GEORGIA ADOPT-A-STREAM
BACTERIA MONITORING QA/QC TEST

Georgia Adopt-A-Stream
Volunteer Water Quality Monitoring

Name:

Trainer's Name:

Workshop Location:

Date:

A total of 80 points is required for bacterial QA/QC Certification.

1. What are the goals of Adopt-A-Stream? (5 points)

2. What are bacteria? (6 points)

3. Why is it important to test for *E. coli* in our waterways? (6 points)

4. Name three sources of *E. coli* in our waterways: (6 points)
   a.
   b.
   c.

5. (True/False) A rain event may cause a spike in bacterial results. (6 points)

6. Describe the relationship between surface water temperature and *E. coli* levels. (6 points)

7. How often does AAS suggest you should monitor for *E. coli*? (6 points)

8. What is the purpose of the blank? (6 points)

9. Describe how you should handle your water sample right after collection. (6 points)

10. (True/False) Exposure to UV light will reduce the bacteria levels in your water sample. (6 points)

11. What is the maximum holding time after the sample is collected? (6 points)

12. How many plates should you run per site (including the field blank)? (6 points)

13. (True/False) *E. coli* must be incubated at 40 degrees Celsius +/- 1 degree for 24 hours +/- 1 hour. (6 points)

14. When reading the plates, visually what are the signals to identify and count *E. coli* colonies? (6 points)
    a. Colonies are blue, no gas bubbles
    b. Colonies are red with gas bubbles
    c. Colonies are blue with gas bubbles
    d. Colonies are red, no gas bubbles

15. What are the standard reporting units that bacteria are measured in? (6 points)

16. What is the proper disposal method for used plates? (6 points)

17. What level of *E. coli* should warrant action for Georgia Adopt-a-Stream volunteers? (5 points)

<u>Identification portion</u> (count the number of *E. coli* colonies): Final count must be within accepted range.

18.

3M Petrifilm	**Plate**			**Find AVG # of colonies x 100 to get cfu/100 ml**
	1	**2**	**3**	
E. coli				

19.

3M Petrifilm	**Plate**			**Find AVG # of colonies x 100 to get cfu/100 ml**
	1	**2**	**3**	
E. coli				

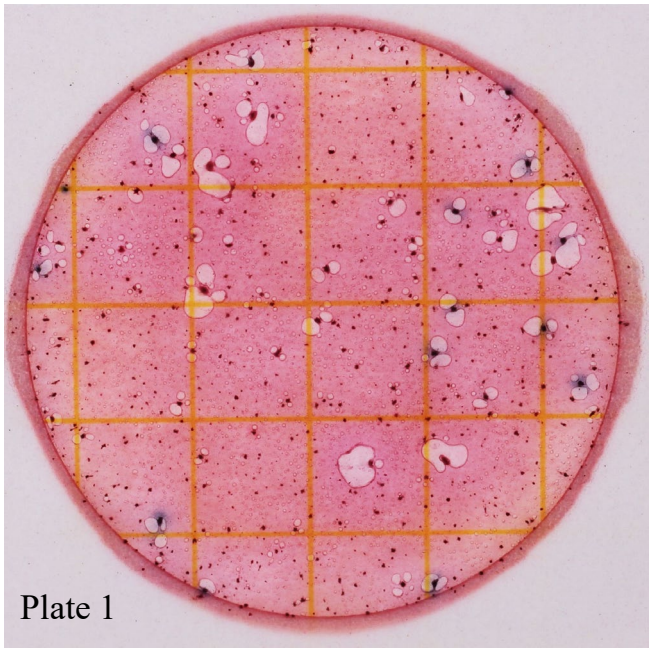
20.

