

LIMITED LEAD AND COPPER IN DRINKING WATER SAMPLING

**North Clayton High School
CCPS No. 2052
1525 Norman Drive
Atlanta, GA 30349**

GLE Project No.: 18000-18861

Prepared for:

**Clayton County Public Schools
1058 Fifth Avenue
Jonesboro, Georgia 30236**

December 2018

Prepared by:



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1.0 INTRODUCTION

GLE was contracted by Clayton County Public Schools (CCPS), through RFP No. 017-17, to perform water collection and testing services for lead and copper at North Clayton High School. The purpose of the contracted project was to collect and test water samples taken from CCPS drinking, cooking, and nursing water outlets to identify the presence of lead and copper in the water of CCPS schools and administrative/support buildings. Outlets not used for drinking, such as restroom faucets, maintenance areas, and science labs were excluded from this scope of work. The testing was generally performed in accordance with the Environmental Protection Agency (EPA)'s 3Ts for Reducing Lead in Drinking Water in Schools Technical Guidance Document (revised October 2006).

On October 8, 2018, Ms. Katrina Riley and Ms. Isis Hamilton of GLE Associates, Inc. (GLE), performed initial lead and copper in drinking water sampling of Client-designated drinking water fountains and outlets used for drinking, cooking, and/or nursing located within North Clayton High School located at 1525 Norman Drive in Atlanta, Georgia. According to the Client's representative, North Clayton High School was originally constructed in 1967, with major renovations or additions in 1976, 1982, 2004, 2011, 2012 and 2013. It is our understanding that no previous water testing has been conducted at North Clayton High School.

2.0 INVENTORY AND SAMPLING PLANS

Prior to the initial sampling event, on February 28, 2018, GLE mobilized to the site to inventory the existing outlets at the facility to devise a sampling plan. Further, GLE submitted a Plumbing Profile to CCPS to complete prior to sampling. Based on the results of GLE's inventory and CCPS's plumbing profile, a sampling plan was created and provided to CCPS. A copy of the Sampling Plan with the sample number identifying sample areas is included in **Appendix C**.

3.0 LEAD AND COPPER IN DRINKING WATER SAMPLING PROCEDURES

Prior to the sampling events, a Client-designated representative flushed the drinking, cooking, and nursing water outlets the night before each sampling event (or between at least 8 to 18 hours prior to the sampling event). Refrigerated drinking water fountains were flushed for 15 minutes. Non-refrigerated fountains and faucets used for drinking and cleaning were run for 30 seconds to one minute or until cold. The remaining Client-designated faucets were flushed for 10 minutes. The flushing was performed from the faucet located furthest away from the service line on each wing and/or floor of the building. Once the flushing was complete, CCPS personnel logged the completion date and time on the outlet flushed. GLE confirmed the 8 to 18 hour window prior to taking samples from flushed outlets and submitting them to the laboratory for analysis.

GLE assumed that the water supply lines and outlets in the assessed building were operating properly at the time of sampling. One representative water sample for lead and copper analysis was collected from each outlet identified in the sampling plan utilizing sterile, 250 milliliter (mL) sampling bottles preserved with nitric acid (HNO₃). The sample was collected immediately after activating the water fountain or outlet, described in this report as “first draw”.

The collected samples were submitted to Waypoint Analytical, Inc., a qualified laboratory in Memphis, Tennessee, for analysis. The samples were analyzed for lead and copper in water by Inductively Coupled Plasma/Mass Spectroscopy (ICP/MS) in general accordance with EPA Method 200.8. A summary of the sampling locations and the associated analytical results are summarized below and in the attached table. The laboratory reports and chain of custodies are located in **Appendix A**. A copy of the laboratory’s certification is included in **Appendix B**.

4.0 LEAD AND COPPER IN DRINKING WATER SAMPLING FINDINGS

A total of (45) water samples were collected for analysis of lead and copper content, comprised of one, water sample (first draw) from each of 43 Client-designated water fountains or outlets at the above-referenced school. The sample ID consisted of “W” for water, sample number, followed by A for first draw followed by B for follow up first draw sampling subsequent to repair or replacement of parts associated with the outlet. **Outlets identified in art/counselors office (5 sinks), room 120 (2 metal sinks), a sink within the admin office, room 341 (4 sinks), and an ice machine near P.E. 309 were not flushed/ inoperable during the initial sampling event.** A summary of the analytical results for the lead and copper in drinking water sampling follows in **Table 4.1 – Summary of Lead and Copper in Drinking Water Sampling Results**. The reporting limit for the lead sample analysis was 0.500 micrograms per liter (µg/L) or parts per billion (ppb) and for copper sample analysis was 0.500 micrograms per liter (µg/L) or parts per billion (ppb).

According to the EPA’s 3Ts for Reducing Lead in Drinking Water in Schools Technical Guidance Document (revised October 2006), EPA recommends that water fountains and/or outlets be taken out of service if the lead level exceeds **20 µg/L or ppb** and if the copper level exceeds **1,300 µg/L or ppb**. Public water supply (PWS) systems are subject to an action level (AL) of **15 µg/L or ppb** of lead in water for treatment (specifically, if more than 10% of samples at residences tested exceed 15 ppb, system-wide corrosion control treatment may be necessary). For the purposes of this sampling event CCPS is taking corrective action for samples reported at or greater than **15 µg/L or ppb for lead and 1,300 µg/L or ppb for copper**.

TABLE 4.1
SUMMARY OF LEAD AND COPPER IN DRINKING WATER SAMPLING RESULTS
NORTH CLAYTON HIGH SCHOOL
ATLANTA, GEORGIA

SAMPLE NUMBER		TEST LOCATION	FIRST DRAW- LEAD SAMPLE RESULTS (µg/L)		FIRST DRAW- COPPER SAMPLE RESULTS (µg/L)	
W1A		DRINKING WATER FOUNTAIN NEAR OFFICE 100.2	0.969		99.0	
W2A		CAFETERIA DRINKING WATER FOUNTAIN	BRL		92.9	
W3A		KITCHEN N WALL (RIGHT)	0.600		122	
W4A		KITCHEN N WALL (MIDDLE)	0.679		125	
W5A		KITCHEN S WALL (LEFT)	0.984		191	
W6A		KITCHEN N WALL (LEFT)	BRL		107	
W7A		KITCHEN S WALL (RIGHT)	BRL		80.2	
W8A		KITCHEN STEAMER NEAR S WALL	BRL		139	
W9A		KITCHEN STEAMER NEAR N WALL	BRL		168	
W10A	W10B	KITCHEN POT FILLER NEAR N WALL	38.4	12.3	111	109
W11A		KITCHEN ICE MACHINE	0.714		13.0	
W12A		CLASSROOM 120 DRINKING WATER (LEFT)	BRL		104	
W13A		CLASSROOM 120 DRINKING WATER (MIDDLE)	BRL		112	
W14A		CLASSROOM 120 DRINKING WATER (RIGHT)	BRL		134	
W15A		HALLWAY NEAR ROOM 123 DRINKING WATER FOUNTAIN	BRL		144	

