



# Town of Pantego

## Annual Water Quality Report

### Annual Water Quality Report for the period of January 1 to December 31, 2011

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

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. For more information regarding this report contact: Ron Edwards, Director of Public Works (817) 548-5860.

#### **SPECIAL NOTICE**

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). 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. We 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>.

#### **INFORMATION ON SOURCES OF WATER**

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 Contaminants that may be present in source

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and
- 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.
- 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.

#### **INFORMATION ABOUT SECONDARY CONTAMINANTS**

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

#### **INFORMATION ABOUT SOURCE WATER ASSESSMENTS**

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and sourcewater assessments are available in Drinking Water Watch at the following URL:

<http://dww.tceq.texas.gov/DWW/>



## Water Quality Test Results

<u>Maximum Contaminant Level Goal or MCLG:</u>	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.
<u>Maximum Contaminant Level or MCL</u>	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.
<u>Maximum residual disinfectant level goal or MRDLG:</u>	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.
<u>Maximum residual disinfectant level</u>	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.
<u>Avg:</u>	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
<u>ppm:</u>	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
<u>ppb:</u>	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
<u>Na:</u>	not applicable
<u>Definitions:</u>	The following tables contain scientific terms and measures, some of which may require explanation.

### COLIFORM BACTERIA

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E.Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	There were no TCR detections for this system in this CCR period		0	N	Naturally present in the environment.

### REGULATED CONTAMINANTS

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.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	05/11/2010	Levels lower than detect level	0 - 0	No goal for the total	60	ppb	N	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.

Total Trihalomethanes (TThm)*	05/11/2010	Levels lower than detect level	0 - 0	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
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Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	05/11/2010	Levels lower than detect level	0 - 0	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic	05/11/2010	0.499	0 - 0.499	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	05/11/2010	0.0168	0.00209 - 0.0168	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium	05/11/2010	Levels lower than detect level	0 - 0	4	4	ppb	N	Discharge from metal refineries and coalburning factories; Discharge from electrical, aerospace, and defense
Cadmium	05/11/2010	Levels lower than detect level	0 - 0	5	5	ppb	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries
Chromium	05/11/2010	0.467	0.4 - 0.467	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide	2010	14	5.3 - 14	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCL G	MCL	Units	Violation	Likely Source of Contamination
Fluoride	2010	1.8	1.1 - 1.8	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum
Mercury	05/11/2010	Levels lower than detect level	0 - 0	2	2	ppb	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
Nitrate [measured as Nitrogen]	2010	0.14	0 - 0.14	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrate Advisory - 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 you should ask advice from your health care provider.

Nitrite [measured as Nitrogen]	09/13/2006	Levels lower than detect level	0 - 0	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	05/11/2010	Levels lower than detect level	0 - 0	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	05/11/2010	0.004	0 - 0.004	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	03/24/2009	Levels lower than detect level	0 - 0	0	4	mrem/yr	N	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	03/24/2009	Levels lower than detect level	0 - 0	0	15	pCi/L	N	Erosion of natural deposits.

Synthetic organic contaminants including pesticides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2,4,5-TP (Silvex)	2010	Levels lower than detect level	0 - 0	50	50	ppb	N	Residue of banned herbicide.
2,4-D	2010	Levels lower than detect level	0 - 0	70	70	ppb	N	Runoff from herbicide used on row crops.
Alachlor	03/24/2009	Levels lower than detect level	0 - 0	0	2	ppb	N	Runoff from herbicide used on row crops.
Atrazine	03/24/2009	Levels lower than detect level	0 - 0	3	3	ppb	N	Runoff from herbicide used on row crops.
Benzo(a)pyrene	03/24/2009	Levels lower than detect level	0 - 0	0	200	ppt	N	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2010	Levels lower than detect level	0 - 0	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	03/24/2009	Levels lower than detect level	0 - 0	0	2	ppb	N	Residue of banned termiticide.
Dalapon	2010	Levels lower than detect level	0 - 0	200	200	ppb	N	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	03/24/2009	Levels lower than detect level	0 - 0	400	400	ppb	N	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	03/24/2009	Levels lower than detect level	0 - 0	0	6	ppb	N	Discharge from rubber and chemical factories.

