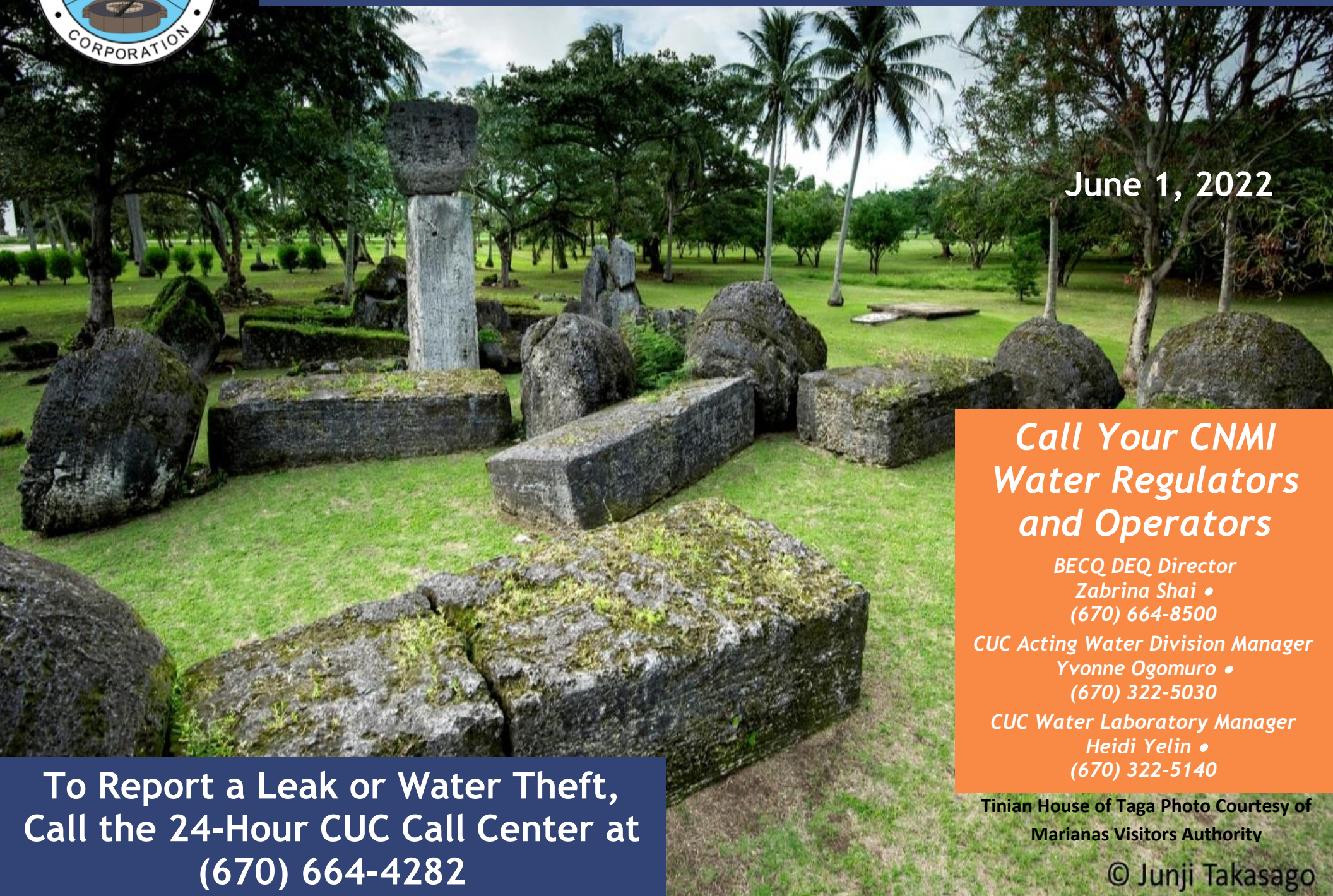
COMMONWEALTH UTILITIES CORPORATION
2021 TINIAN WATER QUALITY REPORT



June 1, 2022

To Report a Leak or Water Theft, Call the 24-Hour CUC Call Center at (670) 664-4282

