



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

02202

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NOV 10 2015

LAB CERTIFICATION

November 9, 2015

Nydia Burdick
Office of Environmental Laboratory Certification
2600 Bull Street
Columbia, SC 29201

RE: EQC Region 5 Aiken Laboratory, Lab ID # 02202

Dear Ms. Burdick,

Attached is our follow-up to the on-site laboratory evaluation performed at the Aiken EQC Laboratory on August 25, 2015 by staff of the SC DHEC Office of Environmental Laboratory Certification. We have included detailed responses to the requested items in the summary report, dated October 12, 2015.

The Aiken EQC laboratory would like to thank you, Ms. Butts, and Mr. Miller for the comments, suggestions, and information provided during the audit. We look forward to continue working with the Office of Environmental Lab Certification to ensure that all of our data is defensible and the operation of our laboratory is in compliance with all applicable SOPs and requirements.

If you should have any questions or need additional information, please contact Tabatha Corley or Brant Anderson at (803) 642-1637 for further details.

Sincerely,


Jennifer Hughes
Midlands Aiken EQC, Area Director
Bureau of Environmental Health Services

cc: Carol Smith, Director
Office of Environmental Laboratory Certification

Proficiency Testing Studies Reviewed

Finding:

Staff are not identifying the PT vendor and study identification in the analysis records.

Response: Field staff were reminded of this requirement following the on-site evaluation. When they participated in the WS-229 and WP-247 study in September, they recorded this information in their logbooks. Lab staff will remind them of this requirement for future PT studies as well.

Clean Water Act

Biochemical Oxygen Demand (BOD)-SM5210 B-2011

Carbonaceous BOD-SM 5210-B-2011

Finding:

The laboratory is not following the SOP (Section 5.4) and is not using wide-bore (or large tip) pipettes to measure and transfer seed to the sample dilutions.

Response: To ensure that the seed is being completely transferred in the BOD and c-BOD analyses, we have ordered new pipettes that are described as being wide-bored. Karen Suber identified this particular version as what the analysts use in the Hayne Building in Columbia. They are described in the product description as being wide-bored. These pipettes have been ordered and are available for use upon our next batch of analyses. Please see Attachment A for the VWR catalog description and Attachment B for the packing list paperwork showing receipt of these new pipettes.

Hydrogen-Ion Conc. (pH)- SM4500-H B-2011

Finding #1 : A set of field duplicates analyzed on 6/4/15 by field staff exceeded the 0.2 S.U. acceptance criteria.

Response: Field staff have been trained and reminded of this requirement in the SOP. Section 14 of the EQC Field SOP has been modified several times recently (01/2014, 01/2015, and 08/2015 revisions with several smaller edits in between) with the requirement changing from a "no more than 20% difference" requirement for duplicates to the current +/- 0.2 S.U. requirement. We have trained all field staff, and they all understand the current acceptance criteria for pH field duplicates is +/- 0.2 S.U.

Finding #2: Field staff are sometimes putting the pH electrode into the same aliquot of sample a second time to serve as the duplicate analysis.

Response: Field staff have also received instruction that two aliquots of the sample are necessary for pH duplicate analyses. This has been implemented by field staff.

Phenolics, Total Recoverable- EPA 420.1 (1978)

Finding: The laboratory performed the MDL study using 9 replicates and calculated the MDL using the student t value for seven replicates.

Response: The chemist realizes that seven replicates and the correct t value of 3.143 should have been used in the original MDL study. The current MDL study has been re-calculated using the last seven replicates of the original MDL study and the correct t value of 3.143. We will use only seven replicates in any future MDL study for the phenol parameter. Please see Attachment C for the newly calculated MDL study.

Safe Drinking Water Act

Microbiology Lab

Finding #1: The Attest steam incubator thermometer has not been verified for accuracy against a NIST-traceable reference thermometer since 5/28/14.

Response: To meet the annual requirement, the thermometer was sent to Instrument Services for verification in September. Please see Attachment D for the record of the NIST verification for the steam incubator thermometer.

Finding #2: The laboratory is incubating the spore ampules for 48 hours instead of the prescribed 24 hour incubation time.

Response: In performing the autoclave QC check, we are now incubating the spore ampules for 24 hours in the Attest steam incubator to follow the manufacturer instructions provided with the ampules.

VWR® Disposable Serological Pipets

Ordering Information

Available in three packaging options: Individually wrapped in clear, easily recyclable, all-plastic polyethylene with pop-through opening for aseptic removal; individually wrapped in color-coded paper/plastic that reduces static cling; or bulk packed in polyethylene bags for high volume liquid handling applications.

