2021 Annual WATER QUALITY REPORT

American Water Vandenberg Space Force Base PWS ID: CA4210700

QUALITY. ONE MORE WAY WE KEEP LIFE FLOWING.



What is a **Consumer Confidence Report (CCR)**

Once again, we proudly present our Annual Water Quality Report, also referred to as a Consumer Confidence Report (CCR). CCRs let consumers know what contaminants, if any, were detected in their drinking water as well as related potential health effects. CCRs also include details about where your water comes from and how it is treated. Additionally, they educate customers on what it takes to deliver safe drinking water and highlight the need to protect drinking water sources.

We are committed to delivering high quality drinking water service. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, environmental compliance, sustainability and community education while continuing to serve the needs of all our water users.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it at 1-888-237-1333.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien al 1-888-237-1333.

Ntawm no yog ib co lus qhia tseem ceeb heev txog koj cov dej seb huv npaum li cas. Yog tias koj xav tau kev pab txhais cov lus qhia no, thov hu rau peb ntawm 1-888-237-1333.

這是關於您的水質的十分重要的資訊。如果您需要幫助翻譯此資訊 請致電 1-888-237-1333 與我們聯繫。

आपके पानी की गुणवत्ता के बारे में यह बहुत महत्वपूर्ण सूचना है। यदि इस सूचना के अनुवाद के लिए आपको सहायता की जरूरत हो, तो कृपया **1-888-237-1333** र हमें काल करें।

Это очень важная информация о качестве Вашей воды. Если Вам требуется перевод этой информации, позвоните нам по телефону 1-888-237-1333.

Ito ay isang napakahalagang impormasyon tungkol sa kalidad ng iyong tubig. Kung iyong kailangan ng tulong sa pagsalin ng impormasyon na ito, mangyaring tumawag sa amin sa 1-888-237-1333.

Đây là thông tin rất quan trọng về chất lượng nước của quý vị. Nếu quý vị cần thông dịch thông tin này, xin gọi chúng tôi theo số 1-888-237-1333.

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A message from American Water's Military Services Group President

American Water's Military Services Group owns and operates water and wastewater utilities under the Utilities Privatization program and proudly provides water and wastewater services to military communities around the country, including yours. Our Company's Vision – "We Keep Life Flowing" - drives everything we do for you, our customers. To reinforce our vision and maintain your trust, it's important that we share with you information about our commitment to providing high-quality water service.

I am pleased to provide you with the 2021 Annual Water Quality Report with detailed information about the source and quality of your drinking water. We have prepared this report using the data from water quality testing conducted for your local water system from January through December 2021.

With equal importance, we place a strong focus on acting as stewards of our environment. In all the communities we serve, we work closely with the local directorates of public works, civil engineering squadrons, local environmental departments, and state regulatory agencies to protect environmental quality, educate customers on how to use water wisely, and ensure the high quality of your drinking water every day.

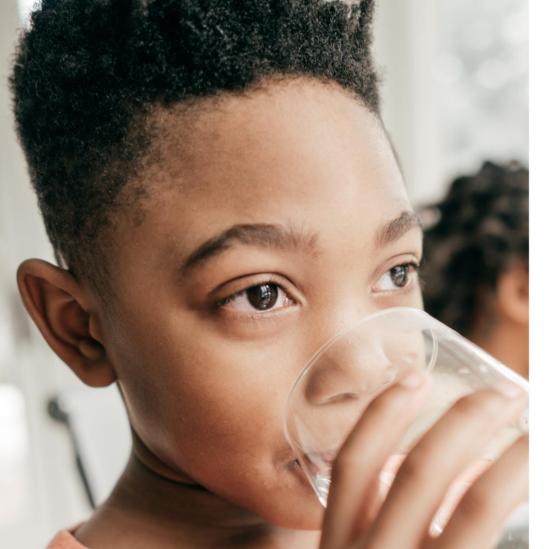
At American Water, our values – safety, trust, environmental leadership, teamwork, and high performance – mean more than simply making water available "on-demand". It means every employee working to deliver a key resource for public health, fire protection, the economy, and the overall quality of life we all enjoy. For more information or for additional copies of this report, visit us online at www.amwater.com.

Steve Curtis Military Services Group American Water This report contains important information about your drinking water. Translate it or speak with someone who understands it at (805) 734-0043, Monday-Friday, 7:30 a.m. to 4:00 p.m.



ATTENTION: Landlords and Apartment Owners

Please share a copy of this notice with your tenants. It includes important information about their drinking water quality.



Mark of

Excellence

EVERY STEP OF THE WAY.

Our team monitors and tests your water at multiple points throughout our process of drawing it from its source, treating it to meet drinking water standards, and distributing it through our pipeline systems. In fact, American Water performs over one million tests annually for about 100 regulated contaminants, nationwide.

EXPERTISE. RECOGNIZED AT THE HIGHEST LEVEL.

American Water is an expert in water quality testing, compliance and treatment and has established industry-leading water testing facilities. Our dedicated team of scientists and researchers are committed to finding solutions for water quality challenges and implementing new technologies. American Water is recognized as an industry leader in water quality and works cooperatively with the EPA so that drinking water standards and new regulations produce benefits for customers and public water suppliers. American Water has earned awards from the EPA's Partnership for Safe Water as well as awards for superior water quality from state regulators, industry organizations, individual communities, and government and environmental agencies.



WATER QUALITY. DOWN TO A SCIENCE.

Our team also has access to American Water's Central Laboratory in Belleville, Illinois, which conducts sophisticated drinking water testing and analysis. American Water scientists refine testing procedures, innovate new methods, and set new standards for detecting potentially new contaminants—even before regulations are in place.

MAINTAINING QUALITY FOR FUTURE GENERATIONS.

Just as American Water Vandenberg Space Force Base are investing in research and testing, we also understand the importance of investing in the infrastructure that provides high-quality water service to you. Last year alone, **we invested more than \$3.5 million to improve our water and wastewater treatment and pipeline systems.**

About Your Drinking Water Supply



WHERE YOUR WATER COMES FROM

American Water operates groundwater sources, potable water reservoirs, and potable water booster stations to provide potable water to about 14,971 people via 1,161 service connections. It is classified as a community water system and has operated under the authority of permit number CA4210700, issued by DDW in 2008 and most recently amended in 2016. The most recent Sanitary Survey of VSFB's water system was conducted during June of 2019.

VSFB purchases treated surface water from Central Coast Water Authority (CCWA). CCWA obtains water from the State Water Project via the Coastal Branch of the California Aqueduct. The water is disinfected with the use of chloramines by CCWA and has a combined chlorine residual when it enters AW's Main Reservoir Water Treatment Plant. Water from the State Water Project is treated at the Polonia Pass Water Treatment Plant. The treatment plant utilizes conventional filtration, which includes the use of coagulation, flocculation, sedimentation, filtration, and disinfection. The plant is permitted by DDW to meet the requirements of the Surface Water Treatment Rule. CCWA also serves water to 23 other public water systems throughout Santa Barbara and San Luis Obispo Counties.

