



## Lead Testing in Drinking Water

**Site:**

Concordia Lutheran School  
2000 W. Glen Avenue  
Peoria, IL 61614

**Local Education Agency:**

Concordia Lutheran School

**Completion Date:**

December 6, 2017



## Lead Testing in Drinking Water

### Public Act 099-0922

Public Act 099-0922, was passed into law in January 2017. The Act requires the Local Education Agency (LEA) to test for lead in all water sources used for cooking and drinking in schools built on or before January 1, 2000, where more than 10 pre-kindergarten through 5<sup>th</sup> grade children are present. The timeframe for compliance is December 31, 2017, for buildings constructed prior to January 1, 1987; and December 31, 2018, for those built between January 2, 1987 and January 1, 2000. Water samples are required to be analyzed by a method approved by the Illinois Environmental Protection Agency (IEPA) that provides a minimum reporting limit of 2 parts per billion (ppb). Notifications are required. Mitigation may be required based on test results. A Water Quality Management Plan (WQMP) is required.

### Scope of Service

On December 6, 2017, Ideal Environmental Engineering (IDEAL) performed water sampling at Concordia Lutheran School in Peoria, IL at the request of the LEA. IDEAL's scope of service was to provide testing and analysis for lead in drinking water in accordance with Illinois Public Act 099-0922 and to prepare and submit reports for the water testing to the LEA and IDPH.

This report is presented based on the Act. IDEAL's service excluded determining whether a tested building is subject to the Act. IDEAL recommends following the Act's requirements for all buildings tested, even if a building does not meet the Act's definition of a school building.

### Sampling Methodology

Prior to sampling, in order to verify that the required 8-18 hour water stagnation period had been met, school personnel provided IDEAL's water collector with the date and time the plumbing system had last been used. The date and time provided are recorded on the chain of custody (COC).

The water source locations were provided to IDEAL by the LEA. For each source, a first-draw 250 milliliter (mL) sample of cold water was collected in a bottle provided by an IEPA-approved laboratory. A first-draw sample is the first amount of water collected from a source. After the first draw was collected, the source was flushed for 30 seconds, followed by the collection of a second-draw 250 mL sample of water. This second sample is called a flush sample. If multiple faucets use the same drain, only one second-draw (flush) sample may have been collected.

Each bottle was placed in a position that allowed for the collection of all of the water. Care was taken to prevent overflow. Each bottle was labeled with a unique identifier (sample ID). The sample ID was recorded on the COC, which lists the location of the sample, source of the sample, and the date and time the sample was collected.

The water bottles were delivered—with the COC to show the relinquishment and receipt of the samples—to an IEPA-accredited laboratory for analysis. The laboratory's accreditation was reviewed by IDEAL to ensure that it was current for an IEPA-approved method of analysis for lead in drinking water.



**Lead Testing in Drinking Water**

**Summary of Sampling**

48 water samples were collected from 20 sources. All results are shown in Table 1.1.

