



The Water Drop and Lake Monitor

Volume 34 Issue 2

June 2020 Newsletter

Ferrum College

Edited By: Samuel Chappell

2020 WATER QUALITY UPDATES

REMINDERS

- Please send us your verbal description of your sample site to update our database.
- Please continue to include date, time, and full site identification number, labeled on corresponding bottles, on your filters. Your cooperation will not only help us prevent mix ups that result in voided samples but can help solve problems and prevent any samples from going to waste.
- Please remember to fold algae filters and place in black bags as they are sensitive to light.
- Please feel free to email us concerning any issues, concerns or questions you may have and we will do our best to promptly respond.
- And please have a great time and be safe on the water and always wear your life jackets.

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Now that we have all entered the official start of summer, the program is going well with regard to sampling and lab work at Ferrum College. We spend our day on the lake every Tuesday collecting various samples. With the help of your dedication and hard work, we are able to collect a large array of samples that would be nearly impossible to do on our own. This project could not be done without you all, and we are thankful to have the opportunity to work with everyone as a team. On behalf of the Smith Mountain Water Quality Lab crew, thank you for all the work you do to help us and your community. We continue to work on analyzing the samples we are receiving and despite the few occasions of heavy rainfall and debris into the lake we are having great results in all analyses and results so far, reflecting the great water quality of Smith Mountain Lake.

Thanks to one of our monitors and other residents, we were able to observe algal blooms in a few coves at the lake a few weeks ago, likely due to the flooding. Algal blooms (large numbers of algae in one area) tend to dissipate very quickly, but we were able to obtain a few samples and analyze them in the lab. There were blooms of blue green alga, *Anabaena circinalis*, that can be harmful to the public. Fortunately, it dissipated within a couple of days. With the higher amounts of rainfall early this season, algal blooms can become more apparent. Here is a link to an educational video for help in identification of algal blooms in case you happen to see one when you are out on the lake: https://youtu.be/8nL_s77FV-o

Thanks go to Tim Pohlad-Thomas, a former member of the water quality team, for volunteering to develop an online reporting form for lake residents to submit observations of algal blooms from their cell phone or computer. It can be accessed at: <https://bit.ly/SMLAlgae>. More information is available from the Smith Mountain Lake Association.

Our bacteria crew has just finished the third set of bacteria samples, and the level of *E. coli* in the lake is quite low. We had no samples above the safe VDH levels of bacteria this week, which is great news.

Please continue with all the great work you do which helps us inform the surrounding communities of the water quality of Smith Mountain Lake.

FREQUENTLY ASKED QUESTIONS

Question:

What should I do if I notice anything unusual on the lake (odd looking algae blooms, fish kills... etc)?

Answer:

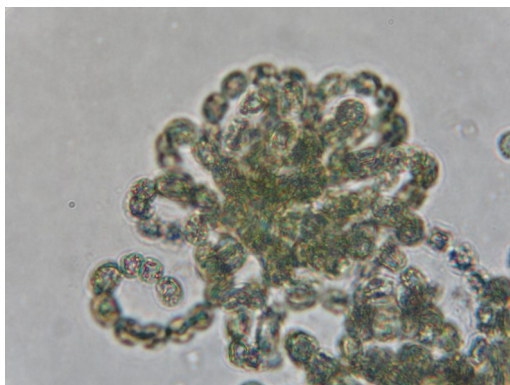
Call the lab at (545)-365-4612 or email us at wqp@ferrum.edu, and we will look into it, you can also contact Mike McCord at McCordSML@gmail.com

Question:

When I'm collecting a water sample, do I take it at the Secchi depth?

Answer:

No, to take a water sample, double the Secchi depth and take a sample from that depth; this gives us a sample of water from all of the photic zone of the water, with all of the photosynthesizing organisms represented.



An image of *Anabaena circinalis* from Smith Mountain lake.

Question:

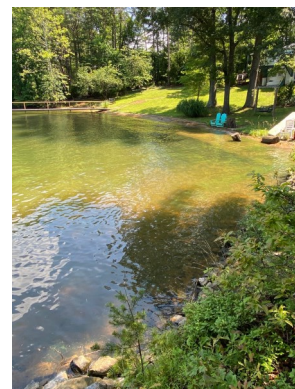
The rope on my Secchi disk keeps stretching and shrinking; do I need a new rope, or is there anything I need to do with my rope to stop it from stretching and shrinking?

Answer:

This is normal, and it is perfectly fine. The reason you only record to the nearest quarter meter is to account for stretching and shrinking of the rope. Nothing needs to be changed or swapped out unless you think the rope is going to break or if you will lose the Secchi disk; if this is the case, email us at wqp@ferrum.edu or call the lab at (540)-365-4312. (Leave a message if no one answers, and we will get back to you as soon as we can!)

Smith Mountain Lake in the News

The Water Quality Monitoring Program was recently featured in a WDBJ7 report. We were happy with the end result which can be viewed here: <https://www.wdbj7.com/2020/07/03/programs-monitors-water-quality-on-smith-mountain-lake/>



Above are a couple photos of an algal bloom near Contentment Island.

Tentative Secchi Readings (meters):

Week 1: 1.45 m

Week 2: 1.68 m

Tentative Total Phosphorous for SML and Tributaries:

Week 1: 46.91 ppb

Week 2: 58.89 ppb

Tentative Chlorophyll *a*:

Week 1: 13.33 ppb

Week 2: 7.13 ppb

Tentative Cumulative Algae:

Blue Green: 20%

Diatoms: 17%

Green Algae: 63%

June/July 2020

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|------|------|--|------|------|------|------|
| 6/28 | 6/29 | 6/30 | 7/1 | 7/2 | 7/3 | 7/4 |
| 7/5 | 7/6 | 7/7 #3 Sample Pickup #3 Depth profile | 7/8 | 7/9 | 7/10 | 7/11 |
| 7/12 | 7/13 | 7/14 #4 Bacterial Sample | 7/15 | 7/16 | 7/17 | 7/18 |
| 7/19 | 7/20 | 7/21 #4 Sample Pickup #4 Depth profile | 7/22 | 7/23 | 7/24 | 7/25 |
| 7/26 | 7/27 | 7/28 #5 Bacterial Sample | 7/29 | 7/30 | 7/31 | |

* Photo Opportunity *

Please, please, please, take photos of you sampling and of your sampling sites! We just might put them in the next newsletter!

And feel free to let us know of any updates or anything interesting that you thing might be worth a mention.

Schedule of Events

- 7/7- 3rd SML Water Sample Pickup by Ferrum and 3rd depth profile
- 7/12-7/18- 4th SML Sampling Week (Green)
- 7/14 - 4th SML Bacterial Sampling
- 7/21 -4th Sample Pick-up by Ferrum and 4th depth profile
- 7/26 - 8/1- 5th SML Sampling Week (Orange)

Remember that samples can be left at the Smith Mountain Lake Office. The Office is located beside Dairy Queen on Route 834 Scruggs Road . The entrance is in the back of the building. Be sure to call the Smith Mountain Lake Office before dropping off samples as well as notify our lab by our contact information below. We leave the building by 7:00 am on sampling days, so if you can call prior to pick up date, that would ensure that we pick up your samples at the correct location.

Contact Information:

Ferrum College Water Quality Lab

80 Wiley Drive

Ferrum Va. 24088

Phone: 540-365-4312

Email: wqp@ferrum.edu

[SML Water Quality Webpage](#)