October 25, 2016

Mr. Mike Vogel
Interim Director of Facilities and Construction Management
South Washington County Schools
7362 East Douglas Point Road S
Cottage Grove, MN 55016
P 651-425-6274
E mvogel@sowashco.org

Providing Trusted Health & Safety Solutions

RE: District Service Center
Lead-in-Water Testing
IEA Project #201610819

Dear Mr. Vogel,

At the request of South Washington County Schools, IEA collected a total of 14 samples of drinking water on September 22, 2016, for lead analyses from the District Services Center building.

The purpose of the site sampling was to document lead levels in the sampled locations and compare them to the EPA action level of 20 parts per billion (ppb).

INTRODUCTION

The Environmental Protection Agency (EPA) established the Lead Contamination Control Act (LCCA) of 1988 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).

METHODOLOGY

IEA collected 14 first-draw (unless otherwise noted) 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 results reflect 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.

Site map with sample locations are 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 sampling results ranged from 1.03 ppb to 76.5 ppb. There are three (3) sample results greater than 20 ppb. See *Table 1: Water Testing Results Exceeding 20 ppb*. The laboratory report is provided in Appendix B. Laboratory results are reported in micrograms per liter (µg/L) which is equivalent to parts per billion (ppb).

Table 1: Water Testing Results Exceeding 20 ppb – September 22, 2016

Sample Number	Building	Sampling Location	Fixture Type	Lead Results (ppb)
16-A50475	District Service Center	Sink Boardroom B2	Faucet	76.5
16-A50477	District Service Center	Sink A187	Faucet	42.3
16-A50479	District Service Center	Sink A163 Breakroom	Faucet	34.1

ppb – parts per billion

In addition, one (1) result showed a lead level between 15 ppb and 20 ppb. See *Table 2: Water Testing Result Approaching 20 ppb* for this result. Although the EPA recommends that school drinking water not exceed 20 ppb, the MDH recommends schools seek to reduce the amount of lead in drinking water to as close to zero as possible.

Table 2: Water Testing Result Approaching 20 ppb – September 22, 2016

Sample Number	Building	Sampling Location	Fixture Type	Lead Results (ppb)
16-A50470	District Service Center	Kitchen Sink	Faucet	16.2

ppb – parts per billion

RECOMMENDATIONS

IEA recommends implementing one of the following treatment options for the fixtures with lead level exceeding the EPA action level of 20 ppb. These recommendations should also be considered for the fixtures with lead level approaching 20 ppb.

- Install a point-of-use treatment device, such as the Omnipure OMB934 1M Lead Reduction Filter.
- Conduct flush testing in accordance with EPA or MDH guidelines to determine if flushing will reduce lead levels. If results indicate that flushing will reduce lead to acceptable levels, implement a flushing program which includes documentation of daily flushing and periodic program review.
- Replace fixture with "lead free" fixture certified to NSF/ANSI 372 or NSF/ANSI 61-G. The *Reduction of Lead in Drinking Water Act* redefines "lead free" as "not more than a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures." Effective January 4, 2014, drinking water system components sold or installed must adhere to this new requirement.
- Remove fixture from service by disconnecting it from the water supply.
- Post signs that the water is not potable and to notify staff of this.

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

GENERAL CONDITIONS

The analysis and opinions expressed in this report are based upon water testing at South Washington County 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 #5406A dated August 5, 2016 regarding Lead-in-Water Testing, including the 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.

