NATIONAL ASSOCIATION OF TESTING AUTHORITIES, AUSTRALIA

WORKING WITH NATA ACCREDITED ENVIRONMENTAL FACILITIES

INDUSTRY USER GUIDE NO. 3

NATA

WHY USE A NATA ACCREDITED LABORATORY OR INSPECTION BODY?

NATA Accreditation is about confidence – yours and that of your customers – in the data and information on which you must make informed decisions.

NATA Accreditation covers activities that produce this technical/scientific data and information; testing, measurement, examinations and inspections.

In NATA's vocabulary, accreditation has a very specific meaning.

A procedure by which an **authoritative body** gives formal recognition that a body is **competent** to carry out **specific tasks**.

Hence, NATA Accreditation is a high level process of recognising collective, specific and demonstrated competencies. The core of NATA Accreditation is the third party, objective, peer assessment process at a scientific and technical level that provides assurance of the facility's capability to produce reliable data from particular analyses or inspections. The NATA Accreditation Criteria include the international standards ISO/IEC 17025 *General requirements for the competence of testing and calibration laboratories* and ISO/IEC 17020 *Requirements for the operation of various types of bodies performing inspection,* both of which are used globally for accreditation.

In addition to confidence, NATA Accreditation provides you with:

- an ability to outsource to an independent, objective authority the monitoring of laboratory and inspection body performance;
- international arrangements providing for the mutual recognition of data produced by laboratories and inspection bodies accredited by NATA and equivalent accreditation bodies globally;
- a resource to resolve disputes relating to accredited services.

WHAT ENVIRONMENTAL TESTING AND INSPECTION ACTIVITIES ARE ACCREDITED BY NATA?

NATA accredits facilities in both its ISO/IEC 17025 based laboratory program and ISO/IEC 17020 based inspection body program. The range of activities that can be accredited include:

Laboratory

Air - analysis and monitoring

Biota

Investigative testing

Soils – analysis and monitoring

Waters – analysis and monitoring

Inspection

Contaminated site inspection

Electromagnetic fields

Landform

Sampling design

IS THE FACILITY ACCREDITED FOR WHAT I NEED?

A facility's NATA Accreditation may not cover every service that it provides so it is important to ask the correct question when seeking to have your samples tested or a site inspected.

> ***"Do you hold NATA Accreditation for [the specified analysis/ inspection] of [the specific type of environment]?"***

NATA Accredited facilities are able to add the NATA endorsement to reports covering accredited activities. The endorsement is not allowed to be applied to unaccredited tests or inspections. As such, a more concise specification is to state that

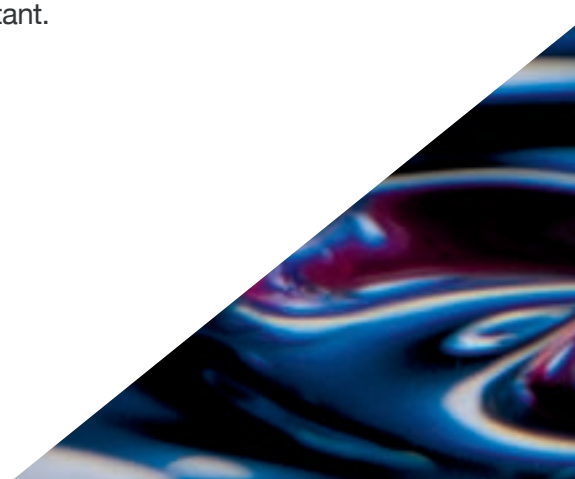
> ***"I require all results reported to be NATA-endorsed".***

The tests and inspections for which a facility has successfully demonstrated practical competence and capability at a NATA assessment are detailed within its Scope of Accreditation. The scope of accreditation contains important information such as analytes, techniques and applicable standards and codes. There may, however, be additional checks that you will need to make.

- Not all laboratories can achieve the same detection limits. You should discuss limits of detection with the laboratory to make sure that your needs can be met.
- Methods are not all the same. NATA requires all methods used within an accreditation to be properly validated but it does not specify which methods are to be accredited. If you need an analysis to be performed to a specific method, make sure that this is within the laboratory's accreditation.
- The list of analytes can vary between scopes of accreditation so again you need to check with the laboratory that it can meet your needs. For example, if you were to ask for organophosphate pesticide residues in soil without being specific, the laboratory may not hold accreditation for the specific residue(s) in which you are interested.

Scopes of accreditation are publicly available documents and hence the primary source of information for anyone wanting to have testing and/or inspections performed. They are accessible from the NATA website at **www.nata.com.au**.

It should be noted that an accredited facility is permitted to include results not covered by its scope of accreditation on a NATA-endorsed reports provided any such results are appropriately identified. That is why the requirement "all test/inspections results reported to be NATA-endorsed" is so important.



NATA-ENDORSEMENT – WHAT'S THE SIGNIFICANCE?