Call Your CNMI Water Regulators and Operators

BECQ DEQ Director
Zabrina Shai •
(670) 664-8500

CUC Acting Water Division Manager
Yvonne Ogomuro •
(670) 322-5030

CUC Water Laboratory Manager
Heidi Yelin •
(670) 322-5140

Tinian House of Taga Photo Courtesy of Marianas Visitors Authority

2021 CUC TINIAN WATER QUALITY REPORT

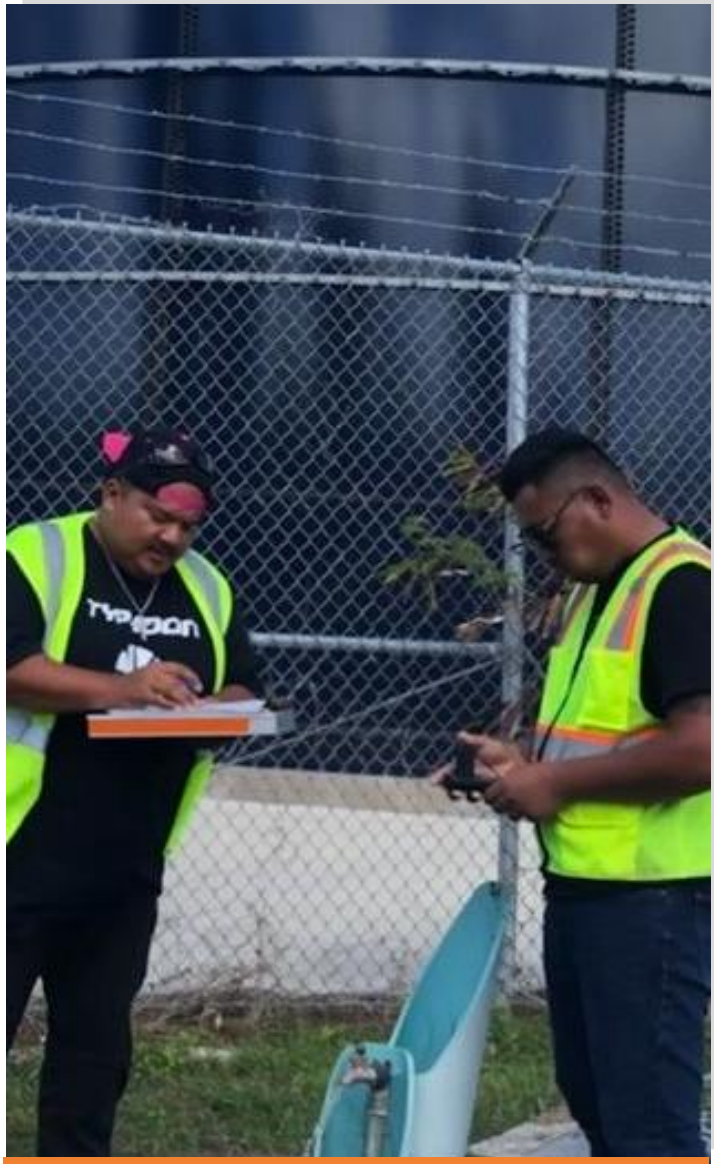
This report is designed to inform you about the water CUC delivers to you, our customer. Our goal is to provide you and your family a safe and dependable supply of drinking water.

Today, 100% of Tinian water customers enjoy 24-hour water service. Our CUC water employees continue to strive to deliver a quality product to all of our customers and to protect the CNMI's water resources.

To ensure the safety of your water, CUC routinely monitors for contaminants in your drinking water according to CNMI Bureau of Environmental and Coastal Quality (BECQ) and the United States Environmental Protection Agency (EPA) laws, rules, and regulations.

Each year, trained laboratory and water treatment specialists conduct or supervise more than 1,000 tests on Tinian water samples. Water quality samples are collected throughout the CUC Tinian water systems and tested regularly. Samples include untreated and treated water taken from our facilities, sample sites throughout the service areas, and at customers' homes.

