



2016 Annual Water Quality Report

Fort Rucker

PWS ID: AL0001489



AMERICAN WATER
Military Services

This report contains important information about your drinking water. If you do not understand it, please have someone explain or translate it for you.

Este informe contiene información muy importante sobre su agua potable. Si no lo comprende, favor acudir a alguien que se lo pueda traducir o explicar.

Continuing Our Commitment

A Message From Military Services Group President Todd Duerr

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 – "Clean Water for Life" drives everything we do for you, our product consumer. 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 2016 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 2016. You'll find that we supply water that surpasses or meets all federal and state water quality regulations.

With equal importance, we place a strong focus on acting as stewards of our environment. In all of 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 – result in more than making water available "on-demand". We deliver more than just water. We deliver a key resource for public health, fire protection, the economy and the overall quality of life we enjoy – Clean Water for Life. For more information or for additional copies of this report, visit us online at www.amwater.com.

Sincerely,

Todd Duerr

President – American Water's Military Services Group

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immunocompromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of cancer.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of cancer.

Water Information Sources

The Military Services Group of American Water provides water and wastewater contract services to military installations across the country as part of the federal government's Utility Privatization Program. It operates and maintains the water and/or wastewater assets at Fort A.P. Hill, Va., Fort Sill, Okla., Fort Leavenworth, Kan., Scott Air Force Base, Ill., Fort Rucker, Ala., Fort Meade, Md., Fort Belvoir, Va., Fort Hood, Texas, Fort Polk, La., Picatinny Arsenal, N.J., Hill Air Force Base, Utah and Vandenberg Air Force Base, Calif.

The Military Services Group is part of [American Water Enterprises](#), a market-based subsidiary of American Water.

Fort Rucker American Water Enterprises, Inc. Military Services Group (AWE-MSG) provides water service to approximately 15,700 customers at the Fort Rucker Military Post located in Dale County, Alabama. With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly-traded water and wastewater utility company. The company employs more than 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com

The web sites of US EPA Office of Water, the Centers for Disease Control and Prevention, and Alabama Department of Environmental Management (ADEM) provide a substantial amount of information on many issues relating to water resources, water conservation and public health. You may visit these sites as well as American Water's website at the following addresses:

Centers for Disease Control and Prevention

www.cdc.gov

United States Environmental Protection Agency

www.epa.gov/safewater

Alabama Department of Environmental Management (ADEM)

www.adem.state.al.us

American Water

www.amwater.com

American Water Works Association

www.awwa.org

Safe Drinking Water Hotline: (800) 426-4791

Public Involvement

American Water Enterprises is the primary point of contact for the Consumer Confidence Report. For information concerning the report, please contact Mr. Wade Geffre, General Manager, American Water Enterprises at P.O. Box 620397, Fort Rucker, AL 36362 or by phone at (334) 503-1761.

Customer Service Concerns

To report a water or wastewater residential service problem, you may contact your Corvivas Military Housing Neighborhood office: Allen Heights – (334) 503-3642; Bowden Terrace – (334) 503-3640; or Munson Heights – (334) 503-3641. For all other service problems you may call (334) 255-9041.

What is a Water Quality Report?

To comply with Alabama Department of Environmental Management (ADEM) and the U.S. Environmental Protection Agency (EPA) regulations, American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to provide you an overview of last year's (2016) drinking water quality. It includes details about where your water comes from and what it contains. We hope the report will raise your understanding of drinking water issues and awareness of the need to protect your drinking water sources.

How is Your Water Treated?

Current treatment processes include chlorination and fluoridation. Throughout the process dedicated plant operations and water quality staff continuously monitor and control these treatment processes to assure you, our customers, and superior quality water.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important information with water users at their location who are not billed customers of Fort Rucker - American Water and therefore do not receive this report directly.