**Table 1.1**

<b>Sample ID</b>	<b>Sample Location Description</b>	<b>Fixture Type</b>	<b>Sample Type</b>	<b>Concentration</b>
CL 1.01 F	Room 1 - Sink/Fountain Combo	S - Sink	First Draw	6.28 ppb
CL 1.01 FF	Room 1 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	9.08 ppb
CL 1.01 S	Room 1 - Sink/Fountain Combo	S - Sink	Flush	4.65 ppb
CL 1.02 F	Room 5 - Sink/Fountain Combo	S - Sink	First Draw	3.47 ppb
CL 1.02 FF	Room 5 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	3.17 ppb
CL 1.02 S	Room 5 - Sink/Fountain Combo	S - Sink	Flush	ND
CL 1.03 F	Room 6 - Sink/Fountain Combo	S - Sink	First Draw	4.13 ppb
CL 1.03 FF	Room 6 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	ND
CL 1.03 S	Room 6 - Sink/Fountain Combo	S - Sink	Flush	ND
CL 1.04 F	Room 8 - Sink/Fountain Combo	S - Sink	First Draw	19.3 ppb
CL 1.04 FF	Room 8 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	ND
CL 1.04 S	Room 8 - Sink/Fountain Combo	S - Sink	Flush	2.52 ppb
CL 1.05 F	Room 9 - Sink/Fountain Combo	S - Sink	First Draw	4.18 ppb
CL 1.05 FF	Room 9 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	3.44 ppb
CL 1.05 S	Room 9 - Sink/Fountain Combo	S - Sink	Flush	ND
CL 1.06 FL	Hall by Front Entrance - Left	DF - Drinking Fountain	First Draw	ND
CL 1.06 SL	Hall by Front Entrance - Left	DF - Drinking Fountain	Flush	ND
CL 1.06 FR	Hall by Front Entrance - Right	DF - Drinking Fountain	First Draw	ND
CL 1.06 SR	Hall by Front Entrance - Right	DF - Drinking Fountain	Flush	ND
CL 1.07 F	Old Gym	DF - Drinking Fountain	First Draw	4.77 ppb
CL 1.07 S	Old Gym	DF - Drinking Fountain	Flush	ND
CL 1.08 FL	Old Kitchen - Left	KS - Kitchen Sink	First Draw	24.1 ppb
CL 1.08 SL	Old Kitchen - Left	KS - Kitchen Sink	Flush	3.09 ppb
CL 1.09 FLL	Cafeteria - Left	DF - Drinking Fountain	First Draw	ND
CL 1.09 FLU	Cafeteria - Left - Upper	DF - Drinking Fountain	First Draw	ND
CL 1.09 SL	Cafeteria - Left	DF - Drinking Fountain	Flush	ND
CL 1.09 FR	Cafeteria - Right	DF - Drinking Fountain	First Draw	ND
CL 1.09 SR	Cafeteria - Right	DF - Drinking Fountain	Flush	ND
CL 1.10 FLU	Hall by Locker Rooms - Left - Bottle Filler	O - Other	First Draw	ND



**Lead Testing in Drinking Water**

Sample ID	Sample Location Description	Fixture Type	Sample Type	Concentration
CL 1.10 FLL	Hall by Locker Rooms - Left	DF - Drinking Fountain	First Draw	ND
CL 1.10 SL	Hall by Locker Rooms - Left	DF - Drinking Fountain	Flush	ND
CL 1.10 FR	Hall by Locker Rooms - Right	DF - Drinking Fountain	First Draw	ND
CL 1.10 SR	Hall by Locker Rooms - Right	DF - Drinking Fountain	Flush	ND
CL 1.11 F	New Kitchen - Single Sink	KS - Kitchen Sink	First Draw	2.61 ppb
CL 1.11 S	New Kitchen - Single Sink	KS - Kitchen Sink	Flush	ND
CL 1.12 FL	New Kitchen - Triple Sink - Left	KS - Kitchen Sink	First Draw	3.36 ppb
CL 1.12 SL	New Kitchen - Triple Sink - Left	KS - Kitchen Sink	Flush	ND
CL 1.12 FR	New Kitchen - Triple Sink - Right	KS - Kitchen Sink	First Draw	ND
CL 1.12 SR	New Kitchen - Triple Sink - Right	KS - Kitchen Sink	Flush	ND
CL 1.13 FL	Jr. High Hallway - Left	DF - Drinking Fountain	First Draw	ND
CL 1.13 SL	Jr. High Hallway - Left	DF - Drinking Fountain	Flush	ND
CL 1.13 FR	Jr. High Hallway - Right	DF - Drinking Fountain	First Draw	ND
CL 1.13 SR	Jr. High Hallway - Right	DF - Drinking Fountain	Flush	ND
CL 1.14 F	Room 19	S - Sink	First Draw	18.0 ppb
CL 1.14 S	Room 19	S - Sink	Flush	ND
CL 1.15 F	Room 14 - Sink/Fountain Combo	S - Sink	First Draw	5.66 ppb
CL 1.15 FF	Room 14 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	3.98 ppb
CL 1.15 S	Room 14 - Sink/Fountain Combo	S - Sink	Flush	ND
ND = None Detected				



