WHITMAN

Creating Solutions. Exceeding Expectations.

LEAD IN DRINKING WATER SAMPLING

FOR

82-83 DWYER & HALSEY ACADEMY
600 PEARL STREET
ELIZABETH, NJ 07202

ELIZABETH PUBLIC SCHOOLS
500 NORTH BROAD STREET
ELIZABETH, NJ 07208

PROJECT 24-05-58T

PERFORMED BY

WHITMAN

January 17, 2025

Environmental • Engineering • Energy • Waste Management • EH&S Compliance

LEAD IN DRINKING WATER RE-SAMPLING
82-83 DWYER & HALSEY ACADEMY
600 PEARL STREET
ELIZABETH, NJ 07202

1.0 PROJECT BACKGROUND

There are three ways that lead can contaminate drinking water in school facilities, the water source, the plumbing material, or the actual drinking water outlet fixture. Most sources of drinking water (e.g. ground and surface water) have no lead, or very low levels of lead (i.e., under 5 micrograms per liter [µg/l] or parts per billion [ppb]). Once the drinking water leaves the public water supply system or treatment plant, it comes into contact with piping and plumbing materials that may contain lead. Some lead may get into the water from the distribution system – the network of pipes that carry the water to homes, businesses, and schools in the community. Some communities have lead components in their distribution systems, such as lead joints in cast iron mains, service connections, pigtails, and goosenecks. Even though a public water supplier may deliver water that meets all Federal and State public health standards for lead, there may be lead in the drinking water because of the plumbing in the school facility. Interior plumbing, soldered joints, leaded brass fittings, and various drinking water outlets that contain lead materials are the primary contributors of lead in drinking water. It is also important to note that brass plumbing components contain lead. Since 1986, all plumbing materials must be “lead free”. Although there is an increased probability that a given plumbing component installed prior to 1986 could contain more lead than the newer components, the occurrence of lead in drinking water cannot be predicted solely based upon the age of the component or the school facility. The current law allows plumbing materials up to 0.25 percent lead to be labeled as “lead free”. However, prior to January 4, 2014, “lead free” allowed up to 8 percent lead content of the wetted surfaces of plumbing products including those labeled National Sanitation Foundation (NSF) certified. The best way to determine if a school might have elevated levels of lead in its drinking water is by testing the drinking water in that school. Testing facilitates an evaluation of the plumbing materials and helps target appropriate remedial action. It is a key step in understanding the problem, if there is one, and designing an appropriate response.

2.0 SAMPLING/SCREENING METHODOLOGY

2.1 Purpose

Lead in a water sample taken from an outlet can originate from the outlet fixture (e.g. the faucet, bubbler etc.), plumbing upstream of the outlet fixture (e.g. pipe, joints, valves, fittings etc.), or it can already be in the water that is entering the facility. Sample results are then compared to assist in determining the sources of lead contamination and the appropriate corrective measures. Prior to sampling, Whitman ensured that outlets deviating from normal usage were flushed 8-48 hours prior to sampling.

Initial first draw samples are taken from drinking water outlets and food preparation outlets (e.g., bubblers, kitchen faucets) in the facility. These samples determine the lead content of water sitting in water outlets that are used for drinking or cooking within the building(s).

2.2 NJDEP Limits

If initial first draw test results reveal lead concentrations greater than 15 µg/l (ppb) in a 250 mL sample for a given outlet, follow-up flush testing is required to determine if the lead contamination results are from the fixture or from interior plumbing.

3.0 LEAD IN DRINKING WATER SAMPLING RESULTS DISCUSSION

The summary of lead sample results is presented below. The sampling conducted complied with NJDEP protocol and all samples were submitted to Integrated Analytical Laboratories (NJDEP NELAP #14751) under a completed Chain of Custody Form.

