

# 2012 Annual Drinking Water Quality Report For Calendar Year 2011 For Town of Poncha Springs

System Name: Town of Poncha Springs, Public Water System

PWSID CO0108650

*Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.*

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

## General Information About Drinking Water

All 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 the water poses a health risk. 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 of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

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 can 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 that 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides** that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, that can be naturally

occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## Our Water Source(s)

The system's sources of water are listed below.

Well #1b, groundwater well, Truman Avenue

Well #2, groundwater well, Truman Avenue

Well #3, groundwater well, Quigot Court

Well #4, groundwater well, Fairgrounds Drive

If we used purchased water, this report is required to include water quality data for the purchased water with this report.

The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment Report for our water supply. You may obtain a copy of the report by visiting [www.cdphe.state.co.us/wq/sw/swaphom.html](http://www.cdphe.state.co.us/wq/sw/swaphom.html) or by contacting: Greg Smith at (719) 539-6882

Potential sources of contamination in our source water area come from: Chemical storage sites, high and low density residential, commercial, industrial, transportation, mixed forest, septic systems, pasture and road miles.

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has or will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Please contact Greg Smith at (719) 539-6882 to learn more about what you can do to help protect your drinking water sources, any questions about the annual drinking water quality report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

## Terms and Abbreviations

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- **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) or Nanograms per liter (nanograms/L)** - 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) or Picograms per liter (picograms/L)** - 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)** - picocuries per liter is a measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **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 “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a

margin of safety.

- **Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Maximum Contaminant Level Goal (MCLG)** - The “Goal” is 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 Contaminant Level (MCL)**- The “Maximum Allowed” is 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 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.
- **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.
- **Running Annual Average (RAA):** An average of monitoring results for the previous 12 calendar months.



## Water Quality Data

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.

**During 2011, the water system was tested for Microbiological Contaminants once a month at different points in the system. All tests performed were absent of coliform bacteria and there were no tests with positive results or requiring additional testing. Our system is required to disinfect all water entering the system with sodium hypochloride (liquid chlorine) and to maintain a detectable chlorine residual in all water within the system to protect from bacterial contamination.**

**During 2011, the water system collected samples from five (5) homes meeting criteria for lead and copper testing. Results showed no homes with elevated levels and no results were found to be above Maximum Contaminant Levels (MCL). The Town adds a phosphate blend to all water entering our system to provide protection from possible lead and copper residual.**

**During 2011, the water system performed nitrates testing on all four (4) active Town wells. All tests came back with results well below the MCL.**

**During 2011, the water system performed an analysis of Well #4 for Volatile Organic Contaminates (VOC). Test results showed no VOC levels at or near the MCL, with the vast majority of contaminants tested showing none detected at all.**

We have included any other contaminants detected from sampling over the last 5 years. If a contaminant is not listed, then the results of the last test sampling showed none detected. These tables show the results of our monitoring for the period of January 1 to December 31, 2011 unless otherwise noted.

### Microbiological Contaminants

Contaminant	MCL	MCLG	Unit	Result	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Total Coliform Bacteria for Systems that collect <40 samples per month	No more than 1 positive monthly sample	0	Absent or Present	absent	NO	Once monthly	Naturally present in the environment
Fecal coliform and E. Coli	A routine sample & a repeat sample are total coliform positive, & one is also fecal coliform or <i>E. coli</i> positive	0	Absent or Present	absent	NO	None required	Human and animal fecal waste

### Lead and Copper

Contaminant	AL	ALG	Units	90 <sup>th</sup> Percentile	Number of Sites over AL	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Copper	1.3	1.3	ppm	.44	0	NO	8-10-2011	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	15	0	ppb	.00245	0	NO	8-10-2011	Corrosion of household plumbing systems, erosion of natural deposits

### Disinfection Byproducts

Contaminant	MCL	MCLG	Units	Average	Range	Highest RAA	Violation (Yes or No)	Sample Year	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	60	N/A	ppb	<b>1.702</b>	<b>0-3.83</b>	n/a	NO	<b>2009</b>	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	80	N/A	ppb	<b>9.935</b>	<b>3.51-17.47</b>	n/a	NO	<b>2009</b>	By-product of drinking water disinfection

