



# SAMPLE COLLECTION INSTRUCTIONS

## RECREATIONAL WATER for COLIFORM and E. COLI BACTERIA ANALYSIS



This sample kit and collection method is for recreational and environmental water samples for bacterial analysis. Only samples collected in bottles supplied by the Missouri State Public Health Laboratory (MSPHL) and collected in accordance with these instructions will be accepted for testing. **PLEASE READ THESE INSTRUCTIONS COMPLETELY BEFORE COLLECTING SAMPLES.**

**Sample Containers:**

Sample bottles from the MSPHL contain a chlorine neutralizer that is present in powder or liquid form. The bottles are sterile and ready for use when shipped. **Do not rinse the contents from the container and keep the bottle closed until it is to be filled.**

**Shrink Wrap Seal:**

Remove the seal by pulling down on the red strip and peeling shrink wrap from both the cap and bottle. Discard all shrink wrap. Do not attempt to reseal lid with shrink wrap still attached.

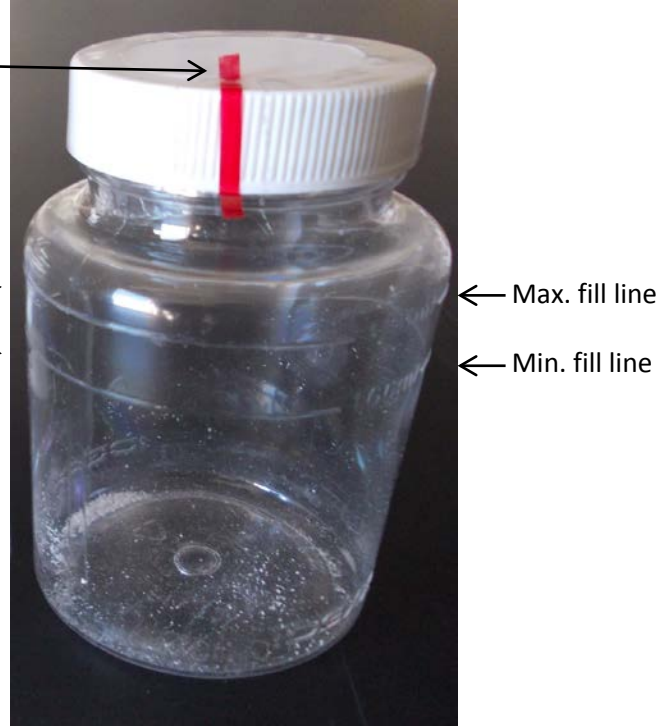
**Two Fill Lines:**

**Fill the bottle until the water sample level is BETWEEN THE TWO LINES.** Place the bottle on a level surface to check the sample level. **Samples below the 100 mL (lower) line WILL NOT BE TESTED due to insufficient sample volume. Samples above the 120 mL (upper) line WILL NOT BE TESTED due to overfilled bottle.** Technical protocols dictate that bottles must have sufficient air space to add testing reagents and to mix the sample properly.

If the bottle is overfilled past the 120 mL line, pour off water until the sample volume is between the two lines before shipping to MSPHL. MSPHL **WILL NOT** adjust sample volume once the sample is received at the lab.

**No Paper Label:**

There is no longer a label to record sample information on the bottle. **DO NOT WRITE ON THE BOTTLE.** Please complete a sample collection form for each sample submitted for testing. **DATE AND TIME OF SAMPLE COLLECTION and the BOTTLE NUMBER (from sticker on bottle) ARE REQUIRED.** A form for each bottle is included in this sample kit.



**For More Information, please contact:**

Missouri Department of Health and Senior Services  
 State Public Health Laboratory  
 Environmental Bacteriology Unit  
 101 North Chestnut St., P.O. Box 570  
 Jefferson City, MO 65102  
 Phone: 573-751-3334  
 FAX: 573-522-4032  
 Email: [labweb1@health.mo.gov](mailto:labweb1@health.mo.gov)  
 Website: [www.health.mo.gov/Lab](http://www.health.mo.gov/Lab)

# **Bacteriological Sample Collection Procedures**

## **For Recreational Waters**

### **(Swimming Pools and Bathing Beaches)**

Assemble all sample supplies. Wash your hands thoroughly before handling supplies or collecting samples. Follow the procedures below when collecting the sample. Instructions for completing the Environmental Sample Collection Form are on the following page.

