Consumer Confidence Report for Calendar Year 2019

Este informe contiene informactión muy importante sobre el aqua usted bebe.
Tradúscalo ó hable con alguien que lo entienda bien.

Public Water System ID Number	Public Water System Name
AZ04-13-037	Town of Jerome

Contact Name and Title	Phone Number	E-mail Address
Henry R. MacVittie, Chief Operator	928-301-1076	hmacvittie@hotmail.com

We want our valued customers to be informed about their water quality. If you would like to learn more about public participation or to attend any of our regularly scheduled meetings, please contact Henry R. MacVittie at 928-301-1076 for additional opportunity and meeting dates and times.

Drinking Water Sources

The sources of drinking water (both tap 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 pickup substances resulting from the presence of animals or from human activity.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source(s):	Springs with a groundwater designation.

Drinking Water Contaminants

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 that 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: Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources

Organic Chemical Contaminants: Such as synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

Radioactive Contaminants: That can be naturally occurring or be the result of oil and gas production and mining activities.

Vulnerable Population

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. 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.

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.

Source Water Assessment

- Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection.

Further source water assessment documentation can be obtained by contacting ADEQ.

Definitions

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water

Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria was present

Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria was present

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water

Maximum Contaminant Level Goal MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health

Maximum Residual Disinfectant Level (MRDL): The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur

Minimum Reporting Limit (MRL): The smallest measured concentration of a substance that can be reliably measured by a given analytical method

Millirems per year (MREM): A measure of radiation absorbed by the body

Not Applicable (NA): Sampling was not completed by regulation or was not required

Not Detected (ND or <): Not detectable at reporting limit

Nephelometric Turbidity Units (NTU): A measure of water clarity

Million fibers per liter (MFL)

Picocuries per liter (pCi/L): Measure of the radioactivity in water

ppm: Parts per million or Milligrams per liter (mg/L)

ppb: Parts per billion or Micrograms per liter (µg/L)

ppt: Parts per trillion or Nanograms per liter (ng/L)

ppq: Parts per quadrillion or Picograms per liter (pg/L)

ppm x 1000 = ppb
ppb x 1000 = ppt
ppt x 1000 = ppq

Lead Informational Statement:

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. The Town of Jerome 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. 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 www.epa.gov/safewater/lead.

Water Quality Data – Regulated Contaminants

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG	Likely Source of Contamination
E. Coli	N	0	N/A	0	0	Human and animal fecal waste
Fecal Indicator (From GWR source) (coliphage, enterococci and/or E. coli)	N	0	N/A	0	0	Human and animal fecal waste
Surface Water Treatment Rule	**TT Violation Y or N**	**Highest Level Detected**	**% Range (Low-High)**	**TT**	**Sample Month & Year**	**Likely Source of Contamination**
Total Organic Carbon[1] (mg/L)	**N/A**	**N/A**	**N/A**	TT	**N/A**	Naturally Present in the Environment
Turbidity[2] (NTU)	**N/A**	**N/A**	**N/A**	TT	**N/A**	Soil runoff

[1] **Total organic carbon (TOC)** has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THM) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

[2] **Turbidity** is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. We monitor it because it is a good indicator of the quality of water. High turbidity can hinder the effectiveness of disinfectants. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include

bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Disinfectants	MCL Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine/Chloramine (ppm)	N	0.27	0.01 – 1.04	4	0	2019	Water additive used to control microbes
Chlorine dioxide (ppb) if treated with CLO2	N/A	N/A	N/A	800	0	N/A	Water additive used to control microbes

Disinfection By-Products	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	N	< 2.0	< 2.0	60	N/A	8/2019	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N	4.1	4.1	80	N/A	8/2019	Byproduct of drinking water disinfection
Bromate (ppb) if treated with Ozone	N	N/A	N/A	10	0	N/A	Byproduct of drinking water disinfection
Chlorite (ppm) if treated with CLO2	N	N/A	N/A	1	0.8	N/A	Byproduct of drinking water disinfection

Lead & Copper	MCL Violation Y or N	90th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.0115	0	1.3	1.3	6/2019	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	< 5	0	15	0	6/2019	Corrosion of household plumbing systems; erosion of natural deposits

Radionuclides	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Beta/Photon Emitters (mrem/yr.)	N/A	N/A	N/A	4	0	N/A	Decay of natural and man-made deposits
Alpha Emitters (pCi/L) (This is Gross Alpha 4000)	N	< 3	< 3	15	0	11/2017	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	< 1	< 1	5	0	11/2017	Erosion of natural deposits
Uranium (ug/L)	N/A	N/A	N/A	30	0	N/A	Erosion of natural deposits