Location	Sample ID #	Date	Time	Lead Result µg/L	Re-Sample Date	Lead Re-Sample Result – ug/L	NJDEP Lead Limit - µg/L
Room 214 Hallway Water Fountain	S1	7/24/2024	11:11 am	<1.00			15
Kitchen Prep Sink 1	S2	7/24/2024	11:13 am	2.00			15
Kitchen Prep Sink 2	S3	7/24/2024	11:15 am	2.74			15
Kitchen Prep Sink 3	S4	7/24/2024	11:17 am	2.01			15
Kitchen Steam Table Sink	S5	7/24/2024	11:18 am	2.75			15
Kitchen Prep Sink 4	S6	7/24/2024	11:21 am	<1.00			15
Halsey Café Bottle Filler	S7	7/24/2024	11:24 am	<1.00			15
Café Hallway Water Fountain Left	S8	7/24/2024	11:27 am	4.66			15
Café Hallway Water Fountain Right	S9	7/24/2024	11:29 am	2.12			15
Dwyer Café Bottle Filler	S10	7/24/2024	11:35 am	<1.00			15
Dwyer Café Water Fountain Left	S11	7/24/2024	11:38 am	1.58			15
Dwyer Café Water Fountain Right	S12	7/24/2024	11:39 am	1.26			15
Room 208 Hallway Water Fountain	S13	7/24/2024	11:43 am	<1.00			15
Room 208 Kitchen Sink	S14	7/24/2024	11:45 am	1.01			15
Room 207 Prep Sink	S15	7/24/2024	11:47 am	1.40			15
Room 206 Hallway Water Fountain Left	S16	7/24/2024	11:50 am	2.54			15
Room 206 Hallway Water Fountain Right	S17	7/24/2024	11:51 am	2.90			15
Room 152 Hallway Water Fountain	S18	7/24/2024	11:54 am	2.20			15
Room 131 Hallway Water Fountain Left	S19	7/24/2024	11:55 am	**15.2**	12/17/2024	<1.00	15

Location	Sample ID #	Date	Time	Lead Result µg/L	Re-Sample Date	Lead Re-Sample Result – ug/L	NJDEP Lead Limit - µg/L
Room 131 Hallway Water Fountain Right	S20	7/24/2024	11:56 am	<1.00			15
Room 129 Sink	S21	7/24/2024	11:58 am	1.43			15
Room 121 Hallway Water Fountain	S22	7/24/2024	12:01 pm	**18.4**		**SHUT OFF**	15
Room 120 Sink	S23	7/24/2024	12:03 pm	7.19			15
Room 117 Hallway Water Fountain	S24	7/24/2024	12:05 pm	<1.00			15
Room 118 Sink	S25	7/24/2024	12:08 pm	4.63			15
Room 114 Kitchen Sink	S26	7/24/2024	12:10 pm	1.36			15
Nurse Room 105 Sink	S27	7/24/2024	12:13 pm	4.40			15
Room 107 Hallway Water Fountain Left	S28	7/24/2024	12:15 pm	1.22			15
Room 107 Hallway Water Fountain Right	S29	7/24/2024	12:17 pm	3.54			15
Room 414 Pool Women's Locker Room Water Fountain	S30	7/24/2024	12:20 pm	4.93			15
Room 413 Pool Men's Locker Room Water Fountain	S31	7/24/2024	12:22 pm	<1.00			15
Room 408 Hallway Water Fountain	S32	7/24/2024	12:25 pm	2.50			15
Pool Water Fountain Next to Men's Locker Room	S33	7/24/2024	12:28 pm	3.08			15
Pool Water Fountain Next to Women's Locker Room	S34	7/24/2024	12:30 pm	**156**		**SHUT OFF**	15
In Gym – Room 409 Water Fountain	S35	7/24/2024	12:34 pm	11.7			15
Room 409 Men's Locker Room Water Fountain	S36	7/24/2024	12:37 pm	2.79			15
Room 410 Women's Locker Room Water Fountain	S37	7/24/2024	12:39 pm	2.08			15
Gym Exit T Water Fountain Left	S38	7/24/2024	12:45 pm	3.06			15
Gym Exit T Water Fountain Middle	S39	7/24/2024	12:46 pm	3.71			15
Gym Exit T Water Fountain Right	S40	7/24/2024	12:47 pm	9.54			15

