2016 Consumer Confidence Report

Water System Name: Naval Air Station North Island and Naval Amphibious Base Report Date: 08 May 2017

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2016 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Surface water treated from the City of San Diego's Alvarado Filtration Plant Name & general location of source(s): The City of San Diego receives water from local sources, and the region's imported water system that is a blend of Colorado River and State Water Project surface water. The source water assessment is available.

Drinking Water Source Assessment information: SWA: The Source Water Assessment identifies activities to which water sources are considered "most vulnerable." The City of San Diego's annual Drinking Water Quality Report includes details about where your water comes from, what it contains, and how it compares to state standards. In 2016, as in years past, your tap water met all state and federal drinking water health standards (primary standards for treating and monitoring water). To request a summary of the assessments, contact Mr. John Locke at (619) 545-1127.

Time and place of regularly scheduled board meetings for public participation: <u>The Navy does not hold regularly</u> scheduled meetings on water issues.

For more information, contact: John Locke

Phone: (619) 545-1127

The remainder of this report is divided into two sections (A and B) and includes water quality testing conducted by the

Navy at Naval Base Coronado and the City of San Diego Alvarado Treatment plant.

Section A - 2016 U.S. Navy Water Quality Testing at Naval Base Coronado

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

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

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

Variances and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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.

ND: not detectable at testing limit

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

ppb: parts per billion or micrograms per liter (μ g/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

• *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, and 3 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 1 –	SAMPLING	RESULT	S SHOW	ING THE DI	ETECTION	N OF COLIF	ORM BACTERIA
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections		onths in ation	М	CL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a mo.) <u>0</u>		0	1 positive me sample	onthly	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year) 0	0 NG RESULTS SHOW		coliform pos one of these	repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive		Human and animal fecal waste
TABLE 2	- SAMPLIN	IG RESUI	.TS SHOV	VING THE	DETECTIO	ON OF LEAD	D AND COPPER
Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	August 2014	20	3.82	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	August 2014	20	0.369	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
TABLE 3 – DET	FECTION O	F CONTA	MINANT	'S WITH A I	PRIMARY	DRINKING	WATER STANDARD
Chemical or Constituent (and reporting units)	Sample Date	Level Detecte		Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes (TTHM) (ppb)	2 samples/ quarter	24.0]	7.0 - 33.0	80	[N/A]	By-product of drinking water disinfection
Haloacetic Acid (ppb)	2 samples/ quarter	12.0		0.5 – 10.0	60	[N/A]	By-product of drinking water chlorination
Chlorine (ppm)	2016	1.64]	.10 – 4.59	[4.0] as Cl ₂	[4.0] As Cl ₂	Drinking water disinfectant added for treatment

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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. <u>NASNI NAB</u> 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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 (1-800-426-4701) or at <u>http://www.epa.gov/lead</u>.

Section B – 2016 City of San Diego Annual Water Quality Report to Consecutive System Agencies

CITY OF SAN DIEGO

ENVIRONMENTAL MONITORING AND TECHNICAL SERVICES CONSUMER CONFIDENCE REPORT DATA -- 2016

PRIMARY STANDARDS (MANDATORY HEALTH RELATED STANDARDS)

