

Customer Instructions

Sampling. Sampling is the sole responsibility of the customer. If appropriate sampling procedures are not used, the validity of results cannot be guaranteed. To assist customers to carry out appropriate procedures and obtain valid results, extracts on 'General Procedures and Techniques' are below.

Submission. Microbiological tests generally take between 24 and 72 hours to complete, with some taking up to 7 days (*Legionella*) and samples should be tested within 24 hours of being taken (excluding packaged foods with a use-by). To avoid having staff working on Sunday, samples must be submitted according to the schedule below. Submission must be before 1400 on Friday, to allow same-day testing. Samples submitted after 1400 on Monday-Thursday may be tested the next day.

Test Method (Sample)	Mon	Tue	Wed	Thu	Fri
<i>Ps. aeruginosa</i> (Swimming Pools)	Yes	Yes	Yes	Yes	No
Food - Coliforms/ <i>E. coli</i> (MPN only)	Yes	Yes	Yes	No	No
<i>Vibrio parahaemolyticus</i>	Yes	Yes	Yes	Yes	No
<i>Salmonella</i> spp. (AS5013.10 only)	Yes	Yes	Yes	Yes	No
<i>Campylobacter</i> spp.	Yes	Yes	Yes	Yes	No
Other samples/tests	Yes	Yes	Yes	Yes	Yes

Bottles. The lid of the sampling bottle is marked with tape. Black diagonal lines on the tape indicate that the bottles have been sterilized. The bottles also contain chemicals to neutralize biocides and preserve any bacteria initially present in the sample.

Airspace. An adequate air space is required to ensure that the sample can be properly mixed. Pouring out some of the sample before mixing is not acceptable because bacteria may be unevenly distributed in the sample. The accuracy of the results from such a sample would be questionable.

As a guide, it is recommended that samplers leave an airspace of ~3cm, measured from the rim of the bottle. Bottles submitted with no airspace may be rejected.



Submission forms. Sample bottles go directly to the refrigerator for testing and must be labelled with the same identification details as the submission form. Details recorded on the bottle, but not on the submission form will NOT appear in the final report. Submission forms should be completed with all information needed to register the sample and conduct the correct testing:

- Name of sampler
- Source of samples: locality and site
- Date and time of collection
- Reason for requiring examination and specific tests requested
- Other relevant information, e.g. Water treatment, weather conditions, animal access etc.
- Customer's name & telephone number (other contact details on first submission or change).

Preservation and Storage of Samples

- Samples should reach the laboratory ASAP, preferably within 6 hours of sampling – the time between collection and examination should not exceed 24 hours and if testing must be conducted in this case the report will be annotated: "Sample(s) delivered more than 24 hours from sampling, results may not be accurate."
- Use an eski with eski blocks or ice for transport to the laboratory. The sample should be kept at refrigerator temperature (approximately 5 °C) but **not frozen**.
- If Eskis are to be returned they must be permanently marked or provided with a rotatable label.

Microbiological Examination of Waters

General Sampling Procedures and Techniques

Sampling Procedures – General

- Do not open the sample bottle until the moment it is required for filling. Do not rinse out the bottle before taking the sample because it will remove the chemicals from the bottle.
- When removing the cap, make sure that the fingers do not come into contact with the rim or inner surface of the cap. It is preferable to hold the bottle near the base rather than the neck.
- Fill immediately with water (see below) and screw on the cap, observing the same precautions as for opening, leaving a 3cm air space. Do not touch the rim or inner surface of the cap.

Sampling from a Tap

- Remove external fittings such as rubber tubes.
- Clean outside and inside of tap with a clean rag.
- Turn the tap on full and allow to run for 2-3 minutes to clear service lines. Turn off tap and sterilise the orifice by swabbing with cotton wool, etc, soaked in methylated spirit and igniting it, or by a butane gas burner. Allow flame to heat metal for 30 seconds.
- Cool by turning tap on for 5-10 seconds.
- Fill bottle from a gentle stream of water. Avoid splashing.

Sampling from a River, Spring, Lake, Reservoir or Well

- Take a sample which is representative of water used by the consumer. Therefore, do not sample too near the bank, or too far from draw-off point.
- Care must be taken that the soil on the bank is not disturbed, as this will affect the result of the test. A rigid pole, with the bottle clamped firmly at one end is useful for collecting samples.
- Hold the bottle near the base and plunge it neck downwards below the surface of the water to about 30 cm in depth.
- Turn the bottle until the neck points slightly upwards with the mouth directed toward the current.
- When full, remove the bottle from the water and immediately replace cap.
- If unable to collect samples this way, a sampling pole fitted to hold the bottle may be used, or a weight can be attached to the bottle which can then be lowered into the water using a rope.

Sampling from Hand Pump

- Pump for about 5 minutes before collecting sample.
- Flame mouth of pump, as described above, and flush again.
- Collect sample directly from pump to bottle.

Sampling from a Swimming Pool

- Collect microbiological samples at a depth of 30 - 40cm below the water surface level and at the point furthest from the water inlets.
- Remove the bottle cap without touching the bottle rim. Hold the bottle at the base at an angle of 45 deg and plunge into the water to fill to more than 200ml but leaving an air space.
- Make sure the dechlorinating chemicals are not washed out of the sample bottle when filling.

Food Sampling

- Food samples should be collected as prepared or sold i.e. commercially packaged. Takeaway containers may be used if appropriate to the food and collection point. Sterile jars/bags should be used for foods or ingredients collected before packaging, i.e. during the manufacturing process.