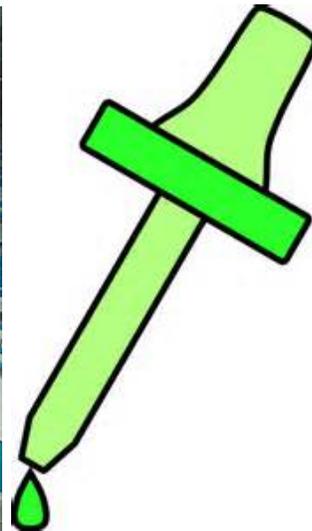


**Testing Results for Lead in Drinking Water for
Naval Station Norfolk Hampton Boulevard CDC (Building SDA332)
(Updated 6 May 2013)**

The Navy is committed to maintaining safe drinking water on its installations. City water supplied to the Navy and the Navy's water distribution system is regularly tested and in compliance with the Safe Drinking Water Act. Because lead exposure is a particular concern for children, and lead may be added to drinking water through the pipes, fittings, solder, and fixtures inside a building, the EPA recommends, but does not mandate, that we test the lead content of drinking water in priority areas such as youth centers (YCs), child development group homes (CDGHs) and child development centers (CDCs).

Navy environmental personnel conducted lead testing at the Naval Station Norfolk Hampton Boulevard CDC in accordance with Navy and EPA guidelines. Samples from various locations in the CDC were sent to a state-certified laboratory for analysis.

At the Naval Station Norfolk Hampton Boulevard CDC, outlets used for drinking and cooking, as well as outlets used for hand washing were tested. Out of 72 samples collected, seven water outlets initially tested above the EPA recommended level for lead in drinking water in schools and childcare centers of 20 parts per billion (ppb). One part per billion is equal to one drop of water in an Olympic-size swimming pool.



Two of the outlets that exceeded the EPA recommended level of 20 ppb were water fountains located in rooms 35B and 46B, which tested at 99 ppb and 66 ppb, respectively. Since follow-up testing indicated that the elevated levels of lead appeared to be caused by the components of the water fountains and upstream plumbing, these water fountains were disconnected and the pipes capped. New fountains and upstream plumbing have been installed. Testing conducted after implementation of these corrective measures shows that these fountains meet the EPA recommended level of 20 ppb.

The five remaining outlets that exceeded 20 ppb were hand washing sinks and are not used for drinking or cooking. These sinks were located in rooms 23B, 26C, 35B, 61 and 71. Follow-up sampling at these five outlets was conducted after removing the faucet aerators. A **faucet aerator** (or tap aerator) is often found at the tip of modern indoor water faucets. Without an aerator, water usually flows out of a faucet as one big stream. An aerator spreads this stream into many little droplets, which helps save water and reduce splashing. However, the aerator and screen can trap debris which can accumulate lead.



After removing the faucet aerators, retesting showed that the sinks in rooms 23B, 26C, and 35B were below the EPA-recommended level. Further corrective measures (replacement of supply valves and supply piping) were implemented at the sinks in rooms 61 and 71, and follow-up sampling indicates that these sinks are also below the EPA-recommended level.

A copy of all test results is enclosed for your information. The test results are presented in two tables:

- Table 1 **Summary of Results** summarizes the data by category of use (e.g., drinking, cooking, washing).
- Table 2 **Summary Statistics** summarizes all the data.

A floor plan of the Hampton Boulevard CDC (SDA-332) has also been included to show the locations for the fixtures that exceeded 20 ppb.

Table 1 provides a description of each sampling location using three columns; *Category*, *Sampling ID*, and *Outlet Description*. The *Category* column gives information about whether the outlet is used for drinking water (water fountain), cooking (food preparation), or washing (primarily hand-washing). The *Sample ID* column is the identification used to label each sample bottle. The *Outlet Description* column contains additional information to describe the outlet sampled under each category.

The next set of columns in **Table 1** provide *Initial Sampling Results*, and for those locations that exceeded the recommended level of 20 ppb the *Re-sampling Results*.

EPA sampling protocol requires water to not be used for between 8 and 18 hours prior to first draw sampling. Therefore, *Initial Sampling Results* were from first draw samples collected early in the morning before the CDC opened and before any water was used. The *Initial Sampling*

Results also indicate whether resampling is required and the date that fixtures greater than 20 ppb were secured. Outlets that exceeded 20 ppb are highlighted in yellow.