American Water also utilizes active groundwater wells constructed in unconsolidated deposits. Drinking water source assessments were completed for American Water's wells in 2001 and updated in 2012.



QUICK FACTS ABOUT THE VANDENBERG SPACE FORCE BASE SYSTEM

Communities served:

The Vandenberg Space Force Base water system is investor owned and serves the residents, employees, and visitors of the VSFB

Water source:

Central Coast Water Authority (CCWA) purchased water and four groundwater wells

Average amount of water supplied to customers on a daily basis: 3.1 million gallons per day



SPECIAL HEALTH INFORMATION

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/Centers for Disease Control and Prevention (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).

What are the **Sources of Contaminants**?

To provide tap water that is safe to drink, EPA and the State Water Resources Control Board prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, aquifers and/or groundwater. 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 may result from urban storm water 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 storm water runoff, and residential uses. |
| Organic Chemical Contaminants | including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also, come from gas stations, urban storm water runoff, and septic systems. |
| Radioactive Contaminants | which can be naturally occurring or may be the result of oil and gas production and mining activities. |



Protecting Your Drinking Water Supply

Protecting drinking water at its source is an important part of the process to treat and deliver high quality water. It takes a community effort to protect our shared water resources. This includes utilities, businesses, residents, government agencies and organizations. Everyone who lives, works, and plays in the area has a role and stake in clean water supplies.

WHAT CAN YOU DO?

Quality drinking water starts upstream. Everyone can help maintain and improve drinking water supplies through the following actions:

- Properly dispose of pharmaceuticals, household chemicals, oils and paints.
 Materials can impact water ways if poured down the drain, flushed down the toilet, or dumped on the ground.
- Check for leaks from automobiles and heating fuel tanks. Clean up any spills using an absorbent material like cat litter. Sweep up the material and put it in a sealed bag. Check with the local refuse facility for proper disposal.
- Clean up after your pets and limit the use of fertilizers and pesticides.
- Take part in watershed activities.

Report any spills, illegal dumping or suspicious activity to California Water Boards - State Water Resources Control Board, Central Coast Division at SanitarySewer@waterboards.ca.gov or by calling 805-549-3147.

WHAT ARE WE DOING?

Our priority is to provide reliable, quality drinking water service for customers. The source of supply is an important part of that mission. We work to understand and reduce potential risks to your drinking water supply. We have developed a Source Water Assessment and Wellhead Protection Program under the California State Water Resources Control Board, Department of Division of Water Quality (SWRCB-DWQ).

Under the Safe Drinking Water Act Amendments of 1996, all states were required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Act. This assessment is based on a land use inventory of the delineated protection area and sensitivity factors associated with the well and aquifer characteristics.

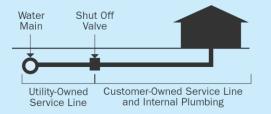
FOR MORE INFORMATION

To learn more about your water supply and local activities, visit us online at www.amwater.com

About Lead

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. American Water 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.

UTILITY-OWNED VS. CUSTOMER-OWNED PORTION OF THE SERVICE LINE



Please note: This diagram is a generic representation. Variations may apply.

The most common source of lead in tap water is from the customer's plumbing and their service line.

Our water mains are not made of lead; however, the water service line that carries the water from the water main in the street to your home could be. Homeowners' service lines may be made of lead, copper, galvanized steel or plastic. You can assess your service line material where it enters your home, typically in your basement, crawl space or garage, near the inlet valve.

MINIMIZING YOUR POTENTIAL EXPOSURE

You cannot see, smell or taste lead, and boiling water will not remove lead. Here are steps you can take to reduce your potential exposure if lead exists in your home plumbing.

CHECK YOUR PLUMBING AND SERVICE LINE

If you live in an older home, consider having a licensed plumber check your plumbing for lead. If your service line is made of lead, and you're planning to replace it, be sure to contact us at 1-805-734-0043

- **1. Flush your taps.** The longer the water lies dormant in your home's plumbing, the more lead it might contain. If the water in your faucet has gone unused for more than six hours, flush the tap with cold water for 30 seconds to two minutes before drinking or using it to cook. To conserve water, catch the running water and use it to water your plants.
- 2. Use cold water for drinking and cooking. Hot water has the potential to contain more lead than cold water. If hot water is needed for cooking, heat cold water on the stove or in the microwave.
- 3. Routinely remove and clean all faucet aerators.
- 4. Look for the "Lead Free" label when replacing or installing plumbing fixtures.
- **5.** Follow manufacturer's instructions for replacing water filters in household appliances, such as refrigerators and ice makers, as well as home water treatment units and pitchers. Look for NSF 53 certified filters.
- *f*

PØ

6. Flush after plumbing changes. Changes to your service line, meter, or interior plumbing may result in sediment, possibly containing lead, in your water supply. Remove the strainers from each faucet and run the water for 3 to 5 minutes.

Important Information About **Drinking Water**

CHLORAMINES

Chloramines are a [state] and federally approved alternative to free chlorine for water disinfection. Chloramines can reduce disinfection by-product formation and may help reduce concerns related to taste. Chloramines are also used by many American Water systems and many other water utilities nationally.

Chloramines have the same effect as chlorine for typical water uses with the exception that chloramines must be removed from water used in kidney dialysis and fish tanks or aquariums.

Treatments to remove chloramines are different than treatments for removing chlorine. Please contact your physician or dialysis specialist for questions pertaining to kidney dialysis water treatment. Contact your pet store or veterinarian for questions regarding water used for fish and other aquatic life.

FLUORIDE

Fluoride is a naturally occurring substance. It can be present in drinking water from two sources:

By nature, when groundwater comes into contact with fluoride-containing minerals naturally present in the earth; or

By a water purveyor through addition of fluoride to the water they are providing in the distribution system.

The Vandenberg SFB System and CCWA have small amounts of naturally-occurring fluoride in the groundwater. "Fluoridation" is the process of adjusting the amount of fluoride in drinking water to a level recommended by California's Standards. Beginning each year in January the fluoride levels at the treatment plant are adjusted to achieve an optimal fluoride level of 0.7 mg/L and a control range of 0.60 mg/L to 1.2 mg/L to comply with the state's Water Fluoridation Standards. These levels are monitored daily to ensure the optimal level is achieved.

