



Environmental Health & Safety

Office: (612) 668-0310

Direct: 612-668-0308

Cell: (612) 719-7742

MEMORANDUM

To: Mauri Friestleben, Principal North High School

From: Lee Setter, Manager Environmental Health & Safety

Cc: Karen DeVet, COO; Shawn Harris-Berry, Associate Superintendent

Date: February 6, 2020

**RE: North High School
Lead in Water Testing**

Drinking water was sampled at North High School on January 22 & 28 and February 4, 2020. The sampling was performed as part of the MPS Lead in Water Safety Program and as recommended by the Minnesota Department of Health. The laboratory testing reports are attached for your reference.

Drinking water samples were collected on a first draw basis with a minimum of six-hour system stagnation. This sampling method represents the worst-case scenario for lead in water concentrations. North High School drinking water samples were collected at 4:00 AM prior to building occupancy and any water usage. The Minnesota Department of Health recommended Action Level for lead in school drinking water is 20 Parts Per Billion (ppb). MPS uses a more stringent standard and implements corrective action if levels exceed 10 ppb. Lead concentrations in drinking water would be lower than test results indicate during the school day due to flushing of the system and normal occupant water usage. This was verified by the collection of post flushing samples.

First Draw Water Sampling Summary:

- 43 first draw drinking water samples were collected at North High School.
- 41 samples had lead concentrations below the 20 ppb recommended Action Level.
- 2 samples had lead concentrations above the 20 ppb recommended Action Level. These two locations were the sink in Room 100 which is scheduled to have piping replacement completed to remediate the lead levels (note this is a sink and not a drinking water faucet), and the drinking fountain in room 140 (metals shop) which will be disconnected since it is not used.
- 23 of 43 samples had no lead detected and are reported as <2 ppb* (*lab detection limit).
- 14 samples had lead levels between 2 ppb and 10 ppb
- 4 samples had lead levels between 10 ppb and 20 ppb. This includes the drinking fountain in the Hallway by 406; in the women's locker room; the sink in Room 110; and the drinking fountain in Room 130 (wood shop). The drinking fountain in the Hallway by 406 will receive a new bottle filler station, the sink in the women's locker room and in room 110 will be upgraded with new components and the drinking fountain in Room 130 will be disconnected since it is not used. These corrective actions are scheduled for February 2020.

Post Flushing Water Sampling Summary:

- 8 post flushing water samples were collected on February 4, 2020. The samples were collected before the school day but after the daily flushing protocol was performed. The testing was done to verify the effectiveness of the daily flushing protocol.
- The post flushing samples were collected February 4, 2020 at fixtures where First Draw concentrations were above 10 ppb and 20 ppb at the January 22 & 28 sampling.
- All 8 post flushing samples had no lead detected and are reported as <2 ppb* (*lab detection limit). The laboratory testing report for these samples is attached for your reference.
- This is confirmation that the daily flushing protocol is effective at eliminating lead in water levels.

Corrective Action Summary:

- Custodial staff will continue the Daily Lead in Water Flushing Protocol (see attached protocol). This will ensure fresh clean water each day.
- Plumbers will install 3 new filtered water bottle filling stations at the following locations: Hallway by 406, Hallway near Cafeteria, Hallway at G26 & B26.
- The plumbers will replace fixture piping in Men's locker area, Women's locker area, Room 100 sink and Room 110 sink.
- The plumbers will remove from service drinking fountains in the unoccupied areas (Room 130 & 140).

Based on the sampling results and on-going daily flushing procedures, the drinking water at North High School is safe for students and staff.

EH&S has communicated the procedures for proper flushing with the Senior Custodian and the importance to perform these procedures daily. All staff can help in this effort by running water until cool before drinking.

This memorandum, the laboratory analysis reports and information on the MPS Lead in Water Safety Plan are available to the public on the MPS website:

<https://www.mpschools.org/departments/operations/environmental-health-safety>

Please contact me if you have any questions.

