

**TEST AND MEASUREMENT CHECKLIST**  
(USE SEPARATE CHECKLIST FOR IN-HOUSE CALIBRATIONS)

Name of Test/Calibration: \_\_\_\_\_

Laboratory Name: \_\_\_\_\_

Assessors: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_

**A. EQUIPMENT I.D.**

1. Instrument Description	Manufacturer	Model No.
Sampling		
Calibration/Measurement or Test		
Data Collection		

**B. TECHNICIAN I.D. (See Clause 6.2)**

	#1	#2	#3
Name			
Position			
Degree/ Diploma			
Years Exp.*			
Technician Proficiency **			

\* NB: Years of experience related to the test or calibration conducted

\*\* Proficiency (cite 6.2.5 of ISO/IEC 17025).

**THIS PAGE TO BE COMPLETED BY LAB STAFF BEFORE ASSESSMENT OF THIS PROCEDURE**

CLAUSE	REQUIREMENT	DOCUMENT REVIEW	ONSITE
<b>SELECTION, VERIFICATION AND VALIDATION OF METHODS</b>			
7.2.1.1	All necessary successive steps in the test/measurement procedure (including details on intermediate preparation, storage, equipment, supplies, etc.) are appropriate.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>
7.2.1.2	The test method, procedures and supporting documentation (e.g., equipment procedures, supporting test methods, related instruction manuals) are up to date and are readily available to the calibration/testing technician.  Note: For issues related to document control, refer to Clause 8.3.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>
7.2.1.3	The test/calibration procedure is based on the latest valid edition of a published standard, unless it is not possible or appropriate. The lab test/calibration procedure is supplemented with additional details to ensure consistent application.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>
7.2.1.5	For standard methods, there is data available to demonstrate that the laboratory verified that it could properly perform the test/calibration procedure prior to implementation. As a minimum, these records include: <ul style="list-style-type: none"> <li>detection limit;</li> <li>precision;</li> <li>measurement uncertainty</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
7.2.2	For non-standard methods, laboratory-developed methods and standard methods used outside their scope or modified, there are method validation results, and a statement that the method is fit for the intended use. Modifications from the reference standard are documented. As a minimum, the lab shall maintain records of: <ul style="list-style-type: none"> <li>detection limit;</li> <li>precision;</li> <li>accuracy;</li> <li>measurement uncertainty</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

CLAUSE	REQUIREMENT	DOCUMENT REVIEW	ONSITE
<b>SAMPLING (as needed for testing)</b>			
7.3.1	<p>Sampling plans required for samples are based on appropriate statistical methods and the sampling process addresses the factors to be controlled to ensure the validity of the results; i.e.,</p> <ul style="list-style-type: none"> <li>Sampling/sub-sampling methods are available and followed;</li> <li>Sampling plans are statistically based;</li> <li>Field sampling generates representative samples, and duplicates are routinely taken</li> </ul>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>
<b>TEST AND CALIBRATION ITEMS/SAMPLES</b>			
7.4.1,	<p>Sample history requirements are:</p> <ol style="list-style-type: none"> <li>appropriate;</li> <li>documented and available where required; and</li> <li>implemented; e.g.,</li> </ol> <ul style="list-style-type: none"> <li>field conditions;</li> <li>chemical preservation;</li> <li>sample containers;</li> <li>storage conditions;</li> <li>holding/travel time.</li> <li>temperature;</li> <li>Sample size reduction generates a representative portion for subsequent work;</li> <li>Uncertainty of sample size reduction steps is known through the introduction of random duplicates.</li> </ul>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>
<b>CALIBRATION OF EQUIPMENT</b>			
6.4.6	<p>Calibration is:</p> <ol style="list-style-type: none"> <li>Appropriate, and</li> <li>Implemented, eg.</li> </ol> <ul style="list-style-type: none"> <li>controls to monitor performance</li> <li>accuracy/stability;</li> <li>trend analysis (e.g., control charting -</li> <li>criteria to identify non-conformances.</li> <li>supported by calibration certificates</li> </ul>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>

