

Knox County Adopt-A-Watershed Bacteriological Data Reporting Form

Watershed: _____ Teacher: _____ Course/Block/Period: _____	Data Collectors (include first/last names & any class/investigative team name): _____ _____	
Date: _____	Time of Sampling: _____	
Stream Name: _____ Stream Mile Marker: _____ Location (specific road directions to the site & its location on stream – include landmarks. Example: 100 ft. below crossroads of Main and Second Streets): _____ _____		
Weather in past 24 hours <input type="checkbox"/> Storm (heavy rain) <input type="checkbox"/> Rain (steady rain) <input type="checkbox"/> Showers (intermittent rain) <input type="checkbox"/> Overcast <input type="checkbox"/> Clear/Sunny	Weather now <input type="checkbox"/> Storm (heavy rain) <input type="checkbox"/> Rain (steady rain) <input type="checkbox"/> Showers (intermittent rain) <input type="checkbox"/> Overcast <input type="checkbox"/> Clear/Sunny	Physical Measurements Water Temperature: _____ °C Turbidity: _____ (cm) Flow: _____ ft ³ /s (attach stream flow calculations)
Water Odors <i>Check all that apply</i> <input type="checkbox"/> Normal <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Chemical <input type="checkbox"/> Other: _____	Water Color Appearance <i>Check all that apply</i> <input type="checkbox"/> No unusual color <input type="checkbox"/> Multi-colored (oily sheen) <input type="checkbox"/> Brown/muddy <input type="checkbox"/> Milky/white <input type="checkbox"/> Foam/Suds <input type="checkbox"/> Other: _____	Algae <i>Check all that apply</i> <input type="checkbox"/> Minimal growth <input type="checkbox"/> Covers substrate <input type="checkbox"/> Floating in spots <input type="checkbox"/> Thick mats
Site Observations (Describe any notable physical (e.g., bends in stream; eroded banks) and/or biological (e.g., lacks riparian cover; recently cut trees) features) _____ _____ _____		

Notes from the Field <i>(Include any tentative interpretations about the bacteria results based on field observations)</i>
_____ _____ _____

Bacteriological Test Results					
! Plated at site (media poured into petri dish)					
! Sample collected in media bottle & transported on ice before plating (2 hrs or less)					
Incubation temperature: ____ ° C Best if between 29°-37°C (85-99°F)					
Time sample plated: ____ Time sample read: ____ Total incubation period: ____					
Column A Sample #	Column B Sample Volume	Column C # <i>E. coli</i> colonies/plate (dark blue-purple)*	Column D # <i>E. coli</i> /100 ml sample**	Column E # of general coliform colonies/plate (pink/dark red)*	Column F # of general coliform/100 ml sample**
1					
2					
3					

*Only count colonies that are readily visible to the naked eye. Do not use a hand-lens to count colonies and do not count "pin point" sized colonies.

**To estimate results in a 100 ml sample, first divide the number of colonies by the sample volume and then multiply by 100.

Example: 2 *E. coli* colonies counted in a 1 ml sample

Calculation: 2 colonies % 1 ml sample volume = 2

 2 x 100 = 200 colonies/100 ml sample

Bright Blue/Green or Turquoise Colonies
These colonies are probably not coliforms. This non-coliform group can, however, contain members of the genera <i>Salmonella</i> and <i>Shigella</i> which can be pathogenic.
Record number present in dish: _____

Quality Control Measures (Check only if action was taken)		
<input type="checkbox"/> Followed written procedures	<input type="checkbox"/> Used sterile pipette	<input type="checkbox"/> 29°-37°C (85-99°F)
<input type="checkbox"/> Checked media expiration date	<input type="checkbox"/> Front of form completed	<input type="checkbox"/> Described sampling/plating problems, if any (below)

Sampling &/or Plating Problems (Describe any problems with equipment, sampling techniques)
<hr style="border: 0; border-top: 1px solid black; margin-bottom: 10px;"/> <hr style="border: 0; border-top: 1px solid black;"/>