

	Environmental Analysis Teaching and Research Laboratory	Date: X/XX/XXXX	Number: X
	Standard Operating Procedure	Title: SOP Title	
	Approved By: TBD	Revision Date: March 8, 2019	

1. Scope and Application

1.1 The scope of this SOP is train researchers...

1.2 The applications of this SOP are for...

2. Summary of Method

2.1 This SOP does this...

Contents

1	Scope and Application	1
2	Summary of Method	1
3	Acknowledgements	3
4	Definitions	3
5	Biases and Interferences	3
6	Health and Safety	3
	Safety and Personnel Protective Equipment	3
7	Personnel & Training Responsibilities	3
8	Required Materials and Apparati	3
9	Reagents and Standards	3
10	Estimated Time	3
11	Sample Collection, Preservation, and Storage	4
12	Procedure	4
13	Data Analysis and Calculations	4
14	QC/QA Criteria	4

15 Trouble Shooting	4
16 References	4

3. Acknowledgements

4. Definitions

4.1 Term1: is...

5. Biases and Interferences

5.1 Biases and interferences can come from...

6. Health and Safety

6.1 Describe the risk...

Safety and Personnel Protective Equipment

7. Personnel & Training Responsibilities

7.1 Researchers training is required before this the procedures in this method can be used...

7.2 Researchers using this SOP should be trained for the following SOPs:

- SOP01 Laboratory Safety
- SOP02 Field Safety

8. Required Materials and Apparati

8.1 Item 1 w/catalog number!

8.2 Item 2

9. Reagents and Standards

10. Estimated Time

10.1 This procedure requires XX minutes...

11. Sample Collection, Preservation, and Storage

- Separate water into 500 mL samples
- Vacuum filter each sample through a glass-fiber filter (Whatman grade 934-AH, diameter 42.5mm, 1.5 μ m pore)
- Pour 20 mL acetone through the filter to resuspend remaining plastics
- Remove filter paper, and add 600 μ L of 1mg/mL Nile Red solution to cover the paper uniformly
- Incubate the filter paper on a watch glass in the oven at 60C for 10 minutes
- Repeat the last two steps on a clean filter paper as a control
- Randomly choose 5 points on the filter papers
- Use the Echo Revolve RVL-100-B hybrid microscope. Use the blue LED light to excite the Nile Red at 460 nm, then monitor the emissions at 525 nm using the GFP setting
- Quantify the MPPs (use intensity 89
- Calculate the average number of particles per point for each sample filter paper. Then calculate the average for the control, and subtract that from your sample number.
- Using the "measure" tool in the "annotate" section of the Revolve iOS software, determine the field of view of the microscope.
- Multiply the sample number of particles by the field of view to obtain the total concentration for each filter paper

12. Procedure

12.1 Prepare ...

12.2

13. Data Analysis and Calculations

14. QC/QA Criteria

15. Trouble Shooting

16. References

- 16.1 APHA, AWWA, WEF. (2012) Standard Methods for examination of water and wastewater. 22nd American Public Health Association (Eds.). Washington. 1360 pp. (2014).