Attachments: Laboratory Analysis Reports dated January 22, 28, & February 4, 2020 & the Daily Lead in Water Flushing Protocol

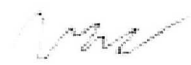
Twin City Water Clinic Laboratory Test Report						Minnesota State Laboratory ID# 027-053-119 Wisconsin State Laboratory ID# 105-10117 Wisconsin DNR Lab ID #399073400			
Client: North High School Minneapolis Public Schools		Report Number: 20-00712		Twin City Water Clinic Inc.				X No samples were subcontracted; or the above test result(s) with '**' designation were produced by a subcontracted laboratory. [Laboratory name; address; MDH Lab ID#]. The subcontracted laboratory maintains MDH Certification for the field(s) of testing performed.	
Address: 1225 North 7th Street Minneapolis, MN 55411		Sample Receipt Date: 01/22/20		617 13th Avenue South 617 13th Avenue South					
		Sample Prep. Date: 01/22/20		Phone: (952)935-3556					
		Sample Prep. Time: 10:10		Fax: (952)935-5077					
		Report Issue Date: 01/28/20							
Laboratory	Analyte	Sample	Parameter	Sample Collection		Sample Analysis		Test	
Sample ID		Location		Date	Time	Date	Time	Results	Units
20-00712	Lead	Loading Dock - Sink	Drinking Water	1/22/20	03:58	01/24/20	10:25	<2.0	µg/L
20-00713	Lead	Kitchen - Prep Sink	Drinking Water	1/22/20	03:59	01/24/20	10:31	<2.0	µg/L
20-00714	Lead	Kitchen - Wash Sink	Drinking Water	1/22/20	04:02	01/24/20	10:36	2.19	µg/L
20-00715	Lead	HW 606 - Stainless DF	Drinking Water	1/22/20	04:03	01/24/20	10:42	<2.0	µg/L
20-00716	Lead	HW 606 - Porcelain DF	Drinking Water	1/22/20	04:04	01/24/20	10:48	<2.0	µg/L
20-00717	Lead	HW B22 - Men's Porcelain	Drinking Water	1/22/20	04:07	01/24/20	10:53	2.64	µg/L
20-00718	Lead	HW G22 - Women's Porcelain	Drinking Water	1/22/20	04:09	01/24/20	10:59	2.28	µg/L
20-00719	Lead	Cafeteria DF - Outside 503A	Drinking Water	1/22/20	04:11	01/24/20	11:04	6.22	µg/L
20-00720	Lead	Serving Line Sink - by Cooler	Drinking Water	1/22/20	04:14	01/24/20	11:10	<2.0	µg/L
20-00721	Lead	Staff Room - 778 Sink	Drinking Water	1/22/20	04:15	01/24/20	11:27	<2.0	µg/L
20-00722	Lead	HW B67 - Stainless (filler)	Drinking Water	1/22/20	04:20	01/24/20	11:44	<2.0	µg/L
20-00723	Lead	HW B67 - Porcelain	Drinking Water	1/22/20	04:25	01/24/20	11:50	<2.0	µg/L
20-00724	Lead	HW B66 - Men's Porcelain	Drinking Water	1/22/20	04:28	01/24/20	11:55	4.65	µg/L
20-00725	Lead	HW G66 - Women's Porcelain	Drinking Water	1/22/20	04:30	01/24/20	12:01	2.02	µg/L
20-00726	Lead	578 Staff Lounge Sink	Drinking Water	1/22/20	04:32	01/24/20	12:07	<2.0	µg/L
20-00727	Lead	HW G26 - Women's Porcelain	Drinking Water	1/22/20	04:35	01/24/20	12:12	4.31	µg/L
20-00728	Lead	HW B26 - Men's Porcelain	Drinking Water	1/22/20	04:37	01/24/20	12:18	<2.0	µg/L
20-00729	Lead	154 Teacher's Rm Sink	Drinking Water	1/22/20	04:39	01/24/20	12:24	<2.0	µg/L
20-00730	Lead	HW B27 - Men's Porcelain	Drinking Water	1/22/20	04:40	01/24/20	12:29	3.30	µg/L
20-00731	Lead	HW G27 - Women's Porcelain	Drinking Water	1/22/20	04:45	01/27/20	11:37	3.17	µg/L