								TREATMENT F			MWD SI		
				DDW	ALVA	RADO	MIRA	MAR	от	AY	TREATME	NT PLANT	MAJOR SOURCES IN DRINKING WATER
CHEMICAL PARAMETERS	UNITS	MCL	PHG	DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Fluoride (naturally occurring)	ppm	2	1	0.1	0.3	0.2 - 0.3	0.3	0.2 - 0.4	0.4	0.3 - 0.5	0.3	0.2 - 0.4	Erosion of natural deposits
Fluoride (treatment-related)	ppm	2	1	0.1	0.7	0.5 - 0.8	0.7	0.6 - 0.7	0.4	0.3 - 0.6	0.7	0.6 - 0.9	Water additive that promotes strong teeth
Barium	ppm	1	2	0.1	0.11	ND - 0.14	0.13	0.11 - 0.14	0.10	ND - 0.14	0.13	n/a	Erosion of natural deposits
	Note: Opt	timal Fluoride Lev	el as establis	hed by US D	ept. of Health ar	nd Human Serv	ices and Califor	nia Waterboard	s Division of Dri	inking Water is	0.7 ppm.		
						CITY O	F SAN DIEGO	TREATMENT F	PLANTS		MWD S		
			PHG	DDW		RADO		MAR^	от	Δ Υ^	TREATME		MAJOR SOURCES IN DRINKING WATER
RADIOACTIVE PARAMETERS	UNITS	MCL	(MCLG)	DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Gross Alpha Particle Activity	pCi/L	15	(0)	3	ND	n/a	3.3	n/a	6.4	n/a	ND	ND - 5	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50*	(0)	4	ND	n/a	5.7	n/a	ND	n/a	5	5 - 5	Decay of natural and manmade deposits
Uranium	pCi/L	20	0.43	1	2.1	n/a	2.4	n/a	1.8	n/a	2	1 - 2	Erosion of natural deposits
DDW considers 50 pCi/L to be the level of	concern for	beta particles.		^Monitoring	required every	three years (Gro	oss Alpha and E	Beta data for Ota	ay from 2015; U	ranium data for	Otay and Miram	nar from 2014)	
				DDW			CITY OF	SAN DIEGO D	ISTRIBUTION	SYSTEM			MAJOR SOURCES IN DRINKING WATER
MICROBIOLOGICAL	UNITS	MCL	MCLG	DLR		AVE	RAGE			RAN	NGE*		
otal Coliform Bacteria (b)		< 5%	_										
State Total Coliform Rule	/100mL	Positive	0	n/a		0.3	3%			0 - 0	0.7%		Naturally present in the environment
Total Coliform Bacteria													
ederal Revised Total Coliform Rule	/100mL	TT	n/a	n/a		0.3	3%			0 - 0	0.7%		Naturally present in the environment
	*Based or	Monthly Percent	tages of Posit	ive Total Coli	form samples								•
								TREATMENT F			MWD S		
TURBIDITY	UNITS	MCL	PHG		ALVA				OT OT	AY	TREATME		MAJOR SOURCES IN DRINKING WATER
Turbidity	NTU	TT = 1 NTU	n/a			ound = 0.12	Max Level		Max Level F		Max Level F		Soil runoff
·,		TT = 95% of		1							Max 207011		
Turbidity		samples ≤ 0.3			100% of sa	mples ≤ 0.3	100% of sa	mples ≤ 0.3	100% of sa	mples ≤ 0.3	100% of sa	mples ≤ 0.3	Soil runoff
·	NTU	NTU	n/a									•	
				•	-		-		•		-		·
							SAMPL	ES TAKEN FRO	OM CUSTOME	-	-		
		ACTION		DDW		CENTILE			NUM				MAJOR SOURCES IN DRINKING WATER
	UNITS	LEVEL	PHG	DLR	CONCEN	-	-	IG SITES	EXCEED	DING AL	VIOLA	-	
LEAD AND COPPER STUDY						49	-	54		1	N	\cap	Internal corrosion of household plumbing systems
Copper Lead	ppm ppb	1.3 15	0.3	0.05		49 ID		i4		1	N		Internal corrosion of household plumbing systems

In addition to the EPA Lead and Copper study, the City of San Diego analyzed 64 samples from our three drinking water treatment plants in 2016. All results were below the DLR.