Synthetic organic contaminants including pesticides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Dibromochloropropane (DBCP)	2010	Levels lower than detect level	0 - 0	0	0	ppt	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2010	Levels lower than detect level	0 - 0	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.
Endrin	03/24/2009	Levels lower than detect level	0 - 0	2	2	ppb	N	Residue used on banned insecticide.
Ethylene dibromide	2010	Levels lower than detect level	0 - 0	0	50	ppt	N	Discharge from petroleum refineries.
Heptachlor	03/24/2009	Levels lower than detect level	0 - 0	0	400	ppt	N	Residue of banned termiticide.
Heptachlor epoxide	03/24/2009	Levels lower than detect level	0 - 0	0	200	ppt	N	Breakdown of heptachlor.
Hexachlorobenzene	03/24/2009	Levels lower than detect level	0 - 0	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	03/24/2009	Levels lower than detect level	0 - 0	50	50	ppb	N	Discharge from chemical factories.
Lindane	03/24/2009	Levels lower than detect level	0 - 0	200	200	ppt	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
Methoxychlor	03/24/2009	Levels lower than detect level	0 - 0	40	40	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Oxamyl [Vydate]	2010	Levels lower than detect level	0 - 0	200	200	ppb	N	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2010	Levels lower than detect level	0 - 0	0	1	ppb	N	Discharge from wood preserving factories.
Picloram	2010	Levels lower than detect level	0 - 0	500	500	ppb	N	Herbicide runoff.
Simazine	03/24/2009	Levels lower than detect level	0 - 0	4	4	ppb	N	Herbicide runoff.
Toxaphene	03/24/2009	Levels lower than detect level	0 - 0	0	3	ppb	N	Runoff/leaching from insecticide used on cotton and cattle.

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1,1,1-Trichloroethane	05/11/2010	Levels lower than detect level	0 - 0	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
1,1,2-Trichloroethane	05/11/2010	Levels lower than detect level	0 - 0	3	5	ppb	N	Discharge from industrial chemical factories

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1,1-Dichloroethylene	05/11/2010	Levels lower than detect level	0 - 0	7	7	ppb	N	Discharge from industrial chemical factories.
1,2,4-Trichlorobenzene	05/11/2010	Levels lower than detect level	0 - 0	70	70	ppb	N	Discharge from textile-finishing factories.
1,2-Dichloroethane	05/11/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.
1,2-Dichloropropane	05/11/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.
Benzene	05/11/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from factories; Leaching from gas storage tanks and landfills.
Carbon Tetrachloride	05/11/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
Chlorobenzene	05/11/2010	Levels lower than detect level	0 - 0	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
Dichloromethane	05/11/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	05/11/2010	Levels lower than detect level	0 - 0	700	700	ppb	N	Discharge from petroleum refineries.
Styrene	05/11/2010	Levels lower than detect level	0 - 0	100	100	ppb	N	Discharge from rubber and plastic factories; Leaching from landfills.
Tetrachloroethylene	05/11/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from factories and dry cleaners.
Toluene	05/11/2010	Levels lower than detect level	0 - 0	1	1	ppm	N	Discharge from petroleum factories.
Trichloroethylene	05/11/2010	Levels lower than detect level	0 - 0	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	05/11/2010	Levels lower than detect level	0 - 0	0	2	ppb	N	Leaching from PVC piping; Discharge from plastics factories.
Xylenes	05/11/2010	Levels lower than detect level	0 - 0	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.
cis-1,2-Dichloroethylene	05/11/2010	Levels lower than detect level	0 - 0	70	70	ppb	N	Discharge from industrial chemical factories.
o-Dichlorobenzene	05/11/2010	Levels lower than detect level	0 - 0	600	600	ppb	N	Discharge from industrial chemical factories.
p-Dichlorobenzene	05/11/2010	Levels lower than detect level	0 - 0	75	75	ppb	N	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene	05/11/2010	Levels lower than detect level	0 - 0	100	100	ppb	N	Discharge from industrial chemical factories.