

Kentucky Division of Water

INSTRUCTIONS FOR: BACTERIOLOGICAL ANALYSIS REPORT FORM

DESCRIPTION OF DATA ELEMENTS:

PWS ID (KY#####)

Public Water System ID. Uniquely identifies a water system. This is a required data element for all sampling reports. Sampling reports received without a valid PWS ID cannot be processed for compliance purposes. Each form can contain samples from only one PWS.

COMPLIANCE PERIOD (mmyyyy)

Indicates the monthly period to which the samples will be applied. Generally this is the month in which the samples are collected. However, if a routine sample is collected at the end of the monthly compliance period and the repeat samples are not collected until the first day of the following month, this data element allows the repeat samples to apply to the correct monitoring period (ie. the month in which the positive routine sample was collected.)

COLLECTION DATE (mmddyyyy)

This is the date the samples were collected. Each form can contain only samples that have been collected on the same day. Use a new sheet for each day that samples are collected.

LAB ID

This is the 5-digit code assigned by Kentucky to each laboratory certified to conduct bacteriological analyses. Uniquely identifies the laboratory that performs the analysis of the sample.

LAB RECEIPT DATE (mmddyyyy)

Identifies the date the sample was received at the laboratory.

ANALYSIS DATE (mmddyyyy)

This is the date the sample was analyzed by the laboratory.

TOTAL COLIFORM ANALYSIS METHOD CODE

Coded value that represents the total coliform analysis method used for all the samples listed on the sampling sheet. (See revised list of Analysis Method Codes)

E. COLI ANALYSIS METHOD CODE

Coded value that represents the *E. coli* analysis method used for any samples listed on the sampling sheet that have been analyzed for *E.coli* following a positive total coliform result. (See revised list of Analysis Method Codes)

SAMPLE TYPE

Coded value that represents the type or purpose of the sample collected. There are five acceptable values for this field. **Routine (RT)** samples (formerly known as distribution samples) are those collected for the purpose of compliance with the Total Coliform Rule and are collected on a monthly basis. **Repeat (RP)** samples (formerly known as check samples) are collected after the PWS has been notified that a routine sample has tested positive for total coliform. Repeat samples must reference the laboratory sample number of the original positive routine sample. (See discussion under heading LAB SAMPLE NUMBER OF ORIGINAL SAMPLE).

Triggered (TG) samples are raw water well samples collected for the purpose of compliance with the Ground Water Rule. Triggered samples are required of ground water systems that do not provide 4-log treatment for viruses and have had a total coliform positive compliance sample. **Confirmation (CO)** samples are raw water well samples collected for the purpose of compliance with the Ground Water Rule. Confirmation samples are required of ground water systems that do not provide 4-log treatment for viruses and have had an *E. coli* positive triggered sample. **Special (SP)** samples are collected in response to conditions or situations specific to the PWS such as line breaks, emergency repairs, line extensions, etc. Special samples are NOT to be used for determinations of compliance and cannot substitute for any failure to collect the required minimum number of routine samples nor can any special samples be considered a substitute for repeat samples

SPECIAL SAMPLE REASON

Coded value indicating the reason special samples were collected. Special sample reason codes are listed in the key on the report form.

REPLACEMENT SAMPLE (Y or BLANK)

Indicates that the sample is a replacement for a sample that has resulted in confluent growth (CNFG) or Too Numerous to Count (TNTC) but negative for total coliform.

LOCATION CODE

This is the 3-digit code for the sampling point referencing the address or location where a sample was collected within the distribution system of a PWS. A list of approved sampling points is stored in the Kentucky Drinking Water Database (SDWIS/STATE). Routine (**RT**) compliance samples will be rejected if the sampling point is not reported on the form or is not listed as an approved site in the database. When reporting a set of repeat samples (**RP**), the repeat sample taken from the original total coliform positive site must be reported with the same sampling point identified on the original positive routine sample. It is not expected that the upstream and downstream repeat samples will be collected from approved sites. The pre-defined generic sampling points **RPU** and **RPD** should be used to identify the upstream and downstream repeat sampling points respectively. If the original sample was **RPU** or **RPD**, then use **RPO**. Sampling points for special samples (**SP**) should be entered on the form but do not need to be approved sample locations in the database.

