

2003 WATER QUALITY DATA

PRIMARY STANDARDS: Mandatory Health-Related Standards

CONTAMINANT (units)	MCLG	MCL	GROUND WATER		UGUM WATER		FENA WATER		Major Sources of Contaminant
			Range	RV	Range	RV	Range	RV	
Regulated VOCs									
Tetrachloroethylene (PCE) (ppb)	0	5	nd - 0.8	0.6	nd	nd	nd	nd	Leaching from PVC pipes, discharge from dry cleaners
Trichloroethylene (TCE) (ppb)	0	5	nd - 2.7	2.1	nd	nd	nd	nd	Discharge from metal degreasing sites
Total Trihalomethanes (ppb)	0	100	nd - 51	51	20 - 46	31	31 - 38	36	By-product of drinking water chlorination
Regulated SOCs									
Chlordane (ppb)	0	2	nd - 1.9	1.55	nd	nd	nd	nd	Banned termiticide residue
Di(2-ethylhexyl)-phthalate (ppb)	0	6	nd - 2.6	1	nd	nd	nd	nd	Leaching from PVC pipes
Endrin (ppb)	2	2	nd - 0.06	0.02	nd	nd	nd	nd	Banned insecticide residue
Heptachlor (ppb)	0	400	nd - 0.01	0.01	nd	nd	nd	nd	Banned termiticide residue
Heptachlor Epoxide (ppt)	0	200	nd - 0.03	0.02	nd	nd	nd	nd	Banned termiticide residue
Regulated IOCs									
Arsenic (ppm)	0	10	nd - 1.9	1.9	nd	nd	nd	nd	Erosion of natural deposits
Barium (ppb)	2000	2000	nd - 66	66	2.9	2.9	nd - 3.4	3.4	Occurs naturally
Chromium (ppb)	100	100	nd - 11	11	nd	nd	nd	nd	Erosion of natural deposits
Fluoride (ppm)	4	4	nd - 0.15	0.15	0.8	0.8	nd - 0.73	0.7	Water additive; naturally occurring which promotes strong teeth
Nitrate-N (ppm)	10	10	nd - 4.0	4.0	nd	nd	0.21 - 2.2	2.2	Runoff from fertilizer use; leaching from sewage
Selenium (ppb)	50	50	nd - 14	14.0	nd	nd	0.21 - 2.2	2.2	Erosion of natural deposits
Radionuclides									
Gross Alpha Activity (pCi/l)	0	15	nd - 7.3	7.30	nd	nd	nd	nd	Erosion of natural deposits
Gross Beta Activity (pCi/l)	0	50*	nd - 2.6	2.60	nd	nd	nd - 2.6	2.6	Decay of natural and man-made deposits

* The MCL for beta particles is 4 mrem/year. However, EPA considers 50 pCi/l to be the level of concern for beta particles.

Microbial Contaminants

CONTAMINANT (units)	MCLG	MCL	NORTHERN		CENTRAL		SOUTHERN		Major Sources of Contaminant
			Ground Water	UGUM WATER	Ground and Fena	UGUM WATER	Ground and Fena	UGUM WATER	
			Violation	RV	Violation	RV	Violation	RV	
Total Coliform (TC) (% positive/month)	0	5%	No	1.8%	No	3.6%	No	4.2%	Naturally present in environment
Fecal coliform (FC) or <i>E. coli</i>	0	See Note 1	No	0	No	0	No	0	Human and animal fecal waste

Note 1: MCL = a routine sample and a repeat sample are TC positive, and one is also FC or *E. coli* positive

Lead and Copper Rule

CONTAMINANT (units)	MCLG	MCL	MCL	NORTHERN			CENTRAL			SOUTHERN			Major Sources of Contaminant
				Ground Water	UGUM WATER	FENA WATER	Ground and Fena	UGUM WATER	FENA WATER	Ground and Fena	UGUM WATER	FENA WATER	
				90th Percentile above AL	RV	Violation	90th Percentile above AL	RV	Violation	90th Percentile above AL	RV	Violation	
Copper (ppb)	1300	AL=1300	180	5.7	1 of 100	5.1	2 of 60	5.9	0 of 40	Corrosion of household plumbing			
Lead (ppb)	0	AL=15	180	5.7	1 of 100	5.1	2 of 60	5.9	0 of 40	Corrosion of household plumbing			