If you have any additional questions regarding Chloramines or Fluoride, please contact the office at 805-734-0043





in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to

CRYPTOSPORIDIUM

organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Cryptosporidium is a microbial pathogen found

NITRATES

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Important Information About **Drinking Water**

UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

The EPA created the Unregulated Contaminants Monitoring Rule (UCMR) to assist them in determining the occurrence of unregulated contaminants in drinking water and whether new regulations are warranted. The first Unregulated Contaminants Monitoring Rule (UCMR1) testing was completed in 2003 for a list of contaminants specified by the EPA. Unregulated contaminants are those for which the EPA has not established drinking water standards. UCMR2 testing was conducted between November 2008 and August 2009, and UCMR3 assessment monitoring was conducted between January 2013 and December 2016. The fourth list of contaminants to monitor as part of the UCMR was published by the EPA in December 2016. UCMR4 testing began in 2018 and was completed in 2020. The results from the UCMR monitoring are reported directly to the EPA.

PFAS MONITORING

PFAS refers to per- and polyfluoroalkyl substances, a class of synthetic chemicals, manufactured for industrial applications and commercial household products such as: non-stick cookware; waterproof and stain resistant fabrics and carpets; firefighting foam and cleaning products. The properties that make these chemicals useful in so many of our every-day products also resist breaking down and therefore persist in the environment. Exposure may be from food, food packaging, consumer products, house dust, indoor and outdoor air, drinking water and at workplaces where PFAS are made or used.

American Water VSFB has recently performed voluntary sampling to better understand certain occurrence of PFAS levels in drinking water sources. This testing allowed us to understand how our water compares against the non-enforceable Health Advisory Level set by USEPA of 70 nanograms per liter or parts per trillion for a combination of two PFAS compounds, PFOA and PFOS. Testing also allowed American Water VSFB to be better prepared if the USEPA or state environmental regulator develop a drinking water standard for those PFAS for which we have USEPA approved testing methods.

The science and regulation of PFAS and other contaminants is always evolving, and American Water VSFB strives to be a leader in research and development. PFAS contamination is one of the most rapidly changing areas in the drinking water field. We have invested in our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critically important to addressing this issue.

This is one of the most rapidly changing landscapes in drinking water contamination. We have invested time and effort on our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence, fate and transport in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critical for addressing this issue.

Lauren Weinrich

Principal Scientist, Water Research and Development



Water Quality **Results**

WATER QUALITY STATEMENT

We are pleased to report that during calendar year 2021, the testing results of your drinking water complied with all state and federal drinking water requirements.

For your information, we have compiled a list in the table below showing the testing of your drinking water from January 1 to December 31, 2021, and may include earlier monitoring data. The California Water Boards, Department of Drinking Water (DDW) allows us to monitor for some contaminants less than once per year because the concentration of the contaminants does not change frequently. Some of our data, though representative, are more than one year old.

Definition of Terms

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

DDW: Division of Drinking Water

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.

LRAA: Locational Running Annual Average

Maximum Contaminant Level (MCL):

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. Secondary MCLs (SMCL) 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 allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is

These are terms that may appear in your report.

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

MFL: Million fibers per liter.

micromhos per centimeter (µmhos/cm):

A measure of electrical conductance.

NA: Not applicable

contaminants.

N/A: No data available

ND: Not detected

Nephelometric Turbidity Units (NTU):

Measurement of the clarity, or turbidity, of the water.

Notification Level (NL): The concentration of a contaminant, which, if exceeded, requires notification to DDW and the consumer. Not an enforceable standard.

pH: A measurement of acidity, 7.0 being neutral.

picocuries per liter (pCi/L):

Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

parts per billion (ppb): One part substance per billion parts water, or micrograms per liter.

parts per million (ppm): One part substance per million parts water, or milligrams per liter.

parts per trillion (ppt): One part substance per trillion parts water, or nanograms per liter.

Primary Drinking Water Standard

(PDWS): MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

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 EPA.

RAA: Running Annual Average

Secondary Maximum Contaminant Level (**SMCL**): Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

SWRCB: State Water Resources Control Board

TON: Threshold Odor Number

Total Dissolved Solids (TDS): An overall indicator of the amount of minerals in water.

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

Variances and Exemptions: State or EPA permission not to meet an MCL or utilize a treatment technique under certain conditions.

%: Percent



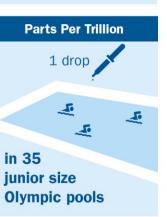
Parts Per Million



Parts Per Billion



in a 10,000 gallon swimming pool



Water Quality Results

Vandenberg Space Force Base (VSFB) purchases some of its drinking water from the Central Coast Water Authority (CCWA) in Buellton CA. American Water also utilizes active ground water wells and owns and operates the water distribution system. American Water is required to sample for many different contaminants in your drinking water to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2021, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting the tables below, see the "Definition of Terms Used in This Report" on the previous page.

HOW TO READ THIS TABLE (FROM LEFT TO RIGHT)

- Starting with **Substance (with units)**, read across.
- Year Sampled is usually in 2021 but may be a prior year.
- A Yes under Compliance Achieved means the amount of the substance met government requirements.
- PHG/ MCLG/ MRDLG is the goal level for that substance (this may be lower than what is allowed).
- MCL/MRDL/TT/Action Level shows the highest level of substance (contaminant) allowed.
- Highest, Lowest or Average Compliance Result represents the measured amount detected.
- Range tells the highest and lowest amounts measured.
- Typical Source tells where the substance usually originates.

Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information.

NOTE: Regulated contaminants not listed in this table were not found in the treated water supply.

| | REGULATED CONTAMINANTS FROM CCWA (Purchased Water) – all samples from CCWA collected in 2021 | | | | | | | | | | | |
|------------------------------------|--|-----------------|---------------|-----------|---------------|------------------------------|--|--|--|--|--|--|
| Substance (with units) | Units | State MCL | PHG (MCLG) | State DLR | Range Average | Treated CCWA Polonio Pass | Source State Water | Typical Source | | | | |
| CLARITY | CLARITY | | | | | | | | | | | |
| Combined | | TT=<1 NTU e | very 4 hours | 6 | Range | 0.04 - 0.14 | NI / A | Coll Duroff | | | | |
| Filter Effluent Turbidity (NTU) | NTU | TT=95% of sa | amples <0.3 | S NTU | % | 100% | N/A | Soil Runoff | | | | |
| INORGANIC CON | INORGANIC CONTAMINANTS | | | | | | | | | | | |
| Aluminum | no c (l | Secondary | 0.6 | 0.05 | Range | ND - 0.086 | ND - 0.055 | Erosion of natural deposits; residual from some | | | | |
| (mg/L) | mg/L | MCL of 0.2 ppm. | 0.6 | 0.05 | Average | 0.061 | 0.030 | surface water treatment process | | | | |
| Arsenic, Total | ug/l | 10 | 0.004 | 2 | Range | ND | 2.4 | Erosion of natural deposits; runoff from orchards; | | | | |
| (ug/L) | ug/L | 10 | 0.004 | 2 | Average | ND | 2.4 | glass and electronics production wastes | | | | |
| Fluoride, Total | Fluoride, Total | 4 | 0.4 | Range | ND | 0.1 | Erosion of natural deposits; water additive that | | | | | |
| (ug/L) | mg/L | 2 | 1 | 0.1 | Average | ND | 0.1 | promotes strong teeth; discharge from fertilizer and aluminum factories | | | | |

