

## **Remediation Plan Recommendations**

For test points at or above 5 pbb lead content, per §160.077, secure water and discontinue use until remediated unless testing proves that flushing will provide water below 5ppb.

The 27 points listed below all indicated greater than 5parts per billion during the initial draw sampling phase. All were re-tested using the flush test method, test points highlighted in green passed flush testing which indicates that supply lines are not contributing substantive amounts of lead into the water supply, but rather the outlets themselves are at fault. This can be caused by several factors: Hardness of the water, corrosion of iron pipes, high pH, high alkalinity, high temperatures (water heaters), high corrosivity, and the specific gravity of the materials used in construction of the outlets. As lime scale builds up it can cause a bottleneck that traps corrosion particulate matter, that then leaches into the water supply lines. Additionally, older faucets may have been manufactured before the lead/copper rule as explained in 40 CFR subpart 141. Test points highlighted in red failed flush testing and are indicative that the supply lines are contributing substantive amounts of lead into the water supply. Those lines and associated outlets should be replaced or rerouted from a known good source.

The outlets identified below (in green) may continue to be used provided a 3-5 minute daily flush-prior to use is performed. Flushing as a stand-alone measure is not considered adequate remediation. \*Note\* some items have already been remediated and retested during the flush test as shown below.

Shown below are the test points with initial results in yellow and flush test results in green.

Initial	Flush	Location	Recommendation				
MIDDLE SCHOOL							
	RE-						
62.3	TEST	KITCHEN KETTLE FILLER	No further actions necessary.				
ND	ND						
	RE-						
5.85	TEST	KITCHEN FOOD PREP SINK	No further actions necessary.				
ND	ND		· ·				
	RE-						
11.3	TEST	KITCHEN DISH SINK #2	No further actions necessary.				
ND	ND						
ELEMENTARY SCHOOL							
7.6	2.68	ROOM 26 HAND SINK	Replace outlets, or install under sink inline filtration with thorough clean/flush of outlets				
5.62	2.72	ROOM 26 FOUNTAIN					
6.97	2.74	ROOM 28 HAND SINK					

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6.14	2.67	ROOM 28 FOUNTAIN	
36.6	9.66	ROOM 32 HAND SINK	Place hand washing only sign and secure fountain or connect to known good water supply with approved piping and replace outlets or install under sink, inline filtration with thorough clean/flush of outlets.
15.5	14.2	ROOM 32 FOUNTAIN	
	RE-		
11.5	TEST	ELM KITCHEN FOOD PREP SINK #2	No further actions necessary.
ND	ND		
5.67	1.58	ROOM 122 HAND SINK	
59.6	ND	ROOM 121 HAND SINK	Replace outlets, or install under sink inline filtration
7.09	ND	ROOM 116 HAND SINK	with thorough clean/flush of outlets
5.81	ND	ROOM 116 HALL-FOUNTAIN	

## **HIGH SCHOOL**

20.9	ND	FOOTBALL DRINKING HYDRANT	replace hydrant or install inline filtration and through clean/flush hydrant
9.33	11.7	PAC-MAINT ROOM WATER TEST POINT	Install new approved piping from meter to building or install inline filtration.
27.9	RE- TEST	FACS ROOM FOOD PREP SINK #1 (RETEST)	Replace faucet, or install point of use filter
11.3	3.11		
5.04	RE- TEST	FACS ROOM FOOD PREP SINK #2 (RETEST)	Replace faucet, or install point of use filter
20.6	ND		
28.5	RE- TEST	FACS ROOM FOOD PREP SINK #3 (RETEST)	Replace faucet, or install point of use filter
1.84	ND		
21.7	RE- TEST	FACS ROOM FOOD PREP SINK #4 (RETEST)	Replace faucet, or install point of use filter
207	2.76		
7.74	RE- TEST	LITTLE LEAGUE CONCESSION HAND SINK	Due to infrequent use-install point of use filter

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1.25	ND		
9.04	ND	ELM ROOM 6 FOUNTAIN	Replace fountain or secure or install inline filter-thoroughly clean/flush outlet
5.97	ND	HS FOOTBALL CONCESSION ICE MACHINE	Install inline filter and thoroughly clean/flush outlet
7.26	RE- TEST	HS FOOTBALL CONCESSION HAND SINK #2 (RETEST)	Due to infrequent use-install point of use filter
6.87	ND	, , ,	·
8.88	ND	FOOTBALL-HOME LOCKER ROOM-FOUNTAIN ON RIGHT	Replace fountain or secure or install inline filter-thor-
10.1	ND	FOOTBALL-HOME LOCKER ROOM-FOUNTAIN ON LEFT	oughly clean/flush outlet

Some options for remediation include permanent signage stating that the outlet is "Non-Potable Hand Washing Only", removal or replacement or the unit, or installation of point of use filtration (PUR, Brita, and Aquasana are some examples) they just need to have lead reducing filters, usually NSF/ANSI standard 42/53 filters as recommended by the EPA. -NOTE- this method was shown to significantly reduce the lead levels in Flint Mi by as much as 97 %.

Those sinks that have aerators should be checked to ascertain if the aerators are dirty, have scale build up, calcification or other blockages that could be trapping contaminants. If any are noted, then it may be worthwhile to clean or replace the aerators and retest after a thorough flush. Additionally, with the number of sinks that passed flush testing, I would recommend sediment filtration be installed in-line with the water main at the building entry points.

If you desire further health information, you can contact your county health department:

## **Douglas County Health Department**

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