



CERTIFICATE OF ANALYSIS

Chain of Custody: 612167
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Ilchester Elementary School
Job Location: 4981 Ilchester Road, Ellicott City, MD
21043
Job Number: 13.057
P.O. Number: Not Provided

Date Submitted: 12/21/2018
Date Analyzed: 01/02/2019
Report Date: 01/03/2019
Date Sampled: 12/20/2018 - 12/21/2018
Person Submitting: Jeff Klenk

Summary of Drinking Water Analysis for Metals

AMA Sample Number	Client Sample Number	Sample Collection Information		Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
		Date/Time	Location					
612167-1	IES 2 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-2	IES 3 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-3	IES 4 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-4	IES 12 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-5	IES 26F 1st Draw	12/20/2018 5:20 am	CC/B	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-6	IES 27F 1st Draw	12/20/2018 5:20 am	CC/B	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-7	IES 28F 1st Draw	12/20/2018 5:20 am	CC/B	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-8	IES 29F 1st Draw	12/20/2018 5:20 am	CC/B	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-9	IES 34 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-10	IES 36 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-11	IES 44 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-12	IES 45 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	1.9 ug/L	
612167-13	IES 56 1st Draw	12/20/2018 5:20 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-14	IES 1 1st Draw	12/21/2018 5:17 am	KS	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-15	IES 5 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.5 ug/L	
612167-16	IES 6 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	4.3 ug/L	
612167-17	IES 7 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2.2 ug/L	
612167-18	IES 8 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	6.3 ug/L	
612167-19	IES 9 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	5 ug/L	
612167-20	IES 10 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	4.8 ug/L	



CERTIFICATE OF ANALYSIS

Chain of Custody: 612167
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Ilchester Elementary School
Job Location: 4981 Ilchester Road, Ellicott City, MD
21043
Job Number: 13.057
P.O. Number: Not Provided

Date Submitted: 12/21/2018
Date Analyzed: 01/02/2019
Report Date: 01/03/2019
Date Sampled: 12/20/2018 - 12/21/2018
Person Submitting: Jeff Klenk

Summary of Drinking Water Analysis for Metals

AMA Sample Number	Client Sample Number	Sample Collection Information		Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
		Date/Time	Location					
612167-21	IES 11 1st Draw	12/21/2018 5:17 am	OT. 7	Furnace AA	Lead	1 ug/L	3.9 ug/L	
612167-22	IES 13 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2.7 ug/L	
612167-23	IES 14 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.4 ug/L	
612167-24	IES 15 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	5.3 ug/L	
612167-25	IES 16 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.7 ug/L	
612167-26	IES 17 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	4.3 ug/L	
612167-27	IES 18 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	5.7 ug/L	
612167-28	IES 19 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	4.3 ug/L	
612167-29	IES 20 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	11 ug/L	10.7 ug/L.
612167-30	IES 21 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	18 ug/L	17.9 ug/L.
612167-31	IES 22 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	4.4 ug/L	
612167-32	IES 23 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.6 ug/L	
612167-33	IES 24 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	4.5 ug/L	
612167-34	IES 25 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	7.1 ug/L	
612167-35	IES 26S 1st Draw	12/21/2018 5:17 am	CC/S	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-36	IES 27S 1st Draw	12/21/2018 5:17 am	CC/S	Furnace AA	Lead	1 ug/L	1.4 ug/L	
612167-37	IES 28S 1st Draw	12/21/2018 5:17 am	CC/S	Furnace AA	Lead	1 ug/L	2.1 ug/L	
612167-38	IES 29S 1st Draw	12/21/2018 5:17 am	CC/S	Furnace AA	Lead	1 ug/L	3 ug/L	
612167-39	IES 30 1st Draw	12/21/2018 5:17 am	NO	Furnace AA	Lead	1 ug/L	6.3 ug/L	
612167-40	IES 31 1st Draw	12/21/2018 5:17 am	OT.2	Furnace AA	Lead	1 ug/L	4.4 ug/L	



CERTIFICATE OF ANALYSIS

Chain of Custody: 612167

Client: Howard County Public School System

Address: 10910 Route 108
Ellicott City, MD 21042

Attention: Jeff Klenk

Job Name: Ilchester Elementary School

Job Location: 4981 Ilchester Road, Ellicott City, MD
21043

Job Number: 13.057

P.O. Number: Not Provided

Date Submitted: 12/21/2018

Date Analyzed: 01/02/2019

Report Date: 01/03/2019

Date Sampled: 12/20/2018 - 12/21/2018

Person Submitting: Jeff Klenk

Summary of Drinking Water Analysis for Metals

AMA Sample Number	Client Sample Number	Sample Collection Information		Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
		Date/Time	Location					
612167-41	IES 32 1st Draw	12/21/2018 5:17 am	OT.2	Furnace AA	Lead	1 ug/L	6.8 ug/L	
612167-42	IES 33 1st Draw	12/21/2018 5:17 am	TL	Furnace AA	Lead	1 ug/L	2.3 ug/L	
612167-43	IES 35 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	5.6 ug/L	
612167-44	IES 37 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.9 ug/L	
612167-45	IES 38 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2 ug/L	
612167-46	IES 39 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.7 ug/L	
612167-47	IES 40 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2.8 ug/L	
612167-48	IES 41 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.1 ug/L	
612167-49	IES 42 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	8.7 ug/L	
612167-50	IES 43 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2.6 ug/L	
612167-51	IES 46 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-52	IES 47 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	1.4 ug/L	
612167-53	IES 48 1st Draw	12/21/2018 5:17 am	TL	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-54	IES 49 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	4.2 ug/L	
612167-55	IES 50 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	3.9 ug/L	
612167-56	IES 51 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	1.9 ug/L	
612167-57	IES 52 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	1.7 ug/L	
612167-58	IES 53 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2.2 ug/L	
612167-59	IES 54 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2.2 ug/L	
612167-60	IES 55 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	2.2 ug/L	



CERTIFICATE OF ANALYSIS

Chain of Custody: 612167
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Ilchester Elementary School
Job Location: 4981 Ilchester Road, Ellicott City, MD
21043
Job Number: 13.057
P.O. Number: Not Provided

Date Submitted: 12/21/2018
Date Analyzed: 01/02/2019
Report Date: 01/03/2019
Date Sampled: 12/20/2018 - 12/21/2018
Person Submitting: Jeff Klenk

Summary of Drinking Water Analysis for Metals

AMA Sample Number	Client Sample Number	Sample Collection Information		Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
		Date/Time	Location					
612167-61	IES 57 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	7.5 ug/L	
612167-62	IES 58 1st Draw	12/21/2018 5:17 am	TL	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-63	IES 59 1st Draw	12/21/2018 5:17 am	CR	Furnace AA	Lead	1 ug/L	< 1 ug/L	
612167-64	IES 60 1st Draw	12/21/2018 5:17 am	DF/C	Furnace AA	Lead	1 ug/L	< 1 ug/L	

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

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

Analyst(s): Suphin Chinnapad

Sample Collector: Jeff Klenk

Certification:

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

Technical Director G. Edward Carney

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NY ELAP, AIHA-LAP, or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.