Water Quality Report
Vineyard City-2016

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 Lindon, 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.

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, 2016**.** All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

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.

						Lindon City		Orem City/DACR Plant			CWP			
Microbiological	Test Date	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest No. of Positive Samples	2016 Range	Violation	2016 Average	2016 Range	Violation	Typical Source of Contaminant or Other Comments
Total Coliform	2016	% positive per month	5%	0		1	NO	0	ND-1	NO	0	0	NO	Coliforms are naturally present in the environment; as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.
Fecal Coliform and E.coli	2016	% positive per month	tt	tt		2	YES	0	0	NO	0	0	NO	Fecal coliforms and E. coli only come from human and animal fecal waste.
Inorganic Contaminants	2016	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2016 Range	Violation	2014 Average	2014 Range	Violation	Typical Source of Contaminant
Arsenic	2016	µg/l	10	0			NO	3.34	ND-3.34	NO	1.7	1.6-2.3	NO	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes.
Barium	2016	mg/l	2	2		.048 ppm 2016	NO	0.106	ND-.106	NO	67	66-76	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	2016	ppb	4	4		1				NO				Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Chromium (total)	2016	µg/l	100	100				7.9	ND-7.9	NO				Discharge from steel and pulp mills; erosion of natural deposits
Copper	2016	µg/l	NE	NE				.25	ND-.025	NO	ND	1.2-1.3	NO	
Cyanide	2016	ppb	200	200				23.1	0-23.1	NO				Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Fluoride	2016	mg/l	4	4				.5	ND-0.5	NO	0.3	0.3-0.3	NO	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nickel	2016	ppb	10000	10000		5 2013	NO	5.39	ND	NO				Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate	2016	mg/l	10	10			NO	2.04	ND-2.04	NO	0.2	0.2-0.2	NO	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Selenium	2016	µg/l	50	50		2.6	NO	3.95	ND-3.95	NO	.5	.5	NO	Erosion of natural deposits; mining or metal refinery discharge
Thallium	2016	µg/l	2	0.5				.3	ND-.3	NO				
Radioactive Contaminants	2016	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2016 Range	Violation				Typical Source of Contaminant
Alpha Emitters	2016	pCi/L	15	0				3.8	ND-3.8	NO				Erosion of natural deposits
Gross Alpha	2014	pCi/L	15	0				3.8	ND-3.8	NO	2.35	1.1-4.6	NO	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Gross Beta		mrem/yr	4	0				MNR	MNR					Erosion of natural deposits.
Combined Radium 226/228	2014	pCi/L	5	0				3.1	ND-3.1	NO	0.79	0.68-0.90	NO	Erosion of natural deposits.
Radium 226	2014	pCi/L	5	0				.97	ND-.97	NO				
Radium 228	2016	pCi/L	5	0				2.79	ND-2.79	NO	.67	.16-1.2	NO	
Chlorine	2016	mg/l	4	4			NO	1.70	0.05-1.70	NO	.76	.49-1.19	NO	Drinking water disinfectant
Total Trihalomethanes (TTHM)	2016	ppb	80	0		13, 2015	NO	57.6	ND-57.6	NO	20.5	6.0-57.6	Units	By-Product of drinking water disinfection
Haloacetic Acids (HAA5s)	2016	ppb	60	0		2 ppb, 2015	NO	31.2	ND-31.2	NO	15.1	1.4-31.2	NO	By-product of drinking water disinfection.
Bromate	2016	mg/l	.01	0				MNR	MNR	NO				
Pesticides/PCB's/SOC's	2016	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2015 Range	Violation	2016 Average	2016 Range	Violation	Typical Source of Contaminant or Other Comments
Bis(2-ethlyhexyl) adiptate	2016	µg/l	6	0				ND	ND-0.67	NO				Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
All other Parameters	2016	µg/l	Varies	Varies				ND	ND	NO	MNR	MNR	NO	Various sources
VOC's	2016	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2015 Range	Violation				Typical Source of Contaminant or Other Comments
Chloroform	2016	µg/l	NE	70				44.4	0-45.5	NO	12.8	2.9-44.4		Byproduct of drinking water disinfection
Bromodichloromethane	2016	µg/l	NE	0				11.3	ND-11.3	NO	5.8	2.1-11.3		Byproduct of drinking water disinfection
All other Parameters	2016	µg/l	Varies	Varies				ND	ND	NO	ND	ND		Various sources
Organic Material	2016	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2016 Range	Violation				Typical Source of Contaminant or Other Comments
Total Organic Carbon	2016	mg/l	TT	NE				2.55	1.4-2.55	NO				Naturally occurring
UV-254	2016	1/cm	UR	NE				.041	.001-.041	NO				Naturally occurring. This is a measure of UV-absorbing organic com-pounds.