Amy Satterfield, CPPM I
Director of Business Development

Karen Weiblen
EHS/IEQ Consultant

Enclosure

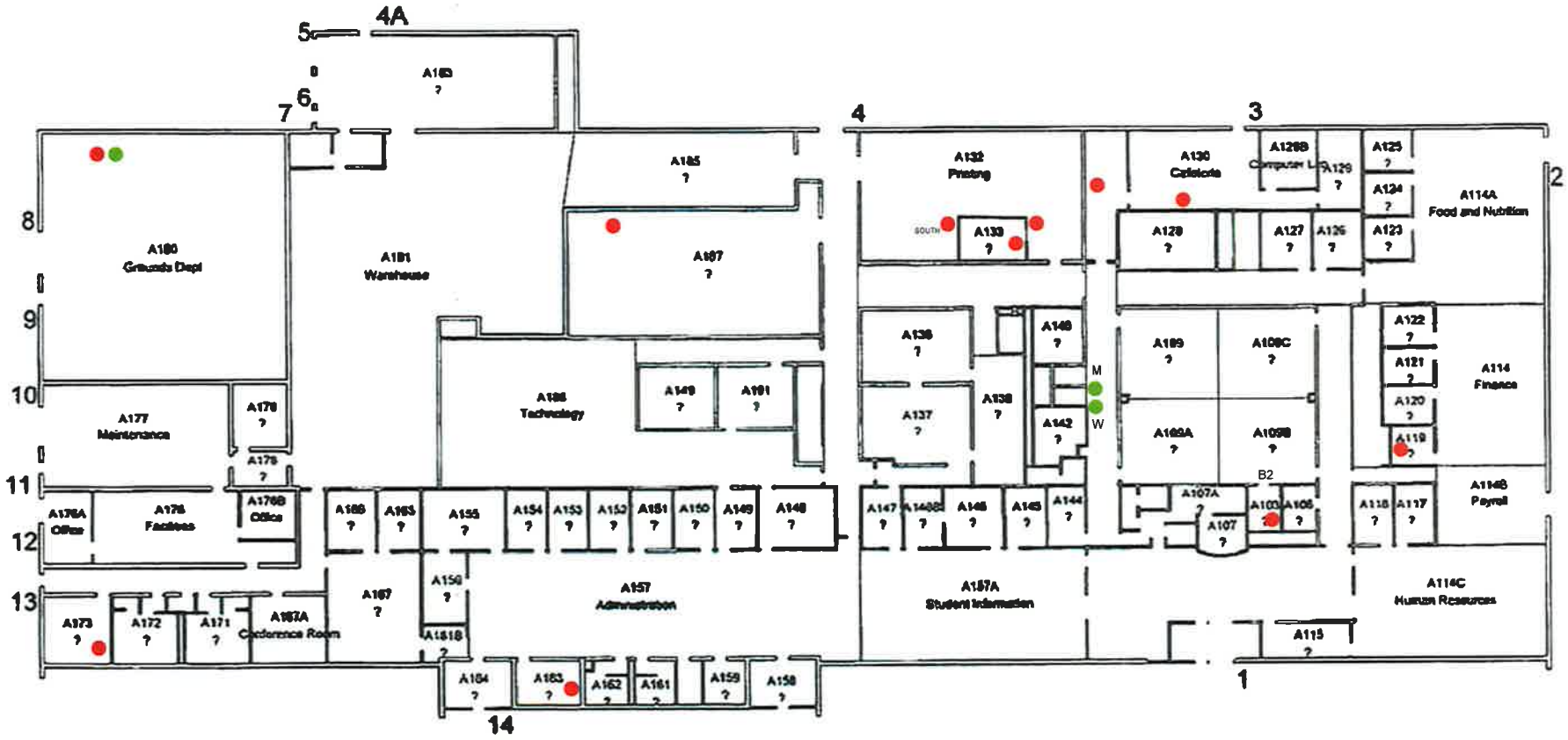
cc: Damien Nelson, Safety & Security

Appendix A

Site Map/Drawing

LEGEND

- SINK (11)
- DRINKING FOUNTAIN (3)



INSTITUTE FOR ENVIRONMENTAL ASSESSMENT
9201 West Broadway Brooklyn Park, MN 55445
Tel: 763.315.7900 Toll Free: 800.233.9513
Fax: 763.315.7920

DISTRICT SERVICE CENTER

FIRST LEVEL FLOOR PLAN | OCT. 2016

Appendix B

Laboratory Testing Report

MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

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

MEMBER ACIL

Report Date: 25 Oct 2016

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

Work Order #: 12-14655
Account #: 002190
Purchase Order #: 201610819

Date Received: 22 Sep 2016
Date Sampled: 22 Sep 2016
Temperature at Receipt: 17.9C

PROJECT NAME: DSC BLDG
PROJECT NUMBER: 201610819

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS	MCL	DATE ANALYZED	ANALYST
16-A50469	09222016DSC-2 SINK 173	8.14 ug/L	15.0	10 Oct 16	RMB
16-A50470	09222016DSC-5 KITCHEN SINK	16.2 ug/L	15.0	10 Oct 16	RMB
16-A50471	09222016DSC-7 DF NEAR MENS ROOM	1.12 ug/L	15.0	10 Oct 16	RMB
16-A50472	09222016DSC-8 DF NEAR WOMENS ROOM	1.03 ug/L	15.0	10 Oct 16	RMB
16-A50473	09222016DSC-11 SINK A132	5.55 @ug/L	15.0	17 Oct 16	RMV
16-A50474	09222016DSC-12 SINK PAYROLL FINANCE	14.1 ug/L	15.0	10 Oct 16	RMB
16-A50475	09222016DSC-13 SINK BOARDROOM B2	76.5 ug/L	15.0	10 Oct 16	RMB
16-A50476	09222016DSC-14 SINK A180	12.4 @ug/L	15.0	17 Oct 16	RMV
16-A50477	09222016DSC-15 SINK A187	42.3 @ug/L	15.0	17 Oct 16	RMV
16-A50478	09222016DSC-16 SOUTH SINK A132	5.05 @ug/L	15.0	17 Oct 16	RMV
16-A50479	09222016DSC-17 SINK A163 BREAKROOM	34.1 @ug/L	15.0	17 Oct 16	RMV
16-A50480	09222016DSC-18 SINK A133	11.7 @ug/L	15.0	17 Oct 16	RMV
16-A50481	09222016DSC-19 SINK A130 CAFETERIA	1.20 ug/L	15.0	21 Oct 16	RMB

Approved by: R. Dan O'Connell

Dan O'Connell, Asst. 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 matrix # = Due to concentration of other analytes
! = Due to sample quantity + = Due to internal standard response
CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040

MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

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

MEMBER ACIL

Report Date: 25 Oct 2016

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

Work Order #: 12-14655
Account #: 002190
Purchase Order #: 201610819

Date Received: 22 Sep 2016
Date Sampled: 22 Sep 2016
Temperature at Receipt: 17.9C

PROJECT NAME: DSC BLDG
PROJECT NUMBER: 201610819

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS		MCL	DATE ANALYZED	ANALYST
16-A50482	09222016DSC-20 DRINKING FOUNTAIN A180	1.70	ug/L	15.0	10 Oct 16	RMB

Approved by: R. Dan O'Connell

Dan O'Connell, Asst. 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 matrix # = Due to concentration of other analytes
! = Due to sample quantity + = Due to internal standard response
CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040