Water Quality Table for Schofield Barracks including non-detectable results

Contaminant Categories for complete data

The following contaminant categories are listed as the subgroups for the complete water quality table, listed on pages 2 through 7. These describe the categories and when they are sampled.

Bacteriological, contaminants occur naturally from the environment. Bacteriological samples are collected and analyzed for coliform and E. Coli at each installation on a monthly basis. The number of samples taken on each installation is dependent on the population and represents a cross section in each water system.

Carbamate Pesticides occur from runoff of pesticides. The garrison collects two samples each, every three years. Samples are collected from Schofield Barracks respective water treatment plant in two separate quarters within the same calendar year.

Chlorinated Acids, occur mostly from pesticides. The garrison collects two samples each, every three years from Schofield Barrack's, water treatment plant in two separate quarters within the same calendar year

Disinfection Byproducts, occur from water additives used to control microbes. The garrison collects two samples of disinfection byproducts annually. Disinfection byproducts include haloacetic acids and trihalomethaness and are created when chlorine interacts with naturally occurring organic material.

Asbestos, occurs from cement decay in water mains. The garrison collects one asbestos sample from each installation every nine years. Samples are taken from locations that are at higher risk for asbestos contamination.

EDB/DBCP/TCP, occur from pesticides and factory runoff. The garrison collects two samples each, every three years. This group is made up of Ethylene Dibromide, 1,2-Dibromo-3-Chloro propane, 1,2,3-Trichloropropane.

Glyphosate, occurs from runoff of pesticides. The garrison collects two samples each, every three years. Samples are collected from Schofield Barrack's water treatment plant is two separate quarters within the same calendar year.

Inorganic Anions, occur from runoff from fertilizers and natural sources. The garrison collects one nitrate and anions sample annually from the Schofield Barracks treatment plant.

Lead and Copper, occurs naturally. Lead and Copper samples are collected from select individual residences every three years. The total number of samples are taken dependent on the size of the installation

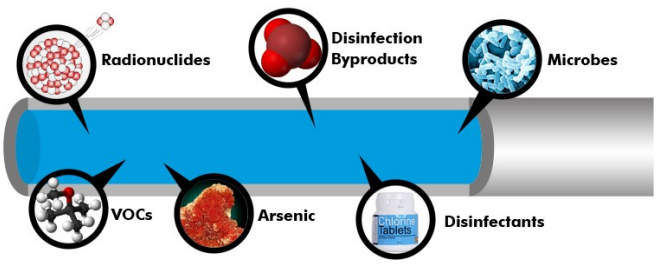
Radionuclides, occur from erosion of natural and man made deposits. The garrison collects one sample for radiological from each installation once every 9 years

Semivolatiles & Cyanide, occur from runoff from herbicide, chemical factories, and other factories. The garrison collects two samples every three years for semivolatiles and 1 routine every 3 years for cyanide. Samples are collected at the Schofield Barrack's water treatment plants in two separate quarters within the same calendar year

Synthetic Organic Chemicals , occur mainly from pesticides. The garrison collects two samples each, every three years. Samples are collected from Schofield Barrack's water treatment plant in two separate quarters within the same calendar year

Trace Metals occur naturally. The garrison collects one sample every three years from Schofield Barrack's water treatment plant

Volatile Organic Compounds, occur from discharge of landfills and factories. The garrison collects one volatile organic compound sample from Schofield Barrack's water treatment plant once every three years



https://commons.wikimedia.org/wiki/File:Common_Water_Contaminates.jpg

Water Quality Table for Schofield Barracks including non-detectable results

The tables below show a comprehensive list of all drinking water contaminants sampled during calendar year 2021 unless otherwise indicated. These tables include detectable information that was shown on page 3 of the 2022 Schofield Barracks Water Quality Report, along with non-detectable data. The EPA allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or our system is not considered vulnerable to this type of contamination. Some of our data, though representative, are more than one year old.

