



Briggs Associates
A Division of H & R Environmental Services, Inc.

DRINKING WATER SAMPLING REPORT

Subject Site(s):

Kearny School District
Kearny, New Jersey 07032

Prepared For:
Kearny Board of Education
172 Midland Avenue
Kearny, New Jersey 07032
ATTN: Mr. Mark Bruscano

Prepared By:

BRIGGS ASSOCIATES
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Briggs Project No: 2016099

Date(s) of Testing:
April 25, 2017 to May 3, 2017, May 26, 2017

1.0 INTRODUCTION

1.1 Property Description

Address(s):	Schuyler School, 644 Forest Street, Kearny, NJ 07032 Washington School, 80 Belgrove Drive, Kearny, NJ 07032 Lincoln School, 121 Beech Street, Kearny, NJ 07032 Kearny High School, 336 Devon Street, Kearny, NJ 07032 Franklin School, 100 Davis Avenue, Kearny, NJ 07032 Garfield School, 360 Belgrove Drive, Kearny, NJ 07032 Roosevelt School, 733 Kearny Avenue, Kearny, NJ 07032
Nature of Use:	School
Walk-Through Inspector:	Michael Hoodak
Walk-Through Dates:	4/20/2017, 4/21/17
Sampling Conducted By:	Michael Hoodak
Sampling Date(s):	Schuyler School – 4/25/17 Washington School – 4/27/17 Lincoln School – 4/28/17 Kearny High School – 4/29/17 Franklin School – 4/29/17 Garfield School – 5/1/17 Roosevelt School – 5/3/17

1.2 Purpose and Scope

The purpose of this drinking water sampling event was to sample and analyze drinking water for a determination of lead content.

1.3 Methodology

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Select drinking water samples were collected according to the “New Jersey Department of Education N.J.A.C. 6A:26” requirements for testing of lead in New Jersey Schools and the “USEPA 3Ts for Reducing Lead in Drinking Water in Schools” recommendations, as well as the Safe Drinking Water Act of 1974. This law requires the USEPA to determine safe levels of chemicals in drinking water, which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals.

The MCLG for lead has been set at zero because the USEPA believes this level of protection would not cause potential health problems. Since lead contamination generally occurs from corrosion of onsite lead pipes, or lead-based solder on fittings and fixtures, it cannot be directly detected or removed by the municipal water system. Instead, the USEPA is requiring municipal water systems to control the corrosiveness of their water if the level of lead at the tap exceeds an Action Level.



The action level for lead has been set at 15 parts per billion (ppb). According to the USEPA, given present technology and resources, this level is the lowest level to which water systems can reasonably be required to control this contaminant should it be present in drinking water.

These drinking water standards and the regulations for ensuring that these standards are met are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

2.0 ANALYTICAL RESULTS

2.1 Visual Inspection

Briggs performed a visual inspection of sample locations in all seven schools within the Kearny School District prior to sampling. Sample locations were identified. Fixtures were inspected for condition and operation. Briggs did not attempt to disassemble mechanical equipment, open plumbing pipe chases, or assess materials within wall voids.

2.2 Drinking Water Sample Results

A total of 163 drinking water samples were collected from the seven schools within the Kearny School District facilities between April 25, 2017 and May 3, 2017. In addition, five (5) “flush” samples were collected on May 26, 2017. The first sample at each fixture was a “first draw” which was collected directly from the fixture without letting the water run or flush. Briggs collected “first draw” samples after fixtures have been inactive overnight. This “first draw” sample was collected to evaluate the lead content at the fixture. Frequently, older buildings may have corroded pipes or solder joints that leach lead into the drinking water.

The follow-up flush samples were collected after letting the water run (flush) for thirty seconds. This sample evaluates the lead in water throughout the system. Briggs collected follow-up flush samples from sample locations with lead content equaling or exceeding the action level of 15 ppb.