REPEAT LOCATION CODE

This element characterizes the sampling point for the repeat sample (**RP**) as one of three types: original (**OR**), upstream (**UP**), or downstream (**DN**). This element is required if the sample type is **RP**. If a repeat location code is entered for any other sample type the entry will be ignored by the data system. If a repeat location code is not entered for a repeat sample (**RP**), the sample will be rejected by the data system and may result in a violation.

SAMPLE TIME (24hr)

Time the sample collection occurred. This field must consist of 4 numeric characters in the 24hr format. Do not indicate AM or PM. Examples: 7:10 am = 0710; 1:25pm = 1325

FREE CHLORINE

Free chlorine disinfectant residual. A PWS using chlorine-based disinfectants other than chloramines is expected to report free chlorine residual measurements. Reporting of total chlorine residuals is optional for these systems. Values are expressed as mg/L or ppm.

TOTAL CHLORINE

A PWS using chloramines for disinfection is expected to report total chlorine residual values. Values are expressed as mg/L or ppm.

LAB SAMPLE NUMBER

This number provides a **unique identifier** for all bacteriologic samples analyzed by a particular laboratory within a given year. The lab sample number can contain up to 20 alpha/numeric characters.

ANALYSIS TIME (24hr)

Time the sample collection was analyzed in the laboratory. This field must consist of 4 numeric characters in the 24hr format. Do not indicate AM or PM. Examples: 7:10 am = 0710; 1:25pm = 1325

RESULT

Enter the total coliform count if coliform bacteria are present and a count is appropriate to the analytical method being used. If coliforms are not present, leave blank. Do not enter 0. This column will also accept the values **TNTC** and **CNFG** for “Too Numerous to Count” and “Confluent Growth”.

TOTAL COLIFORM (P/A)

Indicate presence (**P**) or absence (**A**) of coliform bacteria in the sample. If a total coliform count is entered as **TNTC** or **CNFG** and total coliform (P/A) is entered as **A**, the laboratory shall advise the PWS to collect a replacement sample (replacement of a routine sample) to insure that the required number of routine samples are analyzed during the monthly monitoring period. If total coliform count is entered as **TNTC** or **CNFG** and total coliform (P/A) is entered as **P**, then the PWS will be required to collect a set of three repeat samples (**RP**).

E. COLI (P/A)

TCR: Following a determination that a sample is total coliform positive (Total Coliform (P/A) = P), the laboratory must analyze for the presence/absence of *E. coli* bacteria. Use this column to indicate the presence (**P**) or absence (**A**) of *E. coli*. Make no entry in this column if the total coliform analysis was negative (Total Coliform (P/A) = A) and no analysis was performed for *E. coli*.

GWR: Following a total coliform positive (Total Coliform (P/A) = P), ground water systems not providing 4-log treatment must collect/analyze raw well water for *E. coli*. This field may also be used for the *E. coli* result of the triggered (TG) and confirmation (CO) samples (See discussion under heading SAMPLE TYPE).

LAB SAMPLE NUMBER OF ORIGINAL SAMPLE

TCR: When a routine sample (RT) is positive for total coliform, the PWS must collect a set of three repeat samples (RP). Each of the repeat samples must reference the lab sample number of the original coliform positive routine sample. Failure to record the original lab sample number on a repeat sample will not cause the data system to reject the sample; however, if the original lab sample number is not recorded on each of the three repeat samples, the data system will not be able to confirm compliance with the requirement to collect three repeat samples and a violation may be issued. It is also advisable to reference an original lab sample number when submitting a replacement sample.

GWR: When a groundwater system conducting triggered monitoring under the GWR collects a TG or CO sample, the originating lab sample must be referenced.