Annual Drinking Water Quality Report
2019 ConsumerConfidence Report

TX0150047 CITY OF CONVERSE

TX0940096 CANYON REGIONAL WATER AUTHORITY –LAKE WELLS RANCH

TX0940091 CANYON REGIONAL WATER AUTHORITY –LAKE DUNLAP

Annual Water Quality Report for the period of January 1 to December 31, 2019

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.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (210) 658-3453.

For more information regarding this report contact:

Name City of Converse

Phone (210) 658-3453

City of Converse is Ground Water

CRWA Lake Wells Ranch WTP is Ground Water

CRWA Lake Dunlap WTP is Surface Water

Special Notice: *Required language for ALL community public water supplies*

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immune compromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

Water Sources

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 pickup 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, which 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.

Public Participation Opportunities:

To learn about future public meetings concerning your drinking water or to request a meeting, please call us.

Date: Monday –Friday
Time 8:00 a.m. to 5:00 p.m.
Location: 9239 Converse Business Lane
Phone Number: 210-658-3453

Where do we get our drinking water?

Our drinking water is obtained from multiple water sources: **The City of Converse wells pump directly from the EDWARDS Aquifer**. **Additional sources received are from the Canyon Regional Water Authority (CRWA), ground water from Wells Ranch and surface water from Lake Dunlap.** For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: http://www.tceq.texas.gov/gis/swaview

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, please contact Jonathan Smith, Director of Public Works at (210) 658-3453. Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: http://dww2.tceq.texas.gov/DWW/

ALL drinking water may contain contaminants:

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

Secondary Constituents:

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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

Information about Source Water Assessments

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:
http://www.tceq.texas.gov/gis/swaview

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: http://dww2.tceq.texas.gov/DWW/

Source Water Name	Type of Water	Report Status	Location
TX0150047 CITY OF CONVERSE	**Pages**		
Bob Grubb	GW	Y	Bexar
Gibbs Sprawl Rd	GW	Y	Bexar
N Cimarron 2	GW	Y	Bexar
TX0940096 CRWA –LAKE WELLS RANCH			
1 - TOMMY'S WELL	GW	Operational	Gonzales
11 - COASTAL FIELD	GW	Operational	Gonzales
12 - BULL TRAP	GW	Operational	Gonzales
2 - DEER STAND	GW	Operational	Guadalupe
4 - PIG TRAP	GW	Operational	Guadalupe
7 - DEAD MAN TANK	GW	Operational	Guadalupe
9 - CAMP HOUSE	GW	Operational	Guadalupe
8 - CHICKEN HOUSE	GW	Operational	Guadalupe
3 - DEER STAND WILCOX	GW	Operational	Guadalupe
4 - DEAD MAN TANK WILCOX	GW	Operational	Guadalupe
5 - LITTLEFIELD	GW	Operational	Gonzales
13 - BOND WEST	GW	Operational	Gonzales
14 - CHRISTIAN WEST	GW	Operational	Gonzales
15 - BOND EAST	GW	Operational	Gonzales
16 - CHRISTIAN EAST	GW	Operational	Gonzales
TX0940091 CRWA –LAKE DUNLAP			
1 –3/LAKE DUNLAP	SW	Operational	850 Lakeside Pass, New Braunfels, TX 78130
4 –7/LAKE DUNLAP	SW	_____	_____

Water Quality Test Results

Definitions:	**The following tables contain scientific terms and measures, some of which may require explanation.**
Action Level:	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system follows.
Action Level Goal (ALG):	The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow a margin of safety.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment:	A Level 2 assessment is 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 have been found in our water system on multiple occasions.
Maximum Contaminant Level or MCL:	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 Contaminant Level Goal or MCLG:	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 residual disinfectant level or 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.
Maximum residual disinfectant level goal or 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.
MFL	million fibers per liter (a measure of asbestos)
mrem:	millirems per year (a measure of radiation absorbed by the body)
NA:	not applicable.
NTU	nephelometric turbidity units (a measure of turbidity)
ND	Non-detects –laboratory analysis indicates that the constituent is not present.
pCi/L	picocuries per liter (a measure of radioactivity)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

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Regulated Contaminants Detected

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.	1		0	N	Naturally present in the environment.

