City of Anderson-Ox Yoke System

2016 Consumer Confidence Report

June 20, 2017

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2016 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Subterranean Ground Water

Name & location of source(s): Greater Anderson Area Aquifer

Drinking Water Source Assessment information:

(Ox Yoke-#11 & Ox Yoke-#12)

The California Department of Health Services conducted a source water assessment on our well sources in August 2002. Our sources are considered most vulnerable to the following activity not associated with any detected contaminants: automobile gas stations. Our sources are considered most vulnerable to the following activities associated with nitrate detected in the water supply: 1) water supply wells, 2) grazing, and 3) high and low density septic systems. A copy of the complete assessment may be viewed by calling the District office at 378-6636.

Time and place of regularly scheduled board meetings for public participation:
Regularly Scheduled City Council Meetings at 1887 Howard St., Anderson, CA

For more information, contact City of Anderson Public Works *Phone:* (530) 378-6636

TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Primary Drinking Water Standards (PDWS): MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

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

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

ppq: parts per quadrillion or picogram per liter (pg/L)

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, that 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*, which 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, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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, USEPA and the state Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Tables 1, 2, 3, 4, 5 and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department 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. Some of the data, though representative of the water quality, are more than one year old.

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	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	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

SAMPLING FOUND THERE WERE **NO** CONTAMINANTS IN THE WATER SYSTEM. THIS SYSTEM MEETS ALL DRINKING WATER HEALTH STANDARDS

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	No. of samples collected	90th percentile level detected	No. Sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppb)	5	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	5	0.445	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	2012	12.7	12.7	none	none	Generally found in ground and surface water
Hardness (ppm)	2016	86	86	none	none	Generally found in ground and surface water

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Antimony (ppb)	2014	ND	ND	6	7	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	2014	ND	ND	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Asbestos (MFL)	2014	ND	ND	7	7	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Barium (ppm)	2014	ND	ND	1	2	Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium (ppb)	2014	ND	ND	4	1	Discharge from metal refineries, coal-burning factories, and electrical, aerospace and defense industries
Cadmium (ppb)	2014	ND	ND	5	.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories and metal refineries; runoff from waste batteries and paints
Chromium (ppm)	2014	ND	ND	50	100	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Fluoride (ppm)	2014	0.1	0.1	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Hexavalent Chromium (ppb)	2016	ND	ND	10	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	2015	ND	ND	15	0	Erosion of natural deposits
Radium 228 (pCi/L)	2015	1.96	1.06 – 1.96	5	0.19	Erosion of natural deposits
Mercury (ppb)	2014	ND	ND	2	1.2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nickel (ppb)	2014	ND	ND	100	12	Erosion of natural deposits; discharge from metal factories
Nitrate (ppm)	2016	1.73	1.70-1.73	10	10	Run-off and leaching from fertilizer Use; leaching from septic tanks & Sewage, erosion of natural deposits.
Nitrite (ppb)	2016	ND	ND	1	1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.

Perchlorate (ppb)	2016	ND	ND	6	6	Result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Selenium (ppb)	2014	ND	ND	50	30	Discharge from petroleum, glass, and metal refineries, erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots
Thallium (ppb)	2014	ND	ND	2	0.1	Leaching from ore-processing sites; discharge from electrics, glass and drug factories
TTHMs (Total Trihalomethanes) (ppb)	2014	ND	ND	80	N/A	By-product of drinking water disinfection.
Haloacetic Acids (ppb)	2013	ND	ND	60	N/A	By-product of drinking water disinfection.
Benzene (ppb)	2013	ND	ND	1	0.15	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppt)	2013	ND	ND	500	100	Discharge from chemical plants and other industrial activities
1,2-Dichlorobenzene (ppb)	2013	ND	ND	600	600	Discharge from industrial chemical factories
1,4-Dichlorobenzene (ppb)	2013	ND	ND	5	6	Discharge from industrial chemical factories
1,1-Dichloroethane (ppb)	2013	ND	ND	5	3	Extraction and degreasing solvent; used in the manufacture of pharmaceuticals, stone, clay, and glass products; fumigant
1,2-Dichloroethane (ppt)	2013	ND	ND	500	400	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	2013	ND	ND	6	10	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	2013	ND	ND	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination
trans-1,2-Dichloroethylene (ppb)	2013	ND	ND	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination
Dichloromethane (ppb)	2013	ND	ND	5	4	Discharge from pharmaceutical and chemical factories; insecticide
1,2-Dichloropropane (ppb)	2013	ND	ND	5	0.5	Discharge from industrial chemical factories; primary component of some fumigants
1,3-Dichloropropene (ppt)	2013	ND	ND	500	200	Runoff/leaching from nematocide used on croplands

