

EXHIBIT D

Ohio Lake Management Society (OLMS)--Citizen Lake Awareness & Monitoring (CLAM)
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SAMPLE METHODS FOR HARMFUL ALGAL BLOOMS (HABs) IN LAKES AND PONDS (3/2013)

A. GENERAL INSTRUCTIONS

Select an area of the lake to sample that has known public contact with lake water with seasonal algae blooms, such as swimming beach, boat dock, fishing area. You will be collecting samples of lake water to be tested for counts (#/100 ml) of cyanobacteria genera ("blue-green algae") and HAB chemicals such as microcystin (ug/l). You also may be asked to collect a sample for lake water nutrients TP and TN. All the proper sample jars will be provided in the Box to Mail that you receive with your sample kit.

Collect samples only from Sunday to Wednesday (If you collect on Sunday, cool sample overnight in the field cooler provided and mail on Monday).

Collect samples between 8:00 am and 6:00 pm

Mail samples as soon as possible but no later than 24-hours after collection.

Keep samples cool and in the dark at all times after collection.

Never freeze samples.

Do not sample if raining.

For personal protection always use vinyl gloves and goggles when collecting samples

Keep all samples away from children and pets.

B. BEFORE YOU LEAVE HOME TO SAMPLE

1. Review checklist of sample equipment that you need to place into the field Tote Bag.
2. Freeze the ice packs in the field cooler and all ice packs in the Box to Mail.
3. Take a digital camera for pictures of the extent of algae bloom each time you sample.
 4. Do not plan to sample unless you can mail samples within 24 hours after collection.
5. Check weather forecast for area where samples will be collected.

C. HOW TO COLLECT THE LAKE WATER SAMPLE

1. **Important:** For personal protection always use vinyl gloves and goggles provided while touching sample containers and collecting and pouring lake water samples that may contain cyanobacteria ("blue-green algae") toxin chemicals.
2. Remove the glass jar (for microcystin and other chemical tests) and plastic jar with iodine solution (for algae) from the mailing box and the nutrient jar if requested.
Use X-fine sharpie pen provided to record the lake name, date and time on each sample jar.
3. Use the metal bucket with rope to collect a grab sample of surface water from the lake.
 - Do not walk into water or stir bottom sediments with the bucket.
 - Do not skim water surface to collect sample, rather let the metal bucket fall into the lake water to a depth of 3-4 inches.
4. Collect 3 surface grab samples from each test location. For a swimming beach or fishing area collect the 3 samples about 30 feet apart. For boat docks collect samples from all sides of the dock.

C. HOW TO COLLECT THE LAKE WATER SAMPLE (Continued)

6. Pour each of the 3 bucket samples into the glass compositing mason jar. For each bucket sample pour 8 oz (1 cup) of lake water into the mason jar. Composite a total of 24 oz (3 cups) of lake water in the mason jar. Put the lid on the mason jar and gently mix the water.
7. Place the glass and plastic sample containers into the white basket. Carefully remove the lids from the sample containers. Use vinyl gloves and goggles while pouring lake water. **Be very careful of the plastic jar with iodine solution.**
8. Carefully pour water from the glass mason jar into the sample containers to the [— **fill-line**—] marked on each container. Be careful not to overfill the sample containers above the [— **fill-line**—].
9. Tighten the lids on each sample container. Invert each container to look for leaks. Dry the lid. Use the black electric tape to double wrap the lid to the container.
10. Immediately place sample containers into zip-lock bags with frozen ice packs into the field cooler. Always keep samples cool and in the dark after they are collected.
12. Place the used bucket and mason jar into plastic trash bag for transport to home for cleaning. Use gloves to clean all sample equipment with warm water using three washes. Rinse and dry all sample equipment before next sample event.
13. Complete the **Chain-of-Custody** form and **Field Form** for the marked sections. Put paper forms to mail on top of the thermal insert within the Box to Mail.

D. HOW TO PREPARE SAMPLES FOR MAILING AT US POST OFFICE

1. It is important that samples be mailed as soon as possible, but no later than 24 hours after collection. If samples must be held at home, place samples into the field cooler to keep cool before packing to mail. **DO NOT FREEZE SAMPLES.**
2. Place plastic container with iodine preservative into the small zip-lock bag. Wrap the glass sample container with bubble wrap. Place both sample containers into zip-lock bags.
3. Place one pre-frozen small ice packs into the zip-lock bag next to the glass sample container. Place the remaining ice packs into the thermal insert of the Box to Mail. Be sure the sample containers are upright. Stuff bubble wrap around the glass jar.
4. Seal shut the top of the thermal insert with packing tape. Add the small plastic bag with the Chain-of Custody and Field Form on top of the thermal insert.
5. Tape the Box to Mail shut using the packing tape. Secure front and both sides.
6. Hand deliver the Box to Mail to US Post Office window. Mail the Box with postage due for **PRIORITY MAIL** with **DELIVERY CONFIRMATION**. Keep postage paid and delivery confirmation receipts for your records. Explain that the Box to Mail contains lake water samples and glass container and no hazardous substances.

E. NUMBER OF SAMPLES TO COLLECT

1. Collect 6 samples on alternating weeks from July 1 to September 30, which will allow for statistical analysis of seasonal trends.