Well Water Contaminants in Craven County

Contaminant	Drinking Water Standard	Private Well Water Test Results					
		Total wells tested	Number of wells tested above standard	Percentage (%) of wells tested above standard	Minimum	Maximum	Average
Maximum Contaminant Level (MCL)							
Arsenic	10	250	0	0%	0.71	7.07	2.94
Barium	2000	145	0	0%	70.71	100	70.91
Beryllium	4	16	0	0%	2.12	2.12	2.12
Cadmium	5	164	0	0%	0.71	3.54	0.72
Chromium	100	145	0	0%	7.07	7.07	7.07
Copper	1300	145	0	0%	35.36	1240	64.11
Lead	15	250	7	2.8%	3.54	923	7.85
Mercury	2	108	0	0%	0.35	0.35	0.35
Nitrate	10000	82	0	0%	707.11	2100	737.42
Nitrite	1000	82	0	0%	70.71	70.71	70.71
Selenium	50	145	0	0%	3.54	3.54	3.54
Uranium	30	0	-	-	-	-	-
	NC 2L Groundwater						
Barium	700	145	0	0%	70.71	100	70.91
Boron	700	0	-	-	-	-	-
Cadmium	2	164	1	0.61%	0.71	3.54	0.72
Chromium	10	145	0	0%	7.07	7.07	7.07
Cobalt	1	0	-	-	-	-	-
Nickel	100	0	-	-	-	-	-
Zinc*	1000	133	3	2.26%	35.36	1300	106.52
	Health Advisory						
Iron*	2500 (DEQ)	146	71	48.63%	70.71	8300	932.55
Manganese*	300 (EPA)	251	55	21.91%	21.21	1250	41.3
Sodium	20000 (EPA)	142	142	100%	1500	220000	50478.17
State Health Goal							
Hexavalent Chromium	0.07	0	=	ī	-	-	-
Thallium	0.2	16	16	100%	1.41	1.41	1.41
Vanadium	0.3	0	-	-	-	-	-

Contaminant levels are measured in micrograms per liter ($\mu q/L$), which is equal to parts per billion (ppb). Note: Copper and Lead standards are called "Action Levels".

Maximum Contaminant Level (MCL): The highest level of a contaminant that the US EPA allows in drinking water supplied by public utilities. An MCL takes into consideration the best available treatment technology and associated costs along with health risk. More information about MCL standards: https://bit.ly/epa-MCL.

NC 2L Groundwater: Set by NC DEQ as the highest level of a contaminant allowed in groundwater, which may be tolerated without creating a threat to human health or which would otherwise make the groundwater unsuitable for its intended best usage, such as a drinking water. Note: Barium, Cadmium, and Chromium have different standards under state and federal regulations; both are included in this table. More information about NC 2L Groundwater standards: https://bit.ly/nc2Lgw.

Health Advisory: In the absence of federal standards, the US EPA and state agencies can issue advisories to communicate the level of a contaminant in drinking water at which harmful health and/or aesthetic effects are not anticipated to occur over a specific period of time.

State Health Goal: In the absence of state and federal standards, level established by NC DHHS to communicate to private well users the risk associated with using their well water.

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For more information visit:

https://sph.unc.edu/superfund-pages/for-communities/

Eaves LA, Keil AP, Rager JE, George A, Fry RC. Analysis of the novel NCWELL database highlights two decades of co-occurrence of toxic metals in North Carolina private well water: Public health and environmental justice implications. Sci Total Environ. 2022 Mar 15;812:151479. doi: 10.1016/j.scitotenv.2021.151479. Epub 2021 Nov 9. PMID: 34767890.



^{*}The EPA also has a nuisance standard for aesthetic effects caused by these contaminants, however, this table uses the health-based standard.