The *Re-sampling Results* includes columns for *First Draw* and flushing samples which help determine the source of lead. For cooking and washing outlets, aerators were removed before retesting:

- If the lead concentration of 30 second flush sample resulted in lower than 20 ppb lead, the aerators were the source of lead and the outlet can be used for drinking if the aerators are cleaned or replaced. The hand washing sinks in rooms 23B, 26C, and 35B fit in this category.
- If the lead concentration of the resampled first draw (but not the follow up 30 second flush) was greater than 20 ppb, the fixture was the source of lead. These fixtures can be used if water is flushed for 30 seconds before first use of the day or if the fixtures are replaced and retesting confirms that the new fixtures do not leach lead. The bathroom sink in room 71 fits in this category. The faucet, supply piping, and supply valve for this sink have been replaced, and follow-on testing shows that the results are less than 20 ppb.
- If the lead concentration of the 30 second flush sample was greater than 20 ppb and greater than the lead concentration of the first draw resample, the source of lead is the plumbing upstream of the outlet. These outlets should be disconnected unless upstream plumbing is replaced. The water fountains in rooms 35B and 46B (which were disconnected and replaced with new fountains and upstream plumbing) as well as the bathroom sink in room 61 (which was secured by turning off the supply valve until supply piping and the supply valve could be replaced) fit in this category.

The *Corrective Actions* column describes actions that were taken to remediate the source of lead. In the event that fixtures or upstream piping are replaced (e.g. water fountains in rooms 35B and 46B and bathroom sinks in rooms 61 and 71), there are columns for sampling data that confirms that the corrective actions were successful in reducing lead below 20 ppb.

To learn more about lead in drinking water schools and day care centers visit this EPA website at: http://water.epa.gov/drink/info/lead/schools_index.cfm.

To learn more about your home's public water supplier, see their annual water quality report: Norfolk: <http://www.norfolk.gov/index.aspx?nid=657>

Virginia Beach: <http://www.vbgov.com/government/departments/public-utilities/water-quality/Pages/default.aspx>

Chesapeake: http://www.cityofchesapeake.net/Government/City-Departments/Departments/Public-Utilities-Department/chesapeake-water/water_quality.htm

Navy Water Quality Reports: https://navfac.navy.mil/navfac_worldwide/atlantic/fecs/mid-atlantic/about_us/environmental_norfolk/environmental_compliance.html

To answer any questions you may have on the sampling program contact the Naval Station Norfolk Public Affairs Officer at (757) 322-2576. If you have any health questions or concerns, we encourage you to call your health care provider or, if you are a TRICARE beneficiary, contact the Regional Nurse Advice Line (1-800-TRICARE, press option 1) or use the Regional Appointment Center at 1-866-645-4584 to schedule an appointment with your primary care provider.

Priority Areas Lead Testing and Corrective Actions (May 2013)
Hampton Boulevard Child Development Center
Building SDA332

Table 1. Summary of Results

SAMPLING LOCATION DESCRIPTION			INITIAL SAMPLING RESULTS			RE-SAMPLING RESULTS			CORRECTIVE ACTIONS	POST REMEDIATION SAMPLING RESULTS	
			CATEGORY Water Intended For:	SAMPLE ID	Outlet Description	First Draw (ppb)	Retest required?	Date Fixture Secured? (See Note 1)		Recommended Level = 20ppb	
Water Fountain 15 min. Follow up Flush Sample - Collected day before First Draw Sampling (ppb)	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)							Description	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)
SAMPLING DATE			2/21/2013			3/19/2013	3/20/2013	3/20/2013			
RESULTS DATE			3/15/2013			3/25/2013	3/25/2013	3/25/2013		5/3/2013	
DRINKING	LOBBY WF	Water fountain between lobby restrooms	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 12A - WF	Water fountain	3	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 12B - WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 23A - WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 23B - WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 26B - WF	Water fountain	1	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 26A - WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	ANNEX-HALLWAY WF	Water fountain by Isolation Room	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	ANNEX - RM 1 -WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	ANNEX - RM 2 -WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	ANNEX - RM 3 -WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	ANNEX - RM 4 -WF	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 35A - WF	Water fountain	2	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 35B - WF	Water fountain	99	YES	3/12/2013	16	17	74	Affected water fountain was removed until completion of corrective actions (fountain and supply piping replacement) and post-remediation sampling results were below 20ppb.	non-detect	non-detect
DRINKING	HALLWAY WF - 35B	Water fountain	non-detect	NO	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
DRINKING	RM 46B - WF	Water fountain	66	YES	3/12/2013	6	11	33	Affected water fountain was removed until completion of corrective actions (fountain and supply piping replacement) and post-remediation sampling results were below 20ppb.	17 (See Note 2)	15 (See Note 2)
DRINKING	RM 46A - WF	Water fountain	non-detect (See Note 3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Priority Areas Lead Testing and Corrective Actions (May 2013)
Hampton Boulevard Child Development Center
Building SDA332

