
WATER QUALITY TESTING

FOR

***DUPAGE HIGH SCHOOL DISTRICT 88
DISTRICT OFFICE***

ADDISON, ILLINOIS

SEPTEMBER 20, 2017

PROJECT NUMBER: 17-18305



A DIVISION OF GALLAGHER BASSETT SERVICES, INC.

1550 Hubbard Ave., Batavia, IL 60510, 630-879-3006

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INTRODUCTION

DuPage High School District 88 has implemented a proactive program of water testing at the District Office. Water sampling was conducted by Dan Petras of Aires Consulting on September 20, 2017. Mr. Geoffrey J. Bacci II, P.E. designed the study and developed this report.

All sampling methodology followed protocol required by The Lead in Drinking Water Testing Bill (LDWTB) and guidelines published by the Illinois Department of Public Health (IDPH).

BACKGROUND INFORMATION

The Lead in Drinking Water Testing Bill (LDWTB) was signed into law by Governor Bruce Rauner effective January 17, 2017. The bill amends six (6) different Illinois Codes and Acts including:

- The Illinois School Code
- Illinois Plumbing License Law.

The LDWTB requires School buildings constructed prior to January 1, 2000 to test drinking water sources for lead and provide written notification of the results. The Bill also directs the Illinois Department of Public Health to draft rules by 1/1/2018 which may have additional requirements. The IDPH has issued a guidance document for drinking water testing which is included in Appendix I. The following is a summary of those guidelines:

- All schools housing 5th grade and under built before 1/1/2000 must test drinking sources used for drinking and cooking.
- Results of tests that are 5 parts per billion (ppb) or less can be communicated to parents at minimum by website posting.
- Locations that have results over 5 ppb must be communicated in writing or electronically to affected parents. That communication should also include

information on the USEPA website that parents can access for guidance. That website: <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

According to the LDWTB the testing and notification requirements apply only to covered sources which are:

- Drinking fountain and drinking sources in buildings for grade 5 and under
- Classroom sinks in grades below 1 (kindergarten and pre-kindergarten).

Aires recommends notification extends to all sources tested.

Lead most frequently gets into drinking water by leaching from plumbing materials and fixtures as water moves through a school's distribution system. Even though the drinking water you receive from your water supplier meets federal and state standards for lead and copper, your facility may have elevated lead levels due to plumbing materials and water use patterns. Leaching can occur for several reasons but the most significant is corrosion which can occur if water is acidic. Acidic water has a pH less than 7.0.

METHODOLOGY

Water testing followed protocol recommended by IDPH and the LDWTB. All water sources have two samples collected. The first collection at each source is a "first draw" sample. Water collection occurs in first draw samples after sources were unused for at least eight (8) hours but not more than 18 hrs. The second sample at that source is collected after 30 seconds of flushing. Each sample is given an identifier which begins with letters that identify the school. The middle letter identifies the sample as a drinking fountain (W) or a sink (S). Letters identify the sample location. An "A" after the letter indicates a first draw sample and a "B" identifies a flush sample. For example sample ABS-2A was collected at location 2 at the District Office (Administration Building) and is a first draw sample at a sink. In certain locations where multiple outlets are present a "C" after the number can also denote a first draw sample from one of the outlets (i.e. a combination sink/water fountain).

Samples were analyzed by Prairie Analytical Systems, Inc. Prairie Analytical is accredited by the National Environmental Laboratory Environmental Conference (NELAC).

The EPA recommends taking action to reduce lead levels if sample results exceed 20 ppb. That action could include water treatment or fixture replacement.

Public water supplies are required by the Safe Drinking Water Act to take corrective action if 10% or more of their sources contain lead levels greater than 15 ppb.

RESULTS

Field sheets identifying sample numbers and sample locations are included in Appendix II. Laboratory results are included in Appendix III.

All results were undetectable for concentrations of lead (< 2 ppb).

We recommend the District post the results on the District's website along with any additional preventative measures.

PROFESSIONAL CERTIFICATION

Aires Consulting, a division of Gallagher Bassett Services, Inc. conducted this study in the interest of DuPage High School District 88 to assist in meeting environmental obligations and regulations. In this respect, we hope the results of this study are useful. *This study was not intended to include every environmental exposure that may be present at the facility; only those items specifically addressed in the report were evaluated.* If you have any questions concerning this study please let us know.

Respectfully Submitted,



Geoffrey J. Bacci II, P.E.
Director of Operations

Sampling Protocol for Drinking Water in Schools



*A Guidance Document for
Drinking Water Testing*



- ❖ Schools must use an Illinois Environmental Protection Agency (IEPA) accredited laboratory for the testing.
- ❖ Schools must provide the Illinois Department of Public Health (IDPH) with sample results within 7 days of receipt. Results should be emailed to DPH.LeadH2O@illinois.gov.