CLAUSE	REQUIREMENT	DOCUMENT REVIEW	ONSITE
<b>QUALITY CONTROL</b>			
7.7.1,	<p>Quality control is appropriate; included or referenced in the test/calibration procedure and, implemented. Resulting data is recorded in such a way that trends are detectable and, where practicable, statistical techniques are applied to review the results. QC includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• duplicates to monitor precision;</li> <li>• reference materials to monitor accuracy;</li> <li>• criteria to identify method non-conformances;</li> <li>• procedures to evaluate method performance</li> </ul>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p>
7.7.2	<p>The laboratory participates in proficiency testing or interlaboratory comparisons, and any unsatisfactory PT/ILC results have been investigated.</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<b>EQUIPMENT</b>			
6.4.1	<p>All equipment required for correct performance of the test/calibration procedure is available. Equipment includes measuring instruments, support equipment, computers, supplies and reference materials</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>N/A</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

CLAUSE	REQUIREMENT	DOCUMENT REVIEW	ONSITE
	<b>EQUIPMENT</b>		
6.4.4	Measuring and procedure-specific equipment is compliant with specifications and checked and calibrated prior to use (or when being put back into use if the equipment was outside the permanent control of the laboratory or not in use for a period of time).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____
6.4.5	Measuring and procedure-specific equipment is capable of achieving the measurement uncertainty required to provide a valid result.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____
6.4.8	All equipment requiring calibration or equipment with a defined period of validity is labeled so that the user can readily identify the status of the calibration or period of validity.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____
6.4.9	All equipment is labeled with dates related to any expiry of validity.  Out of service equipment is clearly isolated or clearly labeled or marked as being out of service, and that equipment is checked and validated before return to service	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____ _____
6.4.12	The laboratory has taken practicable measures to prevent unintended adjustments that would invalidate results.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____
6.3.1	Environmental conditions required for equipment are appropriate and monitored, and all supplies are stored under appropriate environmental conditions and in a manner that satisfies requirements for safety, security, separation of incompatible materials, ease of retrieval, and does not adversely affect test or calibration results.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____ _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____ _____ _____
<b>METROLOGICAL TRACEABILITY</b>			
6.5.2	Test and measurement results are traceable to the SI.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____
6.5.3	When metrological traceability to the SI units is not technically possible, the laboratory demonstrates metrological traceability to an appropriate reference.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A _____ _____ _____

CLAUSE	REQUIREMENT	DOCUMENT REVIEW	ONSITE
6.5.3	Reference materials are from accredited RMPs, where available.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>
<b>REPORTING OF RESULTS</b>			
7.8.1.1	Results are reviewed and authorized prior to release.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>
7.1.3 and 7.8.6	If the laboratory reports compliance to a specification, it considers the uncertainty in its statement of compliance and it has records of agreement with the customer, in cases where the customer has requested such a statement.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/>
<b>RECORD KEEPING</b>			
7.8.3.1	Records related to the performance of the test/calibration procedure are maintained; e.g., <ul style="list-style-type: none"> <li>original data (1);</li> <li>record of non-conformances and actions taken (2);</li> <li>reagent preparation records (3);</li> <li>maintenance records (4);</li> <li>records of traceability (5);</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <hr/> <hr/> <hr/> <hr/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
1) includes, calibration data, test/calibration data (including QC data), control variables (e.g., temperature, etc.); technician ID; sample ID; equipment ID; test/calibration procedure ID; date and time of test/calibration. 2) includes, non-conformances related to: test/calibration procedure variances; sample history; method performance; interferences; and data validation. 3) includes, supplier, grade, batch no.; dates of verification; weights, electrical and mechanical references, volumes, time intervals, temperatures and related calculations; relevant processes; verification results; discard date. 4) includes, identity of the item of equipment and its software; manufacturer, model, serial no.; checks that equipment complies with lab specifications; date commissioned; repair and maintenance history; calibration history; any damage, malfunction or modification to the equipment; location. 5) includes, traceability of measurement equipment to a national standard, and daily or as-used checks/verifications			

**Assessor Notes:**