



November 16, 2016 (Revised)

St. Aloysius on the Ohio  
Kristin Penley  
6207 Portage St.  
Cincinnati, OH 45233

Dear Kristin:

Attached please find the results of **ROUND 2 and 3** of the lead analyses performed for St. Aloysius on the Ohio School by the Greater Cincinnati Water Works (GCWW). The following comments speak to the process, samples analyzed and additional steps needed to help ensure the safety of all the students within the school.

### **School Sample Results**

The *USEPA 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance Document (3Ts Guidelines)* is the process and guidelines used for assisting schools with testing for lead.

On Friday, October 11, 2016, the lead service line to the school property was replaced with a copper line. GCWW removed the public portion of the line; St. Aloysius had a plumber remove the private portion of the line.

After reviewing the results of Round 2 sampling (Nov. 4), which indicated elevated lead levels, GCWW sent a crew to the school on November 5, 2016. The following occurred on Saturday, the 5th:

- The meter was replaced. Meters may have a screen in them that can hold materials/particulates that can later dislodge. The meter was replaced in case this had occurred.
- Aerators were removed throughout the building. It appeared some had particulates lodged in them. The aerators were removed, cleaned and replaced.
- For about 3 ½ hours, using approximately 1100 gallons of water, the lines were flushed throughout the school. This flushing should have washed out any particulates that could have remained after the lead service line was replaced. It is not clear if flushing occurred after the replacement of the line, however, this additional flushing should further reduce any lead levels.
- After the above actions occurred, samples were collected from the same sampling locations.

GCWW appreciates the rapid response and remedies St. Aloysius quickly put in place upon hearing the results of the sampling from Round 1 and throughout this process. St. Aloysius recognized that most sample results were below the 20ppb trigger level for schools to take action as outlined in the 3Ts Guidelines, however, decided to take proactive measures to reduce lead in the building, further minimizing lead risk. St. Aloysius has maintained several practices such as removing some locations from service until further sampling had occurred and providing bottled water as an additional precaution.

The data from Rounds 1, 2, and 3 follows with actions and suggested next steps. Additional comments regarding the results can be found on the regular lead testing results spreadsheet.



#	SAMPLE NAME	PARAMETER CODE	Round 1 9/14/16 AMOUNT	Round 2 10/25/16 AMOUNT	Round 3 11/5/16 AMOUNT
1	STALSOHIO_RM1SINK_695058	Lead, ppb	15.6	11.9	<1
2	STALSOHIO_RM1ASINK_694988	Lead, ppb	17.6	11.7	1.04
3	STALSOHIO_RM3SINK_695004	Lead, ppb	14.3	7.17	2.32
4	STALSOHIO_BOYSSINK1_695062	Lead, ppb	5.3	6.73	55.41
5	STALSOHIO_BOYSSINK2_694965	Lead, ppb	5.63	6.63	25.96
6	STALSOHIO_BOYSSINK3_694957	Lead, ppb	6.82	6.29	55.7
7	STALSOHIO_BASEMENTDRKFNTN_694980	Lead, ppb	11	17.9	1.87
8	STALSOHIO_1FLOORWATERCOOLER1_695038	Lead, ppb	12.5	23.6	1.21
9	STALSOHIO_GIRLSSINK1_694993	Lead, ppb	9.4	8.35	6.09
10	STALSOHIO_GIRLSSINK2_695046	Lead, ppb	11.3	8.46	
11	STALSOHIO_GIRLSSINK3_695064	Lead, ppb	9.92	8.4	11.4
12	STALSOHIO_WOMENSINK1_695073	Lead, ppb	16.7	8.81	
13	STALSOHIO_1FLOORWATERCOOLER2_695070	Lead, ppb	12.3	23.1	1.07
14	STALSOHIO_MULTIPURPOSESINK1_694992	Lead, ppb	8.57	11.2	7.66
15	STALSOHIO_MULTIPURPOSESINK2_695050	Lead, ppb	10.2	10.2	2.12
16	STALSOHIO_LIBRARYSINK_695072	Lead, ppb	10	14.1	
17	STALSOHIO_CHURCHDF_RESAMPLEAFTERSBC	Lead, ppb	N/A	11.3	N/A
18	STALSOHIO_CHURCHRRSINK_RESAMPLEAFTERSBC	Lead, ppb	N/A	1.9	N/A
19	STALSOHIO_SACRISTYSINK_RESAMPLEAFTERSBC	Lead, ppb	N/A	16.6	N/A
20	STALSOHIO_1STFLOORPARISHCENTERRR_RESAMPLEAFTERSBC	Lead, ppb	N/A	2.97	N/A
21	STALSOHIO_PARISHCENTERKITCHEN_RESAMPLEAFTERSBC	Lead, ppb	N/A	5.39	N/A
22	STALSOHIO_PARISHCENTER2NDFLRR_RESAMPLEAFTERSBC	Lead, ppb	N/A	16.6	N/A