The NATA endorsement consists of the NATA logo, the facility's accreditation number and text presented similar to the following.

Accredited for compliance with ISO/IEC 17025 or
Accredited for compliance with ISO/IEC 17020
Accreditation number xxxxx

In addition, the following statements may be added:

NATA is a signatory to the ILAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports [for those who need international recognition of the reported results]

NATA endorsed vs unendorsed reports – cost / benefit?

NATA requires that all activities described in the scope of accreditation are performed using exactly the same processes and to the same level of confidence whether reported on an endorsed report or not.

Some accredited facilities do, however, apply a surcharge to issue an endorsed report for commercial or marketing reasons.

For you as the customer, the NATA-endorsement is there to provide prima facie evidence that the results within the report have been issued under the laboratory's NATA Accreditation. Hence, you can have the confidence that the tests and/or inspections have been undertaken by competent staff using sound science/engineering as verified by NATA's peer assessment processes.

Similarly, your own customers and auditors (if your business is subject to some form of external oversight) may share this confidence.

WHAT DO I NEED TO SPECIFY?

This may be stating the obvious but simply dropping off a sample at a laboratory and saying "I want it tested" is not the best approach – yet it happens quite frequently.

Similarly asking an inspection body to "send someone over to have a look" may not work either.

NATA accredited laboratories and inspection bodies will happily assist you with defining your needs but they do need some specific information first.

Once you have ascertained that the laboratory or inspection body is appropriately accredited, the next step is to ensure clarity around:

- Why you need their services – e.g. one-off investigation or on-going routine testing, whether it is for regulatory compliance or not, etc.
- The standard, code or specification that is applicable.

For testing

- The analyses you wish to have performed – be specific;
- Whether you just want a qualitative "is it present or not?' answer, a "state-of-the-art quantitative analysis with low limit of detection and small uncertainty, or somewhere in-between;
- The method to be used (if the standard, code or specification allows for options);
- The QA/QC requirements – e.g. duplicate analysis, certified reference materials, spike recovery, batch QC analysis, etc. – and if you wish to have these reported;
- Information on sampling/sub-sampling;
- Requirements for compositing samples if this allowed by the method/code/Regulations.

For inspections

- All relevant site information including specific detail of the location;
- Nature of the inspections to be undertaken.

Specific information gives the accredited facility clarity for determining its ability and availability to undertake the work and, of course, work out the cost.

WHAT IF MY REQUIREMENTS CHANGE?

Where there is a standing arrangement or contract for samples to be routinely tested, the laboratory would not be expected to contact the customer on receipt of each batch of samples, even if the number of samples received might vary. Laboratories will, however, contact the customer if the sample type changes or the integrity of the sample is in doubt.

If you require a change to some aspect of a routine arrangement such as the test method or an analyte, it is your responsibility to notify the laboratory. Any material change to such a standing arrangement needs to be made in writing and acknowledged by the laboratory.

WHAT IS IMPORTANT WITH SAMPLES TO BE TESTED?

Sample integrity

The best quality testing service available is effectively useless if samples are compromised by:

- poor sampling plan and/or technique;
- inappropriate storage and transport (e.g. temperature, type of container, sealing, timeliness); and/or
- incorrect or inadequate labelling.

It is stating the obvious but samples supplied to a laboratory must be representative of the material being sampled. Compromising the integrity of the samples will waste everyone's time and your money.

Supplying the correct amount/number of samples

Ensuring that you supply the correct amount of material and/or correct number of samples will save angst with the laboratory and minimise the cost. Standards and codes may mandate or provide guidance on sample size and/or the number but if not, have the conversation with your laboratory.

Compositing of samples

As mentioned in the section on specifying what you want, compositing of samples is sometimes allowed for by standards, codes and specifications.

The obvious benefit of compositing is that multiple samples may be tested together which may reduce the cost of the test.

The downside is that if the analysis identifies the presence of a contaminant, it is not possible to identify in which sample or samples it was present.

If agreed that compositing is acceptable, it is important to provide clear instructions to the laboratory whether sub-sampling is permitted and how the samples are to be tested. Particular care should be paid to ensuring the sample volume or mass tested is in compliance with the requirements of the applicable standards, codes or specifications. If you are in doubt, this should be discussed with the laboratory or an independent technical expert. It is possible that some methods of compositing may lead to an insufficient volume of sample being tested if clear instruction is not given.

"Samples tested as received"

This statement is usually applied to test reports when the laboratory has not been responsible for the collection of samples. Use of this statement does not, however, remove the laboratory's responsibility to only test samples that are in a satisfactory condition. Laboratories are required to have procedures covering the acceptance of samples for testing.

This is especially important for samples where the analyte may not be stable. If a laboratory receives a sample that does not meet acceptance criteria, the laboratory must contact the customer and ascertain what action to take. The best option is to provide another sample but this is not always possible. In such cases the testing may be undertaken but the test report must include comments regarding the nature of the problem(s) with the sample(s) and, where applicable, that caution is required when interpreting the result(s).

