



# CERTIFICATE OF ANALYSIS

**Chain of Custody:** 634167  
**Client:** Howard County Public School System  
**Address:** 10910 Route 108  
Ellicott City, MD 21042  
**Attention:** Jeff Klenk

**Job Name:** Lisbon ES  
**Job Location:** 15901 Frederick Road Woodbine  
21797  
**Job Number:** 13.004  
**P.O. Number:** Not Provided

**Date Submitted:** 03/18/2022  
**Date Analyzed:** 03/24/2022  
**Report Date:** 03/25/2022  
**Date Sampled:** 03/17/2022 - 03/18/2022  
**Person Submitting:** Jeff Klenk  
**Revised:** 03/28/2022 (Revision #1)

## Summary of Drinking Water Analysis for Metals

AMA Sample Number	Client Sample Number	Date/Time	Location	Sample Collection Information	Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
634167-1	LIES 1 Flush	03/18/2022 5:36 am	Faucet, Cold, Consumption, Kitchen, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.5 ug/L	
634167-2	LIES 5 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-3	LIES 6F First-Draw	03/17/2022 5:40 am	Combination Sink - Fountain - Bubbler Style (Non-Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.6 ug/L	
634167-4	LIES 7F First-Draw	03/17/2022 5:40 am	Combination Sink - Fountain - Bubbler Style (Non-Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.9 ug/L	
634167-5	LIES 7S First-Draw	03/18/2022 5:36 am	Combination Sink - Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.5 ug/L	
634167-6	LIES 8F First-Draw	03/17/2022 5:40 am	Combination Sink - Fountain - Bubbler Style (Non-Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	9.4 ug/L	This results meets or exceeds the 5.5ppb action level as established by MDE for schools.
634167-7	LIES 8S First-Draw	03/18/2022 5:36 am	Combination Sink - Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	3.9 ug/L	
634167-8	LIES 9S First-Draw	03/18/2022 5:36 am	Combination Sink - Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.6 ug/L	
634167-9	LIES 2 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Cafeteria, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	3.2 ug/L	
634167-10	LIES 6S First-Draw	03/18/2022 5:36 am	Combination Sink - Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.5 ug/L	
634167-11	LIES 10 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-12	LIES 11 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	< 1 ug/L	



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634167-13	LIES 12 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-14	LIES 13 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.7 ug/L	
634167-15	LIES 14 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	3.4 ug/L	
634167-16	LIES 15 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.9 ug/L	
634167-17	LIES 16 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.8 ug/L	
634167-18	LIES 17 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.6 ug/L	
634167-19	LIES 18 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-20	LIES 19 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	3.6 ug/L	
634167-21	LIES 20 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-22	LIES 21 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.3 ug/L	
634167-23	LIES 22 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.7 ug/L	
634167-24	LIES 23 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	5.9 ug/L	This results meets or exceeds the 5.5ppb action level as established by MDE for schools.



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634167-25	LIES 24 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.5 ug/L	
634167-26	LIES 25 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	3.7 ug/L	
634167-27	LIES 26 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, , Fountain, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	1.1 ug/L	
634167-28	LIES 27 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	1.8 ug/L	
634167-29	LIES 28 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.4 ug/L	
634167-30	LIES 29 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.5 ug/L	
634167-31	LIES 30 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	3 ug/L	3.0 ug/L.
634167-32	LIES 32 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-33	LIES 33 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, , Fountain, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	1.4 ug/L	
634167-34	LIES 34 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2.6 ug/L	
634167-35	LIES 35 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2 ug/L	2.0 ug/L.
634167-36	LIES 36 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	1.7 ug/L	
634167-37	LIES 37 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	3.8 ug/L	
634167-38	LIES 38 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor	Furnace AA	Lead	1 ug/L	2 ug/L	2.0 ug/L.



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634167-39	LIES 39F First-Draw	03/17/2022 5:40 am	Combination Sink - Fountain - Bubblers Style (Non-Refrigerated), Classroom, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.1 ug/L	
634167-40	LIES 39S First-Draw	03/18/2022 5:36 am	Combination Sink - Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	2.6 ug/L	
634167-41	LIES 3S First-Draw	03/18/2022 5:36 am	Combination Sink - Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	4.1 ug/L	
634167-42	LIES 40F First-Draw	03/17/2022 5:40 am	Combination Sink - Fountain - Bubblers Style (Non-Refrigerated), Classroom, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-43	LIES 40S First-Draw	03/18/2022 5:36 am	Combination Sink - Faucet, Cold, Consumption, Classroom, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	2.1 ug/L	
634167-44	LIES 41 First-Draw	03/17/2022 5:40 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	< 1 ug/L	
634167-45	LIES 42S First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Nurse's Office/Health Room, , Sink, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	1.1 ug/L	
634167-46	LIES 43 First-Draw	03/18/2022 5:36 am	Faucet, Cold, Consumption, Teachers' Lounge/Break Room, , Fountain, Main Bldg, 1st Floor		Furnace AA	Lead	1 ug/L	2.1 ug/L	



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**Analysis Methods:** Flame AA: APHA SM3111B (1999, 22nd Ed.), Furnace AA: APHA SM3113B (2010, 22nd Ed.), ICP: EPA 200.8 (Rev. 5.4)

**Sample Collector:** Jeff Klenk  
**Certification:**

mg/L = Parts Per Million (ppm), N/A = Not Applicable, µg/L = Parts Per Billion, N/P = Not Provided

All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.

**Analyst(s):** Nida McGarvey

**Technical Director** George Land

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