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Water Quality Report
Vineyard City-2020

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are from Orem City, and Central Utah Water Conservancy District Water Development Project (CWP).

This report shows our water quality and what it means to you, our customer.

If you have any questions about this report or concerning your water utility, please contact Sullivan Love at 801-376-0419. We want our valued customers to be informed about their water utility. If you want to learn more about decisions regarding our drinking water and Vineyard City, please attend any of our regularly scheduled City Council meetings. They are held on the second and fourth Wednesday of each month at 6:00 pm at 125 South Main St. Vineyard, Utah.

Vineyard routinely monitors for constituents in our drinking water in accordance with the Federal and Utah State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2020**.**

All drinking water, including bottled drinking water, may be reasonably 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.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

ND/Low - High - For water systems that have multiple sources of water, the Utah Division of Drinking Water has given water systems the option of listing the test results of the constituents in one table, instead of multiple tables. To accomplish this, the lowest and highest values detected in the multiple sources are recorded in the same space in the report table.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Maximum Contaminant Level (MCL) - The "Maximum Allowed" (MCL) is 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 (MCLG) - The "Goal"(MCLG) is 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.

						Orem City/DACR Plant			CWP			
Microbiological	Test Date	Units	MCL	MCLG		Highest No. of Positive Samples	2020 Range	Violation	2020 Average	2020 Range	Violation	Typical Source of Contaminant or Other Comments
Total Coliform	2020	% positive per month	5%	0		0	0	NO	0	0	NO	Coliforms are naturally present in the environment
Fecal Coliform and E.coli	2020	% positive per month	tt	tt		0	0	NO	0	0	NO	Fecal coliforms and E. coli only come from human and animal fecal waste.
Inorganic Contaminants	2017-20	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Range	Violation	2020 Average	2020 Range	Violation	Typical Source of Contaminant
Arsenic	2017, 2018, 2019, 2020	µg/l	10	0	0	2.09	ND-2.09	NO	1.8	1.0-3.4	NO	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes.
Barium	2017, 2018, 2019, 2020	µg/l	2000	2000	.03	103	ND-103	NO	81	58-126	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (total)	2017, 2018, 2020	µg/l	100	100	0	8.18	ND-8.18	NO				Discharge from steel and pulp mills; erosion of natural deposits
Cyanide	2017, 2018, 2019, 2020	mg/l	0.2	0.2	0	0.0231	ND-0.0231	NO	0.0005	ND-0.002	NO	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories

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Fluoride	2017, 2018, 2019, 2020	mg/l	4	4	0	.402	ND-0.402	NO	0.3	0.3-0.3	NO	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nickel	2017, 2018, 2020	µg/l	100	100	0	5.39	ND-5.38	NO				Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate	2020	mg/l	10	10	.1	2.19	.1-2.19	NO	0.2	ND-.2	NO	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Selenium	2017, 2018, 2019, 2020	µg/l	50	50	0	3.95	0-3.95	NO	.7	1.2	NO	Erosion of natural deposits; mining or metal refinery discharge
Radioactive Contaminants	Latest Test Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Range	Violation	2020 Average	2020 Range		Typical Source of Contaminant
Alpha Emitters	2016, 2018	pCi/L	15	0		3.2	0 – 3.2	NO				Erosion of natural deposits
Gross Alpha, Including Radon and Uranium	2014, 2019, 2020	pCi/L	15	0	0	3.2	0-3.2	NO	2.2	0.6-4.3	NO	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Gross Beta	2010, 2019	pCi/L	50(4 mrem/yr)	0	0	.9	ND – .9	NO	1.4	0.4-2.7	NO	Erosion of natural deposits.
Combined Radium 226/228	2017	pCi/L	5	0	0	3.2	.34 -3.2	NO	.4	.04-.73	NO	Erosion of natural deposits.

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Radium 226	2017	pCi/L	5	0	0	.34	.16 -.34	NO				Erosion of natural deposits.
Radium 228	2018, 2019, 2020	pCi/L	5	0	0	1.3	ND – 1.3	NO	.4	0.4-0.73	NO	Erosion of natural deposits.
Disinfectants And Disinfection By-Products	Test Date	Unit	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Range	Violation	Lowest Level Detected	Highest Level Detected	Violation	Typical Source of Contaminant
Chlorine	2020	mg/l	4	4	.05	2.2	0.05-2.2	NO	.7	.16-2.0	NO	Drinking water disinfectant
Total Trihalomethanes (TTHM)	2020	µg/l	80	0	0	49.2	0 – 49.2	NO	10.9	ND-23.0	NO	By-Product of drinking water chlorination
Haloacetic Acids (HAA5s)	2020	µg/l	60	0		31.7	1-38.3	NO	10.9	ND-23.5	NO	By-product of drinking water chlorination
Bromate	2017, 2018, 2019, 2020	µg/l	10	0	ND	ND	ND	NO				By-Product of drinking water disinfection
Pesticides/PCB's/SOC's	Test Date	Units	MCL	MCLG		Highest Level Detected	Range	Violation	2020 Average	2020 Range	Violation	Typical Source of Contaminant or Other Comments
Pentachlorophenol	2018	µg/l	1	0		.20	ND-0.20	NO				Discharge from wood-preserving factories used mainly to treat utility poles and cross arms
All other Parameters	2016, 2018, 2019	µg/l	Varies	Varies		ND	ND	NO	ND	ND	NO	Various sources.
VOC's	Test Date	Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Range	Violation	2020 Average	2020 Range		Typical Source of Contaminant or Other Comments
Chloroform (Trihalomethanes)	2018, 2019, 2020	µg/l	NE	70	3.1	39.8	0-40.5	NO	7.3	.1-16.9	NO	Byproduct of drinking water disinfection