### Actions and next steps

GCWW has reviewed the results and offers next-step suggestions and comments.

1. Round 2 still indicated high lead levels. In some cases, after flushing the results are significantly lower in Round 3. This can be seen in the drinking fountain and water cooler samples. These outlets can be put back into regular service.
2. For the sample locations in Rooms 1 and 3, lead levels are greatly reduced. As a precaution, consider posting signs that these locations are for hand washing only and are not to be used as drinking water or cooking outlets.
3. For the sample locations that still show elevated lead results (sinks in restrooms), post signs that these locations are for hand washing only and are not to be used as drinking water or cooking outlets. Additional sampling will be needed here.
4. It is quite possible that there are lead particulates in your hot water heater given that the sampling locations with tempered water still show either high lead levels or higher than expected results. Sampling of the water supply to the water heater and then on the outlet side of the water heater may indicate if this is the case. Regardless, it is recommended that the hot water heater be evaluated by a plumbing professional, and cleaned out to the degree possible as recommended by the plumber to remove any particulates remaining in the hot water heater.

Flush outlets and resample locations after this (sinks). If still high lead results, consider replacing the hot water heater.

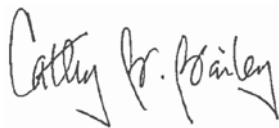
5. Some fixtures may be contributing to the lead detection in samples. Consider using the grant you obtained to replace fixtures.
6. Some samples were not matched for Round 3; additional information is needed to match these results and provide comments and suggestions.
7. Further discussion is needed regarding the samples from the Church (Church has copper service line).
8. Continue communicating with your school community regarding the results and actions taken.

It is not unusual to experience what you are experiencing after removing a lead service line; elevated lead levels still and potential particulates at some sampling locations. It is not known to GCWW if extensive flushing occurred after the private portion of the line was replaced. Continued flushing now and additional testing will help reduce particulates, similar to how extensive flushing helped reduce lead levels before round 3 of testing.

We understand this has been a longer than expected process for you with the first round of sampling, removal of the line and now two additional rounds of sampling. But your decisions and quick actions throughout this process speak to your care and commitment to ensure the children remain safe and healthy while attending your school. We are still committed to helping you through this process.

Greater Cincinnati Water Works takes the presence of lead service lines and the removal of those service lines in our system very seriously. In addition, minimizing the exposure of lead within our preschools, schools, and daycares is one of our highest priorities under our Enhanced Lead Program. We look forward to our continued partnership with St. Aloysius on the Ohio School. Our resources are available to assist in many ways. Please contact me at 591-7977 or Lynette Whiteberry at 591-7976 to discuss how we can assist with next steps within your school.

Sincerely,



Cathy B. Bailey  
Director/Greater Cincinnati Water Works

Cc: Andy Martini, St. Aloysius on the Ohio  
Tim Gates, St. Aloysius on the Ohio  
Dr. Marilyn Crumpton, Cincinnati Health Department  
Dr. Camille Jones, Cincinnati Health Department  
Chuck DeJonckheere, Hamilton County Public Health  
Sheila Hill-Christian, City of Cincinnati  
Verna Arnette, Greater Cincinnati Water Works  
Jeff Swertfeger, Greater Cincinnati Water Works