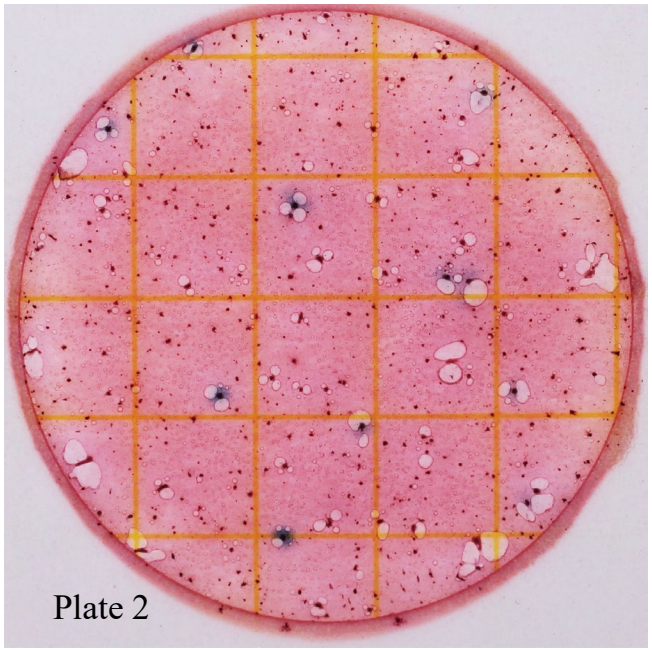
3M Petrifilm	**Plate**			**Find AVG # of colonies x 100 to get cfu/100 ml**
	1	**2**	**3**	
E. coli				

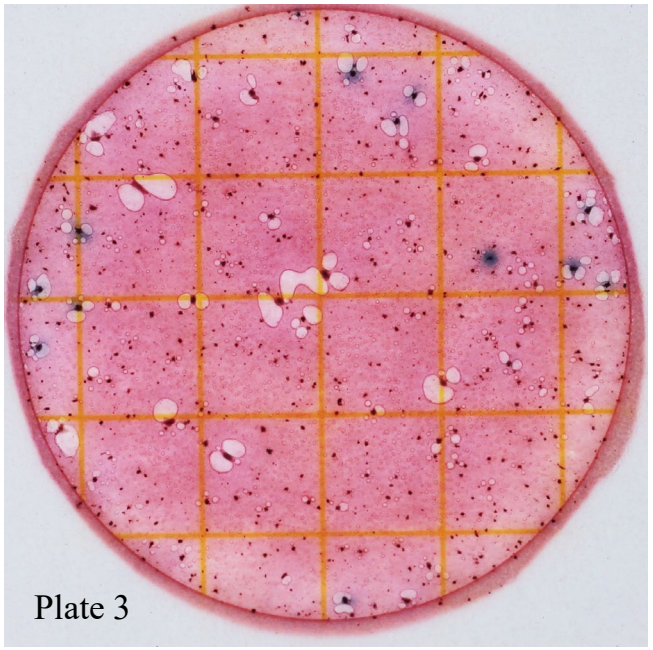
21. Which of these plates would be acceptable as a blank? (Circle the correct answer)