Required Additional Health 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. The water supply 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

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2019	1.3	1.3	0.146	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2019	0	15	1.3	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

•***Lead and Copper Rule Testing***

The 1994 Federal Lead & Copper Rule mandates a household testing program for these substances. According to the rule, 90% of samples from high-risk homes must have levels less than 0.015 milligrams per liter for lead and 1.3 milligrams per liter for copper.

Maximum Residual Disinfectant Level

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2019	0.92	0.23 –1.75	4	4	ppm	N	Water additive used to control microbes.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2019	20	0 – 33.3	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TThm) *	2019	56	0 – 62	No goal for the total	80	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. * The value in the Highest Level or Average Detected column is the highest average of all HAA5 or TTHM sample results collected at the location over a year.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	06/28/2011	0.711	0.711 –0.711	N/A	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

Barium	2019	0.16	0.157 – 0.16	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	6/28/2011	2.36	2.36 –2.36	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	1-5-2017	1.36	0.45 –0.136	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum.
Nitrate (measured as Nitrogen)	2019	2	0.13 – 1.92	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 about 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.

Selenium	6/28/2011	0.595	0.595 – 0.595	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	6/28/2011	0.131	0.131-0.131	0.5	2	ppb	N	Discharge from electronics, glass, 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**
Combined Radium 226/228	1-5-2017	1.06	0 –1.06	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	1-5-2017	5/	4 –5	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	1-5-2017	1.3	0 –1.3	0	30	ug/l	N	Erosion of natural deposits.
Ethylbenzene	2019	1.6	0-1.6	700	700	Ppb	N	Discharge from petroleum refineries.
Xylenes	2019	0.0089	0.0-.0089	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.

Violations Table

Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
LEAD CONSUMER NOTICE (LCR)	09/29/2019	11/04/2019	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2019, our system lost an estimated 51.9 MGPY on water. If you have any questions about the water loss audit please call the PWS phone number.

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Microbiological Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Coliform Bacteria	2019	Absent	Absent or Present	0	MCL: (systems that collect 40 or more samples per month) 5% of monthly samples are positive. (Systems that collect <40 samples/month- 1positive monthly sample.	N/A	N	Naturally present in the environment.
Fecal coliform and *E.coli*	2019	Absent	Absent or Present	0	0	N/A	N	Human and animal fecal waste

TOC	2019	0	N/A	N/A	TT	Mg/L	N	Naturally present in the environment.
Turbidity	2019	N/A	N/A	N/A	TT	NTU	N	Soil runoff, Bacteria, organic material, suspended particles
Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/Photon emitters	2018	5.5	0-50	0	50	pCi/L	N	Decay of natural and man-made deposits
Alpha emitters	2018	<3.0	0-15	0	No MCL	pCi/L	N	Erosion of natural deposits
Combined radium (-226 & 228)	2018	<1.0	0-5	0	5	pCi/L	N	Erosion of natural deposits
Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Antimony	2019	0	0-6	6	6	Ppb	N	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder
Arsenic	2019	0	0-10	N/A	10	Ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Asbestos	2018	<0.197	0-7	7	7	MFL	N	Decay of asbestos cement water mains; erosion of natural deposits
Barium	2019	0.075	0-2	2	2	Mg/L	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