Except where indicated otherwise, this water quality report is based on the results of CUC's monitoring for the period of January 1, 2021 to December 31, 2021. Any results reported before January 1, 2021, and presented here, are from the most recent monitoring period.



Every day, water operators such as John Sablan and Estevan Borja III seen above, measure the amount of chlorine in the CUC Tinian water. At least once each month, CUC Tinian water operators also collect samples that are tested for the bacterial contaminants, total coliforms and *E.coli*. These daily and monthly tests help ensure that the water contains the right amount of disinfectant and that the CUC Tinian water is free of bacteria and safe to drink.

A Message from the CUC Executive Director

Welcome to the Commonwealth Utilities Corporation's (CUC's) Annual Water Quality Report. Each year, we produce this report to update our customers and the community on the quality of the drinking water we supply throughout our service areas.

CUC is proud to announce the completion of several important capital improvement projects for our customers. Watermain replacements were recently completed in the China Town area and the Fina Sisu neighborhood replacement is almost complete, a new water storage tank was installed for the San Vicente and Dandan villages, sanitary sewer improvements are nearing completion on Beach Road and at both wastewater treatment plants, and the Maui II well on Tinian was rehabilitated.

The recently approved Bipartisan Infrastructure Bill will result in an unprecedented level of investment in the public water systems on Saipan, Tinian, and Rota. Our Operations and Engineering sections have worked hard to assemble a project priority list ranking our investment needs to ensure the most effective use of capital funds.

Provided sufficient resources are available, projects will include watermain replacements on all three islands, replacement water storage tanks on Saipan and Tinian, wastewater collection and treatment system improvements on Saipan, and studies to evaluate options for wastewater collection and treatment systems on Tinian and Rota.

CUC continues to make progress on maintenance of our existing infrastructure as well. We recently submitted to the US Environmental Protection Agency for approval our Sustainable Water Improvement Management Strategic (SWIMS) program which is a roadmap for reducing unaccounted for water in our system. The program includes utilizing groundbreaking satellite technology to identify and pinpoint watermain leaks. CUC has also partnered with federal agencies to develop a system-wide water model and a computerized maintenance management system that will assist us with maximizing the effectiveness, efficiency, and lifespan of our critical water infrastructure on all three islands.

In addition, I have launched internal initiatives to reduce customer backlog for water service installations and increase communications to improve the customer experience. These initiatives will take time, but our customers should expect to see gradual improvements in the near future.

It is an exciting time at CUC for us and for our customers! We have completed many projects recently and, with your support, expect the upcoming significant investment in infrastructure to further our progress towards providing reliable, palatable water for all CUC customers.

Gary P. Camacho, Executive Director

The Sources of CUC Tinian Water

The primary source of water for the island of Tinian is one Maui-type well. To control bacterial contamination in our water, the CUC operates one chlorine treatment station.

Every day, CUC water operators measure and adjust the trace amounts of chlorine added to the water before it goes into the water lines to you, our customer.

Photo Courtesy of MVA

How Drinking Water Becomes Contaminated

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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban 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 volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm-water runoff, 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 your tap water is safe to drink, the US EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which 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 **EPA's Safe Drinking Water Hotline** at (**800) 426-4791** or on the internet at **www.epa.gov/safewater/**.

For People with Sensitive Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-comprised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplant, 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 health care providers. The US EPA and the Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available at the **EPA's Safe Drinking Water Hotline** at **(800) 426-4791** or via the internet at **www.epa.gov/safewater/**.

Information About 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 for advice from your health care provider. CUC tests the water in Tinian at least once per year. The amount of nitrates in all CUC water is below the health effect level.

For more information about your water quality, please call our Water Laboratory at (670) 322-5140.

Bacterial Contaminants

Total coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments.

During the past year, we were required to conduct a Level 1 assessment. We conducted and completed the Level 1 assessment on July 9, 2021 and were required to take one correction action and we completed that action.

