

# 2015 Consumer Confidence Report

Water System Name: **Naval Air Weapons Station China Lake** Report Date: 06-20-16  
**North Range Water System #1510703**

*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, 2015 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.**

Type of water source(s) in use: Ground Water from six wells

Name & general location of source(s): Well 15, Well 18, Well 27, Well 30, Well 31, and Well 28A all located at the southwestern corner of the North Range of China Lake 93555, Kern County California

Drinking Water Source Assessment information: **Well 15 and Well 27:** Per the DWSAP document dated June 2003, Well 15 and Well 27 is considered to be vulnerable to contamination from high and low density septic systems, housing, water supply wells, airports, gas stations and wastewater treatment plants.

**Well 18 – Standby:** Per the DWSAP document dated June 2003, Well 18 is considered to be vulnerable to contamination from transportation corridors.

**Well 30:** Per the DWSAP document dated May 2003, Well 30 is considered to be vulnerable to contamination from military installations and transportation corridors.

**Well 31:** Per the DWSAP document dated May 2003, Well 31 is considered to be vulnerable to contamination from low and high density septic systems and transportation corridors.

**Well 28A:** Per the DWSAP document dated May 2003, Well 28A is considered to be vulnerable to contamination from water supply wells.

Time and place of regularly scheduled board meetings for public participation: Contact Water Operations office

For more information, contact: Michael Bizon UEM Water Operations Phone: ( 760 ) 939-0925

## 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).

**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.

**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.

**Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Variations and Exemptions:** State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

**ppm:** parts per million or milligrams per liter (mg/L)

**ppb:** parts per billion or micrograms per liter (µg/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, 7, and 8 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.

**TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA**

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
<b>Total Coliform Bacteria</b>	(In a mo.) <u>0</u>	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
<b>Fecal Coliform or <i>E. coli</i></b>	(In the year) <u>0</u>	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER							
Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead - ppb	09/2014	20	0.0015	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper - ppm	09/2014	20	0.110	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium - ppm						
Well 15	12/2014	66		n/a	n/a	Salt present in the water and is generally naturally occurring
Well 27	12/2014	59				
Well 30	12/2014	40				
Well 31	12/2014	45				
Well 18- Standby	12/2014	62				
Well 28A	12/2014	45				
Hardness - ppm						
Well 15	12/2014	130		n/a	n/a	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Well 27	12/2014	120				
Well 30	12/2014	110				
Well 31	12/2014	47				
Well 18- Standby	12/2014	5.5				
Well 28A	12/2014	47				

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

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Barium – ppb						
Well 15	12/2014	45		1000	2000	Discharges of oil drilling wastes and metal refineries, erosion of natural deposits
Well 27	12/2014	52				
Well 30	12/2014	69				
Well 31	12/2014	24				
Well 28A	12/2014	17				
Flouride – ppm						
Well 15	12/2014	.5700		2.000	1.000	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Well 18- Standby	12/2011	.9400				
Well 27	12/2014	.6300				
Well 30	12/2014	.7200				
Well 31	12/2014	.4800				
Well 28A	12/2014	.6600				
Total Trihalomethane ppb	9/2015	14.0	7.3 – 14.0	80	n/a	Byproduct of drinking water disinfection
Haloacetic Acids ppb	9/2015	1.6	1.0 – 1.6	60	n/a	Byproduct of drinking water disinfection
Radium 228 – pCi/L Well 28A	11/2015	<b>1.36</b>		5	0.019	Erosion of natural deposits. SWRCB considers 50 pCi/L to be the level of concern for beta particles

<b>Nitrate</b> (as N) – ppm						Runoff and leaching from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits.
Well 15	09/2015	1.3				
Well 27	09/2015	1.4		10	10	
Well 30	09/2015	1.8				
Well 31	12/2015	2.0				
<b>Arsenic</b> – ppb						Erosion of natural deposits, runoff from orchards, glass and electronics production wastes
Well 15	12/2014	2.1		10	.04	
Well 18- Standby	12/2011	14				
Well 28A	12/2014	6.7				

**TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
<b>Chloride</b> – ppm						Runoff/Leaching from natural deposits, seawater influence
Well 15	12/2014	36.0				
Well 18- Standby	12/2011	20.0		500	n/a	
Well 27	12/2014	47.0				
Well 30	12/2014	29.0				
Well 31	09/2014	24.0				
Well 28A	12/2014	18.0				
<b>Copper</b> – ppm						Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Well 15	12/2014	35		1000	n/a	
<b>Zinc</b> – ppm						Runoff/Leaching from natural deposits; industrial wastes
Well 28A	12/2014	57		5000	n/a	
<b>Aluminum</b> – ppb						Erosion of natural deposits; residual from surface water treatments processes
Well 27	12/2014	320		1000	600	
Well 28A	12/2014	60				
<b>Manganese</b> – ppb						Leaching from natural deposits
Well 27	12/2014	11.0		50.0	n/a	
<b>Odor Threshold</b> – Units						Naturally-occurring organic materials
Well 18- Standby	12/2011	1.000 ton		3.000 ton	n/a	
<b>Specific Conductance</b>						Substances that form ions when in water; seawater influence
Well 15	12/2011	540 uS/cm				
Well 18- Standby	12/2011	290 uS/cm		1600 uS/cm	n/a	
Well 27	12/2014	528 uS/cm				
Well 30	12/2014	410 uS/cm				
Well 31	12/2014	330 uS/cm				
Well 28A	12/2014	302 uS/cm				
<b>Turbidity</b> – ntu						Soil runoff, Turbidity is the measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of water quality
Well 15	03/2015	.2300		TT		
Well 18- Standby	12/2011	.3500				
Well 27	03/2015	1.3		5.00	n/a	
Well 30	12/2014	1.8				
Well 31	12/2014	1.8				
Well 28A	12/2014	2.3				
<b>TDS</b> – ppm						Runoff/Leaching from natural deposits
Well 15	12/2014	400				
Well 18- Standby	12/2011	200		1000	n/a	
Well 27	12/2014	380				
Well 30	12/2014	300				
Well 31	12/2014	230				
Well 28A	12/2014	210				
<b>Sulfate</b> - ppm						Runoff/Leaching from natural deposits, industrial wastes
Well 15	12/2014	120				
Well 18- Standby	12/2011	13		500	n/a	
Well 27	12/2014	90				
Well 30	12/2014	49				
Well 31	12/2014	38				
Well 28A	12/2014	21				

<b>Color</b> – ppm						
Well 15	12/2014	1.0		15.0	n/a	Naturally-occurring organic materials
Well 27	12/2014	1.0				
Well 30	12/2014	1.0				
Well 31	12/2014	1.0				
Well 28	12/2014	1.0				
<b>Iron</b> –ppb						
Well 15	12/2014	120		300	n/a	Leaching from natural deposits ; industrial wastes
Well 27	03/2015	290				
Well 30	03/2015	68				
Well 31	03/2015	<b>1700</b>				
Well 28A	12/2014	130				

**ABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS**

<b>Chemical or Constituent</b> (and reporting units)	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>Notification Level</b>	<b>Health Effects Language</b>
<b>none</b>					

\*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

### Additional General Information on 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).

**Lead-Specific Language for Community Water Systems:** 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. [INSERT NAME OF UTILITY] 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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/lead>.

**Well 18** because of its high Arsenic level (14ppb) has been put in standby mode and is not currently part of the public water system. Note; while your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low level 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. **Well 31** because of its high Iron level (1700pb) has had its operational practices changed and will be monitored quarterly to insure it stays under the MCL.

**Summary Information for Violation of a MCL, MRDL, AL, TT,  
or Monitoring and Reporting Requirement**

<b>VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT</b>				
<b>Violation</b>	<b>Explanation</b>	<b>Duration</b>	<b>Actions Taken to Correct the Violation</b>	<b>Health Effects Language</b>
<b>none</b>				

**For Water Systems Providing Ground Water as a Source of Drinking Water**

<b>TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES</b>					
<b>Microbiological Contaminants (complete if fecal-indicator detected)</b>	<b>Total No. of Detections</b>	<b>Sample Dates</b>	<b>MCL [MRDL]</b>	<b>PHG (MCLG) [MRDLG]</b>	<b>Typical Source of Contaminant</b>
<i>E. coli</i>	(In the year) 0		0	(0)	Human and animal fecal waste
Enterococci	(In the year) 0		TT	n/a	Human and animal fecal waste
Coliphage	(In the year) 0		TT	n/a	Human and animal fecal waste

**Summary Information for Fecal Indicator-Positive Ground Water Source Samples,  
Uncorrected Significant Deficiencies, or Ground Water TT**

<b>SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLE</b>				
n/a				
<b>SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES</b>				
n/a				
<b>VIOLATION OF GROUND WATER TT</b>				
<b>TT Violation</b>	<b>Explanation</b>	<b>Duration</b>	<b>Actions Taken to Correct the Violation</b>	<b>Health Effects Language</b>
<b>none</b>				

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### For Systems Providing Surface Water as a Source of Drinking Water

**TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES**

Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	n/a
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to _____ NTU in 95% of measurements in a month. 2 – Not exceed _____ NTU for more than eight consecutive hours. 3 – Not exceed ____ NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	n/a
Highest single turbidity measurement during the year	n/a
Number of violations of any surface water treatment requirements	n/a

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

\* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.

### Summary Information for Violation of a Surface Water TT

VIOLATION OF A SURFACE WATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
n/a				

### Summary Information for Operating Under a Variance or Exemption
