Shanel Tribal Utility District Annual Water Quality Report

Public Water System #090600133

2016

This report is a snapshot of your water quality. 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.

Do I need to take special precautions?

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. The Environmental Protection Agency (EPA) and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

Your water comes from 1 ground water source. One ground water source is purchased from Public Water System #CA2310010. There have been no contaminants detected from the well, however the source is considered vulnerable to the following activities: Agricultural drainage, Sewer collection system, Well-Agricultural/Irrigation, Automobile Gas Stations.

Why are there contaminants in my 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 Environmental Protection Agency's Safe Drinking Water Hotline (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 including:

- 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 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

WATER QUALITY TABLE

The table below lists all of the drinking water contaminants detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfection By-Products								
Five Haloacetic Acids (HAA5) Units: ppb	N/A	60	3.1	N/A	N/A	2016	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	14	N/A	N/A	2016	No	By-product of drinking water chlorination

Contaminants	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Inorganic Contaminants								
Arsenic Units: ppb	0	10	6.1	N/A	N/A	2012	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes

Contaminants	MCLG	Action Level	Your Water	Range	Sample Date	A.L. Exceeded	Typical Source
Lead and Copper Rule							
Copper Units: ppm - 90th Percentile	1.3	1.3	1.55	2 sites over Action Level	2016	Yes	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

The following tables represent sampling results taken by the Hopland Public Utility District.

Table 1. SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. Of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(in a month) 0	0	More than 1 sample in a moth with a detection	0	Naturally present in the environment
Fecal Coliform Or E.coli	(in a year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

Table 2. SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	No of samples collected	90^{th} percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) 2016	10	9.5	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits
Copper (ppm) 2016	10	0.21	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits, leaching from wood preservatives

Table 3. SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or constituent (and reporting unit)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2016	13	13	None	None	Salt present in the water and is generally naturally occurring
Hardness	2016	148	148	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 4. DETECTION OF CONTAMINENTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) (MRDLG)	Typical Source of Contaminant
Turbidity	2016	0.13	0.13	5	N/A	Soil runoff
Gross Beta Particle Activity (Pci/L)	2007	0.49	0.32-0.95	15	0	Erosion of natural deposits
Gross alpha Particle Activity (Pci/L)	2011	1.76	1.76	15	0	Erosion of natural deposits
Barium (ppb)	2014	0.16	0.16	1	2	Erosion of natural deposits
Nitrate (ppb)	2016	0.89	0.89	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Chlorine (ppb)	2016	0.45	.30-0.60	4	4	Drinking Water disinfectant added for treatment

Table 5. DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detection**	**MCL**	**Typical Source of Contaminant**
Turbidity	2016	0.13	0.13	5	Soil runoff
Sulfate (ppm)	2016	26	26	500	Runoff/leaching natural deposits; industrial waste
Chloride (ppm)	2016	11	11	500	Runoff/leaching natural deposits,; seawater influence
Specific conductance (microbes)	2016	360	360	1000	Substances that form ions when in water
Total Dissolved Solids (ppm)	2016	200	200	1000	Runoff/leaching natural deposits

- any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report

Health Effects Language

Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Special Education Statements

Additional Information for Arsenic

While your drinking water meets the EPA standard for arsenic, it does contain low levels of arsenic. The EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The 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.

Additional Information for Lead

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. PWS system 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. 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 at 1-800-426-4791 or at http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water.

Microbiological Testing

We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.

Sampling Requirements	Sampling Conducted *(months)*	Total E.Coli Positive	Assessment Triggers	Assessments Conducted
1 Sample due monthly	12 out of 12	0	0	0

Unit Descriptions

Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or microgram per liter (ug/L)
N/A	N/A: Not applicable
ND	ND Not detected
NR	NR: Monitoring not required, but recommended.

MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, trigger treatment or other requirements which a water system must follow.

How can I get involved?

Please feel free to contact the number provided below for more information or for a translated copy of the report if you need it in another language.

For more information please contact:

Steve Elliott, Water Operator, 3000 Shanel Road , Hopland, California 95449

Phone: (707) 972-2807 **Fax** (707) 744-9101