Significant Deficiencies

Sanitary deficiencies are defects in a water system's infrastructure, design, operation, maintenance, or management that cause, or may cause interruptions to the "multiple barrier" protection system and adversely affect the system's ability to produce safe and reliable drinking water in adequate quantities.

The following is a listing of significant deficiencies that have yet to be corrected. The CUC Tinian water system is still working to correct these deficiencies and interim milestones are shown, as applicable. BECQ identified all deficiencies on June 6, 2019.

DEFICIENCY	CORRECTIVE ACTION PLAN
Well not in use has not been destroyed	Provide BECQ a schedule when the unused well will be destroyed
Well Operation Permit not met	Submit a Well Operating Permit application for the Maui Shaft 2 to BECQ

Information 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. The Commonwealth Utilities Corporation 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 two minutes before using the 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** at **(800) 426-4791** or at **www.epa.gov/safewater/lead**.

EPA requires testing for lead and copper at customers' taps that are most likely to contain lead and copper.

None of the sites tested exceeded the action level for lead or copper.

We thank our customers for their help in collecting these samples!

Secondary Water Constituents

NOT ASSOCIATED WITH ADVERSE HEALTH EFFECTS

Many constituents, such as calcium or chlorides, which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are not regulated by the US EPA or the CNMI Bureau of Environmental and Coastal Quality (BECQ). **These constituents are not causes for health concern.** While secondary constituents are not required to be reported in this document, they may greatly affect the appearance and taste of your water.

Hardness is a measure of the amount of calcium and magnesium compounds in the water. Chlorides measure the amount of salts in the water. The amount of chlorides in the CUC Tinian water is within the EPA recommended level.

Commonwealth Utilities Corporation

SUMMARY OF PRIMARY DRINKING WATER QUALITY RESULTS FOR 2021

PWS: MP0000002

TINIAN

Microbiological Contaminant	Ideal Goal MCLG	Highest Level Allowed MCL	Year Tested	Number of Positive Samples in Month	Assessments Conducted	Major Source of Contaminant
		More than 1 positive sample triggers a Level 1 Assessment				
Coliform Bacteria	Zero	No more than 1	2021	2 positive samples in June	1	Naturally present in the environment

Disinfection Residual	MRDLG	MRDL	Year Tested	Highest Running Annual	Range	Violation?	Major Source of Contaminant
Chlorine (ppm)	4	4	2021	1.3	0.3 - 2.7	NO	Disinfection additive used to control microbes

Disinfection By-Products at Taps	MCLG	MCL	Year Tested	Highest Running Annual	Range	Violation?	Major Source of Contaminant
Haloacetic Acids (HAA5) Locational Running Annual Average (ppb)	NA	60	2021	2.1	NA	NO	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) Locational Running Annual Average (ppb)	NA	80	2021	12	NA	NO	By-product of drinking water disinfection

Inorganic Contaminants	MCLG	MCL	Year Tested	Highest Result	Range	Violation?	Major Source of Contaminant
Barium (ppm)	2	2	2019	0.0028	NA	NO	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Fluoride (ppm)	4	4	2019	0.11	NA	NO	Erosion of natural deposits
Nitrates + Nitrites as Nitrogen (ppm)	10	10	2021	4.8	NA	NO	Runoff from fertilizer; leaking septic tanks; sewage; erosion from natural deposits

Radiological Contaminants	MCLG	MCL	Year Tested	Highest Result	Range	Violation?	Major Source of Contaminant
Combined Radium 226/228 (pCi/L)	0	5	2019	0.8	NA	NO	Erosion of natural deposits
Uranium (combined) (ppb)	0	30	2019	0.2	NA	NO	Erosion of natural deposits

Volatile Organic Contaminants	MCLG	MCL	Year Tested	Highest Result	Range	Violation?	Major Source of Contaminant
Total Trihalomethanes (TTHM) (ppb)	NA	80	2019	0.81	NA	NO	By-product of drinking water disinfection