TABLE 4.1
SUMMARY OF LEAD AND COPPER IN DRINKING WATER SAMPLING RESULTS
NORTH CLAYTON HIGH SCHOOL
ATLANTA, GEORGIA

SAMPLE NUMBER		TEST LOCATION	FIRST DRAW- LEAD SAMPLE RESULTS (µg/L)		FIRST DRAW- COPPER SAMPLE RESULTS (µg/L)	
W16A	W16B	HALLWAY NEAR ROOM 312 DRINKING WATER FOUNTAIN	11.6	0.564	1490	116
W17A		SUITE 317 DRINKING WATER	1.27		85.0	
W18A		HALLWAY NEAR ROOM 334 DRINKING WATER FOUNTAIN (RIGHT)	BRL		39.3	
W19A		HALLWAY NEAR ROOM 334 DRINKING WATER FOUNTAIN (LEFT)	BRL		27.0	
W20A		ROOM 337 DRINKING WATER	1.43		55.4	
W21A		HALLWAY NEAR ROOM 340 DRINKING WATER FOUNTAIN	0.857		96.5	
W22A		HALLWAY NEAR ROOM 344 DRINKING WATER FOUNTAIN	0.503		146	
W23A		HALLWAY NEAR ROOM 225 DRINKING WATER FOUNTAIN	BRL		103	
W24A		HALLWAY NEAR ROOM 231 DRINKING WATER FOUNTAIN	BRL		69.4	
W25A		HALLWAY NEAR ROOM 235 DRINKING WATER FOUNTAIN	BRL		59.0	
W26A		HALLWAY NEAR ROOM 242 DRINKING WATER FOUNTAIN	BRL		138	
W27A		HALLWAY NEAR ROOM 252 DRINKING WATER FOUNTAIN (RIGHT)	BRL		63.6	
W28A		HALLWAY NEAR ROOM 252 DRINKING WATER FOUNTAIN (LEFT)	BRL		62.9	
W29A		HALL NEAR ROOM150 DRINKING WATER FOUNTAIN (RIGHT)	BRL		66.5	

TABLE 4.1
SUMMARY OF LEAD AND COPPER IN DRINKING WATER SAMPLING RESULTS
NORTH CLAYTON HIGH SCHOOL
ATLANTA, GEORGIA

SAMPLE NUMBER	TEST LOCATION	FIRST DRAW- LEAD SAMPLE RESULTS (µg/L)	FIRST DRAW- COPPER SAMPLE RESULTS (µg/L)
W30A	HALL NEAR ROOM 150 DRINKING WATER FOUNTAIN (LEFT)	BRL	73.1
W31A	HALLWAY NEAR ROOM 142 DRINKING WATER FOUNTAIN	1.56	286
W32A	HALLWAY NEAR ROOM 131 DRINKING WATER FOUNTAIN	BRL	84.3
W33A	MEDIA CENTER DRINKING WATER	0.739	75.0
W34A	OLD GYM NEAR WOMENS RESTROOM DRINKING WATER FOUNTAIN	BRL	67.4
W35A	OLD GYM NEAR CONCESSION STAND DRINKING WATER FOUNTAIN	BRL	73.5
W36A	OLD GYM CONCESSION STAND DRINKING WATER	1.90	151
W37A	HALLWAY NEAR ROOM 503 DRINKING WATER FOUNTAIN	BRL	64.5
W38A	HALLWAY NEAR ROOM 501 DRINKING WATER FOUNTAIN	BRL	241
W39A	NEW GYM DRINKING WATER FOUNTAIN (RIGHT)	BRL	55.8
W40A	NEW GYM DRINKING WATER FOUNTAIN (MIDDLE)	BRL	60.4
W41A	NEW GYM DRINKING WATER FOUNTAIN (LEFT)	BRL	53.1
W42A	HALLWAY NEAR BANDROOM DRINKING WATER FOUNTAIN	BRL	81.7

TABLE 4.1 SUMMARY OF LEAD AND COPPER IN DRINKING WATER SAMPLING RESULTS NORTH CLAYTON HIGH SCHOOL ATLANTA, GEORGIA			
SAMPLE NUMBER	TEST LOCATION	FIRST DRAW- LEAD SAMPLE RESULTS (µg/L)	FIRST DRAW- COPPER SAMPLE RESULTS (µg/L)
W43A	HALLWAY ADJACENT ADMIN OFFICE DRINKING WATER FOUNTAIN	BRL	79.5

BRL – Below Reporting Limits

µg/L – micrograms per liter

Results in **bold** indicate levels at or above the EPA PWS Action Level of 15 µg/L for Lead in Drinking Water

*Properly flushed and resampled during the follow-up testing event.

5.0 CONCLUSIONS ANDS RECOMMENDATIONS

Based on the findings of the lead in drinking water sampling, GLE offers the following conclusions:

1. A total of 43 initial first draw water samples were collected for analysis of lead and copper content, comprised of one water sample from each Client-designated drinking water fountains and outlets used for drinking, cooking, and/or nursing outlets at North Clayton High School. During the initial assessment, 43 first draw water samples were submitted to the laboratory for analysis. Two (2) subsequent first draw samples were collected on November 14, 2018 of the pot filler within the kitchen and drinking water fountain near Room 312 due to previous elevated lead and copper results.
2. Fourteen (14) of the 43 initial first draw water samples analyzed for lead indicated detectable levels of lead. One (1) of the 14 initial first draw water samples with detectable levels of lead was **greater** than the EPA PWS AL of 15µg/L. This outlet, the drinking water pot filler within the kitchen near the north wall was removed from service for drinking water until follow-up sampling was conducted. A subsequent first draw water sample was collected from the drinking water pot filler within the kitchen was on November 14, 2018 after the client replaced the pot filler. A detectable level of lead was identified in the follow up sample collected from the pot filler, but was less than the EPA PWS AL of 15µg/L. **Outlets identified in art/counselors office (5 sinks), room 120 (2 metal sinks), a sink within the admin office, room 341 (4 sinks), and an ice machine near P.E. 309 were not flushed/inoperable during the initial sampling event. If determined to be used for drinking, cooking, and/or nursing, these outlets will need to be sampled.**
3. 43 of the 43 first draw initial water samples indicated detectable levels of copper. One (1) of the 43 initial first draw water samples with detectable levels of copper was **greater** than 1300µg/L. This outlet, the drinking water fountain near Room 312 was removed from service for drinking water until follow-up sampling was conducted. A subsequent first draw water sample was collected from the drinking water fountain near Room 312 on November 14, 2018 after the client replaced the drinking water fountain. A detectable level of copper was identified in the follow up sample collected from the fountain, but was less than the EPA PWS AL of 1300µg/L.

6.0 LIMITATIONS

The results of this assessment apply only to those specific Client-designated water outlets sampled. Per the EPA sampling guidelines, large variations in lead concentrations may be found among individual outlets in a facility because of difference in flow rates and/or building materials; therefore, this assessment is limited to the conditions encountered at the date and time of each sampling event.

APPENDIX A
Laboratory Analytical Results and
Chains of Custody

10/16/2018

GLE Associates
Ms. Katrina Riley
1100 Spring St, NW Suite 820
Suite 820
Atlanta, GA, 30309

Ref: Analytical Testing
Lab Report Number: 18-283-0224
Client Project Description: CCPS: North Clayton High School
Project # 18000-18861

Dear Ms. Katrina Riley:
Waypoint Analytical, LLC. received sample(s) on 10/10/2018 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	



Sample Summary Table

Report Number: 18-283-0224
Client Project Description: CCPS: North Clayton High School
Project # 18000-18861