#### **Collection of Samples:**

##### **Swimming pools:**

1. Collect samples in the area of, and during the time of, maximum bather density.
2. Samples should be collected from the deep and shallow ends of the pool, collecting at points between return water inlets.
3. Remove and discard the shrink wrap seal.
4. Carefully remove the cap of the sterile sample bottle and hold bottle near its base at an angle of 45°.
5. Quickly plunge the bottle vertically into the water approximately 8 inches (20 cm) and fill in a slow sweeping motion, making sure that the sodium thiosulfate is not washed out.
6. Hold the bottle upright and level to check the volume. If water level is above the 120 ml (upper) line, slowly pour off the sample until the volume is between the two lines. Sample should be as close as possible to the 100 ml (lower) line, but not below it.
7. Complete the Environmental Sample Collection Form for Recreation Water.

##### **Bathing Beaches:**

1. Sampling should be from water at established beaches, and be collected in water depths of three to six feet and at a depth of one foot.
2. Use a boat or wade carefully to prevent stirring up bottom sediments.
3. Remove and discard the shrink wrap seal.
4. Holding the bottle horizontally (on its side) with both hands, lower the bottle into the water to a depth of approximately one foot.
5. Quickly remove the lid and allow the water to fill the bottle. Replace lid before removing the bottle from the water. Holding the bottle sideways in the water will allow the proper volume of water to enter the bottle.
8. Hold the bottle upright and level to check the volume. If water level is above the 120 ml (upper) line, slowly pour off the sample until the volume is between the two lines. Sample should be as close as possible to the 100 ml (lower) line, but not below it.
6. Complete the Environmental Sample Collection Form for Recreational Water.

Follow the Shipping Instructions on page 4.

For more information, contact the Missouri State Public Health Laboratory's Environmental Bacteriology Unit at 573-751-3334.

**INSTRUCTIONS FOR COMPLETING ENVIRONMENTAL SAMPLE COLLECTION FORM**  
**Recreational Water Bacterial Analysis**

**PRINT LEGIBLY** using water proof ink. A standard ink pen is sufficient. **Complete ALL sample information lines on the form.** Some sections of the form may already be completed by the laboratory computer system when the forms are printed. **To make corrections, please draw a single line through the inaccurate information and print the corrected information behind it.** The sections of the form and directions for completing each line are as follows:

**Order #:** For Missouri State Public Health Lab (MSPHL) purposes only. Pages in Order and Containers in Order indicate number of forms and sample bottles shipped in the sample kit order.

**REPORT TO:** Submitter / Collector Agency name and shipping address on file with the Missouri State Public Health Laboratory (MSPHL). Please review and correct if necessary. Result reports and sample kits will be mailed to this address.

**BILL TO:** Section defaults to REPORT TO information. You will receive an invoice for payment for testing with your mailed results reports.

**Requested Analysis/Tests:**

This section will state **RECREATIONAL WATER BACTERIAL ANALYSIS**. If it does not, you may have the wrong collection form. Please contact the MSPHL for the proper form. If you have been directed by the laboratory or local public health agency representative to request a different test, please write it in the blank space in this section. You must have prior approval from the laboratory to request different or additional testing.

**Complete or correct the following information:**

**All lines are considered required information unless indicated as NOT REQUIRED. Failure to complete a line may result in an invalid sample.**

**Collected Date:** Enter the date of sample collection in the format YYYY-MM-DD. Use 4 digits for year and 2 digits for month and date. November 1, 2015 would be written as 2015-11-01.

**Collected Time:** Enter the time of sample collection using 24-hour military format hh:mm. For samples collected in the morning between midnight (00:00) and noon (12:00) record as usual. For samples collected in the afternoon or evening between 1:00 p.m. (13:00) and 11:59 (23:59) add 12 to the hours. For example, a sample collected at 2:30 p.m. would be entered as 14:30. Any sample with a collected time before 12:00 would be considered as collected in the a.m.