2016 SDCWA Special Lead and Copper Monitoring

							SAMPL	ES TAKEN FR	OM CUSTOME	R TAPS		
		ACTION		DDW	Sampled: May/June 2016		Sampled: Se	npled: September 2016		NUMBER		MAJOR SOURCES IN DRINKING WATER
LEAD AND COPPER STUDY	UNITS	LEVEL	PHG	DLR	AVERAGE RANGE		AVERAGE	RANGE	SITES	EXCEEDING AL	VIOLATION	
Copper	ppm	1.3	0.3	0.05	0.05 0.29 ND -0.074 0.24 ND -0.52 21 0 NO Internal corrosion of house		Internal corrosion of household plumbing systems					
Lead	ppb	15	0.2	5	ND ND - ND		ND	ND - ND	21	0	NO	Internal corrosion of household plumbing systems

DETECTED DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUAL AND DISINFECTION BYPRODUCT PRECURSORS

							F SAN DIEGO		-		MWD S	KINNER	
				DDW	ALVA	RADO	MIRA	MIRAMAR		ΟΤΑΥ		NT PLANT	MAJOR SOURCES IN DRINKING WATER
	UNITS	MCL	PHG	DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Bromate*	ppb	10	0.1	5 / 1***	1*** ND ND - 8.5 ND ND - ND				n/a	n/a	4.2****	ND - 9.1	Byproduct of drinking water disinfection
Chlorate**	ppb	NL=800) PPB	20	n/a	n/a	n/a	n/a	126	71.8 - 201	51	n/a	Byproduct of drinking water disinfection
Chlorite**	ppm	1	0.05	0.02	n/a	n/a	n/a	n/a	0.26	0.07 - 0.46	n/a	n/a	Byproduct of drinking water disinfection
Total Organic Carbon [TOC]	ppm	TT	n/a	0.3	2.5	2.1 - 3.6	2.5	2.2 - 2.8	3.0	3.0 1.8 - 6.4 2.5		2.2 - 2.7	Various natural and manmade sources
	*Required	for Alvarado Mir	ramar, and Sk	inner **Re	nuired for Otav	*** City of San	Diego DLR - 5	Skinner DI R -	-1 ****Highes	t Running Annu	al Average	MDistribution 9	System-wide

*Required for Alvarado, Miramar, and Skinner **Required for Otay *** City of San Diego DLR = 5, Skinner DLR = 1 ****Highest Running Annual Average ^^Distribution System-wide

	UNITS	MCL [MRDL]	PHG [MRDLG]	CSD MDL (DLR)	CITY OF SAN DIEGO D	DISTRIBUTION SYSTEM		MAJOR SOURCES IN DRINKING WATER
Disinfectant Residual[Chloramines as Cl ₂]	ppm	[4] ^A	[4]	0.1	Distribution system average ² = 2.0	Range ² = ND - 3.8		Drinking water disinfectant added for treatment. CSD MDL= 0.2
Chlorite ¹	ppm	1	0.05	(-0.02)	Distribution system average ² = 0.19	Range ² = ND - 0.32		Byproduct of drinking water disinfection
Haloacetic acids [HAA5]	ppb	60 ^B	n/a		Maximum LRAA = 13	Range ² = 1.7- 16.8	Violation - NO	Byproduct of drinking water disinfection
Total Trihalomethanes [TTHMs]	ppb	80 ^B	n/a		Maximum LRAA = 53	Range ² = 6.4 - 68.3	Violation - NO	Byproduct of drinking water chlorination

¹ Chlorite monitoring required only in the Southern section of the distribution system. ² Range and average are based upon individual 2016 sample results.

^A Compliance is determined by the distribution system average.

^B Total Trihalomethane and HAA5 compliance is based on quarterly Locational Running Annual Averages (LRAA)