Approved methods used in analyzing the samples listed above have the following reporting levels:
SM3113 - Lead, 2.0 µg / L
Maximum contaminant level: Lead, 15.0 µg / L

Sample Collected by: X Client TCWC

Sample Temp.: 9 °C

Notes: DF = drinking fountain, S= sink
RM= room, RR= restroom, HW = hallway
Discussion:

Approved By: 
Bill Van Arsdale
Laboratory Manager

The results listed in this report apply only to the above listed samples. All routine quality assurance procedures were followed, unless otherwise noted. This analytical report must be reported in its entirety. All methods are certified by the Minnesota Department of Health, unless otherwise noted.

Twin City Water Clinic Laboratory Test Report

Minnesota State Laboratory ID# 027-053-119
 Wisconsin State Laboratory ID# 105-10117
 Wisconsin DNR Lab ID #399073400

Client: North High School Minneapolis Public Schools 1225 North 7th Street Minneapolis, MN 55411	Report Number: 20-00732 Sample Receipt Date: 01/22/20 Sample Prep. Date: 01/22/20 Sample Prep. Time: 10:10 Report Issue Date: 01/28/20
--	---

Laboratory Sample ID	Analyte	Sample Location	Parameter	Sample Collection Date	Time	Sample Analysis Date	Time	Test Results	Units
20-00732	Lead	HW B22 - Men's Stainless DF	Drinking Water	1/22/20	04:47	01/27/20	11:42	6.07	µg/L
20-00733	Lead	HW G22 - Women's Porcelain	Drinking Water	1/22/20	04:48	01/27/20	11:48	<2.0	µg/L
20-00734	Lead	Main Office 300 - Water Filter	Drinking Water	1/22/20	04:51	01/27/20	11:54	<2.0	µg/L
20-00735	Lead	HW Admin Office 300 DF	Drinking Water	1/22/20	04:53	01/27/20	11:59	2.42	µg/L
20-00736	Lead	Nurse Office 314 - Sink	Drinking Water	1/22/20	04:54	01/27/20	12:05	<2.0	µg/L
20-00737	Lead	Facility 407 - HW Stainless DF	Drinking Water	1/22/20	04:55	01/27/20	12:11	<2.0	µg/L
20-00738	Lead	Facility 406 - HW Stainless DF	Drinking Water	1/22/20	04:59	01/27/20	12:28	19.77	µg/L
20-00739	Lead	Gym 410 - Eastside DF	Drinking Water	1/22/20	05:00	01/27/20	12:45	<2.0	µg/L
20-00740	Lead	Gym 410 - Westside DF	Drinking Water	1/22/20	05:01	01/27/20	12:51	3.28	µg/L
20-00741	Lead	Aux. Gym 420 DF	Drinking Water	1/22/20	05:03	01/27/20	12:56	2.89	µg/L
20-00742	Lead	Women's Locker Rm DF	Drinking Water	1/22/20	05:05	01/27/20	13:02	11.13	µg/L
20-00743	Lead	Men's Locker Rm DF	Drinking Water	1/22/20	05:09	01/27/20	13:08	9.52	µg/L
20-00744	Lead	Concession Sink by 409	Drinking Water	1/22/20	05:10	01/27/20	13:14	<2.0	µg/L
20-00745	Lead	Parent Rm 320 - Sink	Drinking Water	1/22/20	05:12	01/27/20	13:19	<2.0	µg/L
20-00746	Lead	HW G21 - Women's Stainless	Drinking Water	1/22/20	05:17	01/27/20	13:25	<2.0	µg/L
20-00747	Lead	HW B21 - Men's Porcelain	Drinking Water	1/22/20	05:19	01/27/20	13:31	<2.0	µg/L
20-00748	Lead	Rm 100 - Sink	Drinking Water	1/22/20	05:20	01/28/20	11:17	181.68	µg/L
20-00749	Lead	Rm 110 - Sink	Drinking Water	1/22/20	05:23	01/28/20	10:53	14.06	µg/L
20-00750	Lead	Rm 130 - DF (Construction)	Drinking Water	1/22/20	05:27	01/28/20	11:23	12.25	µg/L
20-00751	Lead	Rm 140 - DF (Storage)	Drinking Water	1/22/20	05:29	01/28/20	11:32	38.04	µg/L

