

August 8, 2017

Chris Paquette
Mounds View Public Schools
1425 Paul Kirkwold Drive
Arden Hills, MN 55112



*Providing Trusted
Health and Safety Solutions*

**RE: Valentine Hills Elementary School
Lead-in-Water – First Draw Sampling
IEA Project #201610704**

Dear Mr. Paquette:

At the request of Mounds View Public Schools, IEA, Inc. collected eight (8) samples of drinking water from the kitchen sink and water coolers throughout Valentine Hills Elementary on July 27, 2017, for lead analysis. The purpose of this sampling was to document lead levels in the sample locations and to compare levels to the EPA action level of 20 parts per billion (ppb).

INTRODUCTION

The Lead Contamination Control Act (LCCA) of 1988 was created by the Environmental Protection Agency (EPA) to identify and reduce lead in drinking water. Both the EPA and the Minnesota Department of Health (MDH) recommend testing of potable water sources (water used for consumption) every five years for the presence of lead. Lead is a metal that usually enters drinking water through the distribution system, including pipes, solders, faucets, and valves. Lead levels in water may increase when the water is allowed to sit undisturbed in the system, such as in science, biology, or art areas. Exposure to lead is a significant health concern, especially to infants and young children whose growing bodies absorb lead more readily than adult bodies do. Lead exposure can cause delays in physical and/or mental development in children and damage to the brain, kidneys, nervous system, and red blood cells. The EPA and MDH recommend that action be taken at a specific fixture when the lead concentration exceeds the EPA's action level for schools of 20 parts per billion (ppb).

The eight (8) locations were sampled to confirm that lead reduction filters installed on the sink and water coolers were functioning properly and reducing lead content.

METHODOLOGY

IEA collected eight (8) first-draw samples of approximately 500 milliliters (ml). "First draw" means the samples are collected before the fixture is used or flushed during the day. The first-draw sample result reflects a worst case scenario, i.e., the highest lead level that would be consumed by building occupants. Current protocol calls for flushing locations 8-18 hours prior to sampling.

INSTITUTE FOR ENVIRONMENTAL ASSESSMENT, INC.
www.ieasafety.com

BROOKLYN PARK
9201 West Broadway, #600
Brooklyn Park, MN 55445
763-315-7900 / FAX 763-315-7920
800-233-9513

MANKATO
610 North Riverfront Drive
Mankato, MN 56001
507-345-8818 / FAX 507-345-5301
800-233-9513

ROCHESTER
210 Woodlake Drive SE
Rochester, MN 55904
507-281-6664 / FAX 507-281-6695
800-233-9513

BRAINERD
601 NW 5th Street, Ste. #4
Brainerd, MN 56401
218-454-0703 / FAX 218-454-0703
800-233-9513

MARSHALL
1420 East College Drive
Marshall, MN 56258
507-476-3599 / FAX 507-537-6985
800-233-9513

VIRGINIA
5525 Emerald Avenue
Mountain Iron, MN 55768
218-410-9521
800-233-9513

The Chain-of-Custody with sample locations identified is included in Appendix A. Water samples were analyzed by Minnesota Valley Testing Laboratories (MVTL) in New Ulm, Minnesota, which uses EPA-approved analytical methods and quality control/assurance procedures. Samples were analyzed using the ICP/MS EPA Method 200.8.

RESULTS & DISCUSSION

The lead-in-water sample results for the seven (7) water coolers tested were below the level of detection (< 0.5 ppb) for lead. The sample collected at the kitchen sink had a result of 0.96 ppb. The sample results are below the EPA action level of 20 ppb. The laboratory report is provided in Appendix B. Laboratory results are reported in micrograms per liter ($\mu\text{g/L}$) which is equivalent to parts per billion (ppb).

RECOMMENDATIONS

IEA recommends that a copy of the district's Lead-in-Drinking Water Testing Report be made available to the public through the district's administrative offices.

GENERAL CONDITIONS

The analysis and opinions expressed in this report are based upon water testing at Mounds View Public Schools. This report does not reflect variations in conditions that may occur. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental, health and safety practices. Other than as provided in the preceding sentence and in our Proposal #5262 dated June 6, 2016, regarding EHS services including Lead-in-Water Testing at district locations, General Conditions attached thereto, no warranties are extended or made.


Please contact IEA if you would like assistance with any of the above recommendations or have questions regarding this report.

Sincerely,

IEA, Inc.



Brenda Fischer
Senior Account Manager



Karen Weiblen
EHS/IEQ Consultant

Enc.