| | REGULATED CONTAMINANTS FROM CCWA (Purchased Water) | | | | | | | | | | | |
|---------------------------|--|-----------|------------|-----------|---------------|------------------------------|--------------------------|--|--|--|--|--|
| Substance (with units) | Units | State MCL | PHG (MCLG) | State DLR | Range Average | Treated CCWA Polonio Pass | Source State Water | Typical Source | | | | |
| RADIONUCLIDES | | | | | | | | | | | | |
| Gross Beta Particle | pCi/l | 50 | 0 | | Range | ND | 7.2 | | | | | |
| (pCl/L) | pCi/L | 50 | 0 | 4 | Average | ND | 7.2 | Decay of natural and man-made deposits | | | | |

| | | | REGULATE | | MINANTS FRO | M CCWA (Purcl | hased Wa | ter) | | | | |
|------------------------------|--------------------------------|-----------|------------|-----------|--------------------|------------------------------|--------------------------|---|----|--------------------------------------|--|--|
| Substance (with units) | Units | State MCL | PHG (MCLG) | State DLR | Range Average | Treated CCWA Polonio Pass | Source State Water | Typical Source | | | | |
| DISTRIBUTION SYSTE | DISTRIBUTION SYSTEM MONITORING | | | | | | | | | | | |
| Total Chlorine | mg/L | MRDL=4.0 | MRDLG=4.0 | NA | Range | 1.37 - 3.58 | NA | Drinking water disinfectant added for treatment | | | | |
| Residual (mg/L) | Residual (mg/L) | | | | Average | 2.79 | NA | | | | | |
| Total Coliform | | 5.0% of | (0) | | Range | 0 | NA | | | | | |
| Bacteria | | monthly | | (0) | (0) | NA | Average | 0 | NA | Naturally present in the environment | | |
| | | samples | | | Highest | 0% | NA | | | | | |
| | | | | | Range | 0 | NA | | | | | |
| Fecal Coliform and E.Coli | | 0 | (0) | NA | Average | 0 | NA | Human and animal fecal waste | | | | |
| | | | | | Highest | 0% | NA | | | | | |
| Total | | | | | Range | 43 - 58 | NA | | | | | |
| Trihalomethanes | ug/L | 80 | NA | (0.5) | Average | 51 | NA | By-product of drinking water chlorination | | | | |
| (ug/L) | | | | | Highest LRAA | 52.8 | NA | | | | | |
| Haloacetic Acids | | ug/L 60 | NA | (1) | Range | 6.3 - 11 | NA | | | | | |
| (ug/L) | ug/L | | | | Average | 9 | NA | By-product of drinking water chlorination | | | | |
| | | | | | Highest LRAA | 13.0 | NA | | | | | |

| | | R | EGULATE | ED CONTAR | MINANTS FRO | M CCWA (Pure | chased Wat | er) | | | |
|---------------------------|----------------|-----------------|---------------|-----------|---------------|------------------------------|-----------------------|--|----|-------|--|
| Substance (with units) | Units | State MCL | PHG (MCLG) | State DLR | Range Average | Treated CCWA Polonio Pass | Source State Water | Typical Source | | | |
| SECONDARY STA | NDARDS (Aesthe | etic Standards) | | | | | | | | | |
| Chloride (mg/L) | mg/L | Secondary MCL | NA | (1) | Range | 94 - 147 | 90 - 137 | Runoff/ leaching from natural deposits. Seawater | | | |
| | iiig/ L | of 500 | | (1) | Average | 116 | 112 | influence | | | |
| Color (ACU) | ACU | Secondary MCL | NA | (3) | Range | ND | 10 | Naturally occurring organic materials | | | |
| | 700 | of 15 | NA | (3) | Average | ND | 10 | | | | |
| Corrosivity (SU) | SU | Non-corrosive | NA | (0.1) | Range | 12 | 12.6 | | | | |
| | 50 | Non-contosive | | (0.1) | Average | 12 | 12.6 | | | | |
| Odor Threshold | TON | Secondary MCL | NA | (1) | Range | ND - 2 | 1 - 4 | Naturally occurring organic material | | | |
| (TON) | TON | of 3 | NA | (1) | Average | 1 | 2 | Naturally occurring organic material | | | |
| iron, Total | mg/L | Secondary MCL | NA | NA | NΙΔ | ΝΔ | (0.01) | Range | ND | 0.010 | Leaching from natural deposits; industrial waste |
| | ilig/ L | of 0.3 | NA | (0.01) | Average | ND | 0.010 | Leaching non natural deposits, industrial waste | | | |
| Magnesium, | mg/L | NA | NIA | NA | NΔ | NA | (0.1) | Range | 16 | 16 | Runoff/ leaching from natural deposits; seawater |
| Total (mg/L) | ilig/ L | NA INA | NA | (0.1) | Average | 16 | 16 | influence | | | |
| Manganese, | ug/L | Secondary MCL | NA | (2) | Range | ND | 8.3 | | | | |
| Total (ug/L) | ug/ L | of 50 | NA | (2) | Average | ND | 8.3 | | | | |
| Specific | | Secondary | NIA | NIA | Range | 580 - 802 | 538 - 741 | Substances that form ions when in water; seawate | | | |
| Conductance (uS/cm) | uS/cm | MCL of 1600 | NA | NA | Average | 644 | 591 | influence | | | |
| | | Secondary MCL | | | Range | 84 | 45 | Runoff/ leaching from natural deposits; industrial | | | |
| Sulfate (mg/L) | mg/L | of 500 | NA | (0.5) | Average | 84 | 45 | wastes | | | |
| Total Dissolved | | Secondary MCL | | | Range | 360 | 310 | | | | |
| Solids (TDS) (mg/L) | mg/L | of 1000 | NA | (10) | Average | 360 | 310 | Runoff/ leaching from natural deposits | | | |
| Turbidity (NTU) | NTU | Secondary MCL | NA | (0.4) | Range | ND - 0.25 | ND - 4.8 | Soil runoff | | | |
| | NIU | of 5 | NA | (0.1) | Average | 0.06 | 1.24 | Son funon | | | |

