Drinking Water Testing Program City of Flint Community Data

Multiple labs were used for this drinking water project with some samples going to more than one lab. Initial and flushed water samples from sampling events 6 and 7 were sent to Paragon Lab. Some of the flushed water samples from these sampling events were also sent to Trace Analytical Laboratories, Inc. (Trace Lab) and the Michigan Department of Energy and Great Lakes Environmental Laboratory (EGLE Lab). This was done to make sure that the results were accurate. Homes that had water testing during these sampling events received results in the mail from each lab that tested their water. Below are the results from Trace Lab.

MDHHS Sampling Event 7 Trace Lab (11/16/2021-11/18/2021)

Section 1: Metals										
Parameter	Number of locations sampled (number of initial samples/number	Range in initial samples (mg/L)			Range in fl	ushed sampl	es (mg/L)	US Environmental Protection Agency (US EPA) drinking water	Health-based level (mg/L)	
	of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	value (mg/L)	(8) =/	
Aluminum	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	0.062	ND	1.9	0.05-0.20 (J)	0.3 (D)	
Antimony	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.006 (F)	0.0028 (B: chronic for children)	
Arsenic	58 (0/58)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.01(F)	0 (G)	
Barium	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	0.013	ND	0.029	2 (F)	0.7 (E: 1/10- day for children)	
Beryllium	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.004 (F)	0.004 (G)	

Boron	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	Value not established	1.4 (C: chronic for children)
Cadmium	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.005 (F)	0.0007 (C: chronic for children)
Chromium, total	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.1 (F)	0.0063 (C: chronic for children, Cr (VI)) ¹
Copper	58 (0/58)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	1.3 (A) 1.0 (J)	0.07 (C: acute/ intermediate for children) 1.3 (G) ²
Iron	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.30 (J)	2 (D)
Lead	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.015 (A)	0 (G)
Manganese	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	0.069	0.05 (J)	0.3 (E: lifetime)
Molybdenum	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	Value not established	0.035 (B: chronic for children)
Nickel	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	Value not established	0.1 (E: lifetime)
Selenium	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.05 (F)	0.035 (B, C: chronic for children)
Silver	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.1 (J)	0.035 (C: children – chronic for children)

Thallium	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	0.002 (F)	0.0002 (I)
Tin	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	Value not established	2.1 (C: intermediate children)
Vanadium	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	ND	Value not established	0.0045 (D)
Zinc	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	ND	ND	0.06	5 (J)	2 (E: lifetime)

Section 2: Disinfectants, Disinfection Byproducts and Bacteria									
Parameter	Number of locations sampled (number of initial samples/number	Range in initial samples			Range in flushed samples			US Environmental Protection Agency (US EPA) drinking water	Health-based level (µg/L)
	of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	value	(M8/ =/
Haloacetic Acids (HAA5, μg/L)	NA / Not analyzed by lab	NA / Not	NA / Not	NA / Not	NA / Not	NA / Not	NA / Not		
		analyzed	analyzed	analyzed	analyzed	analyzed	analyzed	60 (F)	<u>Learn more here</u>
		by lab	by lab	by lab	by lab	by lab	by lab		
Total Trihalomethanes	NA / Not analyzed by lab	NA / Not	NA / Not	NA / Not	NA / Not	NA / Not	NA / Not		
(TTHMs, μg/L)		analyzed	analyzed	analyzed	analyzed	analyzed	analyzed	80 (F)	<u>Learn more here</u>
(1 1 πίνις, μg/ L)		by lab	by lab	by lab	by lab	by lab	by lab		

Section 3: General Chemistry										
Parameter	Number of locations sampled (number of initial samples/number	Range in initial samples				in flushed sa	<u>.</u>	US Environmental Protection Agency (US EPA) drinking water	Health-based level	
	of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	value		
Calcium (mg/L)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	28	ND	29	Learn more here	Learn more here	
Chloride (mg/L)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	11	10	12	250 (F)	Learn more here	
Specific Conductance (μmhos/cm)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	250	240	270	Learn more here	Learn more here	
Hardness (as mg/L of CaCO₃)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	100	ND	110	Learn more here	Learn more here	
Magnesium (mg/L)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	7.8	ND	8.2	Learn more here	400 (D)	
Orthophosphate (mg/L)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	1	.85	1.5	<u>Learn more here</u>	<u>Learn more here</u>	
Sodium (mg/L)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	9.2	8.4	54	<u>Learn more here</u>	<u>Learn more here</u>	
Sulfate (mg/L)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	21	21	23	250 (F)	500 (E)	
Total Alkalinity (mg/L)	59 (0/59)	NA / Not analyzed by lab	NA / Not analyzed by lab	NA / Not analyzed by lab	79	76	87	Learn more here	Learn more here	

Turbidity (NTU)	59 (0/59)	NA / Not analyzed	NA / Not analyzed	NA / Not analyzed	ND	ND	3.6	Learn more here	<u>Learn more here</u>	
		by lab	by lab	by lab						1