Lead and Copper at Customer Taps	Action Level Goal	Action Level	Year Tested	Sites Exceeding AL/ Number of Sites	90th Percentile	Violation?	Major Source of Contaminant
Lead (ppb)	0	15	2019	0 / 20	1.6	NO	Corrosion of household plumbing systems and erosion of natural deposits
Copper (ppm)	1.3	1.3	2019	0 / 20	0.042	NO	

SECONDARY AND UNREGULATED COMPOUNDS DETECTED IN 2021

Compound	Recommended Level	Year Tested	Highest Result	Range	Violation?	What This Compound Measures or Major Source
Chloride (ppm)	250	2021	176	158 - 176	NA	Measures the amount of several naturally occuring salts in water
Methyl Ethyl Ketone (MEK) (ppb)	NE	2019	6.3	NA	NA	Used as a solvent in household products such as lacquer and varnishes, paint removers, and glues
pH	6.5 to 8.5	2021	7.9	NA	NA	Measure of acidity or alkalinity of water
Sodium (ppm)	NE	2019	78	NA	NA	Measures sodium in water from natural deposits or erosion
Specific Conductance (µS/cm)	NE	2021	1,045	1,033 - 1,045	NA	Measures how well water conducts electricity depending on amount of dissolved ions
Total Dissolved Solids (ppm)	500	2021	579	NA	NA	Measure of naturally occuring salts and minerals dissolved in water
Total Hardness as Calcium Carbonate (ppm)	NE	2021	278	272 - 278	NA	Hardness is the sum of the many forms of naturally occurring calcium and magnesium compounds

NA: Not Applicable NE: None Established

MEASUREMENTS

Contaminants are measured in:

ppm:	Parts Per Million or milligrams per Liter (mg/L)
ppb:	Parts Per Billion or micrograms per Liter (µg/L)
pCi/L:	PicoCurie Per Liter - a measurement of radioactivity in water
µS/cm:	Micro Siemens Per Centimeter - a measurement of a solution's ability to conduct electricity

If the units are hard to imagine, think about these comparisons:

Parts per MILLION
1 second in 12 days
1 penny in $10,000
7 drops of water in a bathtub

Parts per BILLION
1 second in 32 years
1 penny in $10 Million
1 drop of water in a swimming pool

DEFINITIONS

MCL: Maximum Contaminant Level
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.

MCLG: Maximum Contaminant Level Goal
The level of a contaminant in drinking water below which there is no known or expected risks to your health. The MCLG amount allows for a margin of safety.

MRDL: Maximum Residual Disinfectant Level
The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal
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 contamination.

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

AL: Action Level
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that the utility must follow.

90th Percentile
Statistical value used to determine if Action Level is exceeded. Determined by calculating the value at which 90% of the samples tested were below that value.

