

### A word from your water supplier

Inside this report you will find information on drinking water quality from source to tap. We want to keep you informed about the excellent quality of water that has been delivered to you over the past year. Our goal is, and always has been, to provide you a safe and dependable supply of drinking water.

Our water comes from the Metropolitan Utilities District (M.U.D.), which draws water from the Platte and Missouri Rivers. Chloramine is added to your water supply in precise amounts to destroy bacteria, and is a vital step in ensuring the health of our community. Your Washington County Rural Water System presently has about 38 miles of pipeline, providing service to over 460 rural residences and to the City of Ft. Calhoun.

All NRD employees responsible for operating and maintaining the system are trained and certified by the State. The NRD welcomes your comments; the Board of Directors meets at 8:00 p.m., on the second Thursday of every month at 8091 S. 154th Street, Omaha, NE. For a copy of the agenda, call the NRD at (402) 444-6222 or visit the NRD's web site at:

[www.papionrd.org](http://www.papionrd.org)

### About this Report

This report is meant to show substances that were detected in your water during the past calendar year. The U.S. Congress revised the Safe Drinking Water Act in 1996, requiring public water systems to send annual water quality reports to all customers served, or by advertising in a local paper.

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

### What you should know: Contaminants found in your drinking water

All drinking water, including bottled water, may reasonably be expected to contain naturally occurring minerals and at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Water Hotline at 1-800-426-4791.

Contaminants that may be present in the source water include:

- A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- B) 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.
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water 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 storm water runoff, and septic systems.
- E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Infants & young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home are higher than at other homes in your community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels you may wish to have your water tested and flush your tap for 1/2 to 2 minutes before using tap water. More information can be obtained from Safe Drinking Water Hotline at 1-800-426-4791 or the Dept. of Health & Human Services/Office of Drinking Water at 402-471-2541.

### Notice to immuno-compromised persons

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, those 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. The EPA and Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the **Safe Drinking Water Hotline** at 1-800- 426-4791, or visit the web site at: [www.epa.gov/safewater](http://www.epa.gov/safewater)

### Source Water Assessment Availability

The Nebraska Department of Environmental Quality (NDEQ) has completed the Source Water Assessment. Included in the assessment is a Wellhead Protection Area map, potential contaminant source inventory, vulnerability rating, and source water protection information. For more information, please contact NDEQ at (402)471-6988.

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.

### How to read the report

The table on the back page shows substances detected in your water from January 1 to December 31, 2008.

**Maximum Contaminant Level (MCL)** Highest level of a contaminant 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)** 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. **N/A** means not applicable. **NTU** means nephelometric turbidity units. **AL** (action level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **PPM** (*parts per million*) **PPB** (*parts per billion*) **PPT** (*parts per trillion*) **PCi/L** (picocuries per liter - a measure of radiation)  
< means less than. > means more than.

**Microbiological Contaminants** (collected by P-MRNRD)

MCLG	Total Coliform MCL	Highest # of Positive Coliform Samples in 1 month	Fecal Coliform or E. Coli MCL	Total # of Positive E. Coli or Fecal Coliform Samples	Violation ?	Likely Source of Contamination
0	1 positive monthly sample	0	Fecal or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and 1 is also fecal coliform or E. Coli positive	0	NO	Naturally present in the environment

**Inorganic Contaminants** (collected by M.U.D or P-MRNRD)

Tested and Detected	Unit	MCL	MCLG	Highest Level	Range of Levels	Likely source(s)	Violation?
				Detected	Detected		
Arsenic (2006)	ppb	50	0	5.7	< 2.3 - 5.7	Runoff from orchards; natural deposits; runoff from glass and electronic production wastes.	No
Barium	ppm	2	2	.17	.05 - .17	Discharge of drilling wastes; discharge from Metals refineries; erosion of natural deposits.	No
Chromium	ppb	100	100	8.71	2.1 - 8.71	Discharge from steel & pulp mills; natural deposits	No
Fluoride	ppm	4	4	1.1	.43 - 1.1	Water additive to promote strong teeth; erosion of Natural deposits; discharge from fertilizer factory	No
Selenium	ppb	50	50	7.88	< 5.0 - 7.88	Discharge from petroleum and metal refineries; Erosion of natural deposits	No
Nitrate & Nitrite total (as Nitrogen)	ppm	10	10	2.5	.24 - 2.5	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	No
Nickel (2004)	ppb	100	N/A	3.36	2.28 - 3.36	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits	No
Sodium	ppm	500	N/A	71	28 - 71	An element of the alkali metal group found in nature, soil, rocks and other deposits.	No

**Synthetic Organic Contaminants** (including pesticides & herbicides)

Atrazine	ppb	3	3	2.77	.083 - 2.77	Runoff from herbicide use on row crops	No
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**Volatile Organic Contaminants** (collected by M.U.D.)

Ethylbenzene	ppb	700	700	1.2	<.5 - 1.2	Discharge from petroleum refineries	No
Meta Xylenes	ppm	10	10	.004	<0005 - .004	Discharge from petroleum & chemical factories	No
Ortho Xylenes	ppm	10	10	.0013	<0005 - .0013	Discharge from petroleum & chemical factories	No

**Disinfectants & Disinfection By-Products** (collected by P-MRNRD)

Total Trihalomethanes	ppb	80	N/A	93.22	40.53 - 93.22	By-product of drinking water chlorination	No
Total Haloacetic Acids	ppb	60	N/A	68.37	6.8 - 68.37	By-product of drinking water chlorination	No

**Lead & Copper** (collected by P-MRNRD in 2006)

Contaminant	Action		# Sites Over		MCLG	Contamination Source
	Level (AL)	90 <sup>th</sup> %	Action Level			
Copper	1.3 ppm	.0527	0	1.3 ppm		Corrosion of household plumbing system, erosion of natural deposits; Leaching from wood preservatives
Lead	15 ppb	14.2	1	0 ppb		Corrosion of household plumbing system; erosion of natural deposits.

**Unregulated Water Quality Data**

(collected by M.U.D. or P-MRNRD between January 1 - December 31, 2008)

Tested & Detected	Unit	Highest Level Detected	Range of Levels
Bromodichloromethane	ppb	21.66	10.53 - 21.66
Chloroform	ppb	62	26 - 62
Dibromochloromethane	ppb	8.9	4 - 8.9
Metolachlor	ppb	.92	.319 - .92
Sulfate (2007)	ppm	210	15 - 210
Total Alkalinity	ppm	228	154 - 228
Total Organic Carbon	ppm	14.4	2.33 - 14.4
Magnesium	ppm	22	9 - 22

**Mineral Analysis** (2008)

	Unit	Average Level Detected	Range of Levels
pH	(in pH units)	8.77	7.93 - 9.16
Alkalinity	ppm	117	74 - 155
Aluminum	ppm	.11	<.03 - .37
Calcium	ppm	49	37 - 60
Chloride	ppm	29	17 - 58
Color (in cobalt platinum units)	ppm	3	1 - 6
Dissolved Solids (total, calculated)	ppm	420	228 - 514
Hardness (total) as CaCO <sub>3</sub>	grains per gallon	11	7 - 14
Iron	ppm	.02	<.02 - .07
Manganese	ppm	<0.02	<0.02
Phosphate	ppm	.21	<.05 - .48
Silica	ppm	18.9	7.4 - 29.8
Spec. Conductance (umhos @ 25 Deg.C)	ppm	568	404 - 700
Temperature degrees	Celsius	14.7	1.6 - 26.2
Zinc	ppm	<0.02	<.002

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

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.