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Bromodichloromethane (Trihalomethanes)	2018, 2019, 2020	µg/l	NE	0	1.8	9.2	ND-9.2	NO	2.9	.6-5.3	NO	Byproduct of drinking water disinfection
Dibromochloromethane (Trihalomethanes)	2018, 2019, 2020	µg/l	NE	60	.6	3.1	ND-2.6	NO	1.4	0.7-2.3	NO	Byproduct of drinking water disinfection
All other Parameters	2017, 2019	µg/l	Varies	Varies		ND	ND	NO	ND	ND	NO	Various sources
Organic Material	Latest Test Date	Units	MCL	MCLG		Highest Level Detected	Range	Violation				Typical Source of Contaminant or Other Comments
Total Organic Carbon	2018, 2019	mg/l	TT	NE		2.63	1.54-2.63	NO				Naturally occurring
UV-254	2020	1/cm	UR	NE		.04	.01-.04	NO				Naturally occurring. Measure of UV-absorbing organic com-pounds.
Lead and Copper		Units	AL	MCLG	Highest Level Detected	90th Percentile	# of sites over AL	Violation				Typical Source of Contaminant
Copper a.90% results b.# of sites that exceeded the AL	2018	mg/l	1.3	1.3	0.982	0.212	0	NO				Erosion of natural deposits; corrosion of household plumbing
Lead a.90% results b.# of sites that exceeded the AL	2018	mg/l	.015	0	0.0093	0.0022	0	NO				Erosion of natural deposits; corrosion of household plumbing
Secondary Inorganics *Asthetic standards*		Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	Average	Range	Violation	2020 Average	2020 Range	
Iron	2018	µg/l		NE	ND	21.6		ND-21.6	NO	40	40	
Alkalinity	2018, 2019, 2020	mg/l	NE		110	142	138	110-142	NO	114	102-125	
Manganese	2016	mg/l	SS=0.05	NE					NO	.013	.013	

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pH	2020		6.5-8.5	NE	7.21	8.28		7.21-8.28	NO	NO	7.91	7.39-8.41	Erosion of Natural Deposits
Sulfate	2020	mg/l	250	250	3	72.6	36.8	9.89-72.6	NO	NO	13.5	3-20	Naturally occurring
Total Dissolved Solids	2020	mg/l	500	500	110	412		110-412	NO	NO	185	160-266	Erosion of natural deposits 2013 Data
Unregulated Parameters (Monitoring not required)		Units	MCL	MCLG	Lowest Level Detected	Highest Level Detected	2020 Average	2020 Range	Violation	Violation	2020 Average	2020 Range	Naturally occurring
Turbidity	2018, 2019, 2020	NTU	95%<0.3	NA		.025	.0185	.014-.025	NO	NO	0.058	.016-2.988	Erosion of natural deposits; runoff from landfills; runoff from cropland
Sodium	2020	mg/l	NONE	500	0	73.2		0-73.2	NO				Erosion of natural deposits
Calcium	2020	mg/l	UR	NE	120	428	264	120-428	NO	NO	82	68-138	Erosion of natural deposits.
Hardness	2020	grains/gal	UR	NE	6.4	25	15.7	6.4-25	NO	NO	4.8	4.0-8.1	Erosion of natural deposits and soil runoff
Conductivity	2019	µmhos/cm	UR	NE	203	708	456	203-708	NO	NO	274	123-423	Discharge from petroleum & metal refineries; Erosion of natural deposits; Discharges from mines

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IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

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. Vineyard City 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 EPA Basic Information About Lead in Drinking Water .
All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or manmade. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

There are many connections to our water distribution system. When connections are properly installed and maintained, the concerns are very minimal. However, unapproved and improper piping changes or connections can adversely affect not only the availability, but also the quality of the water. A cross connection may let polluted water or even chemicals mingle into the water supply system when not properly protected. This not only compromises the water quality but can also affect your health. So, what can you do? Do not make or allow improper connections at your homes. Even that unprotected garden hose lying in the puddle next to the driveway is a cross connection. The unprotected lawn sprinkler system after you have fertilized or sprayed is also a cross connection. When the cross connection is allowed to exist at your home, it will affect you and your family first. If you'd like to learn more about helping to protect the quality of our water, call us for further information about ways you can help.

For more information about our water sources, please visit the following websites to view their individual Consumer Confidence Reports.
https://orem.org/wp-content/uploads/2021/04/CCR-2021-English.pdf
https://www.cuwcd.com/assets/documents/resources/DACRWTPCCR2020.pdf