Appendix A

Chain -of-Custody



9201 West Broadway North, Suite 600
 Brooklyn Park, MN 55445
 763.315.7900
 1.800.335.9513

Chain of Custody

| Client Name | | | Building Name | | | Analytical Lab | | | | |
|----------------------------|---------------|----------------------------|----------------------------|------|-------|--|--------------|------------------------|-------------------|-------------------------|
| Mounds View Public Schools | | | Valentine Hills Elementary | | | MVTL | | | | |
| Contact Name | | | Project # | | | Project Name | | | | |
| Brenda Fischer | | | 201610704 | | | Mounds View Public Schools Lead in Water Testing | | | | |
| Phone # | | | IEA Fax # | | | Written Sample Results To | | | | |
| 763-315-7920 | | | 763-315-7920 | | | Jennifer Theis | | | | |
| Other Information | | | | | | | | | | |
| Sampled By | | | Date | | | Time | | | | |
| Brenda Fischer | | | 7/27/2017 | | | 6:00 AM | | | | |
| Shipped By | | | Date | | | Time | | | | |
| Carole Nelson | | | 7/27/2017 | | | | | | | |
| Received By | | | Date | | | Time | | | | |
| | | | | | | | | | | |
| Lab Number | Sample Number | Sample Location | Sample Type | | | Date Sampled | Time Sampled | Volume/ Bottle Type | Analysis Required | Comments & Observations |
| | | | Water | Soil | Other | | | | | |
| | 072717VH-2A | Hall Outside Room 221 - WC | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
| | 072717VH-19A | Hall West of R9/R10 - WC | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
| | 072717VH-37A | Hall Outside Room 113 - WC | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
| | 072717VH-46A | Hall West of R4/R5 - WC | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
| | 072717VH-48A | Cafeteria 124 - WC | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
| | 072717VH-49A | Kitchen 122 - SNK | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
| | 072717VH-51A | Gymnasium 127 - DF | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
| | 072717VH-52A | Gymnasium 128 - WC | x | | | 7/27/2017 | 6:00 AM | 500mL unpreserved | Lead | |
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Appendix B

Laboratory Results



MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2 North German St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvtl.com



Report Date: 2 Aug 2017

HEIDI SOLBERG
IEA/BROOKLYN PARK
9201 W BDWY STE #600
BROOKLYN PARK MN 55445

AUG -7 2017

Work Order #: 12-11837
Account #: 002190
Purchase Order #: 201610704

Date Received: 27 Jul 2017
Date Sampled: 27 Jul 2017
Time Sampled: 6:00
Temperature at Receipt: 1.8 C

PROJECT NAME: VALENTINE HILLS ELEMENTARY
PROJECT NUMBER: 201610704

| LAB NUMBER | SAMPLE DESCRIPTION | LEAD RESULTS | MCL | DATE ANALYZED | ANALYST |
|------------|---------------------------------------|--------------|------|---------------|---------|
| 17-A36345 | 072717VH-2A HALL OUTSIDE ROOM 221-WC | < 0.5 ug/L | 15.0 | 1 Aug 17 | RMV |
| 17-A36346 | 072717VH-19A HALL WEST OF R9/R10-WC | < 0.5 ug/L | 15.0 | 1 Aug 17 | RMV |
| 17-A36347 | 072717VH-37A HALL OUTSIDE ROOM 113-WC | < 0.5 ug/L | 15.0 | 1 Aug 17 | RMV |
| 17-A36348 | 072717VH-46A HALL WEST OF R4/R5-WC | < 0.5 ug/L | 15.0 | 1 Aug 17 | RMV |
| 17-A36349 | 072717VH-48A CAFETERIA 124-WC | < 0.5 ug/L | 15.0 | 1 Aug 17 | RMV |
| 17-A36350 | 072717VH-49A KITCHEN 122-SNK | 0.96 ug/L | 15.0 | 1 Aug 17 | RMV |
| 17-A36351 | 072717VH-51A GYMNASIUM 127-DF | < 0.5 ug/L | 15.0 | 1 Aug 17 | RMV |
| 17-A36352 | 072717VH-52A GYMNASIUM 128-WC | < 0.5 ug/L | 15.0 | 1 Aug 17 | RMV |

Approved by:

Dan O'Connell, Chemistry Laboratory Manager New Ulm, MN

Analyses performed under our Minnesota Department of Health Accreditation conform to the current TNI standards.

The reporting limit was elevated for any analyte requiring a dilution as coded below:

@ = Due to sample quantity # = Due to concentration of other analytes
! = Due to matrix + = Due to internal standard response

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.