Approved methods used in analyzing the samples listed above have the following reporting levels:
 SM3113 - Lead, 2.0 µg / L
 Maximum contaminant level: Lead, 15.0 µg / L

Sample Collected by: X Client TCWC
 Sample Temp.: 9 °C

Notes: DF = drinking fountain, S= sink
 RM= room, RR= restroom, HW = hallway
 Discussion:

Approved By: 
 Bill Van Arsdale
 Laboratory Manager

The results listed in this report apply only to the above listed samples. All routine quality assurance procedures were followed, unless otherwise noted. This analytical report must be reported in its entirety. All methods are certified by the Minnesota Department of Health, unless otherwise noted.

Twin City Water Clinic Laboratory Test Report

Minnesota State Laboratory ID# 027-053-119
 Wisconsin State Laboratory ID# 105-10117
 Wisconsin DNR Lab ID #399073400

Client: North High School
 Minneapolis Public Schools
 1225 North 7th Street
 Minneapolis, MN 55411

Report Number: 20-00850
Sample Receipt Date: 01/28/20
Sample Prep. Date: 01/28/20
Sample Prep. Time: 9:35
Report Issue Date: 01/29/20

Twin City Water Clinic Inc.
 617 13th Avenue South
 617 13th Avenue South
Phone: (952)935-3556
Fax: (952)935-5077

X No samples were subcontracted; or the above test result(s) with *** designation were produced by a subcontracted laboratory. [Laboratory name; address; MDH Lab ID#]. The subcontracted laboratory maintains MDH Certification for the field(s) of testing performed.

Laboratory	Analyte	Sample Location	Parameter	Sample Collection Date	Sample Collection Time	Sample Analysis Date	Sample Analysis Time	Test Results	Units
20-00850	Lead	Room 601 - Sink	Drinking Water	1/28/20	05:05	01/29/20	10:19	<2.0	µg/L
20-00851	Lead	Studio - Break Room - DF	Drinking Water	1/28/20	05:10	01/29/20	10:25	<2.0	µg/L
20-00852	Lead	Studio - Break Room - Sink	Drinking Water	1/28/20	05:13	01/29/20	10:30	<2.0	µg/L

Approved methods used in analyzing the samples listed above have the following reporting levels:

SM3113 - Lead, 2.0 µg / L
 Maximum contaminant level: Lead, 15.0 µg / L

Sample Collected by: X Client TCWC

Sample Temp.: 16° C

Notes: DF = drinking fountain, S= sink
 RM= room, RR= restroom, HW = hallway



Bill Van Arsdale
 Laboratory Manager

Approved By:

The results listed in this report apply only to the above listed samples. All routine quality assurance procedures were followed, unless otherwise noted. This analytical report must be reported in its entirety. All methods are certified by the Minnesota Department of Health, unless otherwise noted.

Twin City Water Clinic Laboratory Test Report

Minnesota State Laboratory ID# 027-053-119
 Wisconsin State Laboratory ID# 105-10117
 Wisconsin DNR Lab ID #399073400

Client: North High School
 Minneapolis Public Schools
Address: 1225 North 7th Street
 Minneapolis, MN 55411

Report Number: 20-01180
Sample Receipt Date: 02/04/20
Sample Prep. Date: 02/04/20
Sample Prep. Time: 13:00
Report Issue Date: 02/05/20

Twin City Water Clinic Inc.
617 13th Avenue South
617 13th Avenue South
Phone: (952)935-3556
Fax: (952)935-5077

