



**UNITED STATES MARINE CORPS**

MARINE CORPS LOGISTICS BASE  
BARSTOW, CALIFORNIA 92311-5050

IN REPLY REFER TO:

5090

B520

DD-5090-06

June 26, 2013

Mr. Eric Zuniga  
Drinking Water Field Operations Branch  
Department of Health Services  
464 West 4<sup>th</sup> Street, Suite 437  
San Bernardino, California 92408

Dear Mr. Zuniga:

Please find enclosed the Marine Corps Logistics Base - Barstow (MCLB-B) Annual Consumer Confidence Report (CCR) for the Reporting Year 2012. The CCR certification forms are submitted for the NEBO Water System, #3610701, and the YERMO ANNEX Water System, #3610702. The Consumer Confidence Report was published in the Base newspaper, *The Prospector*, on June 27, 2013. Copies of the published report are included with the certification forms.

The published reports were also uploaded to the DRINC Portal as requested.

If you have any questions regarding the certifications, please contact me at (760) 577-6937.

Sincerely,

A handwritten signature in black ink, appearing to read "Vicki J. Davis", written over a circular stamp or seal.

VICKI J. DAVIS

Head, Environmental Division

By direction

Of the Commanding Officer

Enclosures: 1. NEBO Water System, 3610701, Certification  
2. YERMO ANNEX Water System, 3610702, Certification

Writer/Typist: D. Langevin, B500, x6736, 26 June 2013

# 2012 Consumer Confidence Report

Water System Name: MARINE CORPS LOGISTICS BASE Report Date: JUNE 2012

*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, 2012 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: (1) NEBO MAIN BASE: Supplied by Golden State Water Co. Barstow, CA  
(2) YERMO ANNEX: Supplied by MCLB-owned three (3) groundwater wells

Name & location of source(s): (1) NEBO MAIN BASE: Golden State Water Co. Barstow, CA  
(2) YERMO ANNEX: MCLB-owned groundwater wells

Drinking Water Source Assessment information: WELLHEAD ASSESSMENT March 2002

**For more information, contact:**

**MCLB:**

I&L Department,  
Environmental Division,  
Compliance Branch

**Phone:** (760) 577 - 6937

**GOLDEN STATE:** For information about Golden State Water quality or to find out about upcoming opportunities to participate in their public meetings,

**Phone:** Please contact their 24-hour Customer Service Center at 1-800-999-4033, or Visit GOLDEN STATE WATER CO online at [www.gswater.com](http://www.gswater.com) or email them at

**Email:** [customerservice@gswater.com](mailto:customerservice@gswater.com).

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo o hable con alguien que lo entienda bien

### 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.

**Variations and Exemptions:** Department 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 ( $\mu\text{g/L}$ )

**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*, which 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*, which 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 California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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 Department 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.

NEBO MAIN BASE 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
Total Coliform Bacteria	(In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year)	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

NEBO MAIN BASE 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)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) (2011)	10	8	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) (2011)	10	0.290	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

NEBO MAIN BASE 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)	2012	66	64 - 68	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2012	172.5	170 - 175	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

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

NEBO MAIN BASE 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
Gross Alpha Particle Activity (pCi/L)	2011	3.6	0.91 – 6.92	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	2011	2.6	1.2 – 5.6	20	0.43	Erosion of natural deposits
Arsenic (ppb)	2012	3.4	3.3 – 3.6	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2012	0.077	0.076 - 0.077	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2012	0.52	0.52 – 0.61	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Chlorine [CL <sub>2</sub> ] (ppm)	2012	1.36	1.2 – 1.76	[MRDL = 4] (as Cl <sub>2</sub> )	[MRDLG = 4] (as Cl <sub>2</sub> )	Drinking water disinfectant added for treatment
Fluoride (ppm)	2012	0.475	0.4 - 0.55	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (ppb)	2012	0.64	ND - 0.64	(AL=15)	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Selenium (ppb)	2012	0.65	1.1 – 1.2	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Turbidity (NTU)	2012	0.45	0.34 – 0.56	5	n/a	Soil runoff
Zinc (ppm)	2012	0.007	ND – 0.013	5	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2012	380	310 - 450	1000	n/a	Runoff/leaching from natural deposits
Sulfate (ppm)	2012	86.5	81 - 92	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Trihalomethanes (TTHMs) (ppb)	2012	2.8	ND – 5.6	80	n/a	By-product of drinking water disinfection
Haloacetic Acid (HAA5) (ppb)	2012	2.6	ND - 2.6	60	n/a	By-product of drinking water disinfection