* Turbidity (NTU) is a measure of cloudiness of the water, and it is a good indicator of the effectiveness of CCWA's filtration system. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

| | | F | REGULAT | ED CONTAI | MINANTS FRO | M CCWA (Pure | chased Wat | er) |
|--|--------------|-----------|---------------|-----------|---------------|------------------------------|-----------------------|--|
| Substance (with units) | Units | State MCL | PHG (MCLG) | State DLR | Range Average | Treated CCWA Polonio Pass | Source State Water | Typical Source |
| ADDITIONAL PARAM | ETERS (Unreg | (ulated) | | | | | | |
| 2-Methylisoborneol | ng/L | NA | NA | (1) | Range | ND - 18 | ND - 48 | An organic compound mainly produced by blue-green |
| (ng/L) | 116/ - | | 107 | (-) | Average | 5.9 | 12.2 | algae |
| Alkalinity (Total) as CaCO3 equivalents | mg/l | NA | NA | (2) | Range | 62 - 92 | 70 - 104 | Runoff/ leaching from natural deposits, seawater |
| (mg/L) | mg/L | NA | NA | (2) | Average | 78 | 90 | influence |
| Anion Sum – | mog/l | NA | NA | (0.001) | Range | 6.1 | 5.4 | |
| Calculated | meq/L | NA | NA | (0.001) | Average | 6.1 | 5.4 | |
| Bicarbonate | mg/L | NA | NA | (2) | Range | 96 | 110 | |
| Alkalinity as HCO3 | iiig/ L | NA . | INA | (2) | Average | 96 | 110 | |
| Calcium (mg/L) | mg/L | NA | NA | (1) | Range | 24 | 24 | Runoff/ leaching from natural deposits, seawater |
| | iiig/ L | nA. | | (1) | Average | 24 | 24 | influence |
| Carbonate as CO3 | mg/L | NA | NA | (2) | Range | ND | 3.6 | |
| | | | | | Average | ND | 3.6 | |
| Cation Sum – | meq/L | NA | NA | (0.001) | Range | 6.2 | 5.6 | |
| Calculated | | | | (0.002) | Average | 6.2 | 5.6 | |
| Chromium, | | | | | Range | 0.13 | 0.062 | Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, |
| Hexavalent (ug/L) | ug/L | NA | 0.02 | NA | Average | 0.13 | 0.062 | refractory production, and textile manufacturing facilities; erosion of natural deposits |
| Geosmin (ng/L) | ng/l | NA | NA | (1) | Range | ND - 17 | ND - 51 | An organic compound mainly produced by bacterial |
| | ng/L | NA. | INA | (1) | Average | 3.8 | 19.0 | growth in surface water |
| Hardness (Total) as | mg/L | NA | NA | (3) | Range | 98 - 162 | 100 - 166 | Leaching from natural deposits |
| CaCO3 (mg/L) | 111g/ L | | | (3) | Average | 123 | 124 | |
| Heterotrophic Plate Count (CFU/ml) | CFU/mI | Treatment | NA | NA | Range | 0 - 221 | NA | Naturally present in the environment |
| | | Technique | INA | NA | Average | 3 | NA | Naturally present in the environment |
| Langlier Index | None | NIA | NIA | (1 1) | Range | 0.075 | 0.69 | |
| @25c | None | NA | NA | (-14) | Average | 0.075 | 0.69 | |

| | | F | REGULATI | ED CONTAI | MINANTS FRO | M CCWA (Pure | chased Wat | er) | | | | |
|---------------------------|------------------------------------|-----------|---------------|-----------|---------------|------------------------------|-----------------------|--|--|--|--|--|
| Substance (with units) | Units | State MCL | PHG (MCLG) | State DLR | Range Average | Treated CCWA Polonio Pass | Source State Water | Typical Source | | | | |
| ADDITIONAL PARAM | DDITIONAL PARAMETERS (Unregulated) | | | | | | | | | | | |
| Langlier Index | None | NA | NA | (11) | Range | 0.51 | 1.1 | | | | | |
| @60c | None | ne na | NA | (-14) | Average | 0.51 | 1.1 | | | | | |
| Magnesium, Total | mg/L | NA | NA | (0.1) | Range | 16 | 16 | Runoff/ leaching from natural deposits, seawater | | | | |
| (mg/L) | iiig/ L | NA | NA. | (0.1) | Average | 16 | 16 | influence. | | | | |
| pH (SU) | SU | NA | NΔ | NA | (0.1) | Range | 7.4 - 8.8 | 7.7 - 9.5 | Runoff/ leaching from natural deposits, seawater | | | |
| pin (00) | 00 | | | (0.1) | Average | 8.3 | 8.7 | influence. | | | | |
| Potassium (mg/L) | mg/L | NA | NA | (1) | Range | 3.6 | 3.6 | Runoff/ leaching from natural deposits, seawater | | | | |
| | ing/ L | IN/A | N/X | (1) | Average | 3.6 | 3.6 | influence. | | | | |
| Sodium (mg/L) | mg/L | NA | NA | (1) | Range | 83 | 68 | Runoff/ leaching from natural deposits, seawater | | | | |
| Soutum (mg/ L) | iiig/ L | NА | INA | (1) | Average | 83 | 68 | influence. | | | | |
| Total Organic | | Treatment | NIA | (0.2) | Range | 1.1 - 4.1 | 1.9 - 5.6 | | | | | |
| Carbon – TOC (mg/L) | mg/L | Technique | NA | (0.3) | Average | 2.2 | 3.7 | Various natural and man-made sources | | | | |

| | | | REG | ULATED | CONTAMIN | ANTS FROM VAFB WELL #4 |
|---------------------------------|-----------------|------------------------|---------------|--------|---------------------------------|---|
| Substance (with units) | Year Sampled | Compliance Achieved | PHG (MCLG) | MCL | Highest Compliance Result | Typical Source |
| SECONDARY STANDARDS | (Aesthetic St | andards) | | | | |
| Chloride (mg/L) | 2020 | Yes | N/A | 500 | 84 | Runoff/leaching from natural deposits, seawater influence |
| Color | 2020 | Yes | N/A | 15 | 3 | Naturally occurring organic materials |
| Specific Conductance (uS/cm) | 2020 | Yes | N/A | 1600 | 710 | Substances that form ions when in water |
| Sulfate (ppm) | 2020 | Yes | N/A | 500 | 75 | Runoff/leaching from natural deposits, industrial wastes |
| Total Dissolved Solids (TDS) | 2020 | Yes | N/A | 1000 | 440 | Runoff/Leaching from natural deposits |
| PRIMARY DRINKING WATE | R STANDAR | DS | | | | |
| Arsenic (ug/L) | 2020 | Yes | 0.004 | 10 | 6.3 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| Fluoride (mg/L) | 2021 | Yes | | 2 | 0.19 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nickel (ug/L) | 2020 | Yes | 12 | 100 | ND | Leaching from metals in contact with water source. Can also occur from dissolution from nickel ore-bearing rocks |
| Selenium (ug/L) | 2020 | Yes | 30 | 50 | 9.8 | Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive) |
| RADIOLOGICAL STANDARD | S | | | | | |
| Gross Alpha (PCI/L) | 2018 | Yes | | 15 | 7 | Erosion of natural deposits |

