

POTABLE (WATER CHECK)

3. Test Procedures

3.2. E.coli/Coliforms Limit: 0 CFU per 100ml

This test procedure uses the Colitag sachets, 100ml sample bags and the UV lamp. The test will take 24 hours to perform. It is important to store the samples at 35°C during this period. This test is very sensitive and as such, it is important to prevent contamination. Ensure that the person performing the sampling and testing has washed hands thoroughly with soap and water. Do not allow the bag to remain open for any period of time, other than to take the sample and add the Colitag sachet. Do not let the sample point touch the bag.

1. Take one of the 100ml sample bags and collect 100ml of water to be tested. Use the pictorial guide below for sampling procedure.
Note: It is important that the sample point is free from potential contamination. If necessary clean the sample point thoroughly prior to sampling.
2. The sample bag contains a tablet to neutralise any chlorine that may be present in the sample. Allow this tablet to dissolve before continuing to step 2.
3. Carefully add the contents of one Colitag Sachet to the 100ml sample. Agitate gently to aid dissolution. Incubate the sample at 35.0°C +/-0.5°C for 24 +/- 2 hours.

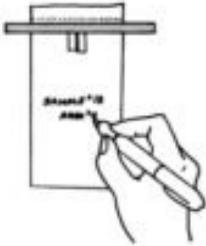
Sample Interpretation

- a. Visually check the sample for yellow colour. If sample is yellow then total coliform bacteria are present.
- b. Place the sample in a dark area and expose to long wave UV light by shining the UV lamp supplied on the sample. If the sample fluoresces (glows a blue colour), E. coli bacteria are present.
- c. If no yellow colour in the test sample is observed after the 24 +/- 2 hour incubation period, the sample should be recorded as negative for coliform bacteria and E. coli (0 CFU per 100ml)

Product Storage: Store at 4°C to 30°C, (preferably 4°C to 7°C) away from the light.

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Pictorial Sampling Guide



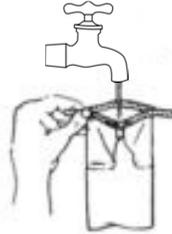
1. Label the bag with sample information if necessary



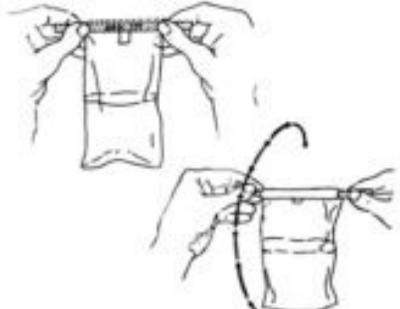
2. Tear off the top of the bag along the perforation



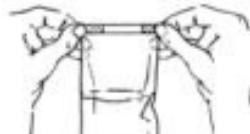
3. Use the pull tabs on each side to open the bag. Sometimes a little pull on the bottom of the bag helps open it completely.



4. Fill the bag with 100ml of sample water from the clean outlet/faucet.



5. Pull the ends of the wire to close the bag. Holding the bag by the wire ends, whirl the bag three complete revolutions to form a leakproof seal. Whirling the bag will form a tight seal. Alternatively, fold the tab over as tight as possible.



6. Bend the wire ends over onto the bag to complete the closing.

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3.3 Hardness Ideally <500 mg/l

Nitrate Limit 50 mg/l

Nitrite Limit 3 mg/l

pH Ideally 6.9 to 9.5

These four tests are performed using strips. Nitrate and Nitrite are determined using the same strip. Follow the instructions printed on the side of each bottle. Compare the colour produced on the test strip with the colour chart printed on the side of the bottle. Match the colour and read off the result as mg/l or pH value. Compare this result with the maximum/ideal limits for drinking water quality listed above.

3.4 TDS Ideally < 1500 mg/l

A meter is supplied for the determination of total dissolved solids (TDS). Follow the procedure below for calibration and general testing. It is recommended that the TDS meter is calibrated once per month.

1. Insert the batteries supplied and turn on the power switch.
2. Remove the end protection cap and pull out the electrode to the desired length, taking care not to touch the two pins on the end of the electrode.
3. Rinse the electrode with clean water and remove any excess water with a tissue.
4. Immerse the electrode in the calibration fluid (0.1N KCl). Stir gently and wait for the display to stabilize.
5. Adjust the reading to 94 by turning the trimmer located at the right side of the meter with a screwdriver.
6. Rinse the electrode with clean water and remove any excess water with a tissue. Dip the electrode into sample water to be tested. Stir gently and wait for the reading to stabilise.
7. Read the measurement on the display and multiply this by 10. (e.g. For a reading of 75, report the result as 750 mg/l TDS).
8. After measurement, rinse with clean water and remove any excess water with a tissue. Replace the protection cap.

Note: Replace batteries when power fails to turn on or the display fades.