Water Conservation Tips

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Source Water Assessment Completed

In compliance with the Alabama Department of Environmental Management (ADEM), Fort Rucker – American Water has developed a Source Water Assessment plan that will assist in protecting our water sources. A copy of the report is available in our office for review during normal business hours, or you may purchase a copy upon request for a nominal reproduction fee.

Please help us make this effort worthwhile by protecting our source water. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints and waste oil.

Where Does My Water Come From?

Fort Rucker receives its raw water supply from seven ground water wells located in the Tuscahoma Sand, Providence Sand, Clayton, Ripley and Nanafalia aquifers. Fort Rucker - American Water staff operate water treatment plants located on Fort Rucker which treats water from these various groundwater sources and has a capacity to treat approximately five million gallons of water per day. The Fort Rucker water system includes two additional sources of water in the form of water distribution system interconnections with other municipal treated water sources. One interconnection is located at Cairns Army Airfield with service from the City of Daleville and one interconnection at Shell Army Airfield with service from the City of Enterprise. The Fort Rucker water distribution system includes four water storage tanks with a total storage capacity of two million gallons.

Special Monitoring

Monitoring for contaminants in accordance with the Unregulated Contaminant Monitoring Rule (UCMR3) was started in 2013. The second round of sampling was completed in 2014.

Substances Expected to be in Drinking Water

To ensure that tap water is of high quality, U.S. Environmental Protection Agency prescribes regulations limiting the amount of certain substances in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The Fort Rucker (AWE-MSG) water treatment processes are designed to reduce any such substances to levels well below any health concern.

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 radioactive material, and it 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, or wildlife.

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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, 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 can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

All drinking water, including bottled drinking water, may be reasonably 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. MCL's defined in a List of Definitions in this report, are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Information About Lead

Although we regularly test lead levels in your drinking water, it is possible that lead and/or copper levels at your home are higher because of materials used in your plumbing. If present, elevated levels of lead can cause serious 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 and copper 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 drinking 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 EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

How to Read the Data Tables

American Water Enterprises-Military Service Group (AWE-MSG) conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2016, certain substances are required to be monitored less than once per year and represent the most current results available. For help with interpreting this table, see the “Table Definitions” section.

Starting with a **Substance**, read across. **Year Sampled** is usually in 2016 or year prior. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (this may be lower than what is allowed). **Average Amount Detected** represents the measured amount (less is better). **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements. **Typical Source** tells where the substance usually originates.

Unregulated substances are measured, but maximum allowed contaminant levels have not been established by the government.

Table Definitions and Abbreviations

- **Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Coliform Absent (ca):** Laboratory analysis indicates that the contaminant is not present.
- **Disinfection By-products:** are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection by-products. Disinfection by-products for which regulation have been established includes trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.
- **Initial Distribution System Evaluation (IDSE):** a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (TTHM) and haloacetic acid (HAA5). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.
- **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 goal is 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.
- **MRDL (Maximum Residual Disinfectant Level):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Level Goal):** The level of 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.
- **mrem/year:** Millirems per year (a measure of radiation absorbed by the body).
- **Non Detects (ND):** laboratory analysis indicates that the constituent is not present.
- **Not Required (NR):** laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.
- **NTU - Nephelometric Turbidity Units:** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **pCi/L (picocuries per liter):** Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).
- **pH/Standard Units:** A measurement of acidity, 7.0 being neutral, pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas. Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.
- **ppm (parts per million):** One part substance per million parts water, or milligrams per liter. One part per million corresponds to one minute in two years or a single penny in \$10,000.
- **ppb (parts per billion):** One part substance per billion parts water, or micrograms per liter. One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **ppq (parts per quadrillion):** One part substance per quadrillion, or Picograms per liter (picograms/L). One part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.
- **ppt (parts per trillion):** One part substance per trillion parts water, or nanograms per liter. One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **Variances & Exemptions (V&E):** State or EPA permission not to meet an MCL or treatment technique under certain conditions.