## Lead Testing in Drinking Water

### Notifications

#### Notification Requirements:

The Illinois Department of Public Health (IDPH) must be informed of the results. The LEA is also required to provide notification of all water testing results to parents and legal guardians of all enrolled students. Notification can be done, at a minimum, on the school's website. In addition, when any test result exceeds 5 ppb, individual written or electronic notification is required to be sent to parents and legal guardians of all enrolled students and must include the location and source exceeding 5 ppb, and the USEPA website for information about lead in drinking water: [www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water](http://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water)

Based on sample results:

- Submit to IDPH at [dph.leadh2O@illinois.gov](mailto:dph.leadh2O@illinois.gov) all sample results as shown in Table 1.1. This step has been done by IDEAL. Please refer to Appendix A for electronic transmittal(s).
- Provide to parents and legal guardians all sample results as shown in Table 1.1. This can be done, at a minimum, on the school's website.
- Provide individual written or electronic notification to parents and legal guardians of all enrolled students the sample results in Table 2.1, as these results exceed 5 ppb. Include in the notification the location and source exceeding 5 ppb, and the USEPA website for information about lead in drinking water: [www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water](http://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water).

**Refer to Appendix B for a sample notification letter for results exceeding 5 ppb.**

**Table 2.1 – Results over 5 ppb**

Sample ID	Sample Location Description	Fixture Type	Sample Type	Concentration
CL 1.01 F	Room 1 - Sink/Fountain Combo	S - Sink	First Draw	6.28 ppb
CL 1.01 FF	Room 1 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	9.08 ppb
CL 1.04 F	Room 8 - Sink/Fountain Combo	S - Sink	First Draw	19.3 ppb
CL 1.08 FL	Old Kitchen - Left	KS - Kitchen Sink	First Draw	24.1 ppb
CL 1.14 F	Room 19	S - Sink	First Draw	18.0 ppb
CL 1.15 F	Room 14 - Sink/Fountain Combo	S - Sink	First Draw	5.66 ppb



**Lead Testing in Drinking Water**

**Mitigation**

**Mitigation Requirements:**

IDPH requires mitigation when lead is found in a sample above the minimum reporting limit (2 ppb). They recommend the sampling source be removed from service immediately upon learning that it has tested positive for lead. Re-testing is required after mitigation unless the sampling source is taken out of service. Mitigation is to continue until subsequent testing indicates lead levels are below the minimum reporting limit.

Based on sample results:

- Mitigate all sources identified in Table 3.1, and retest after mitigation is complete. Results shown in Table 3.1 were found to contain lead at or above the 2 ppb minimum reporting limit.

Refer to IDPH's website for mitigation strategies:

[www.dph.illinois.gov/sites/default/files/publications/school-lead-mitigation-strategies-050917.pdf](http://www.dph.illinois.gov/sites/default/files/publications/school-lead-mitigation-strategies-050917.pdf)