DETECTED REGULATED CCR PARAMETERS WITH SECONDARY MCLs

			CSD			F SAN DIEGO				MWD S		MAJOR SOURCES IN DRINKING WATER	
		CA	MDL	ALVA	RADO	MIR	AMAR	ОТ	AY	TREATME	NT PLANT		
	UNITS	SMCL	(DLR)	,		AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Chloride	ppm	500	0.5	0.5 106 94.2 - 11		106	99.3 - 108	127	96.8 - 166	103	102 - 104	Runoff/leaching from natural deposits; seawater influence	
Color	CU	15	1	ND	ND - ND	ND	ND - 4	ND	ND - 2	2	1 - 2	Naturally - occurring organic materials	
Odor - Threshold	OU	3	(1)	ND	ND - 1	ND	ND - 1	1	1 - 2	3	n/a	Naturally - occurring organic materials	
Specific Conductance	μS/cm	1,600	n/a	975	907 - 1060	984	823 - 1070	1010	923 -1110	998	965 - 1030	Substances that form ions when in water; seawater influence	
Sulfate	ppm	500	(0.5)	207	154 - 249	232	194 - 250	194	129 - 242	234	229 - 238	Runoff/leaching from natural deposits; industrial wastes	
Total Dissolved Solids	ppm	1000	10	597	538 - 667	624	544 - 668	618	590 - 650	624	615 - 632	Runoff/leaching from natural deposits	

OTHER PARAMATERS THAT MAY BE OF INTEREST

						CITY O	F SAN DIEGO	TREATMENT F	PLANTS		MWD S	KINNER
				CSD	ALVA	RADO	MIRA	MAR	ОТ	AY	TREATME	NT PLANT
	UNITS	MCL	PHG	MDL	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
Sodium	ppm	n/a	n/a	20	94.8	80.7 - 99.5	95.8	82.6 - 102	103	89.9 - 122	102	101 - 104
Total Hardness	ppm	n/a	n/a	10	272	245 - 311	284	248 - 308	273	259 - 299	284	274 - 294
Total Hardness	gr/Gal	n/a	n/a	0.6	15.9	14.3 - 18.2	16.6	14.5 - 18.0	15.9	15.1 - 17.5	16.6	16.0 - 17.2
Alkalinity - Total as CaCO ₃	ppm	n/a	n/a	10	127	118 - 133	121	109 - 133	134	108 - 170	122	118 - 125
pH	pН	n/a	n/a	n/a	8.02	7.44 - 8.23	8.10	7.55 - 8.46	8.14	6.84 - 8.45	8.1	8.1 - 8.2
Ammonia as Nitrogen	ppm	n/a	n/a	0.03	0.75	0.17 - 1.2	0.74	0.18 - 1.8	0.81	0.28 - 1.9	n/a	n/a

DETECTED UNREGULATED PARAMETERS

					CITY		MWD SKINNER				
		NOTIFICATION	DDW	ALV	ARADO	MIRA	MAR	ОТ	AY	TREATME	NT PLANT
	UNITS	LEVEL	DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
Boron	ppm	1	0.1	0.14	0.11 - 0.15	0.15	0.14 - 0.16	0.16	0.15 - 0.17	0.14	n/a

UCMR3 STUDY

					OF SAN DIEGO	TREATMENT	PLANTS		CITY OF S	AN DIEGO	
		UCMR3	ALVA	ARADO	MIRA	MAR	ОТ	AY	DISTRIBUTI	ON SYSTEM	MAJOR SOURCES IN DRINKING WATER
UCMR3 PARAMETERS	UNITS	MRL	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Bromochloromethane	ppb	 0.06	ND	ND - ND	ND	ND - ND	ND	ND - 0.07	n/a	n/a	Fire extinguishers; pesticide solvent
Chlorodifluoromethane (HCFC-22)	ppb	 0.08	ND	ND - 0.16	ND	ND - ND	ND	ND - ND	n/a	n/a	Refrigerant
Chlorate	ppb	 20	ND	ND - ND	ND	ND - 25	165	140 - 200	81	0 - 160	Byproduct of drinking water disinfection
Chromium-6	ppb	 0.03	0.09	0.08 - 0.11	0.16	0.03 - 0.36	0.04	ND - 0.09	0.06	ND - 0.11	Naturally-occurring metal;steel; chrome plating
Molybdenum	ppb	 1	3.6	3.2 - 4.0	3.9	3.4 - 4.2	3.0	2.8 - 3.3	3.7	2.7 - 4.7	Naturally-occurring element; in ores and plants
Strontium	ppb	 0.3	630	550 - 710	843	750 - 920	548	500 - 660	749	490 - 940	Naturally-occurring element
Vanadium	ppb	 0.2	ND	ND - 0.25	ND	ND - 0.26	ND	ND - ND	0.29	ND - 0.84	Naturally-occurring metal; used as a catalyst