SB 0550 was signed by Governor Bruce Rauner on January 16, 2017. It requires all schools (Pre-K through 5th grade) to test for lead in water used for drinking and cooking. Schools built after January 1, 2000 are not required to test at this time.

Sampling must be completed by:

- ❖ December 31, 2017 — Schools constructed prior to January 1, 1987
- ❖ December 31, 2018 — Schools constructed between January 2, 1987 and January 1, 2000



Action Steps Prior to Sampling Appendix I

1. Your local water supply can be a great resource. Contact them to request assistance in establishing your sampling plan.
2. Obtain a general floor plan for each school building. Floor plans are available in the schools' asbestos management plan.
3. Identify all fixtures to be sampled on the general floor plan. All plumbing fixtures that are used for cooking or drinking must be sampled. Bathroom and utility sinks do not need to be sampled.
4. Assign a unique alphanumeric identifier to each fixture.
5. Label fixture identifiers on the floor plan. Make sure all samples are labeled with the corresponding alphanumeric identifier for each fixture.
6. Determine which IEPA accredited laboratory you will utilize for the analysis. A list can be found at <http://www.epa.illinois.gov/citizens/citizens-information/in-your-home/resources-on-lead/index>.
7. Contact the laboratory to obtain enough 250 mL sample bottles and Chain of Custody forms to allow you to collect 2 samples from each fixture. The laboratory will also provide sample shipping instructions.



Test Results

How to interpret your test results

1. Test results will be reported in either parts per billion (ppb) or micrograms per liter (ug/l). Both units of measure are appropriate.
2. If any sample exceeds 5 ppb of lead, the notification requirements are triggered.



Reporting and Notification Requirements

- ❖ Within 7 business days of receipt of test results, schools must email all results to IDPH at DPH.LeadH2O@illinois.gov.
- ❖ If all sample results are less than 5 ppb, schools may use their website (at minimum) to notify parents of the results.
- ❖ If any of the sample results exceed 5 ppb, schools must notify parents in writing or electronically, and include :
 - The location and source exceeding 5 ppb, and
 - The USEPA website for information about lead in drinking water: <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.

Parents should be advised to contact their health care provider with any concerns about their child's health, including blood tests for lead exposure.

Next Steps

Test results will likely generate questions from parents, guardians, and the public about steps the school is taking to address lead in water.

Removing fixtures from use may not be an immediate option. Establishment of a water management plan, including identification of lead-containing plumbing, scheduled flushing, fixture replacement, and monitoring is the best course of action for schools addressing positive lead test results.

Additional guidance for interim (short-term) and permanent lead control measures is provided in the USEPA 3Ts for Reducing Lead in Drinking Water in Schools. This document can be found at:

www.epa.gov/sites/production/files/201509/documents/toolkit_leadschools_guide_3ts_leadschools.pdf



The Illinois Department of Public Health supports the efforts of Illinois Section AWWA to educate schools about lead testing. For additional information see dph.illinois.gov.



Tuesday, October 10, 2017

Geoff Bacci II
 Aires Consulting Group
 1550 Hubbard Ave.
 Batavia, IL 60510
 TEL: (630) 879-3006
 FAX: (630) 879-3014

RE: DuPage HS 88/ Admin Office

PAS WO: 1710594

Prairie Analytical Systems, Inc. received 14 sample(s) on 9/21/2017 for the analyses presented in the following report.

All applicable quality control procedures met method specific acceptance criteria unless otherwise noted.

This report shall not be reproduced, except in full, without the prior written consent of Prairie Analytical Systems, Inc.

If you have any questions, please feel free to contact me at (224) 253-1348.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Christina E. Pierce".

Christina E. Pierce
 Project Manager

Certifications: NELAP/NELAC - IL #100323

1210 Capital Airport Drive	*	Springfield, IL 62707	*	1.217.753.1148	*	1.217.753.1152 Fax
9114 Virginia Road Suite #112	*	Lake in the Hills, IL 60156	*	1.847.651.2604	*	1.847.458.0538 Fax

Prairie Analytical Systems, Inc.

Date: 10/10/2017

LABORATORY RESULTS

Client: Aires Consulting Group
Project: DuPage HS 88/ Admin Office
Client Sample ID: ABWF-1A
Collection Date: 9/20/17 7:08

Lab Order: 17I0594
Lab ID: 17I0594-01
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 3:18	EPA200.8	JTC

Client Sample ID: ABWF-1B
Collection Date: 9/20/17 7:08

Lab ID: 17I0594-02
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 3:23	EPA200.8	JTC

Client Sample ID: ABBF-1C
Collection Date: 9/20/17 7:09

Lab ID: 17I0594-03
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 3:27	EPA200.8	JTC

Client Sample ID: ABS-2A
Collection Date: 9/20/17 7:09

Lab ID: 17I0594-04
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 3:32	EPA200.8	JTC

Client Sample ID: ABS-2B
Collection Date: 9/20/17 7:09

Lab ID: 17I0594-05
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 3:45	EPA200.8	JTC

Client Sample ID: ABS-3A
Collection Date: 9/20/17 7:14

Lab ID: 17I0594-06
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:02	EPA200.8	JTC

Client Sample ID: ABS-3B
Collection Date: 9/20/17 7:14

Lab ID: 17I0594-07
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:07	EPA200.8	JTC

Prairie Analytical Systems, Inc.