PAY YOUR CUC BILL ONLINE OR BY PHONE

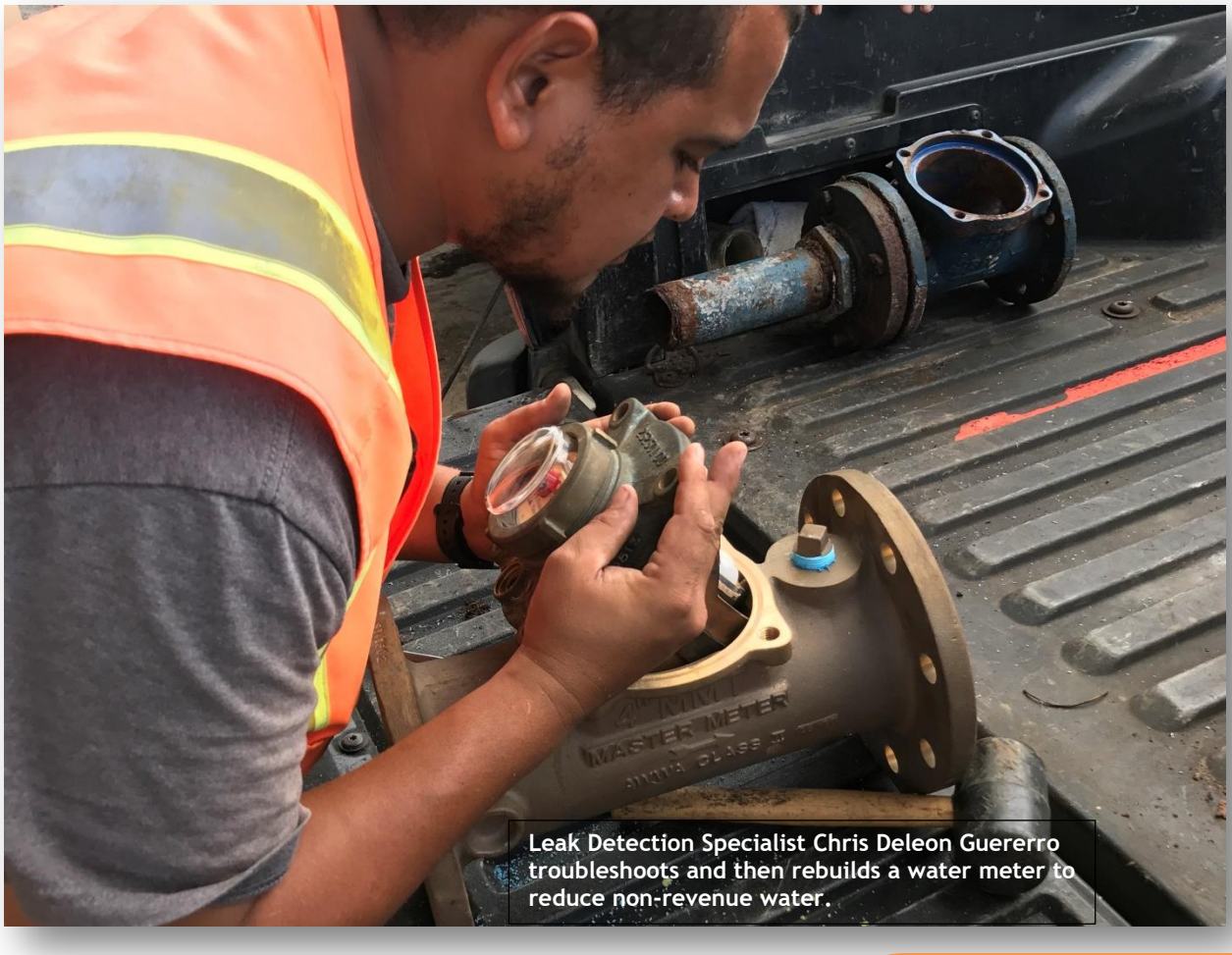
Save time and money by paying your CUC bill online or by phone! You can pay with your Visa or MasterCard debit or credit card.

Register your account for online payments at **www.cucgov.org**
For payment by phone, please call **(855) 729-2282**.

DO YOU HAVE A QUESTION? Call CUC at (670) 664-4282

For information about your water quality or to find out about opportunities to participate in public meetings, please contact our 24-hour Call Center at (670) 664-4282.

Visit CUC online at www.cucgov.org or email us at *cucadmin@cucgov.org*



Leak Detection Specialist Chris Deleon Guererro troubleshoots and then rebuilds a water meter to reduce non-revenue water.

Water Outages to Repair Lines

Unscheduled service interruptions occur when operators need to make adjustments or repairs to the water system.

For an update about when your water service will be restored, please call the **CUC Call Center at (670) 664-4282** or visit our **website** for the most recent information.

CUC is on Facebook!

Follow us to get the latest news about CUC.

What is a Water Quality Report?

Here is your annual Water Quality Report. It is about the water supplied by the Commonwealth Utilities Corporation. In 1996, the U.S. Congress amended the Safe Drinking Water Act and now requires that the CUC, your "Community Water System," publish this report each July. **This report contains important information about your drinking water. Speak with someone who understands it or who can translate it.**

We hope you read about the source of your water, the levels of detected contaminants, why our water is so different from village to village, and what is being done to correct or improve water services in the CNMI.

As consumers become better informed, they become involved and make better decisions about our environment, how money is spent, and our options in water utility management.