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
98409	W1-A	Aqueous	10/08/2018 10:15	10/10/2018
98410	W2-A	Aqueous	10/08/2018 10:17	10/10/2018
98411	W3-A	Aqueous	10/08/2018 10:19	10/10/2018
98412	W4-A	Aqueous	10/08/2018 10:19	10/10/2018
98413	W5-A	Aqueous	10/08/2018 10:22	10/10/2018
98414	W6-A	Aqueous	10/08/2018 10:22	10/10/2018
98415	W7-A	Aqueous	10/08/2018 10:23	10/10/2018
98416	W8-A	Aqueous	10/08/2018 10:25	10/10/2018
98417	W9-A	Aqueous	10/08/2018 10:26	10/10/2018
98418	W10-A	Aqueous	10/08/2018 10:28	10/10/2018
98419	W11-A	Aqueous	10/08/2018 10:30	10/10/2018
98420	W12-A	Aqueous	10/08/2018 10:37	10/10/2018
98421	W13-A	Aqueous	10/08/2018 10:37	10/10/2018
98422	W14-A	Aqueous	10/08/2018 10:38	10/10/2018
98423	W15-A	Aqueous	10/08/2018 10:40	10/10/2018
98424	W16-A	Aqueous	10/08/2018 10:48	10/10/2018
98425	W17-A	Aqueous	10/08/2018 10:51	10/10/2018
98426	W18-A	Aqueous	10/08/2018 10:53	10/10/2018
98427	W19-A	Aqueous	10/08/2018 10:54	10/10/2018
98428	W20-A	Aqueous	10/08/2018 10:55	10/10/2018
98429	W21-A	Aqueous	10/08/2018 10:59	10/10/2018
98430	W22-A	Aqueous	10/08/2018 11:01	10/10/2018
98431	W23-A	Aqueous	10/08/2018 11:08	10/10/2018
98432	W24-A	Aqueous	10/08/2018 11:09	10/10/2018
98433	W25-A	Aqueous	10/08/2018 11:10	10/10/2018
98434	W26-A	Aqueous	10/08/2018 11:11	10/10/2018

Sample Summary Table

Report Number: 18-283-0224
Client Project Description: CCPS: North Clayton High School
Project # 18000-18861

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
98435	W27-A	Aqueous	10/08/2018 11:14	10/10/2018
98436	W28-A	Aqueous	10/08/2018 11:15	10/10/2018
98437	W29-A	Aqueous	10/08/2018 11:18	10/10/2018
98438	W30-A	Aqueous	10/08/2018 11:19	10/10/2018
98439	W31-A	Aqueous	10/08/2018 11:21	10/10/2018
98440	W32-A	Aqueous	10/08/2018 11:23	10/10/2018
98441	W33-A	Aqueous	10/08/2018 11:24	10/10/2018
98442	W34-A	Aqueous	10/08/2018 11:28	10/10/2018
98443	W35-A	Aqueous	10/08/2018 11:29	10/10/2018
98444	W36-A	Aqueous	10/08/2018 11:30	10/10/2018
98445	W37-A	Aqueous	10/08/2018 11:41	10/10/2018
98446	W38-A	Aqueous	10/08/2018 11:45	10/10/2018
98447	W39-A	Aqueous	10/08/2018 11:50	10/10/2018
98448	W40-A	Aqueous	10/08/2018 11:50	10/10/2018
98449	W41-A	Aqueous	10/08/2018 11:50	10/10/2018
98450	W42-A	Aqueous	10/08/2018 11:56	10/10/2018
98451	W43-A	Aqueous	10/08/2018 12:02	10/10/2018

Summary of Detected Analytes

Project: CCPS: North Clayton High School

Report Number: 18-283-0224

Client Sample ID	Lab Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W1-A	L 98409					
EPA-200.8	Copper	99.0	µg/L	0.500	10/11/2018 20:18	
EPA-200.8	Lead	0.969	µg/L	0.500	10/11/2018 20:18	
EPA-200.8	Copper	99.0	µg/L	0.500	10/11/2018 20:18	
EPA-200.8	Lead	0.969	µg/L	0.500	10/11/2018 20:18	
W2-A	L 98410					
EPA-200.8	Copper	92.9	µg/L	0.500	10/11/2018 20:19	
EPA-200.8	Copper	92.9	µg/L	0.500	10/11/2018 20:19	
W3-A	L 98411					
EPA-200.8	Copper	122	µg/L	0.500	10/11/2018 20:25	
EPA-200.8	Lead	0.600	µg/L	0.500	10/11/2018 20:25	
EPA-200.8	Copper	122	µg/L	0.500	10/11/2018 20:25	
EPA-200.8	Lead	0.600	µg/L	0.500	10/11/2018 20:25	
W4-A	L 98412					
EPA-200.8	Copper	125	µg/L	0.500	10/11/2018 20:26	
EPA-200.8	Lead	0.679	µg/L	0.500	10/11/2018 20:26	
EPA-200.8	Copper	125	µg/L	0.500	10/11/2018 20:26	
EPA-200.8	Lead	0.679	µg/L	0.500	10/11/2018 20:26	
W5-A	L 98413					
EPA-200.8	Copper	191	µg/L	0.500	10/11/2018 20:27	
EPA-200.8	Lead	0.984	µg/L	0.500	10/11/2018 20:27	
EPA-200.8	Copper	191	µg/L	0.500	10/11/2018 20:27	
EPA-200.8	Lead	0.984	µg/L	0.500	10/11/2018 20:27	
W6-A	L 98414					
EPA-200.8	Copper	107	µg/L	0.500	10/11/2018 20:29	
EPA-200.8	Copper	107	µg/L	0.500	10/11/2018 20:29	
W7-A	L 98415					
EPA-200.8	Copper	80.2	µg/L	0.500	10/11/2018 20:30	
EPA-200.8	Copper	80.2	µg/L	0.500	10/11/2018 20:30	
W8-A	L 98416					
EPA-200.8	Copper	139	µg/L	0.500	10/11/2018 20:31	
EPA-200.8	Copper	139	µg/L	0.500	10/11/2018 20:31	
W9-A	L 98417					
EPA-200.8	Copper	168	µg/L	0.500	10/11/2018 20:33	
EPA-200.8	Copper	168	µg/L	0.500	10/11/2018 20:33	

Summary of Detected Analytes

Project: CCPS: North Clayton High School

Report Number: 18-283-0224

Client Sample ID	Lab Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W10-A	L 98418					
EPA-200.8	Copper	111	µg/L	0.500	10/11/2018 20:34	
EPA-200.8	Lead	38.4	µg/L	0.500	10/11/2018 20:34	
EPA-200.8	Copper	111	µg/L	0.500	10/11/2018 20:34	
EPA-200.8	Lead	38.4	µg/L	0.500	10/11/2018 20:34	
W11-A	L 98419					
EPA-200.8	Copper	13.0	µg/L	0.500	10/11/2018 20:35	
EPA-200.8	Lead	0.714	µg/L	0.500	10/11/2018 20:35	
EPA-200.8	Copper	13.0	µg/L	0.500	10/11/2018 20:35	
EPA-200.8	Lead	0.714	µg/L	0.500	10/11/2018 20:35	
W12-A	L 98420					
EPA-200.8	Copper	104	µg/L	0.500	10/11/2018 20:37	
EPA-200.8	Copper	104	µg/L	0.500	10/11/2018 20:37	
W13-A	L 98421					
EPA-200.8	Copper	112	µg/L	0.500	10/11/2018 20:42	
EPA-200.8	Copper	112	µg/L	0.500	10/11/2018 20:42	
W14-A	L 98422					
EPA-200.8	Copper	134	µg/L	0.500	10/11/2018 20:43	
EPA-200.8	Copper	134	µg/L	0.500	10/11/2018 20:43	
W15-A	L 98423					
EPA-200.8	Copper	144	µg/L	0.500	10/11/2018 20:45	
EPA-200.8	Copper	144	µg/L	0.500	10/11/2018 20:45	
W16-A	L 98424					
EPA-200.8	Copper	1490	µg/L	2.50	10/12/2018 19:40	
EPA-200.8	Lead	11.6	µg/L	0.500	10/11/2018 20:46	
EPA-200.8	Copper	1490	µg/L	2.50	10/12/2018 19:40	
EPA-200.8	Lead	11.6	µg/L	0.500	10/11/2018 20:46	
W17-A	L 98425					
EPA-200.8	Copper	85.0	µg/L	0.500	10/11/2018 20:49	
EPA-200.8	Lead	1.27	µg/L	0.500	10/11/2018 20:49	
EPA-200.8	Copper	85.0	µg/L	0.500	10/11/2018 20:49	
EPA-200.8	Lead	1.27	µg/L	0.500	10/11/2018 20:49	
W18-A	L 98426					
EPA-200.8	Copper	39.3	µg/L	0.500	10/11/2018 20:50	
EPA-200.8	Copper	39.3	µg/L	0.500	10/11/2018 20:50	

