



Microbiology Laboratory

Simmonds & Bristow delivers the right answers on time. We understand delivery on time is critical. Since initiating a performance program in early 2004, our laboratories have consistently exceeded the target of 95% delivery on time. Simmonds and Bristow is NATA Registered for the majority of analyses performed. Experienced microbiologists and analysts accurately utilise complex techniques and methods to precisely measure various pathogens in each water source.

At Simmonds & Bristow you can speak directly to our professionals - without the need to make special arrangements, between the hours of 8:30am to 5.00pm, Monday to Friday. If you need help to collect samples or interpret your results our internal consultants can assist you. Call us for a proposal and you will be surprised how cost-effective high-quality, independent analysis can be for your business.

- **Cooling Waters & Process Waters**
 - **Bottled Waters**
 - **Recreational Waters**
- **Unidentified Deposits**
 - **Domestic Water**
- **Effluent & Wastewater**
 - **Sludge & Soil**
 - **Algae**
- **A+ Recycled Water**

EASI-Sample

Receive sampling kits FREE, automatically, each time your sample is scheduled. Or we can collect samples for you!

Microbiology Services

A variety of solid and liquid matrices are analysed by Simmonds & Bristow's experienced microbiological team. As standards and guidelines change and progress with respect to suitable indicator organisms in environmental and domestic waters, the microbiological laboratory expands its analytical ability to ensure clients' needs are being met with the most up-to-date technologies. The combination of inhouse bacteriological and chemical analytical services strengthens our ability to accurately establish the overall condition of various waters, wastewaters, soils and sludges.

Cooling Waters & Process Waters

A significant public health risk is associated with cooling waters. In an attempt to minimise and manage this risk regular monitoring of cooling waters is recommended, including monitoring for the presence of Legionella.

Sludge & Soil

Simmonds & Bristow's laboratories are experienced in testing sludge from treatment processes. Results from analysis enables our consultants to recommend suitable disposal or reuse options.

Bottled Waters

Producers of Mineral and Bottled water are often required to perform independent product testing to ensure compliance with the relevant national and international standards. Simmonds & Bristow's laboratories are skilled in performing this analysis. Results can be reviewed by our qualified consultants and comments made regarding the compliance of the water with relevant guidelines.

Effluent & Wastewater

Correct treatment and disposal of wastewater is essential to ensure the protection of our environment. Our laboratories are specialised in testing a variety of wastewater including: sewage (raw, process and treated), trade waste, process waters, sludges, brines, and contaminated stormwater.

Unidentified Deposits

Clients can send samples of unidentified deposits, scale or scums to Simmonds & Bristow's laboratories to determine their nature and possible origin. The testing undertaken is unique to each situation and is determined through detailed discussion with our scientists and engineers.

Domestic Water

Our laboratories are experienced in testing domestic and municipal water supplies to monitor water treatment plant performance and continued compliance with the NH&MRC Drinking Water Guidelines. Results can be reviewed by our qualified consultants, and treatment plant operational and maintenance advice can also be given.



DATAMINE

See your results immediately with historical trends compiled for you!

Microbiology Laboratory

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Algae

Algal growth is a common problem in Australian water bodies, and as killing the cells is not an environmentally acceptable practice we must learn to manage algae and its impacts appropriately. Regular algae monitoring to identify and enumerate potentially toxic species is essential to managing toxin loads in water bodies used as a domestic water source. If significant numbers of potentially toxic species are identified treatment plants can be modified to ensure the removal of potential toxins.

Recreational Waters

Recreational waters such as swimming pools, spas, rivers, lakes and sea waters are regularly tested by the microbiological laboratory to determine their compliance with public health and government requirements. Results can be interpreted for operators to ensure the effectiveness of water treatment processes.

A+ Recycled Water

As the drought in this country continues, water shortages are having a significant impact on industrial, commercial and residential water users. Water reuse and recycling is becoming common practice in Australian businesses, and authorities have developed strict guidelines for recycled water quality, depending on the intended use. Simmonds & Bristow's laboratories are capable of examining various water sources to ensure it complies with A and B class water quality guidelines. In addition, our microbiology laboratory is currently developing the methodology for the complex

tests required for Class A+ water quality, which include:

- Clostridium perfringens (protozoa indicator organism)
- Somatic coliphage (viral indicator organism)
- F-RNA (Male) Bacteriophage (viral indicator organism)

Simmonds & Bristow's Microbiology Lab will soon be on the elite list of laboratories capable of testing water against the Class A+ water quality guidelines. Contact us now for more information, call 07 3710 9100.

WaterRMS

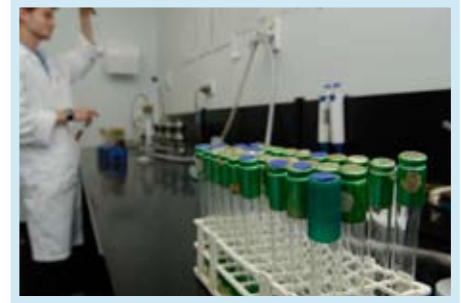
Water Resource Management System

A holistic support solution in one service package

S&B's WaterRMS is a complete service package designed for regional resorts, utilities & industry. WaterRMS combines:

- State-of-the-art laboratories
- Integrated environmental & engineering consultancies
- Registered water industry training
- The DataMine: Online access to historical and current results, reporting tools, incident management and email notification of non-compliances

Whatever your environmental compliance needs may be, our WaterRMS will deliver the best, most cost-effective service solution for your requirements, minimising non-compliance and saving you time and money.



Simmonds & Bristow's Microbiology Laboratory offers the following NATA Accredited Tests:



- MF MPN Coliforms (total)
- MF MPN Coliforms (thermo tolerant)
- MF MPN Enterococci
- PP Plate Count
- MF MPN Streptococci (faecal)
- MF MPN Escherichia coli
- SP Legionella
- SP Legionella pneumophila
- MF Pseudomonas
- MF Pseudomonas aeruginosa
- ME Activated sludge inspection

Simmonds & Bristow's Microbiology Laboratory offers the following tests developed from Australian Standards:

- ME Identification and enumeration of planktonic microalgae and cyanobacteria
- MF Clostridium perfringens (currently under NATA assessment)
- Taste and Odour by Panel Assessment to APHA Standard

Guide to Test Methods

MF Membrane Filtration: An amount of liquid sample is passed through a filter which retains any bacteria present. The bacteria are then grown on selective media to distinguish the bacterial family to which it belongs.

MPN Most Probable Number: Samples are dispensed into a series of tubes containing selective media. If bacteria are present in the sample it will grow in the tubes and then be counted.

PP Pour Plate: An aliquot of sample is placed onto a Petri dish and agar is added. The solution then solidifies to allow the growth of bacteria within the media.

SP Spread Plate: An aliquot of sample is distributed onto the surface of a selective agar plate.

ME Microscopic Examination: An aliquot of sample is placed onto the surface of a microscope slide and examined using a microscope.



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 **Simmonds & Bristow**
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WATER AND WASTE MANAGEMENT SOLUTIONS FOR • MINING • HOSPITALITY • COMMUNITIES • DEVELOPMENT
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