Note: UCMR3 samples were collected in 2013 and 2014

					CITY OF SAM	N DIEGO TREA	TMENT PLANT	S		
			ALVARADO			MIRAMAR			ΟΤΑΥ	
PARAMETER	Units	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX
2-Methylisoborneol	ppt (ng/L)	ND	ND	ND	ND	ND	8.3	ND	ND	ND
Aggressiveness Index		12.0	12.3	12.4	12.0	12.3	12.5	12.0	12.4	12.7
Bicarbonate (as HCO3)	ppm	143	154	161	132	147	161	131	161	204
Bromide	ppm	ND	ND	ND	ND	ND	ND	ND	0.0	0.17
Calcium (Ca)	ppm	52.4	63.8	74.8	52.5	67.9	74.4	47.6	61.7	74.0
Calcium Hardness (CaCO3)	ppm	131	159	187	146	173	186	119	154	185
Carbonate (as CO3)	ppm	0	0.23	2.0	0	0.18	1.5	0	0.84	2.8
Dissolved Organic Carbon*	ppm	2.2	2.6	4.1	2.2	2.5	3.0	2.0	3.2	6.1
Langelier Index at Source Temp.		0.23	0.46	0.61	0.25	0.51	0.67	0.23	0.59	0.93
Magnesium (Mg)	ppm	21.0	23.7	27.9	21.0	23.5	26.6	19.5	24.5	31.0
Phosphorus, Total	ppm	ND	0.019	0.046	ND	0.037	0.194	ND	0.019	0.058
Potassium (K)	ppm	4.63	5.05	5.47	4.58	4.81	5.05	4.32	4.98	5.98
Ryzner Aggressive Index		6.86	7.09	7.37	6.79	7.02	7.39	6.54	6.95	7.31
Silica	ppm	6.79	8.26	9.60	6.77	7.68	8.44	4.73	7.50	10.0
SUVA*	L/mg-m	1.0	1.3	1.5	0.9	1.2	1.4	0.9	1.2	1.4
Total Nitrogen	ppm	0.31	0.77	0.92	0.55	0.73	0.88	0.72	0.90	1.13