Water Quality Statement

The staff and management of Fort Rucker-American Water are pleased to report that the water provided to you during the past year from the Fort Rucker-American Water treatment plants met all the State and Federal standards set for drinking water.

The Fort Rucker water utility is required to regularly monitor for a wide variety of Primary and Unregulated Drinking Water Contaminants. Only Primary and Unregulated contaminants that were detected are listed in the table below. Some Primary and Unregulated contaminants are required to be analyzed less than annually; in these cases, the most recent sample results and the year they were analyzed are provided below.

Constituent Monitored	Monitoring Frequency	Date Last Monitored
Inorganic Contaminants	One sample per source every 3 years	2016
Lead/Copper	Once every 3 years in distribution system	2016
Microbiological Contaminants	20 samples per month in distribution system	current
Nitrates	One sample per source per year	2016
Radioactive Contaminants	One sample per source every 9 years	2010
Synthetic Organic Contaminants	Scheduled as required by ADEM	2016
Volatile Organic Contaminants	Scheduled as required by ADEM	2016
Disinfection By-products	Scheduled as required by ADEM	2016

As you can see by the Table of Detected Drinking Water Contaminants, our system had no violations. We have learned through our monitoring and testing that some constituents have been detected. The following table lists only those contaminants that were detected in our drinking water. We are pleased to report that our drinking water meets or exceeds federal and state requirements.

TABLE OF DETECTED DRINKING WATER CONTAMINANTS

Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Copper	NO	0.126 *	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	No	ND **	ppb	15	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits;
Chlorine	NO	0.30 - 1.98	ppm	4	4	Water additive used to control microbes
Fluoride	NO	0.10 - 1.85	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from factories
Nitrate (as Nitrogen)	NO	ND - 0.13	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTM [Total trihalomethanes]	NO	ND - 10.6	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	ND - 1.5	ppb	0	60	By-product of drinking water chlorination
Chromium	NO	ND	ppb	0	100	Discharge from steel and pulp mills; erosion of natural deposits
Unregulated Contaminants						
Chloroform	NO	ND - 0.840	ppb	NA	NA	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Bromodichloromethane	NO	ND - 0.820	ppb	NA	NA	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Chlorodibromomethane	NO	ND	ppb	NA	NA	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Strontium	NO	739.1 - 1170.1	ppb	NA	NA	Naturally occurring in the environment
Chromium (VI)	NO	ND	ppb	NA	NA	Discharge from steel and pulp mills; erosion of natural deposits
Secondary Contaminants						
Chloride	NO	14.6	ppm	NA	250	Erosion of natural deposits
Hardness	NO	103	ppm	NA	NA	Naturally occurring in the environment or as a result of treatment with water additives
pH	NO	8.16	S.U.	NA	NA	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	NO	10.7	ppm	NA	250	Erosion of natural deposits
Total Dissolved Solids	NO	232	ppm	NA	500	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff

* Figure shown is 90th percentile and # of sites above action level (1.3 ppm) = 0

** Figure shown is 90th percentile and # of sites above action level (15ppb) = 0

The following is a list of Primary Drinking Water Contaminants and a list of Unregulated Contaminants for which our water system routinely monitors. These contaminants were not detected in your drinking water unless they are listed in the Table of Detected Drinking Water Contaminants.