Summary of Detected Analytes

Project: CCPS: North Clayton High School

Report Number: 18-283-0224

Client Sample ID	Lab Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W19-A	L 98427					
EPA-200.8	Copper	27.0	µg/L	0.500	10/11/2018 20:52	
EPA-200.8	Copper	27.0	µg/L	0.500	10/11/2018 20:52	
W20-A	L 98428					
EPA-200.8	Copper	55.4	µg/L	0.500	10/11/2018 20:53	
EPA-200.8	Lead	1.43	µg/L	0.500	10/11/2018 20:53	
EPA-200.8	Copper	55.4	µg/L	0.500	10/11/2018 20:53	
EPA-200.8	Lead	1.43	µg/L	0.500	10/11/2018 20:53	
W21-A	L 98429					
EPA-200.8	Copper	96.5	µg/L	0.500	10/11/2018 21:08	
EPA-200.8	Lead	0.857	µg/L	0.500	10/11/2018 21:08	
EPA-200.8	Copper	96.5	µg/L	0.500	10/11/2018 21:08	
EPA-200.8	Lead	0.857	µg/L	0.500	10/11/2018 21:08	
W22-A	L 98430					
EPA-200.8	Copper	146	µg/L	0.500	10/11/2018 21:09	
EPA-200.8	Lead	0.503	µg/L	0.500	10/11/2018 21:09	
EPA-200.8	Copper	146	µg/L	0.500	10/11/2018 21:09	
EPA-200.8	Lead	0.503	µg/L	0.500	10/11/2018 21:09	
W23-A	L 98431					
EPA-200.8	Copper	103	µg/L	0.500	10/11/2018 21:11	
EPA-200.8	Copper	103	µg/L	0.500	10/11/2018 21:11	
W24-A	L 98432					
EPA-200.8	Copper	69.4	µg/L	0.500	10/11/2018 21:12	
EPA-200.8	Copper	69.4	µg/L	0.500	10/11/2018 21:12	
W25-A	L 98433					
EPA-200.8	Copper	59.0	µg/L	0.500	10/11/2018 21:13	
EPA-200.8	Copper	59.0	µg/L	0.500	10/11/2018 21:13	
W26-A	L 98434					
EPA-200.8	Copper	138	µg/L	0.500	10/11/2018 21:15	
EPA-200.8	Copper	138	µg/L	0.500	10/11/2018 21:15	
W27-A	L 98435					
EPA-200.8	Copper	63.6	µg/L	0.500	10/11/2018 21:20	
EPA-200.8	Copper	63.6	µg/L	0.500	10/11/2018 21:20	
W28-A	L 98436					
EPA-200.8	Copper	62.9	µg/L	0.500	10/11/2018 21:21	

Summary of Detected Analytes

Project: CCPS: North Clayton High School

Report Number: 18-283-0224

Client Sample ID Method	Lab Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W28-A	L 98436					
EPA-200.8	Copper	62.9	µg/L	0.500	10/11/2018 21:21	
W29-A	L 98437					
EPA-200.8	Copper	66.5	µg/L	0.500	10/11/2018 21:23	
EPA-200.8	Copper	66.5	µg/L	0.500	10/11/2018 21:23	
W30-A	L 98438					
EPA-200.8	Copper	73.1	µg/L	0.500	10/11/2018 21:24	
EPA-200.8	Copper	73.1	µg/L	0.500	10/11/2018 21:24	
W31-A	L 98439					
EPA-200.8	Copper	286	µg/L	0.500	10/11/2018 21:25	
EPA-200.8	Lead	1.56	µg/L	0.500	10/11/2018 21:25	
EPA-200.8	Copper	286	µg/L	0.500	10/11/2018 21:25	
EPA-200.8	Lead	1.56	µg/L	0.500	10/11/2018 21:25	
W32-A	L 98440					
EPA-200.8	Copper	84.3	µg/L	0.500	10/11/2018 21:28	
EPA-200.8	Copper	84.3	µg/L	0.500	10/11/2018 21:28	
W33-A	L 98441					
EPA-200.8	Copper	75.0	µg/L	0.500	10/11/2018 21:30	
EPA-200.8	Lead	0.739	µg/L	0.500	10/11/2018 21:30	
EPA-200.8	Copper	75.0	µg/L	0.500	10/11/2018 21:30	
EPA-200.8	Lead	0.739	µg/L	0.500	10/11/2018 21:30	
W34-A	L 98442					
EPA-200.8	Copper	67.4	µg/L	0.500	10/11/2018 21:31	
EPA-200.8	Copper	67.4	µg/L	0.500	10/11/2018 21:31	
W35-A	L 98443					
EPA-200.8	Copper	73.5	µg/L	0.500	10/11/2018 21:32	
EPA-200.8	Copper	73.5	µg/L	0.500	10/11/2018 21:32	
W36-A	L 98444					
EPA-200.8	Copper	151	µg/L	0.500	10/11/2018 21:34	
EPA-200.8	Lead	1.90	µg/L	0.500	10/11/2018 21:34	
EPA-200.8	Copper	151	µg/L	0.500	10/11/2018 21:34	
EPA-200.8	Lead	1.90	µg/L	0.500	10/11/2018 21:34	
W37-A	L 98445					
EPA-200.8	Copper	64.5	µg/L	0.500	10/11/2018 21:39	

Summary of Detected Analytes

Project: CCPS: North Clayton High School

Report Number: 18-283-0224

Client Sample ID Method	Lab Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W37-A	L 98445					
EPA-200.8	Copper	64.5	µg/L	0.500	10/11/2018 21:39	
W38-A	L 98446					
EPA-200.8	Copper	241	µg/L	0.500	10/11/2018 21:40	
EPA-200.8	Copper	241	µg/L	0.500	10/11/2018 21:40	
W39-A	L 98447					
EPA-200.8	Copper	55.8	µg/L	0.500	10/11/2018 21:42	
EPA-200.8	Copper	55.8	µg/L	0.500	10/11/2018 21:42	
W40-A	L 98448					
EPA-200.8	Copper	60.4	µg/L	0.500	10/11/2018 21:43	
EPA-200.8	Copper	60.4	µg/L	0.500	10/11/2018 21:43	
W41-A	L 98449					
EPA-200.8	Copper	53.1	µg/L	0.500	10/11/2018 21:58	
EPA-200.8	Copper	53.1	µg/L	0.500	10/11/2018 21:58	
W42-A	L 98450					
EPA-200.8	Copper	81.7	µg/L	0.500	10/11/2018 21:59	
EPA-200.8	Copper	81.7	µg/L	0.500	10/11/2018 21:59	
W43-A	L 98451					
EPA-200.8	Copper	79.5	µg/L	0.500	10/11/2018 22:01	
EPA-200.8	Copper	79.5	µg/L	0.500	10/11/2018 22:01	