Location	Sample ID #	Date	Time	Lead Result µg/L	Re-Sample Date	Lead Re-Sample Result – ug/L	NJDEP Lead Limit - µg/L
Refreshment Stand A Sink	S41	7/24/2024	12:47 pm	1.92			15
Refreshment Stand B Sink	S42	7/24/2024	12:52 pm	11.3			15
Gym Exit S Water Fountain Left	S43	7/24/2024	12:54 pm	7.82			15
Gym Exit S Water Fountain Right	S44	7/24/2024	12:55 pm	8.46			15
Room 401 Women's Locker Room Water Fountain	S45	7/24/2024	12:57 pm	2.82			15
In Gym Room 403 Water Fountain	S46	7/24/2024	1:02 pm	1.80			15
Room 403 Men's Locker Room Water Fountain	S47	7/24/2024	1:04 pm	3.55			15
Room 156 Hallway Water Fountain Left	S48	7/24/2024	1:07 pm	**15.9**	12/17/2024	<1.00	15
Room 156 Hallway Water Fountain Right	S49	7/24/2024	1:08 pm	10.0			15
Room 168 Hallway Water Fountain	S50	7/24/2024	1:13 pm	<1.00			15
Room 180 Sink	S51	7/24/2024	1:16 pm	1.82			15
Room 183 Hallway Water Fountain Left	S52	7/24/2024	1:19 pm	6.61			15
Room 183 Hallway Water Fountain Right	S53	7/24/2024	1:20 pm	1.51			15
Room 252 Hallway Water Fountain Left	S54	7/24/2024	1:23 pm	2.41			15
Room 252 Hallway Water Fountain Right	S55	7/24/2024	1:24 pm	13.0			15
Room 256 Sink	S56	7/24/2024	1:27 pm	2.14			15
Room 262 Hallway Water Fountain	S57	7/24/2024	1:28 pm	<1.00			15
Room 278 Hallway Water Fountain Left	S58	7/24/2024	1:35 pm	1.60			15
Room 278 Hallway Water Fountain Right	S59	7/24/2024	1:36 pm	1.15			15
Room 282 Hallway Water Fountain Left	S60	7/24/2024	1:38 pm	2.71			15
Room 282 Hallway Water Fountain Right	S61	7/24/2024	1:39 pm	1.90			15
Room 385 Hallway Water Fountain	S62	7/24/2024	1:45 pm	4.67			15

Location	Sample ID #	Date	Time	Lead Result µg/L	Re-Sample Date	Lead Re-Sample Result – ug/L	NJDEP Lead Limit - µg/L
Room 380 Sink	S63	7/24/2024	1:48 pm	<1.00			15
Room 370 Hallway Water Fountain	S64	7/24/2024	1:51 pm	<1.00			15
Room 453 Hallway Water Fountain	S65	7/24/2024	1:54 pm	<1.00			15
Room 332 Hallway Water Fountain Left	S66	7/24/2024	2:04 pm	1.02			15
Room 329 Sink	S67	7/24/2024	2:07 pm	<1.00			15
Room 321 Hallway Water Fountain	S68	7/24/2024	2:10 pm	<1.00			15
Room 320 Sink	S69	7/24/2024	2:12 pm	4.80			15
Room 317 Hallway Water Fountain	S70	7/24/2024	2:14 pm	1.16			15
Room 316 Kitchen Sink	S71	7/24/2024	2:17 pm	1.45			15
Room 222 Hallway Water Fountain Left	S72	7/24/2024	2:24 pm	1.97			15
Room 222 Hallway Water Fountain Right	S73	7/24/2024	2:25 pm	3.42			15
Nurse Room 305 Sink	S74	7/24/2024	2:30 pm	1.02			15
Room 222 EMT Sink Left	S75	7/24/2024	2:36 pm	2.15			15
Room 222 EMT Sink Right	S76	7/24/2024	2:37 pm	5.21			15
Room 215 Nurse Class Sink	S77	7/24/2024	2:40 pm	<1.00			15
Field Blank	FB	7/24/2024	3:20 pm	<1.00			15

4.0 CONCLUSIONS

All lead results were below the 15 µg/L New Jersey Action Level.

5.0 LIMITATIONS, EXCEPTIONS AND ASSUMPTIONS

Opinions and recommendations presented in this report apply to site conditions and features as they existed at the time of Whitman's site visit, and those reasonably foreseeable. They cannot necessarily apply to conditions and features of which Whitman is unaware and has not had the opportunity to evaluate.

The conclusions presented in this report are professional opinions based solely upon Whitman's visual observations of accessible areas, testing data, and current regulatory requirements. These conclusions are intended exclusively for the purpose stated herein, at the sites indicated, and for the project indicated.

No expressed or implied representation or warranty is included or intended in our reports, except that our services were performed, within the limits prescribed by our client, with the customary thoroughness and competence of our profession.

Feel free to contact me at 732-390-5858 with any questions or if further clarification is needed.

Sincerely,

John Beaupre
Senior Vice President