Indian Lake Nazarene Camp
2016 Water Quality Report – WSSN 04647

This report covers the drinking water quality for Indian Lake Nazarene Camp for the 2016 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2016. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from three groundwater wells that serve the Indian Lake Nazarene Camp water system. The well water supply is chlorinated to provide disinfection of the water system to minimize potential bacteriological contamination. The State performed an assessment in 2002 of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six tier scale from "very low" to "high" based primarily on geological sensitivity, water chemistry, and contaminant sources. The susceptibility of our source water is "moderate" for all three wells.

- **Contaminants and their presence in 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (800-426-4791).**

- **Vulnerability of sub-populations:** 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 systems 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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, 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 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 and residential uses.
  - **Radioactive contaminants,** which are naturally occurring or be the result of oil and gas production and mining activities.
  - **Organic chemical contaminants,** including synthetic and volatile organic chemicals, which are by-productions of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

The table on the next page lists all the drinking water contaminants that we detected during the 2016 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2016. The State allows 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. All the data is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- **(MCL) Maximum Contamination Level:** The highest level of a contaminant that is allowed in drinking water. MCL are set as close to the MCLG's as feasible using the best available treatment technology.
- **(MCLG) Maximum Contaminant Level Goal:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **N/A:** not applicable
- **ND:** not detectable at testing limit
- **ppm:** parts per million or milligrams per liter
- **ppb:** parts per billion or micrograms per liter
- **pCi/L:** picocuries per liter (a measure of radioactivity)
- **(AL) Action Level:** the concentration of a contaminant which, when exceeded triggers treatment or other requirements which a water system must follow.
- **(MRDL) Maximum Residual Disinfectant Level:** means 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.
- **(MRDLG) Maximum Residual Disinfectant Level Goal:** means 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.

Regulated Contaminant	MCL	MCLG	Our Water	Range of Detections	Sample Date	Violation Yes/No	Typical Source of Contaminant
Inorganic Contaminants							
Arsenic (ppb)	10	0	4	N/A	9/12/2016	No	Erosion of natural deposits.
Fluoride (ppm)	4	4	0.13	N/A	9/12/2016	No	Erosion of natural deposits.
Radium 226/228	5	0	1.72	N/D 1.72	8/20/2014	No	Erosion of natural deposits
Contaminant Subject to AL	Action Level	MCLG	90th Percentile	Sample Date	Number of sites above AL*	Violation	Typical Source of Contaminant
Lead (ppb)	15	0	9.5	9/14/2015	0	No	Corrosion of household plumbing
Copper (ppb)	1300	1300	110	9/14/2015	0	No	Corrosion of household plumbing
Chlorine Residual Monitoring							
Contaminants (units)	MRDL	MRDLG	Our Water	Range of Detection's	Sample Date	Violations	Typical Source of Contaminant
Chlorine (ppm)	4.0	4.0	.28	0.1 - 0.7	Jan 2015-Dec 2015	No	From water treatment using liquid chlorine.
TTHM–Trihalomethanes (ppb)	80	N/A	11	N/A	9/4/2013	No	By-product of drinking water chlorination.
Special Monitoring & Unregulated Contaminant**							
Contaminants (units)	MCL	MCLG	Our Water	Range of Detection's	Sample Date	Violations	Typical Source of Contaminant
Sodium (ppm)	N/A	N/A	6.5	N/A	9/12/2016	N/A	Natural deposit from well water.

* 5 sampling sites were collected for lead/copper, and none of these sites exceeded the lead/copper action level.

** Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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. Indian Lake Nazarene Camp 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.

Recent conditions in Michigan have brought about concerns about lead and copper in drinking water. We are required to test lead and copper levels once every three years. We test at five locations throughout the camp that have the highest probability of lead in their system. If your water pipes are lead, or were installed between 1982-1988 and solder was used, please inform the camp office. You may be included in this test in the future.

In 2013 the water system was improved by adding a new well and updating the pumps for the other two wells. The chlorination system was updated to ensure a consistent flow of chlorine at all times. The grove well has been disconnected.

We are committed to providing you safe drinking water. We are pleased to provide you this information to keep you fully informed about your water. The water quality report is prepared annually and we will keep you informed of any problems if/when they occur. For more information about your water, or the contents of this report, contact the Indian Lake Nazarene Camp at 269-649-2281. Also, for more information about safe drinking water, visit the U.S. Environmental Protection Agency website at www.epa.gov/safewater/.