23169

GLE Associates

Ms. Katrina Riley

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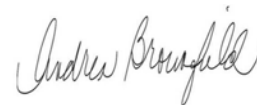
Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98409**

Matrix: **Aqueous**

Sample ID : **W1-A**

Sampled: **10/8/2018 10:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	99.0	µg/L	0.500	1	10/11/18 20:18	BKN	EPA-200.8
Lead	0.969	µg/L	0.500	1	10/11/18 20:18	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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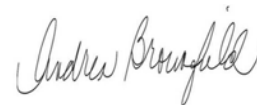
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Information : Project # 18000-18861

Report Date : 10/16/2018

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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98410**

Matrix: **Aqueous**

Sample ID : **W2-A**

Sampled: **10/8/2018 10:17**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	92.9	µg/L	0.500	1	10/11/18 20:19	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:19	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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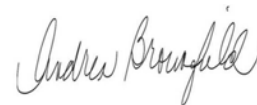
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98411**

Matrix: **Aqueous**

Sample ID : **W3-A**

Sampled: **10/8/2018 10:19**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	122	µg/L	0.500	1	10/11/18 20:25	BKN	EPA-200.8
Lead	0.600	µg/L	0.500	1	10/11/18 20:25	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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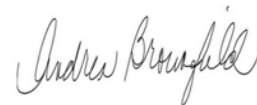
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98412**

Matrix: **Aqueous**

Sample ID : **W4-A**

Sampled: **10/8/2018 10:19**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	125	µg/L	0.500	1	10/11/18 20:26	BKN	EPA-200.8
Lead	0.679	µg/L	0.500	1	10/11/18 20:26	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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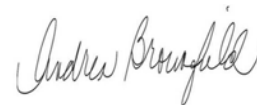
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98413**

Matrix: **Aqueous**

Sample ID : **W5-A**

Sampled: **10/8/2018 10:22**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	191	µg/L	0.500	1	10/11/18 20:27	BKN	EPA-200.8
Lead	0.984	µg/L	0.500	1	10/11/18 20:27	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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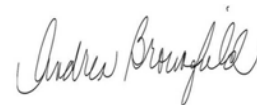
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98414**

Matrix: **Aqueous**

Sample ID : **W6-A**

Sampled: **10/8/2018 10:22**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	107	µg/L	0.500	1	10/11/18 20:29	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:29	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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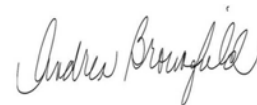
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98415**

Matrix: **Aqueous**

Sample ID : **W7-A**

Sampled: **10/8/2018 10:23**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	80.2	µg/L	0.500	1	10/11/18 20:30	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:30	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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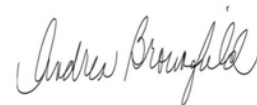
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98416**

Matrix: **Aqueous**

Sample ID : **W8-A**

Sampled: **10/8/2018 10:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	139	µg/L	0.500	1	10/11/18 20:31	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:31	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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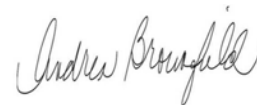
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98417**

Matrix: **Aqueous**

Sample ID : **W9-A**

Sampled: **10/8/2018 10:26**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	168	µg/L	0.500	1	10/11/18 20:33	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:33	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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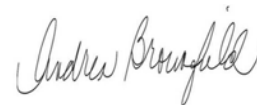
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98418**

Matrix: **Aqueous**

Sample ID : **W10-A**

Sampled: **10/8/2018 10:28**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	111	µg/L	0.500	1	10/11/18 20:34	BKN	EPA-200.8
Lead	38.4	µg/L	0.500	1	10/11/18 20:34	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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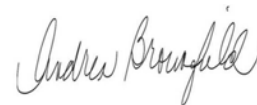
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98419**

Matrix: **Aqueous**

Sample ID : **W11-A**

Sampled: **10/8/2018 10:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	13.0	µg/L	0.500	1	10/11/18 20:35	BKN	EPA-200.8
Lead	0.714	µg/L	0.500	1	10/11/18 20:35	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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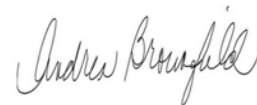
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Report Date : 10/16/2018

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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98420**

Matrix: **Aqueous**

Sample ID : **W12-A**

Sampled: **10/8/2018 10:37**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	104	µg/L	0.500	1	10/11/18 20:37	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:37	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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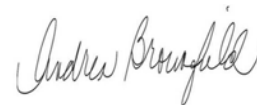
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98421**

Matrix: **Aqueous**

Sample ID : **W13-A**

Sampled: **10/8/2018 10:37**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	112	µg/L	0.500	1	10/11/18 20:42	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:42	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: North Clayton High School
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Report Date : 10/16/2018

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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98422**

Matrix: **Aqueous**

Sample ID : **W14-A**

Sampled: **10/8/2018 10:38**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	134	µg/L	0.500	1	10/11/18 20:43	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:43	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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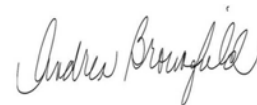
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98423**

Sample ID : **W15-A**

Matrix: **Aqueous**

Sampled: **10/8/2018 10:40**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	144	µg/L	0.500	1	10/11/18 20:45	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:45	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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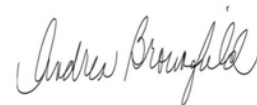
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98424**

Matrix: **Aqueous**

Sample ID : **W16-A**

Sampled: **10/8/2018 10:48**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	1490	µg/L	2.50	5	10/12/18 19:40	BKN	EPA-200.8
Lead	11.6	µg/L	0.500	1	10/11/18 20:46	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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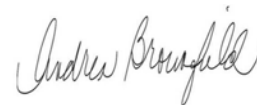
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98425**

Matrix: **Aqueous**

Sample ID : **W17-A**

Sampled: **10/8/2018 10:51**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	85.0	µg/L	0.500	1	10/11/18 20:49	BKN	EPA-200.8
Lead	1.27	µg/L	0.500	1	10/11/18 20:49	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

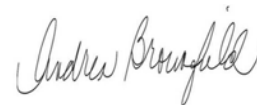
Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98426**

Matrix: **Aqueous**

Sample ID : **W18-A**

Sampled: **10/8/2018 10:53**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	39.3	µg/L	0.500	1	10/11/18 20:50	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:50	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

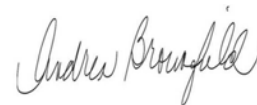
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Atlanta, GA 30309

Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98427**

Matrix: **Aqueous**

Sample ID : **W19-A**

Sampled: **10/8/2018 10:54**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	27.0	µg/L	0.500	1	10/11/18 20:52	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:52	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

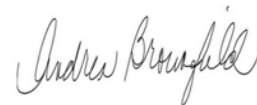
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Atlanta, GA 30309

Project CCPS: North Clayton High School
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Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98428**

Matrix: **Aqueous**

Sample ID : **W20-A**

Sampled: **10/8/2018 10:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	55.4	µg/L	0.500	1	10/11/18 20:53	BKN	EPA-200.8
Lead	1.43	µg/L	0.500	1	10/11/18 20:53	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

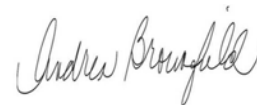
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Report Date : 10/16/2018

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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98429**

Matrix: **Aqueous**

Sample ID : **W21-A**

Sampled: **10/8/2018 10:59**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	96.5	µg/L	0.500	1	10/11/18 21:08	BKN	EPA-200.8
Lead	0.857	µg/L	0.500	1	10/11/18 21:08	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

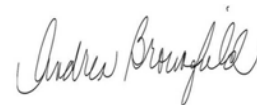
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Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98430**