| Substance (with units) | | Compliance Achieved | PHG (MCLG) | MCL | Compliance Result | Typical Source |
|---------------------------|------------|------------------------|---------------|------|----------------------|--|
| SAMPLING RESULTS FO | R SODIUM A | ND HARDNESS | | | | |
| Sodium (mg/L) | 2020 | Yes | None | None | 66 | Salt present in groundwater, generally naturally occurring |
| Hardness (mg/L) | 2020 | Yes | None | None | 230 | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |

| | | | REG | ULATED | CONTAMIN | ANTS FROM VAFB WELL #5 |
|---------------------------------|-----------------|------------------------|---------------|--------|---------------------------------|---|
| Substance (with units) | Year Sampled | Compliance Achieved | PHG (MCLG) | MCL | Highest Compliance Result | Typical Source |
| SECONDARY STANDARDS | Aesthetic St | andards) | | | | |
| Chloride (mg/L) | 2020 | Yes | N/A | 500 | 110 | Runoff/leaching from natural deposits, seawater influence |
| Color | 2020 | Yes | N/A | 15 | 5 | Naturally occurring organic materials |
| Specific Conductance (uS/cm) | 2020 | Yes | N/A | 1600 | 790 | Substances that form ions when in water |
| Sulfate (ppm) | 2020 | Yes | N/A | 500 | 84 | Runoff/leaching from natural deposits, industrial wastes |
| Total Dissolved Solids (TDS) | 2020 | Yes | N/A | 1000 | 500 | Runoff/Leaching from natural deposits |
| INORGANIC WATER STAND | ARDS | | | | | |
| Arsenic (ug/L) | 2020 | Yes | 0.004 | 10 | 5 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| Fluoride (mg/L) | 2021 | Yes | | 2 | 0.34 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nickel (ug/L) | 2020 | Yes | 12 | 100 | 11 | Leaching from metals in contact with water source. Can also occur from dissolution from nickel ore-bearing rocks |
| Selenium (ug/L) | 2020 | Yes | 30 | 50 | ND | Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive) |
| RADIOLOGICAL STANDARD | S | | | | | |
| Gross Alpha (PCI/L) | 2018 | Yes | | 15 | 5.9 | Erosion of natural deposits |

| Substance (with units) | | Compliance Achieved | PHG (MCLG) | MCL | Compliance Result | Typical Source |
|---------------------------|------------|------------------------|---------------|------|----------------------|--|
| SAMPLING RESULTS FO | R SODIUM A | ND HARDNESS | | | | |
| Sodium (mg/L) | 2020 | Yes | None | None | 79 | Salt present in groundwater, generally naturally occurring |
| Hardness (mg/L) | 2020 | Yes | None | None | 240 | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |

| | REGULATED CONTAMINANTS FROM VAFB WELL #6 | | | | | | | | | | | |
|---|--|------------------------|---------------|------|---------------------------------|---|--|--|--|--|--|--|
| Substance (with units) | Year Sampled | Compliance Achieved | PHG (MCLG) | MCL | Highest Compliance Result | Typical Source | | | | | | |
| SECONDARY DRINKING WATRER STANDARDS (Aesthetic) | | | | | | | | | | | | |
| Chloride (mg/L) | 2020 | Yes | N/A | 500 | 95 | Runoff/leaching from natural deposits, seawater influence | | | | | | |
| Color | 2020 | Yes | N/A | 15 | 5 | Naturally occurring organic materials | | | | | | |
| Specific Conductance (uS/cm) | 2020 | Yes | N/A | 1600 | 840 | Substances that form ions when in water | | | | | | |
| Sulfate (ppm) | 2020 | Yes | N/A | 500 | 110 | Runoff/leaching from natural deposits, industrial wastes | | | | | | |
| Total Dissolved Solids (TDS) | 2020 | Yes | N/A | 1000 | 540 | Runoff/Leaching from natural deposits | | | | | | |
| PRIMARY DRINKING WATE | R STANDAR | DS | | | | | | | | | | |
| Arsenic (ug/L) | 2020 | Yes | 0.004 | 10 | ND | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes | | | | | | |
| Fluoride (mg/L) | 2021 | Yes | | 2 | 0.26 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories | | | | | | |
| Nickel (ug/L) | 2020 | Yes | 12 | 100 | ND | Leaching from metals in contact with water source. Can also occur from dissolution from nickel ore-bearing rocks | | | | | | |
| Selenium (ug/L) | 2020 | Yes | 30 | 50 | ND | Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive) | | | | | | |
| RADIOLOGICAL STANDARD | S | | | | | | | | | | | |
| Gross Alpha (PCI/L) | 2018 | Yes | | 15 | ND | Erosion of natural deposits | | | | | | |

| | Substance (with units) | | Compliance Achieved | PHG (MCLG) | MCL | Compliance Result | Typical Source | |
|----|---------------------------|----------|------------------------|---------------|------|----------------------|--|--|
| SA | MPLING RESULTS FOR | SODIUM A | ND HARDNESS | | | | | |
| | Sodium (mg/L) | 2020 | Yes | None | None | 72 | Salt present in groundwater, generally naturally occurring | |
| | Hardness (mg/L) | 2020 | Yes | None | None | 270 | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring | |

| | | | REGI | JLATED | CONTAMINA | ANTS FROM VAFB WELL #7a | | | |
|---|-----------------|------------------------|---------------|--------|---------------------------------|---|--|--|--|
| Substance (with units) | Year Sampled | Compliance Achieved | PHG (MCLG) | MCL | Highest Compliance Result | Typical Source | | | |
| SECONDARY STANDARDS (Aesthetic Standards) | | | | | | | | | |
| Chloride (mg/L) | 2020 | Yes | N/A | 500 | 130 | Runoff/leaching from natural deposits, seawater influence | | | |
| Color | 2020 | Yes | N/A | 15 | 5 | Naturally occurring organic materials | | | |
| Specific Conductance (uS/cm) | 2020 | Yes | N/A | 1600 | 840 | Substances that form ions when in water | | | |
| Sulfate (ppm) | 2020 | Yes | N/A | 500 | 72 | Runoff/leaching from natural deposits, industrial wastes | | | |
| Total Dissolved Solids (TDS) | 2020 | Yes | N/A | 1000 | 510 | Runoff/Leaching from natural deposits | | | |
| INORGANIC WATER STAND | ARDS | | | | | | | | |
| Arsenic (ug/L) | 2020 | Yes | 0.004 | 10 | 4.2 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes | | | |
| Fluoride (mg/L) | 2021 | Yes | | 2 | 0.20 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories | | | |
| Nickel (ug/L) | 2020 | Yes | 12 | 100 | ND | Leaching from metals in contact with water source. Can also occur from dissolution from nickel ore-bearing rocks | | | |
| Selenium (ug/L) | 2020 | Yes | 30 | 50 | ND | Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive) | | | |
| RADIOLOGICAL STANDARD | S | | | | | | | | |
| Gross Alpha (PCI/L) | 2021 | Yes | | 15 | 4.4 | Erosion of natural deposits | | | |