SAMPLING LOCATION DESCRIPTION			INITIAL SAMPLING RESULTS			RE-SAMPLING RESULTS			CORRECTIVE ACTIONS	POST REMEDIATION SAMPLING RESULTS		
			CATEGORY Water Intended For:	SAMPLE ID	Outlet Description	First Draw (ppb)	Retest required?	Date Fixture Secured? (See Note 1)		Water Fountain 15 min. Follow up Flush Sample - Collected day before First Draw Sampling (ppb)	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)
Description									First Draw (ppb)			
SAMPLING DATE			2/21/2013				3/19/2013	3/20/2013	3/20/2013			
RESULTS DATE			3/15/2013				3/25/2013	3/25/2013	3/25/2013			
COOKING	RM 65 - KITCHEN SINK 1	Deep sink - LEFT Faucet	2	NO	N/A	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
COOKING	RM 65 - KITCHEN SINK 2	Deep sink - RIGHT Faucet	5	NO	N/A	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
COOKING	RM 64 - STAFF LOUNGE BR	Staff women's bathroom by Kitchen (Rm 65)	2	NO	N/A	N/A	N/A	N/A	N/A	Routine Control Measures Only	N/A	N/A
WASHING	ISOLATION RM	Bathroom behind front dest next to Office.	3	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	MENS - LOBBY	Restrooms left side of lobby area	5	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	WOMENS - LOBBY	Restrooms left side of lobby area	5	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 71 - HW	Hand Washing Sink	non-detect	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 71 - BATHROOM	Bathroom sink	34	YES	3/8/2013	N/A	25	2	Affected bathroom sink was disconnected until completion of corrective actions (faucet, supply valve, and piping replacement) and post remedaiton sampling results were below 20ppb.	8	3	
WASHING	RM 67A - DEEP SINK	Deep sink w/ counter	3	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 67A - HW	Hand Washing Sink	4	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 101 - DEEP SINK	Deep sink w/ counter	9	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 102 - DEEP SINK	Deep sink w/ counter	7	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 67B - DEEP SINK	Deep sink w/ counter	5	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 103 - DEEP SINK	Deep sink w/ counter	5	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 65 - KITCHEN HW	Hand Washing Sink	6	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 61 - HW	Hand Washing Sink	5	NO	N/A	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 61 - BATHROOM	Bathroom Sink - Toddler #2	84	YES	3/8/2013	N/A	72	104	Affected bathroom sink was disconnected until completion of corrective actions (supply valve, and piping replacement) and post remedaiton sampling results were below 20ppb.	14	2	

Priority Areas Lead Testing and Corrective Actions (May 2013)
Hampton Boulevard Child Development Center
Building SDA332

SAMPLING LOCATION DESCRIPTION			INITIAL SAMPLING RESULTS			RE-SAMPLING RESULTS			CORRECTIVE ACTIONS	POST REMEDIATION SAMPLING RESULTS	
			CATEGORY Water Intended For:	SAMPLE ID	Outlet Description	First Draw (ppb)	Retest required?	Date Fixture Secured? (See Note 1)		Recommended Level = 20ppb	
Water Fountain 15 min. Follow up Flush Sample - Collected day before First Draw Sampling (ppb)	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)							Description	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)
SAMPLING DATE			2/21/2013			3/19/2013	3/20/2013	3/20/2013			
RESULTS DATE			3/15/2013			3/25/2013	3/25/2013	3/25/2013			
WASHING	RM 60 - STAFF BATHROOM	Staff bathroom by Rm 61	1	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 12A - HW	Hand Washing Sink	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 12A - DEEP SINK	Deep sink w/ counter	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 12B - HW	Hand Washing Sink	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 12B - DEEP SINK	Deep sink w/ counter	10	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 23A - HW	Hand Washing Sink	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 23A - DEEP SINK	Deep sink w/ counter	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 23B - HW	Hand Washing Sink	4	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 23B - DEEP SINK	Adult sink w/ counter	396	YES	3/8/2013	N/A	9	1	Results were below recommended level after removal of aerator. Therefore additional corrective actions are not required.	N/A	N/A
WASHING	RM 26B - DEEP SINK	Deep sink w/ counter	6	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 26C - DOUBLE SINK #1 (L)	LEFT Double sink - Left faucet	34	YES	3/15/2013	N/A	3	1	Results were below recommended level after removal of aerator. Therefore additional corrective actions are not required.	N/A	N/A
WASHING	RM 26C - DOUBLE SINK #1 (R)	LEFT Double sink - RIGHT faucet	3	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 26C - DOUBLE SINK #2 (L)	RIGHT Double sink - LEFT faucet	5	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 26C - DOUBLE SINK #2 (R)	RIGHT Double sink - RIGHT	6	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 26A - DEEP SINK	Deep sink w/ counter	10	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX-ISOLATION RM		20	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX-BATHROOM	By Isolation Room	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 1 - DEEP SINK	Deep sink w/ counter	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 1 - BATHRM (L)	LEFT Faucet	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 1 - BATHRM (R)	RIGHT Faucet	1	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 2 - DEEP SINK	Deep sink w/ counter	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 2 - BATHRM (L)	LEFT Faucet	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 2 - BATHRM (R)	RIGHT Faucet	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 3 - DEEP SINK	Deep sink w/ counter	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 3 - BATHRM (L)	LEFT Faucet	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 3 - BATHRM (R)	RIGHT Faucet	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A

