2016 CONSUMER CONFIDENCE REPORT

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 potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Name of Water Source: Groundwater
Name & Location of source: 3 Well sources, located in South Lake Tahoe, CA.
Drinking Water Source Assessment Information: Contact Jennifer Lukins at (530) 541-2606.
Board Meetings held monthly, contact office for details.

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.

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).

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 Residual Disinfectant Level (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 (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.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs 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.

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 that a water system must follow.

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

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.

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)

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

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

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

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*, that 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that 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, the USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, and 7 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 State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

In July 2014, one of our routine compliance water samples detected levels of Tetrachloroethylene (PCE) above the drinking water standard, or maximum contaminant level (MCL) of 5 parts per billion. As we told you at the time, Lukins has taken the contaminated sources out of service and reclassified them from "active" to "standby". To supplement water supply, an intertie with neighboring water system has been activated. Lukins is working with The State Board to determine the best solution. For more information, see the paragraph marked Violation in this report. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. We are committed to providing you with accurate information regarding your drinking water.

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).

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. Lukins Brothers Water Company, Inc. 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 1-800-426-4701 or at http://www.epa.gov/lead.

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	(In a mo.) 0	**None**	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	(In the year) **None**	**None**	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform	0	Human and animal fecal waste

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

Lead and Copper (Test year 2016)	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppm)	25	0.002	0	.015	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	25	0.120	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

*****Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.*

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting unit)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) (MRDLG)	Violation	Typical Source of Contaminant
Sodium (ppm)	2014	13	12-15	none	none	No	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2014	42	31-47	none	none	No	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4- DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) (MRDLG)	Violation	Typical Source of Contaminant
Gross Alpha (pCi/L)	2016	12.1	9.42-14.78	15	0	No	Erosion of natural deposits
Gross Beta (pCi/L)	2016	3.03	1.79-4.27	50	0	No	Decay of natural and man-made deposits
Combined Radium 226/228 (pCi/L)	2013	0.17	0-.388	5	0	No	Erosion of natural deposits
Uranium (pCi/L)	2013	8.77	8.10-9.45	20	0.43	No	Erosion of natural deposits
Aluminum (ppm)	2016	<0.05	0-<0.05	1	0.6	No	Erosion of natural deposits; residue from some surface water treatment processes
Antimony (ppb)	2016	<0.001	0-<0.001	6	20	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	2016	0.005	0-0.005	10	0.004	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Asbestos (MFL)	2016	ND	ND	7	7	No	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Barium (ppm)	2016	0.007	0-0.007	1	2	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium (ppb)	2016	<0.001	0-<0.001	4	1	No	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries
Cadmium (ppb)	2016	<0.001	0-<0.001	5	0.04	No	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 (ppb)	2016	2	0-2	50	(100)	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Cyanide (ppm)	2016	<0.05	0-<0.05	150	150	No	Discharge from steel/metal, plastic and fertilizer factories
Fluoride (ppm)	2016	.1	0-<0.1	2.0	1	No	Erosion of natural deposits, water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Hexavalent Chromium (ppb)	2014	1.3	0-1.3	10	0.02	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Mercury (ppb)	2016	<1	0-<0.0001	2	1.2	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nickel (ppb)	2016	<0.001	0-<0.001	100	12	No	Erosion of natural deposits; discharge from metal factories
Nitrate (ppm)	2016	0.14	0.0-0.14	10	10	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite (ppm)	2016	<0.05	0-<0.05	1	1	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (ppb)	2016	ND	ND	6	1	No	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts
Selenium (ppm)	2016	<0.005	0-<0.005	.05	30	No	Discharge from petroleum glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Thallium (ppm)	2016	<0.0005	0-<0.0005	.002	0.1	No	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
*Tetrachloroethylene (PCE) (ppb)	2014 2016	30 ND	0-46	5	0.06	*YES	Discharge from factories, dry cleaners and auto shops (metal degreaser)
Xylenes (ppm)	2016	<0.50	0-0.50	1.75	1.8	No	Discharge from Petroleum and chemical factories; fuel solvent

TABLE 4- DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD CONT.							
Chemical or Constituent	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL (MRDL)**	**PHG (MCLG) (MRDLG)**	**Violation**	**Typical Source of Contaminant**
TTHMs (Total Trihalome-thanes)(ppb)	2016	3.6	3.6	80	NA	No	By-product of drinking water disinfection.
Haloacetic Acids (ppb)	2016	3.7	3.7	60	NA	No	By-product of drinking water disinfection.
Chlorine– Free (ppm)	2016	0.33	0.21-0.43	[MRDL= 4.0 (asCl2)]	[MRDLG= 4.0 (as Cl2)]	No	Drinking water disinfectant added for treatment.

TABLE 5- DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL (MRDL)**	**Violation**	**Typical Source of Contaminant**
Color (Units)	2014	5	0-5	15	No	Naturally-occurring organic material
Iron (ppb)	2014	<0.05	0-<0.05	300	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2014	<0.001	0-<0.001	50	No	Leaching from natural deposits
Silver (ppb)	2014	<0.001	0-<0.001	100	No	Industrial discharges
Turbidity (units)	2014	1.0	0-1.0	5	No	Soil Run Off
Zinc (ppm)	2014	<0.01	0-<0.01	5	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2014	72	0-72	1000	No	Runoff/leaching from natural deposits
Chloride (ppm)	2014	2.7	0-2.7	500	No	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	2014	4.2	0-4.2	500	No	Runoff/leaching from natural deposits; industrial wastes

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES

Microbiological Contaminants	**Total No. of Detections (in the year)**	**Sample Dates**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
E. coli	0	Monthly	0	(0)	Human and animal fecal waste

SUMMARY INFORMATION FOR VIOLATION OF AN MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT

Violation	**Explanation**	**Duration**	**Actions Taken to Correct the Violation**	**Health Effects Language**
In July 2014, Lukins detected levels of Tetrachloroethylene (PCE) above the drinking water standard, or maximum contaminant level (MCL) of 5 parts per billion.	Lukins immediately took the contaminated sources out of service and reclassified them from “active” to “standby”. To supplement water supply, an intertie with a neighboring water system has been activated.	July 11, 2014	Lukins Brothers Water Company has engaged various local and state agencies to investigate the source of contamination. Lukins is working with the State Board to determine the best treatment solution, and will have treatment installed at the well site.	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.