ADDITIONAL PHYSICAL, MINERAL, AND METAL CHARACTERISTICS

* Results from untreated water

NON-DETECTECTED PARAMETERS IN THE DRINKING WATER

PARAMETER			PHG	DDW	PARAMETER			PHG	DDW
	UNITS	MCL	(MCLG)	DLR		UNITS	MCL	(MCLG)	DLR
1,1,1,2-Tetrachloroethane	ppb	n/a	n/a	0.5	Endrin*	ppb	2	0.3	0.1
1,1,1-Trichloroethane (1,1,1-TCA)* 1,1,2,2-Tetrachloroethane*	ppb ppb	200	1000 0.1	0.5	Escherichia Coli Equilin#	/100 ml ppb	n/a n/a	0 n/a	0.1 n/a
1,1,2-Trichloroethane (1,1,2-TCA)*	ppb	5	0.1	0.5	Estrone#	ppb	n/a	n/a	n/a
1,1-Dichloroethane (1,1-DCA)*#	ppb	5	3	0.5	Ethyl Benzene*	ppb	300	300	0.5
1,1-Dichloroethylene (1,1-DCE)*	ppb	6	10	0.5	Ethylene Dibromide (EDB)*	ppt	50	10	20
1,1-Dichloropropene	ppb	n/a	n/a	0.5	Ethyl-tert-Butyl Ether (ETBE)	ppb	n/a	n/a	3
1,2,3-Trichlorobenzene	ppb	n/a	n/a	0.5	Fluorene	ppb	n/a	n/a	5
1,2,3-Trichloropropane(TCP)#	ppb	n/a	n/a	0.005	Geosmin	ppt	n/a	n/a	n/a
1,2,4-Trichlorobenzene* 1,2,4-Trimethylbenzene	ppb	5 n/a	5 n/a	0.5	Giardia Glyphosate*	Cysts/L	n/a 700	n/a 900	n/a 25
1,2-Dichlorobenzene (o-DCB)*	ppb ppb	600	600	0.5	Heptachlor*	ppb ppt	10	8	10
1,2-Dichloroethane (1,2-DCA)*	ppb	500	400	500	Heptachlor Epoxide*	ppt	10	6	10
1,2-Dichloropropane*	ppb	5	0.5	0.5	Hexachlorobenzene*	ppb	1	0.03	0.5
1,3,5-Trimethylbenzene	ppb	n/a	n/a	0.5	Hexachlorobutadiene	ppb	n/a	n/a	0.5
1,3-Butadiene#	ppb	n/a	n/a	0.1	Hexachlorocyclopentadiene*	ppb	50	2	1
1,3-Dichlorobenzene (m-DCB)	ppb	n/a	n/a	0.5	Hexavalent Chromium	ppb	10	0.02	1
1,3-Dichloropropane	ppb	n/a	n/a	0.5	Indeno (1,2,3-cd) Pyrene	ppb	n/a	n/a	10
1,4-Dichlorobenzene (p-DCB)* 1.4-Dioxane#	ppb	5	6	0.5	Iron	ppb	300	n/a	100 0.5
1,4-DI0xane# 16-alpha-hydroxyestradiol (estriol)#	ppb ppb	n/a n/a	n/a n/a	1 n/a	Isopropylbenzene (Cumene) Lead(Pb)*	ppb ppb	n/a 15^	n/a 0.2	0.5
17-alpha-ethynylestradiol (ethinyl estradiol)#	ppb	n/a	n/a	n/a	Lindane (gamma-BHC)*	ppb	200	32	200
17-beta-estradiol#	ppb	n/a	n/a	n/a	Manganese+	ppb	50	n/a	20
2,2-Dichloropropane	ppb	n/a	n/a	0.5	MBAS (Foaming Agents)+	ppb	500	n/a	n/a
2,3,7,8-tetra CDD (Dioxin)	ppq	30	0.05	5	MCPA	ppb	n/a	n/a	n/a
2,4,5-T	ppb	n/a	n/a	n/a	MCPP	ppb	n/a	n/a	n/a
2,4,5-TP (SILVEX)*	ppb	50	3	1	Mercury*	ppb	2	1.2	1
2,4-D* 2.4-DB	ppb ppb	70 n/a	20 n/a	10 n/a	meta,para xylenes Methiocarb	ppb ppb	n/a n/a	n/a n/a	0.5 n/a
2-Chlorotoluene	ppb	n/a	n/a	0.5	Methonyl	ppb	n/a	n/a	2
3,5-Dichlorobenzoic Acid	ppb	n/a	n/a	n/a	Methoxychlor*	ppb	30	0.09	10
3-Hydroxycarbofuran	ppb	n/a	n/a	3	Methyl tert-Butyl Ether (MTBE)*+	ppb	13	13	3
4-androstene-3,17-dione#	ppb	n/a	n/a	n/a	Molinate (ORDRAM)*	ppb	20	1	2
4-Chlorotoluene	ppb	n/a	n/a	0.5	Monochlorobenzene (Chlorobenzene)*	ppb	70	70	0.5