Inorganic Chemicals (IOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Antimony (ppb)	N	< 1	< 1	6	6	7/2011	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic[1] (ppb)	N	1.4	1.4	10	0	7/2011	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N	< 0.2	< 0.2	7	7	7/2011	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	N	0.012	0.012	2	2	7/2011	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	N	< 1	< 1	4	4	7/2011	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N	< 0.5	< 0.5	5	5	7/2011	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N	1.6	1.6	100	100	7/2011	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	< 25	< 25	200	200	7/2011	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N	0.11	0.11	4	4	7/2011	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and

							naluminum factories
Mercury (ppb)	N	< 0.2	< 0.2	2	2	7/2011	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nitrate (ppm)	N	0.39	0.39	10	10	3/2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite[2] (ppm)	N	< 0.05	< 0.05	1	1	7/2011	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	N	< 5	< 5	50	50	7/2011	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	N	7.2	7.2	N/A	N/A	7/2011	Erosion of natural deposits
Thallium (ppb)	N	< 1	< 1	2	0.5	7/2011	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

[1] **Arsenic** is a mineral known to cause cancer in humans at high concentration and is linked to other health effects, such as skin damage and circulatory problems. If arsenic is less than or equal to 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, and continues to research the health effects of low levels of arsenic.

[2] **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.

Synthetic Organic Chemicals (SOC)	**MCL Violation Y or N**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (Low-High)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
2,4-D (ppb)	N	< 0.1	< 0.1	70	70	10/2017	Runoff from herbicide used on row crops
2,4,5-TP (a.k.a. Silvex) (ppb)	N	< 0.1	< 0.1	50	50	10/2017	Residue of banned herbicide
Acrylamide	N/A	N/A	N/A	TT	0	N/A	Added to water during sewage / wastewater treatment
Alachlor (ppb)	N	<0.1	<0.1	2	0	9/2017	Runoff from herbicide used on row crops
Atrazine (ppb)	N	< 0.05	< 0.05	3	3	10/2017	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)	N	< 20	< 20	200	0	10/2017	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	N	<0.5	<0.5	40	40	9/2017	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	N	<0.1	<0.1	2	0	9/2017	Residue of banned termiticide
Dalapon (ppb)	N	<1	<1	200	200	10/2017	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	N	<0.6	<0.6	400	400	10/2017	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	N	<0.6	<0.6	6	0	10/2017	Discharge from rubber and chemical factories
Dibromochloropropane (ppt)	N	<10	<10	200	0	10/2017	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	N	<0.2	<0.2	7	7	10/2017	Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)	N	<0.4	<0.4	20	20	10/2017	Runoff from herbicide use
Dioxin [a.k.a. 2,3,7,8-TCDD] (ppq)	N	N/A	N/A	30	0	N/A	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall (ppb)	N	< 5	< 5	100	100	10/2017	Runoff from herbicide use
Endrin (ppb)	N	< 0.01	< 0.01	2	2	9/2017	Residue of banned insecticide
Epichlorohydrin	N/A	N/A	N/A	TT	0	N/A	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide (ppt)	N	<10	<10	50	0	10/2017	Discharge from petroleum refineries
Glyphosate (ppb)	N	<6	<6	700	700	9/2017	Runoff from herbicide use
Heptachlor (ppt)	N	<10	<10	400	0	9/2017	Residue of banned termiticide
Heptachlor epoxide (ppt)	N	<10	<10	200	0	9/2017	Breakdown of heptachlor
Hexachlorobenzene (ppb)	N	<0.05	<0.05	1	0	10/2017	Discharge from metal