**Collector:** Enter your last name, first name. **Collector Phone:** Enter your 10-digit day time phone number.

**Collection Location Street Address:** Enter the street address of the location where the sample was collected.

**Collection Location City:** Enter the city name of the location where the sample was collected.

**Collection Location State:** Enter the state of the location where the sample was collected.

**Collection Location Zip Code:** Enter the zip code of the location where the sample was collected.

**Collection Site Type:** Enter one of the following options:

**Bathing Beach – Shallow:** Natural or man-made bathing beach. Collected at one foot depth.

**Bathing Beach – Deep:** Natural or man-made bathing beach. Collected at three to six foot depth.

**Swimming Pool**

**Wading Pool**

**Spa or Hot Tub:** Includes therapy pools.

**Non-recreational water:** Lake, river or stream not associated with a swimming site. This type of sample is usually associated with an environmental assessment performed by State or local health officials. This type of sample requires permission from MSPHL prior to testing.

**Bottle Number:** Enter the number from the label on the bottle. This is used to match collection forms to samples.

**Owner:** If applicable, enter the last name, first name of the property owner or current resident of the location where the sample was collected.

**Owner Telephone Number:** If applicable, enter the 10-digit phone number of the property owner or current resident. This may be the same as Collector Phone above.

**Collection Location Facility Name:** If applicable, enter the name of the facility (business, agency, public facility) of the location where the sample was collected.

**Collection Location County:** Enter the county of the location where the sample was collected.

**Collection Location GPS Latitude:** NOT REQUIRED. If known, enter the GPS latitude (numerical format only).

**Collection Location GPS Longitude:** NOT REQUIRED. If known, enter the GPS longitude (numerical format only).

**Additional Sample Site Note:** NOT REQUIRED: You may provide any other additional information as needed to describe the sample site.

All other sections of the form are for MSPHL use only. If you have any questions, please contact the MSPHL Environmental Bacteriology Unit at (573) 751-3334.

## **Shipping Instructions:**

**Recreational water samples must be received by the laboratory and tested within 48 hours of the date and time of collection. The MSPHL recommends you use the free DHSS contract courier for overnight delivery to the MSPHL.** This courier picks up at most local public health agency offices and hospitals (Note: Not all hospitals will accept water samples for courier pick up). For sample drop off locations and times, please go to <http://www.health.mo.gov/lab/courierservices.php> and click on the interactive map or the listing of drop off locations by county; or you may call the MSPHL courier liaison at (573) 751-4830.

**Please note the courier is allowed to pick up samples within one hour of the scheduled time (before or after).** The earliest pick up time is at 10:30 a.m. To ensure your samples meet the transit time requirement of 48 hours, it is important that you collect your samples in the morning and have them dropped off at the courier pickup point one hour prior to the scheduled time.

Use of the U.S. Postal Service or other commercial carriers such as Fed Ex or UPS will require additional charges and may not meet the 48 hour transit time requirement.

**Samples should not be en route to the laboratory over a weekend or state holiday** (New Year's Day, Martin Luther King Day, Lincoln's Birthday, Washington's Birthday, Truman's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas.)

**Please collect and submit samples Monday-Thursday to ensure samples arrive at the laboratory no later than Friday.**

**Test results will be mailed within two to three business days of receipt of the sample.**

For frequent clients of the MSPHL, test results are also available immediately upon completion of testing through the MSPHL's new on-line web portal. This web portal allows MSPHL clients to check status of samples, print final reports and export data to spreadsheets for analysis. This portal will also allow clients to receive emails when their samples are received in the laboratory, and when their sample results are available on-line. Please contact Shondra Johnson, MSPHL LIMS Administrator at [Shondra.Johnson@health.mo.gov](mailto:Shondra.Johnson@health.mo.gov) or at (573) 751-3334 for instructions on how to request access to the web portal.

**Additional sample bottles** can be ordered on-line at <http://www.health.mo.gov/lab/specimentestforms.php> or by calling the MSPHL Central Services Unit at (573) 751-4830.

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**For more information about recreational water and health issues, contact your local county health department's Environmental Public Health Specialist, or the Missouri Department of Health and Senior Services at the following:**

**Missouri Department of Health and Senior Services  
Section for Environmental Public Health  
930 Wildwood Drive  
P.O. Box 570  
Jefferson City, MO 65102  
(573) 751-6141**

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**For more information on recreational water testing, please contact the Missouri State Public Health Laboratory at the following:**

**Missouri Department of Health and Senior Services  
State Public Health Laboratory  
Environmental Bacteriology Unit  
101 North Chestnut Street  
P.O. Box 570  
Jefferson City, Missouri 65102  
573-751-3334  
[www.health.mo.gov/Lab](http://www.health.mo.gov/Lab)  
Email: [labweb1@health.mo.gov](mailto:labweb1@health.mo.gov)**

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