4-Nitrophenol	ppb	n/a	n/a	5	Naphthalene	ppb	n/a	n/a	0.5
Acenaphthylene	ppb	n/a	n/a	5	n-Butylbenzene	ppb	n/a	n/a	0.5
Acifluorfen Alachlor (ALANEX)*	ppb ppb	n/a 2	n/a 4	n/a 1	Nickel* Nitrate (as Nitrate)*	ppb ppm	100 45	12 45	10 2
Aldicarb (TEMIK)	ppb	n/a	n/a	3	Nitrate (as Nitrogen)*	ppm	10	10	0.4
Aldicarb Sulfone	ppb	n/a	n/a	4	Nitrite (as Nitrogen)*	ppm	1	1	0.4
Aldicarb Sulfoxide	ppb	n/a	n/a	3	n-Propylbenzene	ppb	n/a	n/a	0.5
Aldrin	ppb	n/a	n/a	0.075	Oxamyl (Vydate)*	ppb	50	26	20
Aluminum	ppb	1000	600	50	o-Xylene	ppb	n/a	n/a	0.5
Anthracene	ppb	n/a	n/a	5	Paraquat	ppb	n/a	n/a	20
Antimony*	ppb	6 10	1 0.004	6	PCB-1016 (as DCB) PCB-1221 (as DCB)	ppb	0.5	n/a	0.5
Arsenic* Atrazine (AATREX)*	ppb ppb	10	0.004	0.5	PCB-1221 (as DCB) PCB-1232 (as DCB)	ppb ppb	0.5	n/a n/a	0.5
Baygon	ppb	n/a	n/a	n/a	PCB-1242 (as DCB)	ppb	0.5	n/a	0.5
Bentazon (BASAGRAN)*	ppb	18	200	2	PCB-1248 (as DCB)	ppb	0.5	n/a	0.5
Benzene*	ppb	1	0.15	0.5	PCB-1254 (as DCB)	ppb	0.5	n/a	0.5
Benzo (a) Anthracene	ppb	n/a	n/a	10	PCB-1260 (as DCB)	ppb	0.5	n/a	0.5
Benzo (b) Fluoranthene	ppb	n/a	n/a	10	Pentachlorophenol (PCP)*	ppb	1	0.3	0.2
Benzo (ghi) Perylene	ppb	n/a	n/a	10	Perchlorate*	ppb	6	1	4
Benzo (k) Fluoranthene	ppb ppt	n/a 200	n/a 7	10 100	Perfluorobutanesulfonic Acid (PFBS)# Perfluoroheptanoic Acid (PFHpA)#	ppb	n/a n/a	n/a n/a	n/a n/a
Benzo(a)pyrene* Benzyl Butyl Phthalate	ppt ppb	200 n/a	n/a	100	Perfluoroneptanoic Acid (PFHpA)# Perfluorohexandsulfonic Acid (PFHxS)#	ppb ppb	n/a n/a	n/a n/a	n/a n/a
Beryllium*	ppb	4	1/a	1	Perfluorononanoic Acid (PFNA)#	ppb	n/a	n/a	n/a
Bromobenzene	ppb	n/a	n/a	0.5	Perfluorooctanesulfonic Acid (PFOS)#	ppb	n/a	n/a	n/a
Bromomethane (Methyl Bromide)#	ppb	n/a	n/a	0.5	Perfluorooctanoic Acid (PFOA)#	ppb	n/a	n/a	n/a
Cadmium*	ppb	5	0.04	1	Phenanthrene	ppb	n/a	n/a	5
Carbaryl (Sevin)	ppb	n/a	n/a	5	Phosphate, Ortho (as PO4)	ppm	n/a	n/a	n/a
Carbofuran (FURADAN)*	ppb	18	0.7	5	Picloram*	ppb	500	166	1
Carbon Tetrachloride* Chloramben	ppt ppb	500 n/a	100 n/a	500 p/a	p-Isopropyltoluene Propachlor	ppb	n/a n/a	n/a n/a	n/a 0.5
Chlordane*	ppb ppt	100	30	n/a 100	Propachior Pyrene	ppb ppb	n/a n/a	n/a n/a	0.5
Chloroethane	ppt	n/a	n/a	0.5	Combined Radium (226+228)	ppb pCi/L	5	(0)	n/a
Chloromethane#	ppb	n/a	na	0.5	sec-Butylbenzene	ppb	n/a	n/a	0.5
Chromium (total)	ppb	50	(100)	10	Selenium*	ppb	50	30	5
Chrysene	ppb	n/a	n/a	5	Silver+	ppb	100	n/a	10
cis-1,2-Dichloroethylene (c-1,2-DCE)*	ppb	6	100	0.5	Simazine (PRINCEP)*	ppb	4	4	1
cis-1,3-dichloropropene	ppb	n/a	n/a	0.5	Styrene*	ppb	100	0.5	0.5
Cobalt#	ppb	n/a	n/a	1	tert-Amyl Methyl Ether (TAME)	ppb	n/a	n/a	3
Copper*+	ppm	1.3^	0.3	0.05	tert-Butyl Alcohol (TBA)	ppb	n/a	n/a	2