							refineries and agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)	N	<0.05	<0.05	50	50	10/2017	Discharge from chemical factories
Lindane (ppt)	N	<10	<10	200	200	9/2017	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	N	<0.05	<0.05	40	40	9/2017	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa,
Oxamyl (a.k.a. Vydate) (ppb)	N	<0.5	<0.5	200	200	9/2017	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)	N/A	N/A	N/A	500	0	N/A	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)	N	<0.04	<0.04	1	0	10/2017	Discharge from wood preserving factories
Picloram (ppb)	N	<0.1	<0.1	500	500	10/2017	Herbicide runoff
Simazine (ppb)	N	<0.05	<0.05	4	4	10/2017	Herbicide runoff
Toxaphene (ppb)	N	<0.5	<0.5	3	0	9/2017	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Chemicals (VOC)	**MCL Violation Y or N**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (Low-High)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
Benzene (ppb)	N	<0.5	<0.5	5	0	9/2017	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	N	<0.5	<0.5	5	0	9/2017	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	N	<0.5	<0.5	100	100	9/2017	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	N	<0.5	<0.5	600	600	9/2017	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	N	<0.5	<0.5	75	75	9/2017	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	N	<0.5	<0.5	5	0	9/2017	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	N	<0.5	<0.5	7	7	9/2017	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	N	<0.5	<0.5	70	70	9/2017	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	N	<0.5	<0.5	100	100	9/2017	Discharge from industrial chemical factories
Dichloromethane (ppb)	N	<0.5	<0.5	5	0	9/2017	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	N	<0.5	<0.5	5	0	9/2017	Discharge from industrial chemical factories
Ethylbenzene (ppb)	N	<0.5	<0.5	700	700	9/2017	Discharge from petroleum refineries
Styrene (ppb)	N	<0.5	<0.5	100	100	9/2017	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N	<0.5	<0.5	5	0	9/2017	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	N	<0.5	<0.5	70	70	9/2017	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	N	<0.5	<0.5	200	200	9/2017	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	N	<0.5	<0.5	5	3	9/2017	Discharge from industrial chemical factories
Trichloroethylene (ppb)	N	<0.5	<0.5	5	0	9/2017	Discharge from metal degreasing sites and other factories
Toluene (ppm)	N	<0.5	<0.5	1	1	9/2017	Discharge from petroleum factories
Vinyl Chloride (ppb)	N	<0.3	<0.3	2	0	9/2017	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	N	<0.0005	<0.0005	10	10	9/2017	Discharge from petroleum or chemical factories

Water Quality Table - Unregulated Contaminant Monitoring Rule

Metals	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Germanium (ppt)	N/A	N/A	N/A	300	Naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications
Manganese (ppt)	N/A	N/A	N/A	400	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient
Pesticides	**Detected (Y/N)**	**Average**	**Range of All Samples (Low-High)**	**MRL**	**Likely Source of Contamination**
Alpha-hexachlorocyclohexane (ppt)	N/A	N/A	N/A	10	Component of benzene hexachloride (BHC); formerly used as an insecticide
Chlorpyrifos (ppt)	N/A	N/A	N/A	30	Organophosphate; used as an insecticide, acaricide and miticide
Dimethipin (ppt)	N/A	N/A	N/A	200	Used as an herbicide and plant growth regulator
Ethoprop (ppt)	N/A	N/A	N/A	30	Used as an insecticide
Oxyfluorfen (ppt)	N/A	N/A	N/A	50	Used as an herbicide
Profenofos (ppt)	N/A	N/A	N/A	300	Used as an insecticide and acaricide
Tebuconazole (ppt)	N/A	N/A	N/A	200	Used as a fungicide
Total permethrin (cis- & trans-) (ppt)	N/A	N/A	N/A	40	Used as an insecticide
Pesticides Manufacturing By-Product	**Detected (Y/N)**	**Average**	**Range of All Samples (Low-High)**	**MRL**	**Likely Source of Contamination**
Tribufos (ppt)	N/A	N/A	N/A	700	Used as an insecticide and cotton defoliant Water additive used to control microbes
Alcohols	**Detected (Y/N)**	**Average**	**Range of All Samples (Low-High)**	**MRL**	**Likely Source of Contamination**
1-butanol (ppb)	N/A	N/A	N/A	2	Used as a solvent, food additive and in production of other chemicals
2-methoxyethanol (ppt)	N/A	N/A	N/A	400	Used in a number of consumer products, such as synthetic cosmetics, perfumes, fragrances, hair preparations and skin lotions
2-propen-1-ol (ppt)	N/A	N/A	N/A	500	Used in the production flavorings, perfumes and other chemicals
Semivolatile Chemicals	**Detected (Y/N)**	**Average**	**Range of All Samples (Low-High)**	**MRL**	**Likely Source of Contamination**
Butylated hydroxyanisole (ppt)	N/A	N/A	N/A	30	Used as a food additive (antioxidant)
O-toluidine (ppt)	N/A	N/A	N/A	7	Used in the production of dyes, rubber, pharmaceuticals and pesticides
Quinolone (ppt)	N/A	N/A	N/A	20	Used as a pharmaceutical (anti-malarial) and flavoring agent; produced as a chemical intermediate; component of coal

Violation Summary (for MCL, MRDL, AL, TT, or Monitoring & Reporting Requirement)

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
N/A	N/A	N/A	N/A