Plate 1 Plate 2 Plate 3

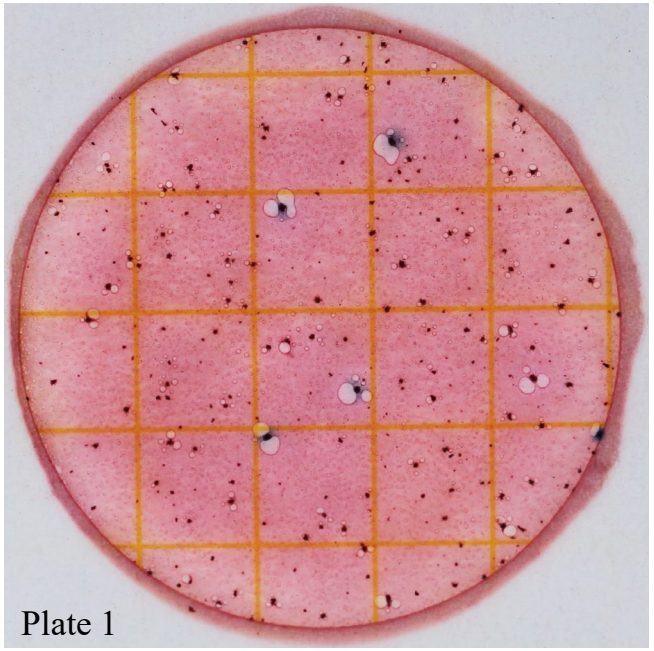
18. Volunteer

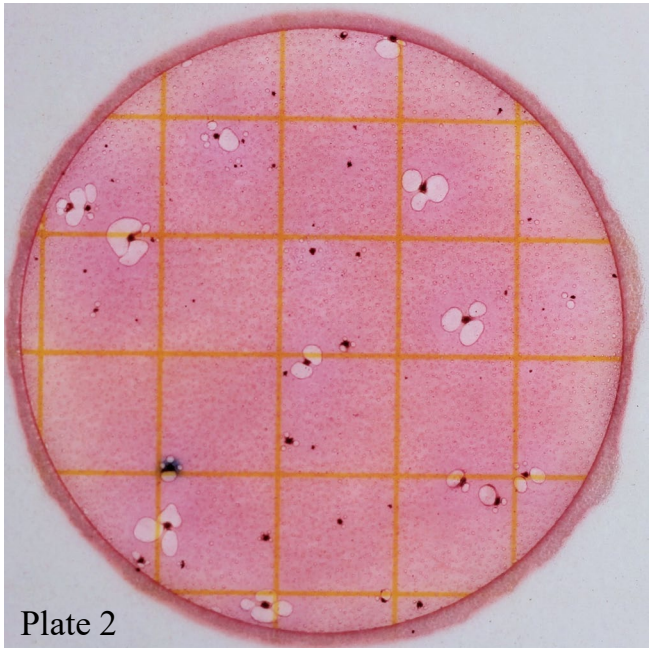


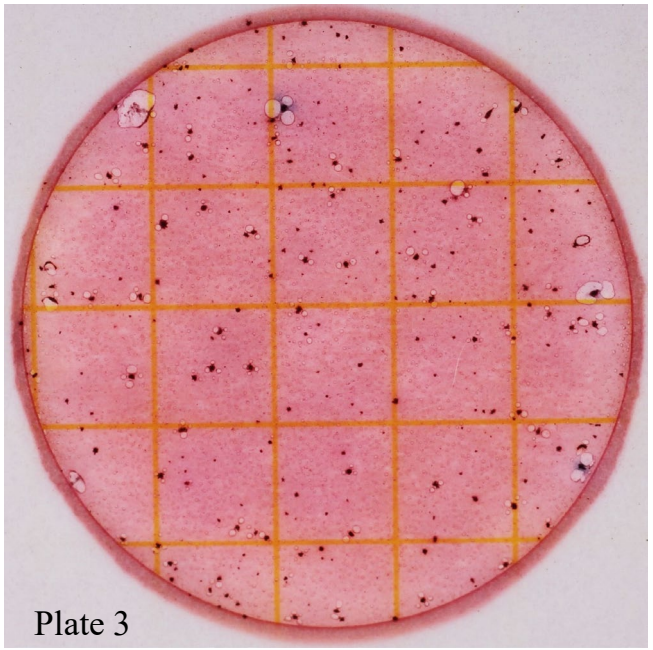