Beryllium	2019	0	0-4	4	4	Ppb	N	Discharge from metal refineries and coal burning factories; discharge from electrical aerospace and defense industries
Cadmium	2019	0	0-5	5	5	Ppb	N	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	2019	0	0-100	100	100	Ppb	N	Discharge from steel and pulp mills; erosion of natural deposits
Copper	2016	0.0033	0-1.3	1.3	AL=1.3	Ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Cyanide	2017	0	0-200	200	200	Ppm	N	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	2019	0	0-4	4	4	Ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	2016	0	0-15	0	AL=15	Ppb	N	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	2019	0	0-2	2	2	Ppb	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	2019	0.1	0-10	10	10	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	2015	0	0-1	1	1	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Selenium	2019	0	0-50	50	50	Ppm	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2019	0	0.5-2	0.5	2	Ppb	N	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
Synthetic Organic Contaminants Including Pesticides and Herbicides	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
2. 4, -D	2019	0	0-70	70	70	Ppb	N	Runoff from herbicide used on row crops
2, 4, 5-TP (Silvex)	2019	0	0-50	50	50	Ppb	N	Residue of banned herbicide
Acrylamide	2019	0	0-10	0	TT	Ppb	N	Added to water during sewage/wastewater treatment
Alachlor	2019	0	0-2	0	2	Ppb	N	Runoff from herbicide used on row crops
Atrazine	2019	0	0-3	3	3	Ppb	N	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	2019	0	0-200	0	200	Nanog-rams/L	N	Leaching from linings of water storage tanks and distribution lines
Carbofuran	2019	0	0-40	40	40	Ppb	N	Leaching of soil fumigant used on rice and alfalfa
Chlordane	2019	0	0-2	0	2	Ppb	N	Residue of banned termiticide
Dalapon	2019	0	0-200	200	200	Ppb	N	Runoff from herbicide used on the rights of way
Di(2-ethylhexyl) adipate	2019	6	0-400	400	400	Ppb	N	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	2019	3.9	0-6	0	6	Ppb	N	Discharge from rubber and chemical factories.

Dinoseb	2019	0	0-7	7	7	Ppb	N	Runoff from herbicide used on soybeans and vegetables
Diquat	N/A	N/A	N/A	20	20	Ppb	N/A	Runoff from herbicide use
Synthetic Organic Contaminants Including Pesticides and Herbicides	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Dioxin[2,3,7,8-TCDD]	N/A	N/A	N/A	0	30	Picograms/L	N/A	Emissions from waste incineration and other combustion; discharge from chemical factories
Dibromochlor-opropane	2019	0	0-200	0	200	Nanograms/L	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards
Endothall	N/A	N/A	N/A	100	100	Ppb	N/A	Runoff from herbicide use
Endrin	2019	0	0-2	2	2	Ppb	N	Residue of banned insecticide
Epichlorohydrin	N/A	N/A	N/A	0	TT	N/A	N/A	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	2019	0	0-50	0	50	Nanograms/L	N	Discharge from petroleum refineries
Glyphosate	N/A	N/A	N/A	700	700	Ppb	N/A	Runoff from herbicide use
Heptachlor	2019	0	0-400	0	400	Nanograms/L	N	Residue from banned termiticide
Heptachlor epoxide	2019	0	0-200	0	200	Nanograms/L	N	Breakdown of heptachlor
Hexachloroben-zene	2019	0	0-1	0	1	Ppb	N	Discharge from metal refineries and agricultural chemical factories
Hexachlorocycl-opentadiene	2019	0	0-50	50	50	Ppb	N	Discharge from chemical factories
Lindane	N/A	N/A	N/A	200	200	Nanograms/L	N/A	Runoff/leaching from insecticide used on cattle, lumber, gardens

Methoxychlor	2019	0	0-40	40	40	Ppb	N	Runoff/leaching from insecticides used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	2019	0	0-200	200	200	Ppb	N	Runoff from landfills of waste chemicals
PCBs [Polychlorinated biphenyls]	N/A	N/A	N/A	0	500	Nanograms/L	N/A	Runoff from landfills; discharge of waste chemicals
Pentachlorophe-nol	2019	0	0-1	0	1	Ppb	N	Discharge from wood preserving factories
Picloram	2019	0	0-500	500	500	Ppb	N	Herbicide runoff
Simazine	2019	0	0-4	4	4	Ppb	N	Herbicide runoff
Toxaphene	2019	0	0-3	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**
Benzene	2019	0	0-5	0	5	Ppb	N	Discharge from factories; leaching from gas storage tanks and landfills
Bromate	2016	0	0-10	0	10	Ppb		By-product of drinking water chlorination
Carbon Tetrachloride	2019	0	0-5	0	5	Ppb	N	Discharge from chemical plants and other industrial activities
Chloramines	2016	N/A	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorine	2019	2.74	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorite	2016	0	0.0-1.0	0.8	1.0	Ppm	N	By-product of drinking water chlorination