Ethylbenzene (ppb)	2013	ND	ND	300	300	Discharge from petroleum refineries; industrial chemical factories
Methyl-tert-butyl ether (ppb)	2013	ND	ND	13	13	Leaking underground storage tanks; discharges from petroleum and chemical factories
Monochlorobenzene (ppb)	2013	ND	ND	70	200	Discharge from industrial and agricultural chemical factories and drycleaning facilities
Styrene (ppb)	2013	ND	ND	100	0.5	Discharge from rubber and plastic factories; leaching from landfills
1,1,2,2-Tetrachloroethane (ppb)	2013	ND	ND	1	0.1	Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers
Tetrachloroethylene (PCE) (ppb)	2013	ND	ND	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
1,2,4-Trichlorobenzene (ppb)	2013	ND	ND	5	5	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	2013	ND	ND	200	1000	Discharge from metal degreasing sites and other factories; manufacture of food wrappings
1,1,2-Trichloroethane (ppb)	2013	ND	ND	5	0.3	Discharge from industrial chemical factories
Trichloroethylene (TCE) (ppb)	2013	ND	ND	5	1.7	Discharge from metal degreasing sites and other factories
Toluene (ppb)	2013	ND	ND	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks
Trichlorofluoromethane (ppb)	2013	ND	ND	150	700	Discharge from industrial factories; degreasing solvent; propellant and refrigerant
Vinyl chloride (ppt)	2013	ND	ND	500	50	Leaching from PVC piping; discharge from plastics factories; biodegradation byproduct of TCE and PCE groundwater contamination
Xylenes (ppm)	2013	ND	ND	1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent

.TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	Typical Source of Contaminant
Aluminum (ppb)	2014	ND	ND	200	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2016	4.0	4.0	500	Runoff/leaching from natural deposits; seawater influence
Color (units)	2016	ND	ND	15	Naturally-occurring organic materials

Copper (ppm)	2016	ND	ND	1.0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Foaming Agents (MBAS) (ppb)	2016	ND	ND	500	Municipal and industrial waste discharges
Iron (ppb)	2014	ND	ND	300	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2016	ND	ND	50	Leaching from natural deposits
Methyl-tert-butyl ether (MTBE) (ppb)	2013	ND	ND	5	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor—Threshold (units)	2016	ND	ND	3	Naturally-occurring organic materials
Silver (ppb)	2014	ND	ND	100	Industrial discharges
Sulfate (ppm)	2016	6.65	6.65	500	Runoff/leaching from natural deposits; industrial wastes
Thiobencarb (ppb)	2013	ND	ND	1	Runoff/leaching from rice herbicide
Turbidity (units)	2016	ND	ND	5	Soil runoff
Zinc (ppm)	2016	ND	ND	5.0	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2016	146	146	1000	Runoff/leaching from natural deposits
Specific Conductance (μS/cm)	2013	ND	ND	1600	Substances that form ions when in water; seawater influence

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent	Sample Date	Level Detected	Action Level (ppb)	Typical Source of Contaminant
Vanadium (ppb)	2003	5	50	Leaching from natural deposits.

Additional General Information On 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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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. USEPA/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 Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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. The City of Anderson 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 or at http://www.epa.gov/safewater/lead.