### Total Inorganic Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/Range	Violation (Yes or No)	Sample Year	Likely Source of Contamination
Arsenic	10	0	ppb	0-4	NO	2010	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2	2	ppm	0.06-0.2	NO	2010	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	100	100	ppb	0.0-9.5	NO	2010	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	4	4	ppm	0.89-1.4	NO	2010	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	10	10	ppm	.23-1.3	NO	2011	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate/Nitrite	10	10	ppm	.34-.34	NO	2009	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	50	50	ppb	0-1.9	NO	2010	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

### Volatile Organic Contaminants from Testing of Well #4 (only those with MCL established-40 CFR 141)

Contaminant	MCL	MCLG	Unit	Level Detect/Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Benzene	5	0	ug/l	Non Detected	NO	08/08/2011	Discharge from factories; leaching from gas storage tanks and landfills
Bromoform	None established	None established	ug/l	0.53	NO	08/08/2011	Discharge from chemical plants and other industrial activities
Chlorobenzene	100	100	ug/l	Non Detected	NO	08/08/2011	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	600	600	ug/l	Non Detected	NO	08/08/2011	Discharge from industrial chemical factories
p-Dichlorobenzene	75	75	ug/l	Non Detected	NO	08/08/2011	Discharge from industrial chemical factories
1,2-Dichloroethane	5	0	ug/l	Non Detected	NO	08/08/2011	Discharge from industrial chemical factories
1,1-Dichloroethylene	None established	7	ug/l	Non Detected	NO	08/08/2011	Discharge from industrial chemical factories
Dibromochloromethane	None established	None established	ug/l	.84	NO	08/08/2011	Discharge from industrial chemical factories

Contaminant	MCL	MCLG	Unit	Level Detect/Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
trans-1,2-Dichloroethylene	100	100	ug/l	Non Detected	NO	08/08/2011	Discharge from industrial chemical factories
Dichloromethane	5	0	ug/l	Non Detected	NO	08/08/2011	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	5	0	ug/l	Non Detected	NO	08/08/2011	Discharge from industrial chemical factories
Ethylbenzene	700	700	ug/l	Non Detected	NO	08/08/2011	Discharge from petroleum refineries
Styrene	100	100	ug/l	Non Detected	NO	08/08/2011	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	5	0	ug/l	Non Detected	NO	08/08/2011	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene	70	70	ug/l	Non Detected	NO	08/08/2011	Discharge from textile-finishing factories
1,1,1-Trichloroethane	200	200	ug/l	Non Detected	NO	08/08/2011	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	5	3	ug/l	Non Detected	NO	08/08/2011	Discharge from industrial chemical factories
Toluene	1000	1	ug/l	Non Detected	NO	08/08/2011	Discharge from petroleum factories
Vinyl Chloride	2	0	ug/l	Non Detected	NO	08/08/2011	Leaching from PVC piping; discharge from chemical factories
Xylenes	10000	10	ug/l	Non Detected	NO	08/08/2011	Discharge from petroleum factories; discharge from chemical factories

### Secondary Contaminants

Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects or aesthetic effects in drinking water. EPA recommends these standards but does not require water systems to comply.

Contaminant	Secondary Standard	Average of samples	Units	Level Detected/Range	Number of samples	Sample Year	comments
Sodium	N/A	26.867	ppm	7.4-40.1	3	2010	
Total Dissolved Solids	500	290	ppm	290-290	1	2010	

### Health Effects Information About the Above Tables

**Nitrate** in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If **arsenic** is less than the MCL, your drinking water meets EPA's standards. 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.

Infants and young children are typically more vulnerable to **lead** in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

### Violations

The following violations were received by our water system or were ongoing in the calendar year 2008.

Type/Description	Compliance Period
NO VIOLATIONS TO REPORT	n/a
NO FORMAL ENFORCEMENT ACTIONS TO REPORT	n/a

An explanation of the violation(s) in the above table, the steps taken to resolve the violation(s) and any required health effects information are required to be included with this report.