**Table 3.1 – Results over 2 ppb**

<b>Sample ID</b>	<b>Sample Location Description</b>	<b>Fixture Type</b>	<b>Sample Type</b>	<b>Concentration</b>
CL 1.01 F	Room 1 - Sink/Fountain Combo	S - Sink	First Draw	6.28 ppb
CL 1.01 FF	Room 1 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	9.08 ppb
CL 1.01 S	Room 1 - Sink/Fountain Combo	S - Sink	Flush	4.65 ppb
CL 1.02 F	Room 5 - Sink/Fountain Combo	S - Sink	First Draw	3.47 ppb
CL 1.02 FF	Room 5 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	3.17 ppb
CL 1.03 F	Room 6 - Sink/Fountain Combo	S - Sink	First Draw	4.13 ppb
CL 1.04 F	Room 8 - Sink/Fountain Combo	S - Sink	First Draw	19.3 ppb
CL 1.04 S	Room 8 - Sink/Fountain Combo	S - Sink	Flush	2.52 ppb
CL 1.05 F	Room 9 - Sink/Fountain Combo	S - Sink	First Draw	4.18 ppb
CL 1.05 FF	Room 9 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	3.44 ppb
CL 1.07 F	Old Gym	DF - Drinking Fountain	First Draw	4.77 ppb
CL 1.08 FL	Old Kitchen - Left	KS - Kitchen Sink	First Draw	24.1 ppb
CL 1.08 SL	Old Kitchen - Left	KS - Kitchen Sink	Flush	3.09 ppb
CL 1.11 F	New Kitchen - Single Sink	KS - Kitchen Sink	First Draw	2.61 ppb
CL 1.12 FL	New Kitchen - Triple Sink - Left	KS - Kitchen Sink	First Draw	3.36 ppb
CL 1.14 F	Room 19	S - Sink	First Draw	18.0 ppb
CL 1.15 F	Room 14 - Sink/Fountain Combo	S - Sink	First Draw	5.66 ppb
CL 1.15 FF	Room 14 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	3.98 ppb



## Lead Testing in Drinking Water

### Water Quality Management Plan

A Water Quality Management Plan (WQMP) must be developed and maintained.

The need for re-testing after mitigation may be affected by the WQMP.

Refer to IDPH's website for steps to an effective WQMP:

[www.dph.illinois.gov/sites/default/files/publications/school-lead-mitigation-strategies-050917.pdf](http://www.dph.illinois.gov/sites/default/files/publications/school-lead-mitigation-strategies-050917.pdf)

### General Comments

Refer to Appendix C for the complete analysis report, including chain of custody and laboratory accreditation.

This report is based strictly on Illinois Public Act 099-0922. You may also wish to refer to the EPA's *3 T's for Reducing Lead in Drinking Water* for additional guidance.

IDEAL's scope of service included sending all results to IDPH, unless specifically told otherwise in writing.

IDEAL sampled according to accepted protocol for this project (unless otherwise noted by limitations in the description of the scope of work) and based on our interpretation of the regulations affecting schools.

Any recommendations provided by IDEAL are recommendations only. Employees of IDEAL are neither plumbers nor healthcare providers. No opinions or recommendations are stated about possible health effects of lead.

Sample results reflect the water at the time of the sampling event. IDEAL shall not be held liable if sources are re-sampled and found to contain lead.

Plumbing investigation, water quality management plan development, and in-depth consulting regarding mitigation are beyond the scope of this work.

Room numbers, room dimensions, occupant names, building years, etc. may not be accurate in this report if information provided to us, such as on a diagram, was not current.

This report shall not be reproduced, except in full, without the written consent of IDEAL. Record retention by IDEAL is not guaranteed. IDEAL reserves the right to provide copies of chains of custody rather than originals, as the originals will only be archived for a limited period of time.

The scope of work presented in this report was based on an understanding between IDEAL and the client, whether the understanding was from verbal conversation or written document(s). The scope of work and report shall be deemed accepted by the client unless the client advises to the contrary in writing within 10 days of the date this report is sent.

Please call our office at (800)535-0964 or (309)828-4259 if you have any questions, or if we can be of further assistance with your mitigation, water retesting, the WQMP, or with other environmental services such as asbestos, indoor air quality or bleacher inspections.