If you need the report translated, wish to speak with someone about the report, or would like a paper copy delivered or emailed to you, please call CUC at (670) 664-4282.

Estagui iyon-miyu ripot gi såkkan nu i Kuålidåt i Hånum. Put atyu i hånum ni ginin i Commonwealth Utilities Corporation ni mu nånå´i hamyu, iyon-måmi customer. Gi 1996 (mit nuebi sientu nubentai sais) na såkkan, i U.S. Congress ha amenda i Åktun Sinåfu Magimin Hånum ya på´gu manisisita atyu i CUC, iyon-miyu "Sisteman Hånum Kumunidåt" para u pupblika esti na ripot åntis di Huliu 1. **Esti na ripot ha sasaguan siha manimpottånti na infotmasion put i un gigimin na hånum. Kuentus yan otru na taotao ni mu kumprendi pat håyi siña mu translåda para hågu.**

In espirånsa na un taitai put source i hånum-mu, i levels ni masodda´ i binenu siha, håfa na i hånum-ta na ti pumarehu gi kada songsong esta otru songsong, ya håfa machocho´gui para u manadinanchi pat manake´maolik i setbision hånum siha gi hålum i CNMI.

Kumu consumers manma'infotma måolik, mañåonåo yan manma'tinas la´måolik na disision siha put i uriyåta, taimanu magåsta i salåppi', yan inayek-ta siha gi minanehan water utility.

Kumu un nisisita i ripot matranslåda, ya malagu' håo kumuentusi håyi put i ripot pat malagu' håo kopian påppit u ma'entrega pat mana'hånåo guatu para hågu, put fabot hågan i CUC gi (670) 664-4282.

Iyeel yóómw arongorong reel Water Quality ghal ráágh. Mileel nge reel schaal iye Commonwealth Utilities Corporation re ayoorai ngálúgh, lemám customer. Llól 1996, U. S. Congress re liiweli mille Safe Drinking Water Act nge ighila re tipáli bwe CUC, yóómw "Community Water System," bwe ebwe ghommwal akkatééwow arongoorng yeel mmwalil Ullyo 1. **Eyoor impotantil arongorong yeel reel schaal iye si ghal úlúmi. Kkapas ngáli iyo mwu e metaff me ebwe bwal affata ngálúgh reel mileel.**

Ai ghal tettengágh ngáli ghámi bwe ów bwe árághi milikka e toowow bwe arongorong reel schaal iye yáámi, level reel milikka re schúngi bwe mil nngaw, meta bwulul bwe schaal ese weewe me schaalil sóóbw ikka akkáw, me meta iye emmwel sibwe féérú ngáre siiweli bwe ebwe ghatchúló aar alilis reel schaal llól CNMI.

Ngáre re aronga ghatchúr consumers, emmwel rebwe schuu bwe rebwe ppwol fengál reel mwóghutughut ikka e lo weleórosch, efaisúl re yááli selaapi, me sibwe áfilighatch reel mwóghutughutúl mille water utility management.

Ngare eyoor arongorong iye u mwuschel rebwe seleti, ngare u mwuschel kkapas ngáli escháy reel arongorong yeel, me ngare u mwuschel rebwe afanga ngare email ngalúgh pappid yeel, fafailó CUC reel (670) 664-4282.

Naglalaman ang report na ito ng importanteng impormasyon tungkol sa iyong iniinom na tubig. Magkaroon ng isang tao na isasalin ito sa iyong wika para sa iyo, o makipag-usap sa isang tao na nakakaintindi dito.

このレポートには飲料水に関する重要な情報が記載されています。この英文を訳してもらうか、またはどなたか英語が分かる方にたずねてください。

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁하시기 바랍니다.

Commonwealth Utilities Corporation

P.O. Box 431
Tinian, MP 96952
Fax (670) 433-9262
cucadmin@cucgov.org

Laurence Tumed, Henry Cabrera Jr, and John Sablan repair a CUC Tinian water main line.

24-Hour CUC Call Center (670) 664-4282