Matrix: **Aqueous**

Sample ID : **W22-A**

Sampled: **10/8/2018 11:01**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	146	µg/L	0.500	1	10/11/18 21:09	BKN	EPA-200.8
Lead	0.503	µg/L	0.500	1	10/11/18 21:09	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

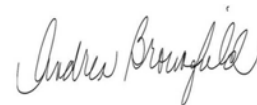
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Report Date : 10/16/2018

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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98431**

Sample ID : **W23-A**

Matrix: **Aqueous**

Sampled: **10/8/2018 11:08**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	103	µg/L	0.500	1	10/11/18 21:11	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:11	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

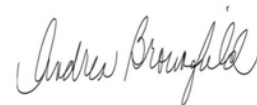
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98432**

Sample ID : **W24-A**

Matrix: **Aqueous**

Sampled: **10/8/2018 11:09**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	69.4	µg/L	0.500	1	10/11/18 21:12	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:12	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

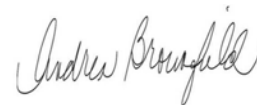
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98433**

Sample ID : **W25-A**

Matrix: **Aqueous**

Sampled: **10/8/2018 11:10**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	59.0	µg/L	0.500	1	10/11/18 21:13	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:13	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

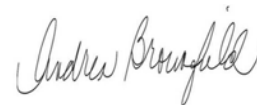
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98434**

Matrix: **Aqueous**

Sample ID : **W26-A**

Sampled: **10/8/2018 11:11**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	138	µg/L	0.500	1	10/11/18 21:15	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:15	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

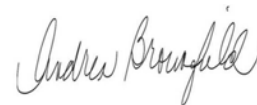
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98435**

Matrix: **Aqueous**

Sample ID : **W27-A**

Sampled: **10/8/2018 11:14**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	63.6	µg/L	0.500	1	10/11/18 21:20	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:20	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

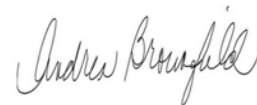
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98436**

Matrix: **Aqueous**

Sample ID : **W28-A**

Sampled: **10/8/2018 11:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	62.9	µg/L	0.500	1	10/11/18 21:21	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:21	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

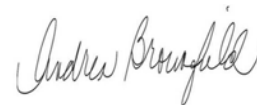
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Atlanta, GA 30309

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Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98437**

Sample ID : **W29-A**

Matrix: **Aqueous**

Sampled: **10/8/2018 11:18**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	66.5	µg/L	0.500	1	10/11/18 21:23	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:23	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

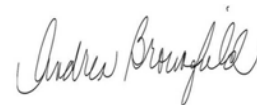
Suite 820

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Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98438**

Matrix: **Aqueous**

Sample ID : **W30-A**

Sampled: **10/8/2018 11:19**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	73.1	µg/L	0.500	1	10/11/18 21:24	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:24	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

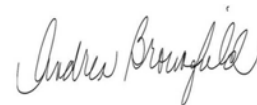
Suite 820

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Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98439**

Matrix: **Aqueous**

Sample ID : **W31-A**

Sampled: **10/8/2018 11:21**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	286	µg/L	0.500	1	10/11/18 21:25	BKN	EPA-200.8
Lead	1.56	µg/L	0.500	1	10/11/18 21:25	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

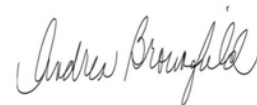
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Report Date : 10/16/2018

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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98440**

Matrix: **Aqueous**

Sample ID : **W32-A**

Sampled: **10/8/2018 11:23**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	84.3	µg/L	0.500	1	10/11/18 21:28	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:28	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

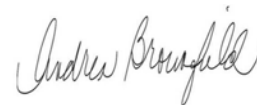
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98441**

Matrix: **Aqueous**

Sample ID : **W33-A**

Sampled: **10/8/2018 11:24**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	75.0	µg/L	0.500	1	10/11/18 21:30	BKN	EPA-200.8
Lead	0.739	µg/L	0.500	1	10/11/18 21:30	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

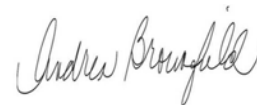
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98442**

Matrix: **Aqueous**

Sample ID : **W34-A**

Sampled: **10/8/2018 11:28**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	67.4	µg/L	0.500	1	10/11/18 21:31	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:31	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

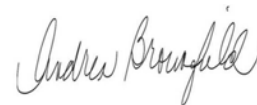
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98443**

Matrix: **Aqueous**

Sample ID : **W35-A**

Sampled: **10/8/2018 11:29**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	73.5	µg/L	0.500	1	10/11/18 21:32	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:32	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

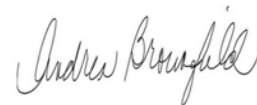
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Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98444**

Matrix: **Aqueous**

Sample ID : **W36-A**

Sampled: **10/8/2018 11:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	151	µg/L	0.500	1	10/11/18 21:34	BKN	EPA-200.8
Lead	1.90	µg/L	0.500	1	10/11/18 21:34	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820


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Atlanta, GA 30309

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Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98445**

Matrix: **Aqueous**

Sample ID : **W37-A**

Sampled: **10/8/2018 11:41**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	64.5	µg/L	0.500	1	10/11/18 21:39	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:39	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

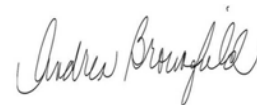
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98446**

Matrix: **Aqueous**

Sample ID : **W38-A**

Sampled: **10/8/2018 11:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	241	µg/L	0.500	1	10/11/18 21:40	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:40	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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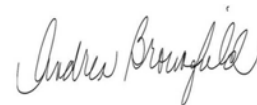
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Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98447**

Sample ID : **W39-A**

Matrix: **Aqueous**

Sampled: **10/8/2018 11:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	55.8	µg/L	0.500	1	10/11/18 21:42	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:42	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

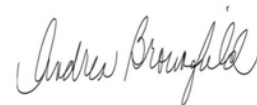
Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98448**

Matrix: **Aqueous**

Sample ID : **W40-A**

Sampled: **10/8/2018 11:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	60.4	µg/L	0.500	1	10/11/18 21:43	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:43	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

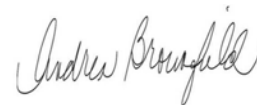
Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98449**

Matrix: **Aqueous**

Sample ID : **W41-A**

Sampled: **10/8/2018 11:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	53.1	µg/L	0.500	1	10/11/18 21:58	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:58	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

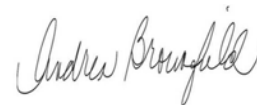
Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98450**

Matrix: **Aqueous**

Sample ID : **W42-A**

Sampled: **10/8/2018 11:56**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	81.7	µg/L	0.500	1	10/11/18 21:59	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 21:59	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

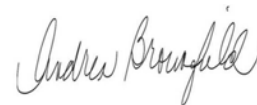
Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School
Information : Project # 18000-18861

Report Date : 10/16/2018

Received : 10/10/2018



Andrea R. Brownfield
Project manager

Report Number : **18-283-0224**

REPORT OF ANALYSIS

Lab No : **98451**

Sample ID : **W43-A**

Matrix: **Aqueous**

Sampled: **10/8/2018 12:02**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	79.5	µg/L	0.500	1	10/11/18 22:01	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 22:01	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: GLE Associates
Project Description: CCPS: North Clayton High School
Report No: 18-283-0224

QC Prep: L403311 **QC Analytical Batch(es):** L403735
QC Prep Batch Method: EPA-200.8 **Analysis Method:** EPA-200.8
Analysis Description: Metals Analyses