Lead and Copper		Units	AL	MCLG		90th Percentile	Violation	90th Percentile	# of sites over AL	Violation					Typical Source of Contaminant
Copper a.90% results b.# of sites that exceeded the AL		mg/l	1.3	1.3		a.0.126 b.0, 2016	NO	0.229	0	NO					Erosion of natural deposits; corrosion of household plumbing
Lead a.90% results b.# of sites that exceeded the AL		µg/l	15	0		a.2.7 b.0, 2016	NO	.00327 mm/l	0	NO					Erosion of natural deposits; corrosion of household plumbing
Secondary Inorganics *Asthetic standards*		Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	Average	Range	Violation				Typical Source of Contaminant
Iron	2016	pp/b	SS=30	NE				21.6		ND-21.6	NO	.12	.04-.2	NO	Erosion of natural deposits 2016 Data
Manganese	2016	mg/l	SS=0.05	NE								.014	.013-.014	NO	Erosion of natural deposits.
pH	2016		6.5-8.5	NE				8.29	7.81	7.53-8.29	NO	7.8	7.2-8.2	NO	Naturally occurring
Sulfate	2016	mg/l	250	250		50	NO	72.6	39.7	9.89-72.6	NO	8	7-10	NO	Erosion of natural deposits.
Total Dissolved Solids	2016	mg/l	500	500		296	NO	468	289	110-468	NO	178	147-214	NO	Erosion of natural deposits
Unregulated Parameters (Monitoring not required)		Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2016 Average	2016 Range	Violation				Typical Source of Contaminant
Turbidity	2016	NTU	95%<0.3	NA		.05	NO	15	.025	.016-.039	NO	.019	.02-3.27	NO	Naturally occurring and soil runoff
Sodium	2016	mg/l	NONE	500		12.1	NO	347	298	0-347	NO				Erosion of natural deposits.
Calcium	2016	mg/l	UR	NE				377	252	108-377	NO	76	64-96	NO	Naturally occurring
Hardness	2016	grains/gal	UR	NE				22	15	6.3-9.9	NO	4.4	3.7-5.4	NO	Naturally occurring
Conductance	2016	µmhos/cm	UR	NE				648	473	230-648	NO	261	199-382	NO	Naturally occurring

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Vineyard

Our water system violated two drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 01/01/2016 – 12/31/2016 we did not complete all monitoring for chlorine residuals and disinfection by products and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

What happened? What is being done?

The providers of our water monitor the chlorine levels at the meters through which we receive our drinking water. We failed to monitor the residual levels of chlorine throughout our distribution system and to sample for disinfection by products as required by the State. We began monitoring for chlorine residuals as soon as we were notified we were in violation. We are on-track to sample for disinfection by products as required by the State.

For more information, please contact Sullivan Love at 801.376.0419 or 125 South Main Vineyard, Ut. 84058.

> *Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by Vineyard City. Water System ID#: 25168. Date distributed:_ 07/07/2016

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 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.

Lindon City 2016 Consumer Confidence Report
Orem City 2016 Consumer Confidence Report
Central Utah Water Conservancy District 2016 Consumer Confidence Report