| Substance (with units) | | Compliance Achieved | PHG (MCLG) | MCL | Compliance Result | Typical Source | |
|---------------------------|----------|------------------------|---------------|------|----------------------|---|--|
| SAMPLING RESULTS FOR | SODIUM A | ND HARDNESS | | | | | |
| Sodium (mg/L) | 2020 | Yes | None | None | 79 | Salt present in groundwater, generally naturally occurring | |
| Hardness (mg/L) | 2020 | Yes | None | None | 260 | Sum of polyvalent cations present in the water, generally magnesium and calcium, an usually naturally occurring | |

| SECONDARY CONTAMINANTS FROM MAIN RESERVIOR EFFLUENT* | | | | | | | | | | | | | |
|--|-----------------|------------------------|---------------|-----|---------------------------------|-------------|---|--|--|--|--|--|--|
| Substance (with units) | Year Sampled | Compliance Achieved | PHG (MCLG) | MCL | Highest Compliance Result | Range | Typical Source | | | | | | |
| \$ SECONDARY STANDARDS (Aesthetic Standards) | | | | | | | | | | | | | |
| Iron (ug/L) | 2021 | Yes | N/A | 300 | 130 | 120 - 130 | Leaching from natural deposits; industrial wastes | | | | | | |
| Manganese (ug/L) | 2021 | Yes | N/A | 50 | ND | ND | Leaching from natural deposits | | | | | | |
| Odor Threshold (TON) | 2021 | Yes | N/A | 3 | 4* | 3-4 | Naturally occurring organic material | | | | | | |
| Turbidity (NTU) | 2021 | Yes | N/A | 5 | 2.78 | 0.00 - 2.78 | Valve manipulation and pumping activity | | | | | | |

* Reported numbers are an average of the month. This number reported was the highest single sample

PFAS MONITORING

PFAS refers to per- and polyfluoroalkyl substances, a class of synthetic chemicals, manufactured for industrial applications and commercial household products such as: non-stick cookware; waterproof and stain resistant fabrics and carpets; firefighting foam and cleaning products. The properties that make these chemicals useful in so many of our every-day products also resist breaking down and therefore persist in the environment. Exposure may be from food, food packaging, consumer products, house dust, indoor and outdoor air, drinking water and at workplaces where PFAS are made or used.

American Water Vandenberg Space Force Base is currently performing voluntary sampling to better understand certain occurrence of PFAS levels in drinking water sources. This testing allows us to understand how our water compares against the non-enforceable Health Advisory Level set by USEPA of 70 nanograms per liter or parts per trillion for a combination of two PFAS compounds, PFOA and PFOS. Us to be better prepared if the USEPA or state environmental regulator develop a drinking water standard for those PFAS for which we have USEPA approved testing methods.

The science and regulation of PFAS and other contaminants is always evolving, and American Water strives to be a leader in research and development. PFAS contamination is one of the most rapidly changing areas in the drinking water field. We have invested in our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critically important to addressing this issue.

This is one of the most rapidly changing landscapes in drinking water contamination. We have invested time and effort on our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence, fate and transport in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critical for addressing this issue.

> Lauren Weinrich Principal Scientist, Water Research and Development

| | UNREGULATED PERFLUORINATED COMPOUNDS – wells 4, 5, 6 and 7a | | | | | | | | | | | | |
|--|---|----------------|----|----|--|--|--|--|--|--|--|--|--|
| Parameter | Year Sampled | Typical Source | | | | | | | | | | | |
| Perfluorooctanoic Acid (PFOA) | 2021 | ppt | ND | ND | Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance | | | | | | | | |
| Perfluorooctanesulfonic Acid (PFOS) | 2021 | ppt | ND | ND | | | | | | | | | |

| | REGULATED CONTAMINANTS FROM THE VANDENBERG AFB DISTRIBUTION SYSTEM | | | | | | | | | | | | | |
|---------------------------|--|---|----|-------------------------------|----------------|---------------------------------------|--|--|--|--|--|--|--|--|
| Substance (with units) | Year Sampled | Sampled Compliance MCLG MCL Number of Months in | | Number of Months in Violation | Typical Source | | | | | | | | | |
| MICROBIOLOGICAL CON | MICROBIOLOGICAL CONTAMINANTA - TOTAL COLIFORM RULE – at least 16 samples collected each month in the distribution system | | | | | | | | | | | | | |
| Total Coliform | Total Coliform 2021 Yes NA MCL = Less OR 1 positive samp | | | | 0 | Naturally present in the environment. | | | | | | | | |
| E. Coli | 2021 | Yes | NA | TT = No confirmed samples | 0 | Human and animal fecal waste. | | | | | | | | |

NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator of the general bacteriological quality of the water. We are reporting the highest percentage of positive samples / highest number of positive samples in any month.

| | LEAD AND COPPER MONITORING PROGRAM - At least 30 tap water samples collected at customers' taps every 3 years | | | | | | | | | | | |
|--|---|-----|----|-----|-----|----|---|--|--|--|--|--|
| Substance (with units)Year SampledCompliance AchievedMCLGAction Level (AL)90th PercentileNo. of Homes SampledHomes Above Action LevelTypical Source | | | | | | | | Typical Source | | | | |
| Lead (ppb) | 2020 | Yes | NA | 15 | ND | 30 | 0 | Corrosion of household plumbing systems. | | | | |
| Copper (ppm) | 2020 | Yes | NA | 1.3 | .10 | 30 | 0 | Corrosion of household plumbing systems. | | | | |

| | DISINFECTANT- Collected in the Distribution System | | | | | | | | | | | | |
|---------------------------|--|------------------------|-----------|-----|------------------------------|-------------------|--|--|--|--|--|--|--|
| Substance (with units) | Year Sampled | Compliance Achieved | MCLG | MCL | Highest Compliance Result | Range Detected | Typical Source | | | | | | |
| Total Chlorine (ppm) | 2021 | Yes | MRDLG = 4 | 4 | 2.85 ¹ | 1.01 to 2.85 | Water additive used to control microbes. | | | | | | |

1 - Data represents the highest monthly average of chlorine residuals measured throughout our distribution system.

| | DISINFECTION BYPRODUCTS - Collected in the Distribution System | | | | | | | | | | | | |
|---|--|------------------------|------|-----|--------------|----------------|--|--|--|--|--|--|--|
| Substance (with units) | Year Sampled | Compliance Achieved | MCLG | MCL | Highest LRAA | Range Detected | Typical Source | | | | | | |
| Total Trihalomethanes (TTHMs) (ppb) | 2021 | Yes | NA | 80 | 55.45 | 36.70 to 92.10 | By-product of drinking water disinfection. | | | | | | |
| Haloacetic Acids (HAAs) (ppb) | 2021 | Yes | NA | 60 | 14.10 | 5.10 to 18.70 | By-product of drinking water disinfection. | | | | | | |

NOTE: Compliance is based on the running annual average at each location (LRAA). The Highest LRAA reflects the highest average at any location and the Range Detected reflects all samples used to calculate the running annual averages.