			Schofield, Wheeler, East Range		NCTAMS				
Contaminants in the Distribution System (units of measurement)	**MCL**	**MCLG**	**Average Level Detected**	**Range of Detection (multiple samples)**	**Highest Level Detected**	**Range of Detection (multiple samples**	**Likely Source of Contaminant**	**Violation**	**Category**
Bacteriological									
Total Coliform	5%[1]	0	2.3%[2,3]	N/A			Naturally present in the environment	NO	Bacteriological and Water Quality Readings
Disinfectant & Disinfection Byproducts									
Residual Chlorine (ppm)	MRDL=4	MRDLG=4	0.7	0.21-1.00	0.48	0.3-0.7	Water additive used to control microbes	NO	Bacteriological and Water Quality Readings
Total Trihalomethane (ppb)	**80**	**N/A**	**0.57**	**ND-1.15**	**0.64**	**No Range**	Byproduct of drinking water disinfection	NO	Disinfection By-products
Chloroform	N/A	70	ND	ND	ND	No Range			
Bromodichloromethane	N/A	0	ND	ND	ND	No Range			
Dibromochloromethane	N/A	60	0.31	ND-0.61	ND	No Range			
Bromoform	N/A	0	0.26	ND-0.54	0.64	No Range			
Total Haloacetic Acids (ppb)	**60 ug/L**	**N/A**	**ND**	**ND**	**ND**	**No Range**	Byproduct of drinking water disinfection	NO	
Monochloroacetic acid	N/A	70	ND	ND	ND	No Range			
Monobromoacetic acid	N/A	N/A	ND	ND	ND	No Range			
Dichloroacetic acid	N/A	0	ND	ND	ND	No Range			
Trichloroacetic acid	N/A	20	ND	ND	ND	No Range			
Dibromoacetic acid	N/A	N/A	ND	ND	ND	No Range			
Inorganic									
Fluoride[4] (ppm)	4	4	0.71	0.01-1.18	0.94	0.51-0.94	Erosion of natural deposits; water additive to promote strong teeth	NO	Bacteriological and Water Quality Readings
Copper (ppm)	AL=1.3	1.3	ND[5,6] (2019)	0 [7] (2019)	0.36 (2017)	0.06-0.36	Corrosion of household plumbing systems; Erosion of natural deposits	NO	Lead and Copper
Lead (ppb)	AL=15	0	ND[5,6] (2019)	0 [7] (2019)	ND	No Range	Corrosion of household plumbing systems; Erosion of natural deposits	NO	
Asbestos (MFL)									
Asbestos (MFL)	7	7	ND[5,9] (2013)	ND[5] (2013)	ND	No Range	Decay of asbestos cement in water mains; erosion of natural deposits	NO	Asbestos

			Schofield, Wheeler, East Range		NCTAMS				
Contaminants in the Plant Water (units of measure-ment)	MCL	MCLG	Average Level Detected	Range of Detection (multiple samples)	Highest Level Detected	Range of Detection (multiple samples	Likely Source of Contaminant	Violation	Category
Volatile Organic Chemcials (VOC) (ppb)									
Vinyl Chloride	2	0	ND	ND	ND (2020)	No Range	Leaching from PVC pipes; dis-charge from plastic factories	NO	VOC
1,1 - Dichloro ethylene	7	7	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
Benzene	5	0	ND	ND	ND (2020)	No Range	Discharge from factories; leaching from gas storage tanks and land-fills	NO	
1,2 - Dichloro ethane (EDC)	5	0	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
Trichloro ethylene (TCE)	5	0	0.70	ND-1.80	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
p-Dichloro benzene	75	75	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
trans-1,2-Di chloroethylene	100	100	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
cis-1,2-Di chloroethylene	70	70	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
1,2-Dichloro propane (DCP)	5	0	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
Toluene	1000	1000	ND	ND	ND (2020)	No Range	Discharge from factories; leaching from gas storage tanks and land-fills	NO	
Ethylbenzene	700	700	ND	ND	ND (2020)	No Range	Discharge from factories; leaching from gas storage tanks and land-fills	NO	
Chlorobenzene	100	100	ND	ND	ND (2020)	No Range	Discharge from chemical and agri-cultural chemical factories	NO	
o-Dichlorobenzene	600	600	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
Styrene	100	100	ND	ND	ND (2020)	No Range	Discharge from rubber and plastic factories; leaching from landfills	NO	
Total Xylenes	10000	10000	ND	ND	ND (2020)	No Range	Discharge from petroleum facto-ries; discharge from chemical factories	NO	
Tetrachloroethylene (PCE)	5	0	ND	ND	ND (2020)	No Range	Discharge from factories and dry cleaners	NO	
Dichloromethane	5	0	ND	ND	ND (2020)	No Range	Discharge from drug and chemical factories	NO	
1,1,2-Trichloroethane	5	3	ND	ND	ND (2020)	No Range	Discharge from industrial chemical factories	NO	
1,2,4-Trichlorobenzene	70	70	ND	ND	ND (2020)	No Range	Discharge from textile finishing factories	NO	