Chlorine Dioxide	N/A	N/A	0-800	MRDLG = 800	MRDL = 800	Ppb	N	Water additive used to control microbes
Chlorobenzene	2019	0	0-100	100	100	Ppb	N	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	2019	0	0-600	600	600	Ppb	N	Discharge from industrial chemical factories
p-Dichlorobenzene	2019	0	0-75	75	75	Ppb	N	Discharge from industrial chemical factories
1,2-Dichloroethene	2019	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories
1,1-Dichloroethylene	2018	0	0-7	7	7	Ppb	N	Discharge from industrial chemical factories
Cis-1,2-Dichloroethylene	2019	0	0-70	70	70	Ppb	N	Discharge from industrial chemical factories
Trans-1,2-Dichloroethylene	2019	0	0-100	100	100	Ppb	N	Discharge from industrial chemical factories
Dichloromethane	2019	0	0-5	0	5	Ppb	N	Discharge from pharmaceutical and chemical factories
1,2 Dichloropropane	2019	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories
Ethylbenzene	2019	0	0-700	700	700	Ppb	N	Discharge from petroleum refineries
Haloacetic Acids (HAA)	2019	0	0-60	N/A	60	Ppb	N	By-product of disinfection
Styrene	2019	0	0-100	100	100	Ppb	N	Discharge from rubber and plastic factories; leaching from landfills

Tetrachloroethylene	2019	0	0-5	0	5	Ppb	N	Leaching from PVC pipes; discharge from factories and dry cleaners
1,2,4-Trichlorobenzene	2019	0	0-70	70	70	Ppb	N	Discharge from textile-finishing factories
1,1,1-Trichloroethane	2019	0	0-200	200	200	Ppb	N	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	2019	0	0-5	3	5	Ppb	N	Discharge from industrial chemical factories
Trichloroethylene	2019	0	0-5	0	5	Ppb	N	Discharge from metal degreasing sites and other factories
TTHM [Total trihalomethanes]	2019	27.0	0-100	0	100/80	Ppb	N	By-product of drinking water chlorination
Toluene	2019	0	0-1	1	1	Ppm	N	Discharge from petroleum factories
Vinyl Chloride	2019	0	0-2	0	2	Ppb	N	Leaching from PVC piping; discharge from plastics factories
Xylenes	2019	0	0-10	10	10	Ppm	N	Discharge from petroleum factories; discharge from chemical factories

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Violations Table

Canyon Regional Water Authority Wells Ranch Water Treatment Plant did not receive violations for the year 2019.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
N/A	2019	2019	N/A

TX0940091 CRWA LAKE DUNLAP WTP

Microbiological Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Coliform Bacteria	2019	Absent	N/A	0	MCL: (systems that collect 40 or more samples per month) 5% of monthly samples are positive. (Systems that collect <40 samples/month- 1positive monthly sample.	N/A	N	Naturally present in the environment.
Fecal coliform and *E.coli*	2019	Absent	N/A	0	0	N/A	N	Human and animal fecal waste
TOC	2019	2.31	0 –4.38	N/A	TT	Mg/L	N	Naturally present in the environment.
Turbidity	2019	.98	0 –0.88	N/A	TT	NTU	N	Soil runoff, Bacteria, organic material, suspended particles
Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/Photon emitters	2017	ND	0-4	0	4	pCi/L	N	Decay of natural and man-made deposits
Alpha emitters	2017	ND	0-15	0	15	pCi/L	N	Erosion of natural deposits