Laboratory Sample ID	Analyte	Sample Location	Parameter	Sample Collection		Sample Analysis		Test Results	Units
				Date	Time	Date	Time		
20-01180	Lead	HW by 406 DF	Drinking Water	2/4/2020	06:58	02/05/20	10:30	<2.0	µg/L
20-01181	Lead	HW by 407 DF	Drinking Water	2/4/2020	07:06	02/05/20	10:35	<2.0	µg/L
20-01182	Lead	HW by 341 DF (Men's Locker Room)	Drinking Water	2/4/2020	07:10	02/05/20	10:41	<2.0	µg/L
20-01183	Lead	Women's Locker Room DF	Drinking Water	2/4/2020	07:13	02/05/20	10:47	<2.0	µg/L
20-01184	Lead	Room 100 Sink	Drinking Water	2/4/2020	07:15	02/05/20	10:53	<2.0	µg/L
20-01185	Lead	Room 110 Sink	Drinking Water	2/4/2020	07:19	02/05/20	10:58	<2.0	µg/L
20-01186	Lead	Room 130 DF	Drinking Water	2/4/2020	07:24	02/05/20	11:15	<2.0	µg/L
20-01187	Lead	Room 140 DF	Drinking Water	2/4/2020	07:28	02/05/20	11:32	<2.0	µg/L

X No samples were subcontracted; or the above test result(s) with ***1 designation were produced by a subcontracted laboratory. [Laboratory name; address; MDH Lab ID#]. The subcontracted laboratory maintains MDH Certification for the field(s) of testing performed.

Approved methods used in analyzing the samples listed above have the following reporting levels:
 SM3113 - Lead, 2.0 µg / L
 Maximum contaminant level: Lead, 15.0 µg / L

Sample Collected by: _X_ Client TCWC

Sample Temp: 6° C

Notes: DF = drinking fountain, HW = hallway

Sample sites flushed before samples were collected.

Discussion:

[Handwritten Signature]

Bill Van Arsdale

Approved By:

The results listed in this report apply only to the above listed samples. All routine quality assurance procedures were followed, unless otherwise noted. This analytical report must be reported in its entirety. All methods are certified by the Minnesota Department of Health, unless otherwise noted.



MINNEAPOLIS
PUBLIC SCHOOLS
Urban Education. Global Citizens.

Lead in Water Safety Plan MPS Daily Lead in Water Flushing Protocol

- Senior Custodians will identify all taps required to be flushed on a building floor plan and the location for the building water main. Taps required to be flushed include all cold water taps used for consumption.
- This flushing protocol will be implemented each school day prior to the scheduled arrival of students.
- School custodians will flush all general use public taps including taps in corridors, common areas, cafeterias, gyms, pool areas, locker rooms, staff lounges and kitchens.
- Classroom taps are the responsibility of the school staff. Custodians will communicate with staff in these areas about daily flushing and labels must be posted that read “PLEASE RUN WATER UNTIL COOL BEFORE DRINKING!! THANK YOU, CUSTODIAN.”
- Taps located the furthest away from the water main on each floor of each wing will be flushed first for a minimum of **10 minutes** and continue by flushing all other taps leading back to the water main for **2 minutes** or until the water is cool.
- Midday flushing is required if a tap has been unused and stagnant for the morning period.
- Daily flushing is will documented by the Senior Custodian on the MPS Daily Lead in Water Flushing Log and maintained available in the Custodian Office.
- EH&S will conduct water sampling in a random and targeted manner to confirm effectiveness of the flushing protocol.
- Senior Custodian will communicate their flushing protocol with the school principal.

Please contact Jason Karpe with EH&S at 612-668-0307 if you have any questions on how to develop your flushing protocol or if you need building floor plans, flushing logs or signage. If needed, clamps or other devices to hold taps in the open position are available upon request.

Thorough daily flushing will ensure that lead in water levels are maintained safe for students and staff. Thank you for your commitment to this essential program.