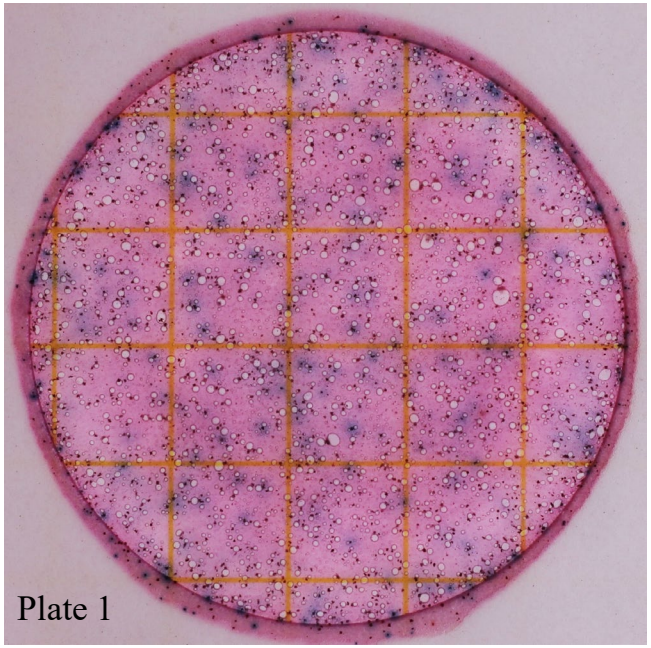
19.

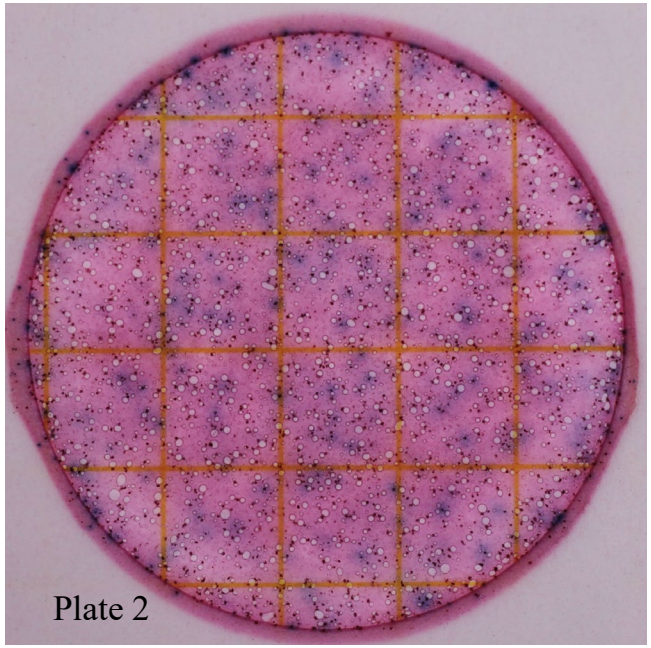


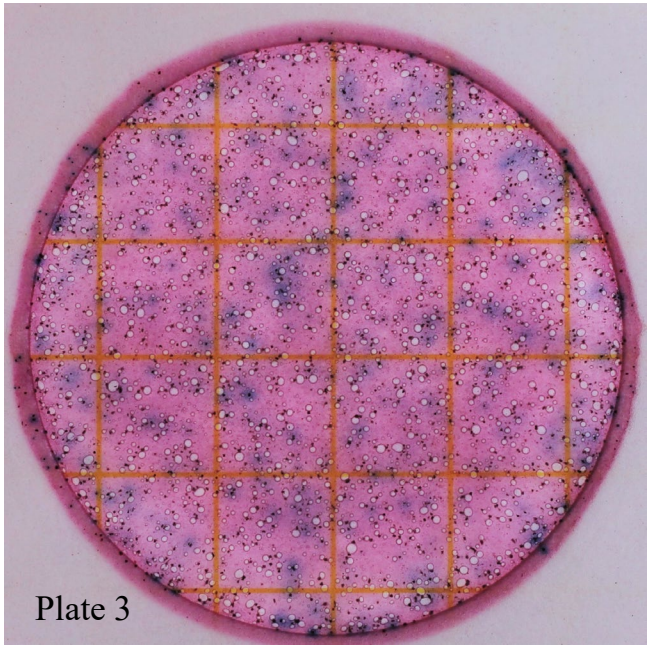




20.







21. Which one of these plates would be acceptable as a blank?