**St. Aloysius on the Ohio - Lead Testing Results**

#	SAMPLE NAME	PARAMETER CODE	Round 1 9/14/16 AMOUNT	Round 2 10/25/16 AMOUNT	Round 3 11/5/16 AMOUNT	GCWW COMMENTS AND RECOMMENDATIONS
1	STALSOHIO_RM1SINK_695058	Lead, ppb	15.6	11.9	<1	Lead levels greatly reduced after extensive flushing on 11/5/16
2	STALSOHIO_RM1ASINK_694988	Lead, ppb	17.6	11.7	1.04	Lead levels greatly reduced after extensive flushing on 11/5/16
3	STALSOHIO_RM3SINK_695004	Lead, ppb	14.3	7.17	2.32	Lead levels greatly reduced after extensive flushing on 11/5/16
4	STALSOHIO_BOYSSINK1_695062	Lead, ppb	5.3	6.73	55.41	Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result. Particulates might be in hot water heater.
5	STALSOHIO_BOYSSINK2_694965	Lead, ppb	5.63	6.63	25.96	Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result. Particulates might be in hot water heater.
6	STALSOHIO_BOYSSINK3_694957	Lead, ppb	6.82	6.29	55.7	Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result. Particulates might be in hot water heater.
7	STALSOHIO_BASEMENTDRKFNTN_694980	Lead, ppb	11	17.9	1.87	Drinking fountain. Less than 15 ppb after lead service line replacement and extensive flushing on 11/5/16.
8	STALSOHIO_1FLOORWATERCOOLER1_695038	Lead, ppb	12.5	23.6	1.21	Water Cooler. Less than 15 ppb after lead service line replacement and extensive flushing on 11/5/16.
9	STALSOHIO_GIRLSSINK1_694993	Lead, ppb	9.4	8.35	6.09	Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result.
10	STALSOHIO_GIRLSSINK2_695046	Lead, ppb	11.3	8.46		Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result. Need followup sample.
11	STALSOHIO_GIRLSSINK3_695064	Lead, ppb	9.92	8.4	11.4	Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result.
12	STALSOHIO_WOMENSSINK1_695073	Lead, ppb	16.7	8.81		Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result. Need followup sample.
13	STALSOHIO_1FLOORWATERCOOLER2_695070	Lead, ppb	12.3	23.1	1.07	Water Cooler. Less than 15 ppb after lead service line replacement and extensive flushing on 11/5/16.
14	STALSOHIO_MULTIPURPOSESINK1_694992	Lead, ppb	8.57	11.2	7.66	Lead detection still higher than expected. This is tempered water. The majority of samples that have tempered water (mixing with water from hot water heater) are higher than other samples. Consider if hot water heater is contributing to this result.
15	STALSOHIO_MULTIPURPOSESINK2_695050	Lead, ppb	10.2	10.2	2.12	Lead levels greatly reduced after extensive flushing on 11/5/16
16	STALSOHIO_LIBRARIYSINK_695072	Lead, ppb	10	14.1		Lead Service line still in operation to the library building. Per St. Aloysius, students are sent to other locations if drinking water is desired. Not using water for drinking/cooking purposes in library at this time. Need followup sample.
17	STALSOHIO_CHURCHDF_RESAMPLEAFTERSBC	Lead, ppb	N/A	11.3	N/A	Further discussion needed with Facilities Mgr to understand this sample and location.
18	STALSOHIO_CHURCHRSINK_RESAMPLEAFTERSBC	Lead, ppb	N/A	1.9	N/A	Further discussion needed with Facilities Mgr to understand this sample and location.
19	STALSOHIO_SACRISTYSINK_RESAMPLEAFTERSBC	Lead, ppb	N/A	16.6	N/A	Further discussion needed with Facilities Mgr to understand this sample and location.
20	STALSOHIO_1STFLOORPARISHCENTERRR_RESAMPLEAFTERSBC	Lead, ppb	N/A	2.97	N/A	Further discussion needed with Facilities Mgr to understand this sample and location.
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22	STALSOHIO_PARISHCENTER2NDFLRR_RESAMPLEAFTERSBC	Lead, ppb	N/A	16.6	N/A	Further discussion needed with Facilities Mgr to understand this sample and location.