NEBO MAIN BASE 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
Chloride (ppm)	2012	64.5	61 - 68	500	n/a	Runoff/leaching from natural deposits; seawater influence
Copper (ppm)	2012	0.019	0.013 – 0.024	1.0	n/a	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Sulfate (ppm)	2012	86.5	81 -92	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2012	380	310 - 450	1000	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)	2012	0.45	0.34 – 0.56	5	n/a	Soil runoff
Zinc (ppm)	2012	0.013	ND – 0.013	5.0	n/a	Runoff/leaching from natural deposits; industrial wastes

NEBO MAIN BASE TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS					
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron (ppm)	2012	0.385	0.35 – 0.42	1 ppm	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Vanadium (ppb)	2012	3.55	3.2 - 3.9	50 ppb	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

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

YERMO ANNEX 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
Total Coliform Bacteria	(In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year)	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

YERMO ANNEX 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)	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) (2011)	10	8	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) (2011)	10	0.655	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits;

leaching from wood preservatives

**YERMO ANNEX 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)	2012	75.4	69.6 – 83.1	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2012	146.8	138-168	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

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

**YERMO ANNEX 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
Gross Alpha Particle Activity (pCi/L)	2012	6.33	3.58 – 9.08	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	2012	7.84	7.13 – 8.56	20	0.43	Erosion of natural deposits
Strontium 90 (pCi/L)	2012	0.142	0.0 – 0.142	8	0.35	Decay of natural and man-made deposit
Arsenic (ppb)	2012	1.4	1.3 – 1.5	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2012	0.0712	0.070 - 0.076	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2012	3.6	ND – 3.6	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Chlorine [CL <sub>2</sub> ] (ppm)	2012	1.33	1.13 – 1.70	[MRDL= 4 (as Cl <sub>2</sub> )]	[MRDLG= 4 (as Cl <sub>2</sub> )]	Drinking water disinfectant added for treatment
Copper (ppm)	2012	0.0045	ND – 0.0049	(AL=1.3)	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	2012	0.72	0.62 – 0.84	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Manganese (ppb)	2012	2.1	ND – 5.9	50	n/a	Leaching from natural deposits
Nitrate (NO <sub>3</sub> ) (ppm)	2012	4.71	3.6 – 5.1	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2012	0.43	ND – 0.43	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Turbidity (NTU)	2012	0.28	ND – 2.6	5	n/a	Soil runoff
Total Trihalomethanes (TTHMs) (ppb)	2012	3.8	ND – 3.8	80	n/a	By-product of drinking water disinfection

YERMO ANNEX 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
Aluminum (ppb)	2012	5.5	ND – 5.5	200	n/a	Erosion of natural deposits; residual from some surface water treatment processes
Iron (ppb)	2012	0.154	ND – 0.207	300	n/a	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2012	2.1	ND – 5.9	500	n/a	Leaching from natural deposits
Zinc (ppm)	2012	0.005	ND – 0.005	5	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2012	280	204 - 390	1000	n/a	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	2012	648.5	590 - 700	1600	n/a	Substances that form ions when in water; seawater influence
Chloride (ppm)	2012	64.1	58 – 69.4	500	n/a	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	2012	72.35	67 - 76	500	n/a	Runoff/leaching from natural deposits; industrial wastes

YERMO ANNEX TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS					
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron (ppm)	2012	0.75	0.74 – 0.76	1 ppm	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Vanadium (ppb)	2012	4.35	4.1 – 4.6	50 ppb	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

\*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).

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. **MCLB - BARSTOW** 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>.

### Source Water Protection Tips for Consumers

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water". Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

### Water Conservation Tips for Consumers

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers – a 5 minutes shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They are inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaking toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more information.