Lab Reagent Blank LRB-L403311 Matrix: AQU
Associated Lab Samples: 98409, 98410, 98411, 98412, 98413, 98414, 98415, 98416, 98417, 98418, 98419, 98420, 98421, 98422, 98423, 98424, 98425, 98426, 98427, 98428

Parameter	Units	Blank Result	MQL	Analyzed
Copper	µg/L	< 0.500	0.500	10/11/18 20:15
Lead	µg/L	< 0.500	0.500	10/11/18 20:15

Laboratory Control Sample LCS-L403311

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Copper	µg/L	50.3	49.8	99.1	85-115
Lead	µg/L	50.3	49.6	98.7	85-115

Matrix Spike & Matrix Spike Duplicate L 98428-MS-L403311 L 98428-MSD-L403311

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Copper	µg/L	55.4	50.3	50.3	99.6	103	87.9	94.7	70-130	3.3	20.0
Lead	µg/L	1.43	50.3	50.3	51.2	51.7	99.0	100	70-130	0.9	20.0

Quality Control Data

Client ID: GLE Associates
Project Description: CCPS: North Clayton High School
Report No: 18-283-0224

QC Prep: L403312 **QC Analytical Batch(es):** L403735
QC Prep Batch Method: EPA-200.8 **Analysis Method:** EPA-200.8
Analysis Description: Metals Analyses

Lab Reagent Blank LRB-L403312 Matrix: AQU
Associated Lab Samples: 98429, 98430, 98431, 98432, 98433, 98434, 98435, 98436, 98437, 98438, 98439, 98440, 98441, 98442, 98443, 98444, 98445, 98446, 98447, 98448

Parameter	Units	Blank Result	MQL	Analyzed
Copper	µg/L	< 0.500	0.500	10/11/18 21:05
Lead	µg/L	< 0.500	0.500	10/11/18 21:05

Laboratory Control Sample LCS-L403312

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Copper	µg/L	50.3	49.1	97.7	85-115
Lead	µg/L	50.3	49.3	98.1	85-115

Matrix Spike & Matrix Spike Duplicate L 98448-MS-L403312 L 98448-MSD-L403312

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Copper	µg/L	60.4	50.3	50.3	106	106	90.7	90.7	70-130	0.0	20.0
Lead	µg/L	< 0.503	50.3	50.3	49.8	51.1	99.1	102	70-130	2.5	20.0

Quality Control Data

Client ID: GLE Associates
Project Description: CCPS: North Clayton High School
Report No: 18-283-0224

QC Prep: L403313 **QC Analytical Batch(es):** L403736
QC Prep Batch Method: EPA-200.8 **Analysis Method:** EPA-200.8
Analysis Description: Metals Analyses

Lab Reagent Blank LRB-L403313 Matrix: AQU
Associated Lab Samples: 98449, 98450, 98451

Parameter	Units	Blank Result	MQL	Analyzed
Copper	µg/L	< 0.500	0.500	10/11/18 21:51
Lead	µg/L	< 0.500	0.500	10/11/18 21:51

Laboratory Control Sample LCS-L403313

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Copper	µg/L	50.3	49.7	98.9	85-115
Lead	µg/L	50.3	50.4	100	85-115

Matrix Spike & Matrix Spike Duplicate L 98476-MS-L403313 L 98476-MSD-L403313

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Copper	µg/L	93.3	50.3	50.3	135	134	82.9	80.9	70-130	0.7	20.0
Lead	µg/L	< 0.503	50.3	50.3	50.2	49.8	99.8	99.1	70-130	0.8	20.0

Cooler Receipt Form

Customer Number: **23169**

Customer Name: **GLE Associates**

Report Number: **18-283-0224**

Shipping Method

<input checked="" type="radio"/> Fed Ex	<input type="radio"/> US Postal	<input type="radio"/> Lab	<input type="radio"/> Other :	<input type="text"/>
<input type="radio"/> UPS	<input type="radio"/> Client	<input type="radio"/> Courier	Thermometer ID:	N/A

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	


Comments:

Signature:

Date & Time:

Client Name/Address GLE Associates		Client Project Manager/Contact Katrina Riley		Billing Information 1100 Spring Street, 220 Atlanta, GA		18-283-0224 23169 10-10-2018 10-53-36	
Project Description Pb and Cu		Project/Site Location (City/State) North Clayton HS		<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limit(s) Date Results Needed		GLE Associates CCPS: North Clayton High School	
Project Number 18000-18861		Project Manager Phone # 404-273-3844		Project Manager Email Kriley@gleassociates.com		Purchase Order Number	
Waypoint ANALYTICAL 2790 Whitten Road Memphis, TN 38133 (901) 213-2400		Number of Containers Matrix (Refer to Key)		(g) rab or (C) composite 200.8 Pb 200.8 Cu		Site/Facility ID # North Clayton High School	
Unless noted, all containers per Table II of 40 CFR Part 136.		Sample Identification		Required Analysis / Preservative		Comments/Notes Hall DWLF near 340 Hall DWLF Classroom 344 Hall DWLF near 225 Hall DWLF near 231 Hall DWLF near 235 Hall DWLF near 242 Hall DWLF near 252 right Hall DWLF near 252 left Hall DWLF near 150 right Hall DWLF near 150 left	
Date 10/18/18 11:01 11:08 11:09 11:10 11:11 11:14 11:15 11:18 11:19		Time W21-A W22-A W23-A W24-A W25-A W26-A W27-A W28-A W29-A W30-A		Relinquished by (Name - Print) K.R. Riley, J. Hamilton Relinquished by (Signature) [Signature] Relinquished by (Signature) [Signature] Relinquished by (Signature) [Signature]		Client Remarks/Comments 10/18/18 1320 10/18/18 1500 10/18/18 1500	
Ice Y (N)		Custody Seals Y (N)		Lab Comments N/A		Date Time 10/18/18 13:20 10/18/18 15:00 10/18/18 15:00	
Blank/Cooler Temp N/A		Relinquished by (Signature) [Signature]		Relinquished by (Signature) [Signature]		Relinquished by (Signature) [Signature]	
Date Time 10/18/18 13:20 10/18/18 15:00 10/18/18 15:00		Date Time 10/18/18 13:20 10/18/18 15:00 10/18/18 15:00		Date Time 10/18/18 13:20 10/18/18 15:00 10/18/18 15:00		Date Time 10/18/18 13:20 10/18/18 15:00 10/18/18 15:00	

Client Name/Address		Client Project Manager/Contact		Billing Information		For Laboratory Use Only	
GLE Associates		Katrina Riley		100 Spring Street, 800 Atlanta, GA		18-283-0224 23169 10-10-2018 10:53:36 GLE Associates CCPS: North Clayton High School ndwater ilid O - Oil	
Project Description		Project/Site Location (City/State)		<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limit(s) Date Results Needed		18-283-0224 23169 10-10-2018 10:53:36 GLE Associates CCPS: North Clayton High School ndwater ilid O - Oil	
Pb and Cu		North Clayton H.S					
Project Number		Project Manager Phone #		Project Manager Email		Purchase Order Number	
18000-18861		404-373-3844		ktriley@gleassociates.com			
Waypoint ANALYTICAL		2790 Whitten Road Memphis, TN 38133 (901) 213-2400		Thomson@gleassociates.com			
Date		Time		Sample Identification		Required Analysis / Preservative	
10/31/18		11:21		W31-A		Hall DWLF near 142	
11:23		11:23		W32-A		Hall DWLF near 131	
11:24		11:24		W33-A		Media center DW	
11:28		11:28		W34-A		DWLF old gym near women	
11:29		11:29		W35-A		DWLF old gym near concession	
11:30		11:30		W36-A		Concession Stand DW old gym	
11:41		11:41		W37-A		Hall DWLF near 503	
11:45		11:45		W38-A		Hall DWLF near 501	
11:50		11:50		W39-A		DWLF new gym right	
11:50		11:50		W40-A		DWLF new gym middle	
Ice		Custody Seals		Lab Comments		Client Remarks/Comments	
Y/N		Y/N					
Blank/Cooler Temp		N/A					
Date		Time		Signature		Date	
10/9/18		13:20		Hubro Avez		10/9/18 13:20	
10/9/18		15:00		J.P. Phillips		10/9/18 15:00	
10/10/18		08:05				10/10/18 08:05	