Cryptosporidium (untreated water)	ooCysts/L	n/a	n/a	n/a	tert-Butylbenzene	ppb	n/a	n/a	0.5
Cyanide*	ppb	150	150	100	Testosterone#	ppb	n/a	n/a	n/a
Dalapon*	ppb	200	790	10	Tetrachloroethylene (PCE)*	ppb	5	0.06	0.5
Di(2-ethylhexyl) Adipate*	ppb	400	200	5	Thallium*	ppb	2	0.1	1
Di(2-ethylhexyl)phthalate (DEHP)*	ppb	4	12	3	Thiobencarb (BOLERO)*+	ppb	70	42	1
Dibenzo (a,h) anthracene	ppb	n/a	n/a	5	Toluene*	ppb	150	150	0.5
Dibromochloropropane (DBCP)*	ppt	200	1.7	10	Total 1,3-Dichloropropene*	ppt	500	200	500
Dibromomethane	ppb	n/a	n/a	0.5	Total PCBs*	ppt	500	90	500
Dicamba (BANVEL)	ppb	n/a	n/a	1.5	Total Suspended Solids (TSS)	ppm	n/a	n/a	n/a
Dichlorodifluoromethane (Freon 12)	ppb	n/a	n/a	0.5	Total Xylenes (m,p and o)*	ppm	1.75	1.8	n/a
Dichloromethane (Methylene Chloride)*	ppb	5	4	0.5	Toxaphene*	ppb	3	0.03	1
Dichlorprop	ppb	n/a	n/a	n/a	trans-1,2-Dichloroethylene (t-1,2-DCE)*	ppb	10	60	0.5
Dieldrin	ppb	n/a	n/a	0.02	trans-1,3-Dichloropropene	ppb	n/a	n/a	n/a
Diethylphthalate	ppb	n/a	n/a	5	Trichloroethylene (TCE)*	ppb	5	1.7	0.5
Diisopropyl Ether (DIPE)	ppb	n/a	n/a	3	Trichlorofluoromethane (FREON 11)*	ppb	150	1300	5
Dimethyl phthalate	ppb	n/a	n/a	5	Trichlorotrifluoroethane (FREON 113)*	ppb	1200	4000	10
di-n-Butylphthalate	ppb	n/a	n/a	5	Trifluralin	ppb	n/a	n/a	n/a
Dinoseb (DNBP)*	ppb	7	14	2	Vanadium	ppb	n/a	n/a	3
Diquat*	ppb	20	6	4	Vinyl Chloride (VC)*	ppt	500	50	500
Endothall*	ppb	100	94	45	Zinc+	ppm	5	n/a	0

Note: All of the contaminants listed in this table were analyzed for, but not detected, in the drinking water in 2016. Primary (*) or Secondary Contaminants (+) (#) EPA UCMR3 samples collected in 2013 and 2014