			Schofield, Wheeler, East Range		NCTAMS				
Contaminants in the Plant Water (units of measurement)	MCL	MCLG	Average Level Detected	Range of Detection (multiple samples)	Highest Level Detected	Range of Detection (multiple samples	Likely Source of Contaminant	Violation	Category
Synthetic Organic Chemicals (ppb)									
Hexachlorocyclopentadiene	50	50	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Discharge from chemical factories	NO	Synthetic Organic Chemicals
Hexachlorobenzene	1	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Discharge from metal refineries and agricultural chemical factories	NO	
Lindane	0.2	0.2	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Runoff/leaching from insecticide used on cattle, lumber, gardens	NO	
Heptachlor	0.4	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Residue of banned termiticide	NO	
Heptachlor epoxide	0.2	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Breakdown of heptachlor	NO	
Endrin	2	2	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Residue of banned insecticide	NO	
Methoxychlor	40	40	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	NO	
Alachlor	2	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Runoff from herbicide used on row crops	NO	
Chlordane	2	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Residue of banned termiticide	NO	
Toxaphene	3	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Runoff/leaching from insecticide used on cotton and cattle	NO	
Aroclor 1016	0.5	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Aroclor 1221	0.5	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Aroclor 1232	0.5	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Aroclor 1242	0.5	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Aroclor 1248	0.5	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Aroclor 1254	0.5	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Aroclor 1260	0.5	0	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Simazine	4	4	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	NO	
Atrazine	3	3	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Runoff from herbicide used on row crops	NO	
Metribuzin	UNREGULATED[8]	N/A	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	N/A	
Aldrin	UNREGULATED[8]	N/A	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	N/A	
Butachlor	UNREGULATED[8]	N/A	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	N/A	
Dieldrin	UNREGULATED[8]	N/A	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	N/A	
Metolachlor	UNREGULATED[8]	N/A	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	N/A	
Propachlor	UNREGULATED[8]	N/A	ND[5] (2020)	ND[5] (2020)	ND 2018	No Range	Leaching/Runoff from pesticide	N/A	

			Schofield, Wheeler, East Range		NCTAMS				
Contaminants in the Plant Water (units of measurement)	MCL	MCLG	Average Level Detected	Range of Detection (multiple samples)	Highest Level Detected	Range of Detection (multiple samples	Likely Source of Contaminant	Violation	Category
Synthetic Organic Chemicals (ppb)									
Carbofuran	40	40	ND	ND	ND	No Range	Leaching of soil fumigant used on rice and alfalfa	NO	Carbamate Pesticides
Oxamyl (Vydate)	200	200	ND	ND	ND	No Range	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes	NO	
Aldicarb	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
Aldicarb Sulfone	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
Aldicarb Sulfoxide	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
Carbaryl	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
3-Hydroxycarbofuran	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
Methomyl	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
Propoxur	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
Methiocarb	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Leaching/Runoff from pesticide	N/A	
Benzo (a) pyrene	0.20	0	ND	ND	ND (2020)	No Range	Leaching from linings of water storage tanks and distribution lines	NO	Semivolatiles and Cyanide
Di (2-ethylhexyl) adipate	400	400	ND	ND	ND (2020)	No Range	Discharge from chemical facto-ries	NO	
Di (2-2ethylhexyl) phthalate	6	0	ND	ND	ND (2020)	No Range	Discharge from rubber and chemical factories	NO	
Dioxin	30	0	ND	ND	N/A	N/A	Emissions from waste incineration and other combustion; discharge from chemical factories	NO	
Diquat	20	20	ND	ND	ND (2020)	No Range	Runoff from herbicide use	NO	
Endothall	100	100	ND	ND	ND (2020)	No Range	Runoff from herbicide use	NO	
Cyanide (ppb)	200	200	ND	ND	ND (2020)	No Range	Discharge from steel/metal factories; discharge from plastic and fertilizer factories	NO	
Dalapon	200	200	ND[5] (2020)	ND[5] (2020)	ND (2018)	No Range	Runoff from herbicide used on rights of way	NO	Chlorinated Acids
2,4-D	70	70	ND[5] (2020)	ND[5] (2020)	ND (2018)	No Range	Runoff from herbicide used on row crops	NO	
Pentachlorophenol	1	0	ND[5] (2020)	ND[5] (2020)	ND (2018)	No Range	Discharge from wood preserving factories	NO	
2,4,5-TP	50	50	ND[5] (2020)	ND[5] (2020)	ND (2018)	No Range	Residue of banned herbicide	NO	
Dinoseb	7	7	ND[5] (2020)	ND[5] (2020)	ND (2018)	No Range	Runoff from herbicide used on soybeans and vegetables	NO	
Picloram	500	500	ND[5] (2020)	ND[5] (2020)	ND (2018)	No Range	Leaching/Runoff from pesticide	NO	
Dicamba	UNREG-ULATED[8]	N/A	ND[5] (2020)	ND[5] (2020)	ND (2018)	No Range	Leaching/Runoff from pesticide	N/A	