VWR Cat. No.	Capacity (mL)	Color Code	Packaging	Qty/Cs	List Price
89130-882	1	Yellow	All Plastic	1000	\$271.49
89130-884	2	Green	All Plastic	1000	\$352.60
89130-886	5	Blue	All Plastic	200	\$98.77
89130-888	10	Orange	All Plastic	200	\$99.38
89130-890	25	Red	All Plastic	200	\$244.95
89130-892	1	Yellow	Paper/Plastic	1000	\$268.38
89130-894	2	Green	Paper/Plastic	500	\$163.98
89130-896	5	Blue	Paper/Plastic	200	\$88.53
89130-898	10	Orange	Paper/Plastic	200	\$95.69
89130-900	25	Red	Paper/Plastic	200	\$207.75
89130-902	50	Purple	Paper/Plastic	100	\$225.75
89130-904	1	Yellow	Bulk	1000	\$246.91
89130-906	2	Green	Bulk	500	\$159.97
89130-908	5	Blue	Bulk	500	\$194.79
89130-910	10	Orange	Bulk	500	\$224.15
89130-912	25	Red	Bulk	200	\$207.69
89130-914	50	Purple	Bulk	100	\$232.99
→ 89130-916	10	Orange	Bulk, Wide Tip	500	\$260.30

For additional product information, please contact your VWR Sales Representative or call VWR at 1.800.932.5000.



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0510 Lit. No. POD 92742

Attachment A

1050 Satellite Blvd, 00f 9VWY 006549VWY
 SUWANEE, GA 30024 800-932-5000

W Carrier Lane
 04C UPS 08

PACKING LIST

DATE	SHIPPING REFERENCE NO.	TERMS	PURCHASE ORDER NUMBER
 CC/EGordon/110415			
11/04/15	80180019655437	30 days net	See above

count No: 0080059294
 Id To: SC DHEC EGC MGMT SVS
 301 GERVAIS ST

Account No: 0080157794
 Ship To: E G C

206 BEAUFORT ST NE

COLUMBIA SC 29201-3073 US
 ERICA GORDON

AIKEN SC 29801-4476 US
 B Anderson

LINE NO.	CASE I.D.	B/O QTY	ORDER QTY	SHIP QTY	UM	CATALOG NUMBER AND DESCRIPTION	PRICE	EXTENSION
						CC_REFERENCE: PD CC/EGORDON/110415		
110	22WK08		1	1	CS	89130-916 VWR PIPETTE SERO B 10ML CS500 *** MFG NO. 4047 CountryCode: US Customs#: 392690		
120	22WW08		1	1	EA	BDH0190-20L BDH BUFFER PH 10 BLUE 20L. *** MFG NO. BDH01900-20F Lot #: 2507B95 Expiry Date: 01/31/17 CountryCode: US Customs#: 382200		
						Total cases : 2		
<p>CERTIFICATION OF COMPLIANCE - The Company certifies that: It has purchased the above product(s) from the requested manufacturer or material source. It has not altered or modified the product(s) in any manner from the original condition in which they were received from the manufacturer or material source.</p>								
						<i>Jalratha Coody</i> 11/5/15		
						Attachment B		

ZONE: 02

SCALE XL



NIST TRACEABLE
Calibration Report



WO#: 124424

Schedule No: 11477

Account: 84

Site: SC DHEC

Building: REGION 5

Location: EQC

Type: PREVENTIVE MAINTENANCE

Priority: Preventive Maintenance

Skill: TECHNICIAN

Date Orig: 9/9/2015

Status: Completed

CALIBRATION DATA

NIST S/N : 2365

NIST Cal Date : 11 SEP 2014

NIST Temp : 57.0°C

S1 Temp : 57.0°C

S1 Correction : ±0.0°C

S2 Temp :

S2 Correction :

Asset Data

Asset No: 083.944

Description: THERMOMETER

Manuf: VWR Scientific

Model No: 610066-104

Serial No: NSN

Time Charges

Resource #	Resource Name	Date	Hours	Cost
WRK	WALTER KISAMORE	9/9/2015	0.50000000	\$20.00

Completed By: _____ Date: 9/9/2015 1:32:00 PM

Total Time: 0.50000000
Labor Cost: \$20.00
Material Cost: \$0.00
Total WO Cost: \$20.00

Comments:

Bureau of Laboratories
Instrument Services
8231 Parklane Road
Columbia SC, 29223
803-896-0919

Attachment D