this monitoring reduction has saved the community considerable laboratory analysis costs. To further minimize the risk to the facility's groundwater supply, the Illinois EPA recommends that three additional activities be assessed. First, the water supply may wish 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 a fixed distance, normally 1,000 feet from their wells. Second, the water supply staff may wish to revisit their contingency planning documents. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe and adequate water. Finally, the water supply staff is encouraged to review their cross connection control program to ensure that it remains current and viable. Cross connections 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 community.

### **2005 REGULATED CONTAMINANTS DETECTED**

#### **Lead and Copper**

**Date Sampled: 9 / 13 / 2004**

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.

<b>Lead MCLG</b>	<b>Lead Action Level (AL)</b>	<b>Lead 90<sup>th</sup> Percentile</b>	<b># Sites Over Lead AL</b>	<b>Copper MCLG</b>	<b>Copper Action Level (AL)</b>	<b>Copper 90<sup>th</sup> Percentile</b>	<b># Sites Over Copper AL</b>	<b>Likely Source of Contamination</b>
0	15 ppb	9 ppb	0	1.3 ppm	1.3 ppm	0.23 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits

#### **Water Quality Test Results**

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 what 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.

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

ug/l: micrograms per litre or parts per billion – or one ounce in 7,350,000 gallons of water.

na: not applicable.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

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 or expected risk to health. MRDLG's allow for a margin of safety.

**Regulated Contaminants**

<b>Disinfectants &amp; Disinfection By-Products</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
Chlorine	8/31/2005	2.1638	1.8158 – 2.1638	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes

<b>Inorganic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
Arsenic	11/1/2005	2.2	Not Applicable	0	50	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes
Barium	11/1/2005	0.015	Not Applicable	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	11/1/2005	12	Not Applicable	100	100	ppb	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride	11/1/2005	1.1	Not Applicable	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Nitrate (As N)	2/28/2005	0.41	0 – 0.41	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	11/1/2005	8.1	Not Applicable	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits

<b>Radioactive Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
Alpha Emitters (Adjusted)	12/7/2004	8.1	2.8 – 8.1	0	15	pCi/L	No	Erosion of natural deposits
Combined Radium	10/18/2005	7.3	2.99 – 7.3	0	5	pCi/L	No	Erosion of natural deposits
Combined Uranium	12/7/2004	1	0 – 1	0	30	ppb	No	Erosion of natural deposits
Alpha Emitters	10/18/2005	6.1	0.92 – 6.1	0	15	pCi/L	No	Erosion of natural deposits

<b>State Regulated Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
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 1000 or more.	11/1/2005	310	Not Applicable	N/A	1000	ppb	No	Erosion from naturally occurring deposits

Manganese This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1000 or more.	11/1/2005	2.9	Not Applicable	N/A	150	ppb	No	Erosion from naturally occurring deposits
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 sodium-restricted diet, you should consult a physician about this level of sodium in the water.	11/1/2005	520	Not Applicable	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; used in water softener regeneration

**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.**

### CARBON CLIFF WATER QUALITY REPORT 2006

This year as in years past, your tap water was tested according to USEPA and state drinking health standards. Our system vigilantly safeguards its groundwater supply, and we are working hard to continue providing the best water possible. This report summarizes the quality of water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

The two main well pumps were also removed and serviced during the past year. Well #2, the Primary well for Carbon Cliff, has undergone rehabilitation and is currently out of service. It is expected to be returned to service by the 14<sup>th</sup> of June pending lab results.

If you have any questions about this report or concerning your water system, please contact Leonard Warner at 309-792-8235. We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled Public Works Committee Meetings at the Village Hall, 106 1st Avenue, at 6:00 PM the second Tuesday of every month.

Sincerely,



Leonard Warner  
Carbon Cliff Water Operator