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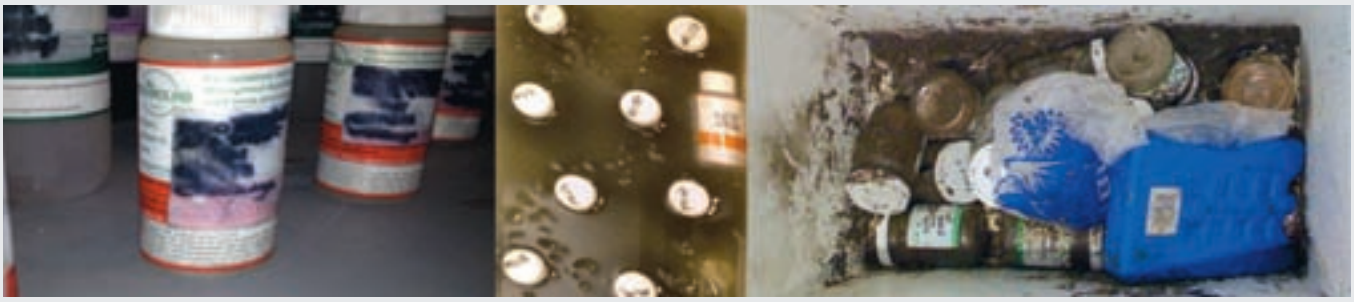
How hard can it be to label and transport a few samples?

Apparently, some people just don't get it. Here are some examples of how not to label and transport your samples.



Any laboratory receiving samples that look like any of the above are quite entitled to refuse service. They cannot be expected to perform miracles on samples when you've not taken the time to ensure sample integrity.

Some simple pointers:

- Label samples using something that won't wash off.
- Label the body of the container, not just the lid/cap.
- Cool samples in ice or the refrigerator and then transport with ice bricks.
- If using ice, double bag it – don't leave it free flowing.
- Use plenty of bubble-wrap.

WHAT SHOULD I DO WITH MY TEST/INSPECTION REPORTS?

ISO/IEC 17025 details what needs to be included in a test report. Similarly, ISO/IEC 17020 describes the requirements for inspection reports. Additionally, some standards/standard methods describe how results are to be reported.

Nonetheless, customers should still check any report received to ensure that:

- it matches your request;
- it contains all of the information you need;
- the results are reported clearly and unambiguously; and
- the results are reported in the manner prescribed by the applicable standard, code or specification.

Unless the laboratory performing the tests has been involved in the sampling, the report may include a statement to the effect that "samples were tested as received". This indicates that the customer has been responsible for providing the samples to the laboratory in an appropriate manner.

If the sampling has been performed by another accredited laboratory or an accredited inspection body, details of the sampling should have also been provided in a NATA-endorsed report.

COMMUNICATION IS THE KEY

The key to successfully gaining reliable testing and/or inspection data is effective communication between the laboratory and client.

Mutual understanding doesn't just happen, it must be pursued. Two particular points to remember:

- Initial clarity surrounding the purpose of the testing or inspection services will aid all subsequent discussions and greatly improve the likelihood of obtaining the appropriate services;
- Communication shouldn't be a once-off event – if you have questions received the test report and something seems odd or doesn't make sense, ask.

SUMMARY

Why use a NATA Accredited facility?	• 3rd party verification of capability and competence • Compliance with international standard for laboratories/ inspection bodies • International recognition of results
Is the facility accredited for the services I need?	• Ask the right question regarding NATA Accreditation • Check the Scope of Accreditation
What do I need to specify?	• **All results to be NATA-endorsed** • The purpose of the test or inspection • Methods and/or limits of detection • Applicable standard/specification • When you need the results
What is important with samples to be tested?	• Collection – who, sample plan, amount and number • Samples are representative of the material being sampled • Identification, traceability and labelling • Maintaining integrity during transport
What should I do with my reports?	• Check that report is clear and complete • Make sure report is NATA endorsed • Take note of any comments • Use the results to benefit your business!

HELP IS AVAILABLE

NATA recognises that despite best intentions and a robust accreditation system, things may go wrong. If you are experiencing difficulties with any NATA accredited laboratory and have not been able to resolve them through direct discussions, it is recommended that you contact NATA to discuss the general nature of any concerns. You should then follow this up with a written account of the issues. NATA has a comprehensive complaints handling process and treats any issues raised very seriously.

In the environmental testing sector, please direct inquiries to:

The Sector Manager, Life Sciences
1st Floor, 2-6 Railway Parade
Camberwell VIC 3124
Ph (03) 9274 8200
Email neil.shepherd@nata.com.au

In the environmental inspection sector, please direct inquiries to:

The Sector Manager, Inspection
7 Leeds Street
Rhodes NSW 2138
Ph (02) 9736 8222
Email julian.wilson@nata.com.au

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