Combined radium (-226 & 228)	2017	ND	0-5	0	5	pCi/L	N	Erosion of natural deposits

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2019	ND	0-6	6	6	Ppb	N	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder
Arsenic	2019	ND	0-10	N/A	10	Ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Asbestos	2013	ND	0-7	7	7	MFL	N	Decay of asbestos cement water mains; erosion of natural deposits
Barium	2019	0.0434	0-2	2	2	Ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium	2019	ND	0-4	4	4	Ppb	N	Discharge from metal refineries and coal burning factories; discharge from electrical aerospace and defense industries
Cadmium	2019	ND	0-5	5	5	Ppb	N	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	2019	ND	0-100	100	100	Ppb	N	Discharge from steel and pulp mills; erosion of natural deposits
Copper	2017	0.0565	0-1.3	1.3	AL=1.3	Ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Cyanide	2019	ND	0-200	200	200	Ppm	N	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	2019	0.19	0-4	4	4	Ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	2017	ND	0-15	0	AL=15	Ppb	N	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	2019	ND	0-2	2	2	Ppb	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	2019	1.41	0-10	10	10	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	2013	ND	0-1	1	1	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2019	ND	0-50	50	50	Ppm	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2019	ND	0.5-2	0.5	2	Ppb	N	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
Synthetic Organic Contaminants Including Pesticides and Herbicides	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
2. 4, -D	2019	0	0-70	70	70	Ppb	N	Runoff from herbicide used on row crops
2, 4, 5-TP (Silvex)	2019	0	0-50	50	50	Ppb	N	Residue of banned herbicide

Acrylamide	2019	0	0-10	0	TT	Ppb	N	Added to water during sewage/wastewater treatment
Alachlor	2019	0	0-2	0	2	Ppb	N	Runoff from herbicide used on row crops
Atrazine	2019	0	0-3	3	3	Ppb	N	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	2019	0	0-200	0	200	Nanog-rams/L	N	Leaching from linings of water storage tanks and distribution lines
Carbofuran	2019	0	0-40	40	40	Ppb	N	Leaching of soil fumigant used on rice and alfalfa
Chlordane	2019	0	0-2	0	2	Ppb	N	Residue of banned termiticide
Dalapon	2019	0	0-200	200	200	Ppb	N	Runoff from herbicide used on the rights of way
Di(2-ethylhexyl) adipate	2019	0	0-400	400	400	Ppb	N	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	2019	0	0-6	0	6	Ppb	N	Discharge from rubber and chemical factories.
Dinoseb	2019	0	0-7	7	7	Ppb	N	Runoff from herbicide used on soybeans and vegetables
2,2, Disromochlor-opropane	2019	0	0 – 200	0	200	Nanograms/L	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Diquat	N/A	N/A	N/A	20	20	Ppb	N/A	Runoff from herbicide use
Synthetic Organic Contaminants Including Pesticides and Herbicides	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Dioxin[2,3,7,8-TCDD]	N/A	N/A	N/A	0	30	Picograms/L	N/A	Emissions from waste incineration and other combustion; discharge from chemical factories
Dibromochlor-opropane	2018	0	0-200	0	200	Nanograms/L	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards

Endothall	N/A	N/A	N/A	100	100	Ppb	N/A	Runoff from herbicide use
Endrin	2019	0	0-2	2	2	Ppb	N	Residue of banned insecticide
Epichlorohydrin	N/A	N/A	N/A	0	TT	N/A	N/A	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	2019	0	0-50	0	50	Nanograms/L	N	Discharge from petroleum refineries
Glyphosate	N/A	N/A	N/A	700	700	Ppb	N/A	Runoff from herbicide use
Heptachlor	2019	0	0-400	0	400	Nanograms/L	N	Residue from banned termiticide
Heptachlor epoxide	2019	0	0-200	0	200	Nanograms/L	N	Breakdown of heptachlor
Hexachloroben-zene	2019	0	0-1	0	1	Ppb	N	Discharge from metal refineries and agricultural chemical factories
Hexachlorocycl-opentadiene	2019	0	0-50	50	50	Ppb	N	Discharge from chemical factories
Lindane	N/A	N/A	N/A	200	200	Nanograms/L	N/A	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	2019	0	0-40	40	40	Ppb	N	Runoff/leaching from insecticides used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	2019	0	0-200	200	200	Ppb	N	Runoff from landfills of waste chemicals
PCBs [Polychlorinated biphenyls]	N/A	N/A	N/A	0	500	Nanograms/L	N/A	Runoff from landfills; discharge of waste chemicals
Pentachlorophe-nol	2019	0	0-1	0	1	Ppb	N	Discharge from wood preserving factories
Picloram	2019	0	0-500	500	500	Ppb	N	Herbicide runoff
Simazine	2019	0	0-4	4	4	Ppb	N	Herbicide runoff
Toxaphene	2019	0	0-3	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
Benzene	2019	0	0-5	0	5	Ppb	N	Discharge from factories; leaching from gas storage tanks and landfills
Bromate	2019	29.0	0- 35.1	0	10	Ppb		By-product of drinking water chlorination
Carbon Tetrachloride	2019	0	0-5	0	5	Ppb	N	Discharge from chemical plants and other industrial activities
Chloramines	2017	N/A	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorine	2019	2.27	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorite	2019	0.930	0.0-1.0	0.8	1.0	Ppm	N	By-product of drinking water chlorination
Chlorine Dioxide	2019	0.1	0.0-5.0	MRDLG = 800	MRDL = 800	Ppb	N	Water additive used to control microbes
Chlorobenzene	2019	0	0-100	100	100	Ppb	N	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	2019	0	0-600	600	600	Ppb	N	Discharge from industrial chemical factories
p-Dichlorobenzene	2019	0	0-75	75	75	Ppb	N	Discharge from industrial chemical factories
1,2-Dichloroethene	2019	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories

1,1-Dichloroethylene	2019	0	0-7	7	7	Ppb	N	Discharge from industrial chemical factories
Cis-1,2-Dichloroethylene	2019	0	0-70	70	70	Ppb	N	Discharge from industrial chemical factories
Trans-1,2-Dichloroethylene	2019	0	0-100	100	100	Ppb	N	Discharge from industrial chemical factories
Dichloromethane	2019	0	0-5	0	5	Ppb	N	Discharge from pharmaceutical and chemical factories
1,2 Dichloropropane	2019	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories
Ethylbenzene	2019	0	0-700	700	700	Ppb	N	Discharge from petroleum refineries
Haloacetic Acids (HAA)	2019	38	0-60	N/A	60	Ppb	N	By-product of disinfection
Styrene	2019	0	0-100	100	100	Ppb	N	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	2019	0	0-5	0	5	Ppb	N	Leaching from PVC pipes; discharge from factories and dry cleaners
1,2,4-Trichlorobenzene	2019	0	0-70	70	70	Ppb	N	Discharge from textile-finishing factories
1,1,1-Trichloroethane	2019	0	0-200	200	200	Ppb	N	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	2019	0	0-5	3	5	Ppb	N	Discharge from industrial chemical factories
Trichloroethylene	2019	0	0-5	0	5	Ppb	N	Discharge from metal degreasing sites and other factories

TTHM [Total trihalomethanes]	2019	89.1	0-100	0	100/80	Ppb	Y	By-product of drinking water chlorination
Toluene	2019	0	0-1	1	1	Ppm	N	Discharge from petroleum factories
Vinyl Chloride	2019	0	0-2	0	2	Ppb	N	Leaching from PVC piping; discharge from plastics factories
Xylenes	2019	0	0-10	10	10	Ppm	N	Discharge from petroleum factories; discharge from chemical factories

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Violations Table

Below are listed the violations Canyon Regional Water Authority Lake Dunlap WTP had experienced for 2019.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL Average Bromate	April 2019	December 2019	Exceeded the MCL Bromate
LT2 Monitoring Violation	January 2019	April 2019	Violation of monitoring standards set by the State
LT2 Treatment Violation	January 2019	April 2019	Violation of treatment standards set by the State