



CERTIFICATE OF ANALYSIS

Chain of Custody: 631753
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Clemens Crossing Elementary School
Job Location: 10320 Quarterstaff Road, Columbia,
MD 21044
Job Number: 13.034
P.O. Number: Not Provided

Date Submitted: 12/22/2021
Date Analyzed: 12/30/2021
Report Date: 12/30/2021
Date Sampled: 12/16/2021 - 12/17/2021
Person Submitting: Jeff Klenk

Summary of Drinking Water Analysis for Metals

| AMA Sample Number | Client Sample Number | Date/Time | Sample Collection Information Location | Analysis Type | Sample Analyte | Reporting Limit | Final Result | Comments |
|-------------------|----------------------|-----------------------|-----------------------------------------------------------------------------------------------------|---------------|----------------|-----------------|--------------|----------|
| 631753-1 | CCES 2 First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Cooler/Chiller Style, Consumption, Hallway, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-2 | CCES 3 First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Cooler/Chiller Style, Consumption, Hallway, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-3 | CCES 4F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Nurse's Office/Health Room, , Fountain, , | Furnace AA | Lead | 1 ug/L | 1.1 ug/L | |
| 631753-4 | CCES 7 First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Cooler/Chiller Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-5 | CCES10 First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Cooler/Chiller Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-6 | CCES 11F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-7 | CCES 12F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-8 | CCES 13F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-9 | CCES 14F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-10 | CCES 16F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-11 | CCES 17F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-12 | CCES 19F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-13 | CCES 20F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-14 | CCES 21F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | 3.9 ug/L | |



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| 631753-15 | CCES 22F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-16 | CCES 23F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-17 | CCES 24F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | 3.9 ug/L | |
| 631753-18 | CCES 25 First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Cooler/Chiller Style, Consumption, Hallway, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-19 | CCES 26 First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Cooler/Chiller Style, Consumption, Hallway, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-20 | CCES 27F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-21 | CCES 28F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | 4.2 ug/L | |
| 631753-22 | CCES 29F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | 1.7 ug/L | |
| 631753-23 | CCES 30F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-24 | CCES 31F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-25 | CCES 32F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | 1.2 ug/L | |
| 631753-26 | CCES 33F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-27 | CCES 34F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-28 | CCES 35F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |



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| 631753-29 | CCES 36F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-30 | CCES 37F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-31 | CCES 38F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-32 | CCES 39F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-33 | CCES 40F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-34 | CCES 41F First-Draw | 12/16/2021 5:20 pm | Drinking Water Fountain - Bubblers Style, Consumption, Classroom, , Fountain, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-35 | CCES 1 First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Kitchen, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-36 | CCES 4S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Nurse's Office/Health Room, , Sink, , | Furnace AA | Lead | 1 ug/L | 2 ug/L | 2.0 ug/L. |
| 631753-37 | CCES 5 First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Workroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.3 ug/L | |
| 631753-38 | CCES 6 First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Teachers' Lounge/Break Room, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-39 | CCES 8 First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-40 | CCES 9 First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-41 | CCES 11S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-42 | CCES 12S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |



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| 631753-43 | CCES 13S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 2.1 ug/L | |
| 631753-44 | CCES 14S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-45 | CCES 16S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.6 ug/L | |
| 631753-46 | CCES 17S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-47 | CCES 18 First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Media Center, , Sink, , | Furnace AA | Lead | 1 ug/L | 3.4 ug/L | |
| 631753-48 | CCES 19S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-49 | CCES 20S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-50 | CCES 21S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-51 | CCES 22S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.3 ug/L | |
| 631753-52 | CCES 23S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-53 | CCES 24S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.8 ug/L | |
| 631753-54 | CCES 27S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.2 ug/L | |
| 631753-55 | CCES 28S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-56 | CCES 29S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 3.3 ug/L | |



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| 631753-57 | CCES 30S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.8 ug/L | |
| 631753-58 | CCES 31S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-59 | CCES 32S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.4 ug/L | |
| 631753-60 | CCES 33S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.2 ug/L | |
| 631753-61 | CCES 34S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.6 ug/L | |
| 631753-62 | CCES 35S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-63 | CCES 36S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-64 | CCES 37S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-65 | CCES 38S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 1.8 ug/L | |
| 631753-66 | CCES 39S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-67 | CCES 40S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-68 | CCES 41S First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | < 1 ug/L | |
| 631753-69 | CCES 42 First-Draw | 12/17/2021 5:50 pm | Faucet, Cold, Consumption, Classroom, , Sink, , | Furnace AA | Lead | 1 ug/L | 16 ug/L | 16.3 ug/L. This results meets or exceeds the 5.5ppb action level as established by MDE for schools. |



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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): Suphin Chinnapad | | | | | | | | | |

Technical Director George Land

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