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS

Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological			o-Dichlorobenzene	600	ppb
Total Coliform Bacteria	<5%	present or absent	p-Dichlorobenzene	75	ppb
Fecal Coliform and E. coli	0	present or absent	1,2-Dichloroethane	5	ppb
Turbidity	TT	NTU	Nitrite	1	ppm
Radiological			Total Nitrate and Nitrite	10	ppm
Beta/photon emitters	4	mrem/yr	Selenium	50	ppb
Alpha emitters	15	pCi/L	Thallium	2	ppb
Combined radium	5	pCi/L	Organic Contaminants		
Uranium	30	pCi/L	2,4-D	70	ppb
Inorganic Chemicals			2,4,5-TP(Silvex)	50	ppb
Antimony	6	ppb	Acrylamide	TT	ppm
Arsenic	10	ppb	Alachlor	2	ppb
Asbestos	7	MFL	Benzo(a)pyrene [PAHs]	200	ppt
Barium	2	ppm	Carbofuran	40	ppb
Beryllium	4	ppb	Chlordane	2	ppb
Cadmium	5	ppb	Dalapon	200	ppb
Chromium	100	ppb	Di (2-ethylhexyl)adipate	400	ppb
Copper	AL = 1.3	ppm	Di (2-ethylhexyl)phthalate	6	ppb
Cyanide	200	ppb	Dinoseb	7	ppb
Fluoride	4	ppm	Diquat	20	ppb
Lead	AL = 15.0	ppb	Dioxin [2,3,7,8-TCDD]	30	Picograms/L
Mercury	2	ppb	Chloramines	4	ppm
Nitrate	10	ppm	Chlorite	1	ppm
Endothall	100	ppb	HAA5 [Total haloacetic acids]	60	ppb
Endrin	2	ppb	1,1-Dichloroethylene	7	ppb
Epichlorohydrin	TT	ppm	cis-1,2-Dichloroethylene	70	ppb
Glyphosate	700	ppb	trans-1,2-Dichloroethylene	100	ppb
Heptachlor	400	Nanograms/L	Dichloromethane	5	ppb
Heptachlor epoxide	200	Nanograms/L	1,2-Dichloropropane	5	ppb
Hexachlorobenzene	1	ppb	Ethylbenzene	700	ppb
Hexachlorocyclopentadiene	50	ppb	Ethylene dibromide	50	ppt
Lindane	200	Nanograms/L	Styrene	100	ppb
Methoxychlor	40	ppb	Tetrachloroethylene	5	ppb
Oxamyl [Vydate]	200	ppb	1,1,1-Trichloroethane	200	ppb
Oxamyl [Vydate]	200	PCBs	1,1,2-Trichloroethane	5	ppb
Pentachlorophenol	1	ppb	Trichloroethylene	5	ppb
Picloram	500	ppb	TTHM [Total trihalomethanes]	80	ppb
Simazine	4	ppb	Toluene	1	ppm
Toxaphene	3	ppb	Vinyl Chloride	2	ppb
Benzene	5	ppb	Xylenes	10	ppm
Carbon tetrachloride	5	ppb	Chlorine	4	ppm
Chlorobenzene	100	ppb	Chlorine Dioxide	800	ppb
Dibromochloropropane	200	ppt	Bromate	10	ppb
UNREGULATED CONTAMINANTS					
1,1 - Dichloropropene	Aldicarb Sulfone	Dibromochloromethane	Metribuzin		
1,1,1,2-Tetrachloroethane	Aldicarb Sulfoxide	Dibromomethane	N - Butylbenzene		
1,1,2,2-Tetrachloroethane	Aldrin	Dicamba	Naphthalene		
1,1-Dichloroethane	Bromobenzene	Dichlorodifluoromethane	N-Propylbenzene		
1,2,3 - Trichlorobenzene	Bromochloromethane	Dicamba	O-Chlorotoluene		
1,2,3 - Trichloropropane	Bromodichloromethane	Dichlorodifluoromethane	P-Chlorotoluene		
1,2,4 - Trimethylbenzene	Bromoform	Dieldrin	P-Isopropyltoluene		
1,3 - Dichloropropane	Bromomethane	Hexachlorobutadiene	Propachlor		
1,3 - Dichloropropene	Butachlor	Isopropylbenzene	Sec - Butylbenzene		
1,3,5 - Trimethylbenzene	Carbaryl	M-Dichlorobenzene	Tert - Butylbenzene		
2,2 - Dichloropropane	Chloroethane	Methomyl	Trichlorofluoromethane		
3-Hydroxycarbofuran	Chloroform	MTBE			
Aldicarb	Chloromethane	Metolachlor			