Regulated VOC

1.1.1-TRICHLOROETHANE 1.1.2.2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROPROPENE 1,1-DICHLOROETHYLENE 1.2.4-TRICHLOROBENZENE 1,2,4 - TRIMETHYLBENZENE **O-DICHLOROBENZENE** 1.2-DICHLOROETHANE 1.2-DICHLOROPROPANE 1.2-DICHLOROBENZENE 1,2,3-TRICHLOROBENZENE 1,2,3 -TRICHLOROPROPANE 1.3-DICHLOROPROPENE 1.3-DICHLOROBENZENE 1,3,5-TRIMETHYLBENZENE 1,4-DICHLOROBENZENE 2,2-DICHLOROPROPANE 2-BUTANONE 2-CHLOROTOLUENE 4-METHYL-2-PENTANONE P-DICHLOROBENZENE BENZENE BROMOBENZENE BROMOCHLOROMETHANE BROMOMRTHANE CARBON DISULFIDE CARBON TETRACHLORIDE **CHLOROBENZENE**

Regulated VOC - (cont.)

CHLOROETHANE CHLOROMETHANE CIS-1.2-DICHLOROETHYLENE CIS-1.3-DICHLOROPROPENE DIBROMOMETHANE DIISOPROPYL ETHER TERT-Butyl ethyl ether DICHLOROMETHANE ETHYLBENZENE HEXACHLOROBUTADIENE **ISOPROPYLBENZENE** METHYL TERT-BUTYL ETHER M,P-XYLENES NAPHTHALENE N-BUTYLBENZENE N-PROPYLBENZENE **O-XYLENE** P-CHLOROTOLUENE P-ISOPROPYLTOLUENE SEC-BUTYLBENZENE STYRENE TERT-AMYL METHYL ETHER TERT-BUTYLBENZENE TETRACHLOROETHYLENE TOLUENE TRANS-1,2-DICHLOROETHYLENE TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE TRICHLOROTRIFLUOROETHANE VINYL CHLORIDE XYLENES, TOTAL

<u>Organochlorine</u>

ALACHLOR ALDRIN CHLORDANE DIELDRIN ENDRIN HEPTACHLOR HEPTACHLOR EPOXIDE LINDANE METHOXYCHLOR PCB 1016 AROCLOR PCB1221 AROCLOR PCB1232 AROCLOR PCB 1242 AROCLOR PCB 1248 AROCLOR PCB 1254 AROCLOR PCB 1260 AROCLOR PCB'S TOTAL TOXAPHENE

Aldicarbs 3-hydroxycarbofuran aldicarb

ALDICARB ALDICARB SULFONE ALDICARB SULFOXIDE BAYGON CARBARYL CARBOFURAN METHIOCARB METHOMYL OXAMYL

<u>Chlorophenoxy</u>

Herbicides 2.4.5 -T 2.4.5 - TP 2,4 - DICHLOROPHENOX-YACETIC ACID 2,4 - DB 3. 5 DICHLOROBENZOIC ACID ACIFLUORFEN BENZATON DALAPON DICAMBA DICHLORPROP DINOSEB PENTACHLOROPHENOL PICLORAM DCPA

Other Synthetic

Organics DIOXIN ENDOTHALL GLYPHOSATE

Diquat and Paraquat

Dibromochloropropane Ethylene Dibromide

Nitrate/ Nitrite

Regulated SOC

1,2,3-TRICHLOROPROPANE 2.4 - DINITROTOLUENE ACENAPHTHYLENE ALPA-CHLODANE ANTHRACENE ATRAZINE BENZO ANTHRACENE BENZOPYRENE BENZO FLUORANTHENE BENZO PERYLENE BROMACIL BUTACHLOR BUTYLBENZYLPTHALATE CAFFEINE CHRYSENE **DI-PHTHALATE** DI-ADIPATE DI-N-BUTYLPHTHALATE DIAZINON DIBENZ ANTHRACENE DIETHYLPHTHALATE DIMETHOATE DIMETHYLPHTHALATE FLUORANTHENE FLUORENE GAMMA-CHLORDANE HEXACHLOROBENZENE HEXACHLOROCYCLOPENTADIENE INDENO PYRENE ISOPHORONE METOLACHLOR

Regulated SOC - (cont.)

METRIBUZIN MOLINATE PHENANTHRENE PROPACHLOR PYRENE SIMAZINE THIOBENCARB TRANS-NONACHLOR TRIFLURALIN

Secondary/ GP

ALKALINITY, CARBONATE COPPER, FREE FOAMING AGENTS (SURFACTANTS) HYDROXIDE AS CALCIUM CARBONATE SILVER ZINC

Disinfection Byproducts

DICHLOROACETIC ACID MONOBROMOACETIC ACID MONOCHLOROACETIC ACID TRICHLOROACETIC ACID

Inorganic ALUMINUM ANTIMONY, TOTAL ASBESTOS BARIUM BERYLLIUM, TOTAL CADMIUM CHROMIUM COPPER CYANIDE HYDROXIDE AS OH LEAD MERCURY NICKEL NITRATE AS NO3 NITRITE NITROGEN PERCHLORATE SELENIUM SILVER THALLIUM ZINC

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How to Contact Us

If you have any questions about this report, your drinking water, or service, please contact American Water Vandenberg Space Force Base Monday to Friday, 7:30 a.m. to 4:00 p.m. at 805-734-0043



WATER INFORMATION SOURCES

United States Environmental Protection Agency (USEPA): www.epa.gov/safewater

Safe Drinking Water Hotline: (800) 426-4791

Centers for Disease Control and Prevention: <u>www.cdc.gov</u>

American Water Works Association: www.awwa.org

Water Quality Association: www.wqa.org

National Library of Medicine/National Institute of Health: www.nlm.nih.gov/medlineplus/drinkingwater.html This report contains important information about your drinking water. Translate it, or speak with someone who understands it at 805-734-0043.