Priority Areas Lead Testing and Corrective Actions (May 2013)
Hampton Boulevard Child Development Center
Building SDA332

SAMPLING LOCATION DESCRIPTION			INITIAL SAMPLING RESULTS			RE-SAMPLING RESULTS			CORRECTIVE ACTIONS	POST REMEDIATION SAMPLING RESULTS	
CATEGORY Water Intended For:	SAMPLE ID	Outlet Description	First Draw (ppb)	Retest required?	Date Fixture Secured? (See Note 1)	Recommended Level = 20ppb				Description	Recommended Level = 20ppb
						Water Fountain 15 min. Follow up Flush Sample - Collected day before First Draw Sampling (ppb)	First Draw (ppb)	Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)	First Draw (ppb)		Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)
SAMPLING DATE			2/21/2013			3/19/2013	3/20/2013	3/20/2013		4/30/2013	
RESULTS DATE			3/15/2013			3/25/2013	3/25/2013	3/25/2013		5/3/2013	
WASHING	ANNEX - RM 4 - DEEP SINK	Deep sink w/ counter	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 4 - BATHRM (L)	LEFT Faucet	non-detect	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - RM 4 - BATHRM (R)	RIGHT Faucet	non-detect	YES	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	ANNEX - TRAINING RM	Hand Washing Sink	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 35A - HW	Hand Washing Sink	2	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 35A - DEEP SINK	Deep sink w/ counter	10	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 35B - HW	Hand Washing Sink	24	YES	3/12/2013	N/A	10	7	Results were below recommended level after removal of aerator. Therefore additional corrective actions are not required.	N/A	N/A
WASHING	RM 35B - DEEP SINK	Deep sink w/ counter	6	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 46B - HW	Hand Washing Sink	9	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 46B - DEEP SINK	Deep sink w/ counter	5	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 46A - HW	Hand Washing Sink	6	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A
WASHING	RM 46A - DEEP SINK	Deep sink w/ counter	4	NO	N/A	N/A	N/A	N/A	Not required	N/A	N/A

Notes:

¹ Affected outlets were immediately secured after receiving verbal communication from the lab on results exceeding the recommended level of 20ppb.

² Post-remediation sampling was initially conducted on April 11th, 2013. First draw was 3pppb and follow-up flush was 20ppb. Additional piping was replaced and final results for sample collected on April 30th, 2013 are shown on the table.

³ Water fountain was tested on April 11th, 2013 since it was out of service during initial sampling.

Table 2. Summary Statistics

CATEGORY	INITIAL SAMPLING RESULTS	RE-SAMPLING RESULTS			POST REMEDIATION RESULTS
	First Draw (ppb)	Water Fountain Follow up Flush Sample - Collected day before First Draw Sampling (ppb)	Recommended Level = 20ppb		First Draw (ppb)
First Draw (ppb)			Follow up Flush - Collected 30 seconds after First Draw Sampling (ppb)		
Total Drinking	17	2	2	2	1
Total Drinking > 20 ppb	2	0	0	2	0
Total Cook/Brush	3	0	0	0	0
Total Cook/Brush > 20 ppb	0	0	0	0	0
Total Washing	52	0	5	5	2
Total Washing > 20 ppb	5	0	2	0	0
Total Samples	72	2	7	7	3
Total Samples > 20 ppb	7	0	2	2	0



**FLOOR PLAN
CDH-SDA330 AND CDC-SDA332**

Legend:

	Screening results from all outlets showed levels below recommended level of 20ppb.
	Affected bathroom sinks and water fountains (WF) were taken out of service until completion of corrective actions (e.g., replacement of faucet, supply valve, plumbing upstream) and post-remediation sampling results were below 20ppb.
	Aerators were determined as source of lead. Aerators were removed and new aerators will be installed. Routine steps to clean/replace aerators and routine flushing has been implemented as corrective action.