**Paul Weber**

---

**From:** Paul Weber  
**Sent:** Tuesday, January 09, 2018 12:29 PM  
**To:** 'dph.leadh2O@illinois.gov'  
**Subject:** Lead in Water Results - Concordia Lutheran School  
**Attachments:** J#20703A Concordia L.S. Lab Analysis.pdf; J#20703A Concordia L.S. IDPH Data Report.xlsx; Prairie Analytical Accreditation.pdf

On behalf of Concordia Lutheran School in Peoria, lead-in-water laboratory results and laboratory accreditation are attached for the following school(s):

**Concordia Lutheran School**

If you have any questions or need additional information, please do not hesitate to call our office at (800)535-0964.

**Paul Weber**

Ideal Environmental Engineering, Inc.  
2904 Tractor Lane  
Bloomington, IL 61704  
Ph: 309-828-4259 or 800-535-0964  
Fax: 309-828-5735  
Email: [pweber@idealenvironmental.com](mailto:pweber@idealenvironmental.com)

Although care has been taken to present the content of this email accurately, Ideal Environmental Engineering, Inc. disclaims any implied or actual warranties as to the accuracy of any material herein and any liability with respect hereto. Any sample results, advice or recommendations given in this email are confidential and are intended for use by the addressee and/or their intended representatives only. Sample results, recommendations or advice may be superseded by a complete final report and/or laboratory results. If you received this message in error, please notify the sender immediately and permanently delete this message from your computer.



<b>Sample Notification Letter</b>
-----------------------------------

&lt;DATE&gt;

**Re: Concordia Lutheran School – Lead in Drinking Water Notification**

Illinois Public Act 99-922 requires all pre-K through 5th grade schools built before January 1, 2000, to test the level of lead in the water from every outlet that could be used for drinking or food preparation. All sampling results must be submitted to the Illinois Department of Public Health and provided to parents and legal guardians of enrolled students. In addition, if lead is found at levels above 5 parts per billion (ppb), the school district must *individually* notify parents in writing or electronically.

On December 6, 2017, Ideal Environmental Engineering (IDEAL) performed water sampling at Concordia Lutheran School in Peoria, IL.

Please go to our website <insert link> to view all the sample results.

The following is notification for any sample result found to contain lead levels exceeding 5 ppb.

Sample Location Description	Fixture Type	Sample Type	Concentration
Room 1 - Sink/Fountain Combo	S - Sink	First Draw	6.28 ppb
Room 1 - Sink/Fountain Combo	DF - Drinking Fountain	First Draw	9.08 ppb
Room 8 - Sink/Fountain Combo	S - Sink	First Draw	19.3 ppb
Old Kitchen - Left	KS - Kitchen Sink	First Draw	24.1 ppb
Room 19	S - Sink	First Draw	18.0 ppb
Room 14 - Sink/Fountain Combo	S - Sink	First Draw	5.66 ppb

**\*\*\*PLEASE NOTE:** When a first draw or flush sample is less than 5 ppb, notification is not required. For instance, if a first draw sample is higher than 5 ppb but the flush sample is less than 5 ppb, the flush sample will not be on the notification.

For information about lead in drinking water, visit the USEPA website at: [www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water](http://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water).

IDPH requires mitigation for any sample results found above the laboratory reporting limit for all schools subject to the Act. IDPH set a minimum reporting limit of 2 ppb. Please note this mitigation requirement set by the state is significantly more stringent than the 20 ppb action level recommended by the US EPA for school outlets.

Please be assured that we will continue to take all action necessary to protect student health. Mitigation and water management are in progress. Water outlets are being shut off, and we have already begun to take appropriate remedial action for any levels above the laboratory reporting limit.

The risk to an individual child from exposure to lead in drinking water depends on many factors, including the amount of lead in the water, the frequency, duration, and dose of the exposure(s), and individual susceptibility factors (e.g., age, weight, previous exposure history, nutrition, and health). In addition, the degree of harm depends on one's total exposure to lead from all sources in the environment - air, soil, dust, food and water. Parents/guardians who are concerned that their child is displaying symptoms consistent with elevated blood lead levels should contact their healthcare provider.

If you have any questions, please contact <school personnel name & phone number>.

Sincerely,

<School Personnel>