Turbidity as Indicator of Filtration Performance

CONTAMINANT (units)	MCLG	MCL	UGUM WATER		FENA WATER	Major Sources of Contaminant	
			RV	Violation			
Turbidity (ntu)	n/a	See Note 2	97.6%	No	99.4%	No	Soil runoff

Note 2: TT = 95% of samples < 0.5 ntu

Unregulated Contaminants (Monitoring Required)**

CONTAMINANT (units)	MCLG	MCL	GROUND WATER		UGUM WATER		FENA WATER	
			Range	RV	Range	RV	Range	RV
Unregulated VOCs								
Bromodichloromethane (ppb)	ns	ns	nd - 12	12	6.2 - 10	9.6	nd - 1.5	1.5
Bromoform (ppb)	ns	ns	nd - 19	19	nd - 4.3	1.6	nd	nd
Chlorodibromomethane (ppb)	ns	ns	nd - 14	14.0	3.8 - 6.5	4.8	nd - 11	11
Chloroform (ppb)	ns	ns	nd - 18.3	18.3	4.4 - 18	12.9	nd - 22	22
Unregulated SOCs								
Dieldrin (ppb)	ns	ns	nd - 1.6	1.6	nd	nd	nd	nd
Unregulated IOCs								
Nickel (ppm)	n/a	n/a	nd - 22	22.0	7.2	7.2	nd	nd
Sulfate (ppm)	ns	ns	3.3 - 73	73	10	10	4.56 - 53.8	53.8

** Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether there is a need to regulate those contaminants.

Secondary Maximum Contaminant Levels - Consumer Acceptance Limits***

CONTAMINANT (units)	MCLG	MCL	GROUND WATER		UGUM WATER		FENA WATER	
			Range	RV	Range	RV	Range	RV
Chloride (ppm)	n/a	250	23 - 529	26 - 37	25 - 46	25 - 46	194 - 232	
Conductivity (umho/cm)	n/a	1600	87 - 1877	123 - 169	194 - 232	194 - 232	7.06 - 7.32	
pH (units)	n/a	6.5-8.5	6.50 - 7.93	7.09 - 7.25	7.06 - 7.32	7.06 - 7.32		

*** Secondary MCL monitoring helps GWA to determine areas in need of adjustment, additional maintenance or rehabilitation in order to provide a high quality water that appeals to the consumer.

Additional Constituents Analyzed

CONTAMINANT (units)	MCLG	MCL	GROUND WATER		UGUM WATER		FENA WATER	
			Range	RV	Range	RV	Range	RV
Alkalinity as CaCO ₃ (ppm)	n/a	n/a	36 - 891	37 - 90	36 - 96	36 - 96	11	
Sodium (ppm)	n/a	n/a	8 - 280	13	13	13		
Hardness as CaCO ₃ (ppm)	n/a	n/a	42 - 377	58 - 109	78 - 133	78 - 133		

About the Data:

- Data presented in these tables list the results of tests done between Jan 1 - Dec 31, 2003. Tables list only the contaminants detected. Detection does not necessarily mean a violation or exceedance of an MCL or Treatment Technique.
- Microbial, total trihalomethane (TTHM), lead and copper samples were taken from the distribution system, not from source waters.

Definitions and Abbreviations

- MCLG: Maximum Contaminant Level Goal, or 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.
- MCL: Maximum Contaminant Level, or the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technique.
- AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow. Copper AL = 1300 ppb; Lead AL = 15 ppb.
- TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.
- RV: Reporting Value, or that used for determining compliance with an MCL, and is the highest average value for any single source tested. For VOCs and SOCs, RV= the highest annual average. For IOCs and radionuclides, RV= the highest value detected. If the RV is below the MCL, the water is meeting the health and safety-based standards.
- Range: range of values actually detected in samples from all the water tested.
- VOC: Volatile Organic Chemical
- SOC: Synthetic Organic Chemical
- IOC: Inorganic Chemical
- ntu: nephelometric turbidity unit
- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- ppt: parts per trillion or nanograms per liter
- pCi/l: picocuries per liter, a measure of radioactivity
- mrem/yr: millirem per year, a measure of radioactivity
- nd: not detectable at testing limits
- n/a: not applicable
- ns: no standard

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