			Schofield, Wheeler, East Range		NCTAMS				
Contaminants in the Plant Water (units of measurement)	MCL	MCLG	Average Level Detected	Range of Detection (multiple samples)	Highest Level Detected	Range of Detection (multiple samples	Likely Source of Contaminant	Viola-tion	Category
Synthetic Organic Chemicals (ppb)									
Glyphosate	700	700	ND	ND	ND	No Range	Runoff from herbicide use	NO	Glypho-sate
Ethylene Dibromide	0.05	0	ND	ND	ND	No Range	Discharge from petroleum refiner-ies	NO	EDB/ DBCP/ TCP
1,2-Dibromo-3-Chloro propane	0.2	0	ND	ND	ND	No Range	Runoff/leaching from soil fumigant used on soybeans, cotton, pineap-ples, and orchards	NO	
1,2,3-Trichloropropane	UNREG-ULATED[8]	N/A	ND	ND	ND	No Range	Discharge from industrial chemical factories and pesticides	N/A	
Inorganic Anions									
Nitrate (as N) (ppm)	10	10	0.74	No Range	0.96	No Range	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits	NO	Inorganic Anions
Nitrite (as N) (ppm)	1	1	ND	No Range	ND	No Range	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits	NO	
Fluoride (ppm)	4	4	1.2	No Range	0.91	No Range	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	NO	
Sulfate (ppm)	250[7]	N/A	ND	No Range	ND	No Range	Naturally occurs; affects taste	NO	
Trace Metals (ppb)									
Antimony	6	6	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	Trace Metals
Arsenic	10	0	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Barium	2000	2000	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Beryllium	4	4	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Cadmium	5	5	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Chromium	100	100	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Copper	1300	1300	ND[5] (2020)	No Range	70.88 (2017)	No Range	Naturally occurs	NO	
Lead	15	0	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Mercury	2	2	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Nickel	UNREG-ULATED[8]	N/A	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	N/A	
Selenium	50	50	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	
Sodium	UNREG-ULATED[8]	N/A	16[5] (2020)	No Range	16 mg/L (2017)	No Range	Naturally occurs	N/A	
Thallium	2	0.5	ND[5] (2020)	No Range	ND (2017)	No Range	Naturally occurs	NO	

			Schofield, Wheeler, East Range		NCTAMS				
Contaminants in the Plant Water (units of measurement)	MCL	MCLG	Average Level Detected	Range of Detection (multiple samples)	Highest Level Detected	Range of Detection (multiple samples	Likely Source of Contaminant	Violation	Category
Radionuclides[9]									
Gross Beta (pCi/L)	50	0	1.2 (2016)	No Range	N/A	N/A	Decay of natural and man-made deposits	NO	Radionuclides
Gross Alpha (pCi/L)	15	0	0.11 (2016)	No Range	N/A	N/A	Decay of natural and man-made deposits	NO	
Radium-226 (pCi/L)	1	0	0.01 (2016)	No Range	N/A	N/A	Erosion of natural deposits	NO	
Radium-228 (pCi/L)	1	0	1.0 (2016)	No Range	1.0 (2016)	No Range	Erosion of natural deposits	NO	
Combined Radium (pCi/L)	5	0	1.01 (2016)	No Range	N/A	N/A	Erosion of natural deposits	NO	
Uranium (ppb)	30	0	<0.670 (2016)	No Range	N/A	N/A	Erosion of natural deposits	NO	

Table Definitions, Abbreviations, and Notes

Table Definitions:

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

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 risk to health. MCLGs allow for a margin of safety.

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

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.

NCTAMS - Naval Computer Telecommunication Area Master Station supplies water to Helemano.

UCMR4 - Unregulated Contaminant Monitoring Rule 4

Table Notes:

1. No more than 5.0% positive in a month
2. Highest monthly percentage of positive samples
3. All repeat tests were negative
4. Fluoride is added to the water system to help promote healthy teeth in children. The target level is 0.7 ppm.
5. The state and EPA require water system to monitor certain contaminants less than once per year because the concentration is not expected to vary significantly from year to year. The date of the last sample collected is as indicated
6. In accordance with EPA and State regulations, this number represents the 90th percentile value of the sample collected
7. Number of samples above the action level.
8. Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future.
9. This sampling is done every 9 years
10. The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

Table Abbreviations:

ppb - parts per billion or micrograms per liter (µg/L)

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

pCi/L - picocurie per liter

N/A - not applicable

ND - not detected

MFLs-million fibers per liter