 Safeguard® LITHO USA Form No. 811-2/E15CS000385 07/15

11/21/2018

GLE Associates
Ms. Katrina Riley
1100 Spring St, NW Suite 820
Suite 820
Atlanta, GA, 30309

Ref: Analytical Testing
Lab Report Number: 18-319-0273
Client Project Description: CCPS: North Clayton High School
Atlanta, GA
Project# 18000-18861

Dear Ms. Katrina Riley:

Waypoint Analytical, LLC. received sample(s) on 11/15/2018 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	





Sample Summary Table

Report Number: 18-319-0273
Client Project Description: CCPS: North Clayton High School
Atlanta, GA
Project# 18000-18861

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
89552	W-10B	Aqueous	11/14/2018 17:12	11/15/2018
89553	W-16B	Aqueous	11/14/2018 17:23	11/15/2018

Summary of Detected Analytes

Project: CCPS: North Clayton High School

Report Number: 18-319-0273

Client Sample ID Method	Lab Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W-10B	L 89552					
EPA-200.8	Copper	109	µg/L	0.500	11/20/2018 09:45	
EPA-200.8	Lead	12.3	µg/L	0.500	11/20/2018 09:45	
W-16B	L 89553					
EPA-200.8	Copper	116	µg/L	0.500	11/20/2018 09:47	
EPA-200.8	Lead	0.564	µg/L	0.500	11/20/2018 09:47	

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School

Information : Atlanta, GA

Project# 18000-18861

Report Date : 11/21/2018

Received : 11/15/2018



Andrea R. Brownfield
Project manager

Report Number : **18-319-0273**

REPORT OF ANALYSIS

Lab No : **89552**

Matrix: **Aqueous**

Sample ID : **W-10B**

Sampled: **11/14/2018 17:12**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	109	µg/L	0.500	1	11/20/18 09:45	CCR	EPA-200.8
Lead	12.3	µg/L	0.500	1	11/20/18 09:45	CCR	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

Suite 820

Atlanta, GA 30309

Project CCPS: North Clayton High School

Information : Atlanta, GA

Project# 18000-18861

Report Date : 11/21/2018

Received : 11/15/2018



Andrea R. Brownfield
Project manager

Report Number : **18-319-0273**

REPORT OF ANALYSIS

Lab No : **89553**

Matrix: **Aqueous**

Sample ID : **W-16B**

Sampled: **11/14/2018 17:23**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	116	µg/L	0.500	1	11/20/18 09:47	CCR	EPA-200.8
Lead	0.564	µg/L	0.500	1	11/20/18 09:47	CCR	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: GLE Associates
Project Description: CCPS: North Clayton High School
Report No: 18-319-0273

QC Prep: L409455 **QC Analytical Batch(es):** L409749
QC Prep Batch Method: EPA-200.8 **Analysis Method:** EPA-200.8
Analysis Description: Metals Analyses

Lab Reagent Blank LRB-L409455 Matrix: AQU
Associated Lab Samples: 89552, 89553

Parameter	Units	Blank Result	MQL	Analyzed
Copper	µg/L	< 0.500	0.500	11/20/18 09:37
Lead	µg/L	< 0.500	0.500	11/20/18 09:37

Laboratory Control Sample LCS-L409455

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Copper	µg/L	50.3	49.8	99.1	85-115
Lead	µg/L	50.3	49.5	98.5	85-115

Matrix Spike & Matrix Spike Duplicate L 89553-MS-L409455 L 89553-MSD-L409455

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Copper	µg/L	116	50.3	50.3	161	159	89.5	85.5	70-130	1.2	20.0
Lead	µg/L	0.564	50.3	50.3	50.4	50.8	99.1	99.9	70-130	0.7	20.0

Cooler Receipt Form

Customer Number: **23169**

Customer Name: **GLE Associates**

Report Number: **18-319-0273**

Shipping Method

☐ Fed Ex ☐ US Postal ☐ Lab ☐ Other :
☐ UPS ☐ Client ☒ Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

[illegible]

APPENDIX B
Laboratory Certification



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch

2 Martin Luther King, Jr. Drive
Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

Mr. Michael T. Kauffman, Laboratory Director
Waypoint Analytical, Inc.
2790 Whitten Road
Memphis, TN 38133

MAR 13 2018

RE: Certification by Reciprocity
Waypoint Analytical, Inc.
Georgia ID #C 044

Dear Mr. Kauffman:

The Georgia Department of Natural Resources, Environmental Protection Division (EPD), is in receipt of your laboratory's request to fulfill your laboratory's request for Certification by Reciprocity for the analysis of **Lead and Copper** in Drinking Water by **EPA 200.8**. Therefore, in accordance with the Georgia Safe Drinking Water Act of 1977 (Sections 12-5-170 through 12-5-193, O.C.G.A.) and the Rules for Safe Drinking Water (Chapter 391-3-5), this certification replaces any previously issued certification and is valid until May 10, 2020. This certificate is contingent upon continued Certification by the State of Tennessee and is non-transferable. This certificate is also contingent upon continued acceptable semi-annual Proficiency Testing results.

Prior to the expiration of this certification, please contact your accrediting/certifying authority and request the following information be forwarded to Lynne Grubb at lynne.grubb@dnr.ga.gov or Sean Earley at sean.earley@dnr.ga.gov.

1. Copies of the most current on-site and accepted corrective actions
2. Copies of the scope of accreditation listing analytes

If you have any questions, please feel free to contact Lynne Grubb at 404-657-3189 or Sean Earley at 404-651-9581.

Thank you.



Sean Earley

Laboratory Certification Officer
Drinking Water Compliance Unit



Lewis Hays

Program Manager
Watershed Compliance Program

WAYPOINT ANALYTICAL (GA LAB ID# C044)

2790 Whitten Road Memphis, TN 38133

Effective March 1, 2018 to May 10, 2020

ANALYTE	CERTIFIED BY	METHOD
INORGANIC CHEMICALS		
Copper	TN DEC	200.8
Lead	TN DEC	200.8



Dear Client:

Re: Georgia State Law (O.C.G.A. § 12-2-9) requires all commercial laboratories submitting data to the Environmental Protection Division for regulatory purposes be approved or accredited by an accrediting authority such as NELAP. Pursuant to this regulation this laboratory affirms the following certification in support of this regulation under Chapter 391-3-26-05:

Laboratory: Waypoint Analytical, Inc.
2790 Whitten Road
Memphis, TN 38133

Accreditor: NELAP Accrediting Authority
Primary Accrediting State: Louisiana Department of Environmental Quality (LELAP)

Accreditation Number: 04015

Scope: CWA/RCRA

Effective: 07/01/2017

Expires: 06/30/2018

Certificate and scope available upon request.

If you have any questions or comments please feel free in contacting me at rmedina@waypointanalytical.com.

Respectfully,

Dr. Richard Medina
Chief Quality Officer

APPENDIX C

Sampling Plan