Date: 10/10/2017

LABORATORY RESULTS

Client: Aires Consulting Group
Project: DuPage HS 88/ Admin Office

Lab Order: 17I0594

Client Sample ID: ABWF-4A
Collection Date: 9/20/17 7:17

Lab ID: 17I0594-08
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:11	EPA200.8	JTC

Client Sample ID: ABWF-4B
Collection Date: 9/20/17 7:17

Lab ID: 17I0594-09
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:16	EPA200.8	JTC

Client Sample ID: ABWF-5A
Collection Date: 9/20/17 7:18

Lab ID: 17I0594-10
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:20	EPA200.8	JTC

Client Sample ID: ABWF-5B
Collection Date: 9/20/17 7:18

Lab ID: 17I0594-11
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:25	EPA200.8	JTC

Client Sample ID: ABS-6A
Collection Date: 9/20/17 7:20

Lab ID: 17I0594-12
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:29	EPA200.8	JTC

Client Sample ID: ABS-6B
Collection Date: 9/20/17 7:20

Lab ID: 17I0594-13
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 12:07	10/6/17 4:33	EPA200.8	JTC

Client Sample ID: ABIF-7
Collection Date: 9/20/17 7:30

Lab ID: 17I0594-14
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Metals by ICP-MS									
*Lead	U	2.00		µg/L	1	10/5/17 9:03	10/5/17 16:26	EPA200.8	KSH

Prairie Analytical Systems, Inc.

Date: 10/10/2017

LABORATORY RESULTS

Client: Aires Consulting Group
Project: DuPage HS 88/ Admin Office
Client Sample ID: ABIF-7
Collection Date: 9/20/17 7:30

Lab Order: 17I0594
Lab ID: 17I0594-14
Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
Conventional Chemistry Parameters									
pH	8.51	0.0100		pH Units	1	9/20/17 7:30	9/20/17 7:30	EPA150.1	

LABORATORY RESULTS

Client: Aires Consulting Group
Project: DuPage HS 88/ Admin Office

Lab Order: 17I0594

Metals by ICP-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A006159 - EPA 200.8 Metals

Blank (A006159-BLK1)

Prepared & Analyzed: 10/05/201

Lead U 2.00 µg/L

LCS (A006159-BS1)

Prepared & Analyzed: 10/05/201

Lead 450 2.00 µg/L 500.00 90 85-115

Matrix Spike (A006159-MS1)

Source: 17I0592-30

Prepared & Analyzed: 10/05/201

Lead 461 2.00 µg/L 500.00 0.163 92 75-125

Matrix Spike Dup (A006159-MSD1)

Source: 17I0592-30

Prepared & Analyzed: 10/05/201

Lead 474 2.00 µg/L 500.00 0.163 95 75-125 3 20

Batch A006179 - EPA 200.8 Metals

Blank (A006179-BLK1)

Prepared: 10/05/201 Analyzed: 10/06/201

Lead U 2.00 µg/L

LCS (A006179-BS1)

Prepared: 10/05/201 Analyzed: 10/06/201

Lead 458 2.00 µg/L 500.00 92 85-115

Matrix Spike (A006179-MS1)

Source: 17I0593-CK

Prepared: 10/05/201 Analyzed: 10/06/201

Lead 450 2.00 µg/L 500.00 1.54 90 75-125

Matrix Spike (A006179-MS2)

Source: 17I0594-04

Prepared: 10/05/201 Analyzed: 10/06/201

Lead 453 2.00 µg/L 500.00 0.379 91 75-125

Matrix Spike Dup (A006179-MSD1)

Source: 17I0593-CK

Prepared: 10/05/201 Analyzed: 10/06/201

Lead 468 2.00 µg/L 500.00 1.54 93 75-125 4 20

Prairie Analytical Systems, Inc.

Date: 10/10/2017

LABORATORY RESULTS

Client: Aires Consulting Group

Project: DuPage HS 88/ Admin Office

Lab Order: 17I0594

Metals by ICP-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A006179 - EPA 200.8 Metals

Matrix Spike Dup (A006179-MSD2)

Source: 17I0594-04

Prepared: 10/05/201 Analyzed: 10/06/201

Lead	454	2.00	µg/L	500.00	0.379	91	75-125	0.2	20	
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Prairie Analytical Systems, Inc.

Date: 10/10/2017

LABORATORY RESULTS

Client: Aires Consulting Group

Project: DuPage HS 88/ Admin Office

Lab Order: 17I0594

Notes and Definitions

* NELAC certified compound.

U Analyte not detected (i.e. less than RL or MDL).