Following collection, samples were delivered to IATL International in Mount Laurel, New Jersey for analysis of lead content using USEPA Method 200.9 for lead in drinking water. The results for locations exceeding the action level of 15 ppb and follow-up flush samples are listed in the following table. All other results are listed in the attached appendices.



Table 1: Locations Exceeding Action Level/Follow-Up Flush Samples

Sample	School	Location	Results (ppb)
KHS-47	High School	WF by Restrooms 3 rd Floor South	181.0
KHS-47	High School	WF by Restrooms 3 rd Floor South Flush	11.6
KHS-49	High School	WF by Stair 3 4 th Floor North	15.9
KHS-49	High School	WF by Stair 3 4 th Floor North Flush	<2.00
F-9	Franklin School	WF Room 139	95.4
F-9	Franklin School	WF Room 139 Flush	3.40
F-36	Franklin School	WF Room 341	17.4
F-36	Franklin School	WF Room 341 Flush	5.60
W-4	Washington School	WF Gym Hallway	16.3
W-4	Washington School	WF Gym Hallway Flush	36.3

Note: WF = Water Fountain

Sample analysis revealed 181.0 ppb in Sample KHS-47 from the High School. The flush sample analysis for this location revealed 11.6 ppb. Sample KHS-47 from the High School contained 15.9 ppb. The flush sample contained <2.00 ppb.

Analysis of Sample F-9 from the Franklin School contained 95.4 ppb. The flush sample at this location contained 3.40 ppb. Sample F-36 from the Franklin School contained 17.4 ppb. Flush sample analysis at this location revealed 5.60 ppb.

Sample W-4 from the Washington School contained 16.3 ppb. The flush sample contained 36.3 ppb.

The analytical results for lead in drinking water for all other samples collected were below the US EPA action level of 15 ppb.



3.0 CONCLUSION

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The analytical results for lead in drinking water for the locations listed in Table 1 should be identified as "Do Not Drink". The flush Sample W-4 from the Washington School may indicate elevated lead content further down the line from the fixture. Further testing may be required at this location. Long term solutions include replacement of the fixture, regularly documented flushing, or installation of a filtration device (Point-of-use device).

Flushing involves opening suspect taps every morning before the facility opens and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. All flushing should be recorded in a log submitted daily to the head of maintenance/facilities. The faucet should be opened and the water should run for 30 seconds to one minute, or until cold.

A filtration device, or point-of-use (POU) device can be relatively inexpensive (\$65 to \$250) or expensive (ranging from \$250 to \$500), their effectiveness varies, and they may be vulnerable to vandalism. They also require a maintenance program for regular upkeep to ensure effectiveness. Cartridge filter units need to be replaced periodically to remain effective. NSF International, an independent, third-party certification organization, has a testing program to evaluate the performance of POU devices for lead removal (NSF Standard 53). Before purchasing any device, ask the manufacturer for proof of NSF approval and the Performance Data Sheet, or check by visiting the NSF Web site at: http://www.nsf.org/business/search_listings/index/asp

Consult NSF Standard 61 (Sections 4, 8 and 9) before buying any replacement products. This standard will provide you with information on plumbing products that are designed to minimize lead leaching. Before you purchase any brass plumbing products, request information regarding compliance with this standard.

4.0 LIMITATIONS

Briggs subcontracted with IATL International who performed the lead analysis. No warranties expressed or implied, are made by Briggs or it's subcontractor IATL, or their employees as to the use of any information, apparatus, product or process disclosed in this report. Every reasonable effort has been made to assure correctness.

State-of-the-art practices have been employed to perform this inspection. No demolition or product research was performed in attempts to reveal material compositions. The services consist of professional opinions and recommendations made in accordance with generally accepted engineering principles/practices. These services are designed to provide an analytical tool to assist the client. Briggs and it's subcontractor IATL and their employees/representatives bear no responsibility for the actual condition of the structure or safety of this site pertaining to lead and/or lead contamination regardless of the actions taken by the inspection team or the client.

