Common Lab Abbreviations, Acronyms and Definitions

Common Abbreviations and Acronyms

Abbreviation/Acronym	Meaning
ASTM	American Society for Testing and Materials
BOD	Biochemical Oxygen Demand
cBOD	Carbonaceous Biochemical Oxygen Demand
CCV	Continuing Calibration Verification
COC	Chain of Custody
DATCP	Department of Agriculture, Trade, and Consumer Protection
DI	Deionized
DNR	Department of Natural Resources
DO	Dissolved Oxygen
eDMR	electronic Discharge Monitoring Report
GGA	Glucose-Glutamic Acid
ICV	Initial Calibration Verification
ID	Identification
IDC	Initial Demonstration of Capability
ISE	Ion Selective Electrode
LCS	Laboratory Control Sample
LOD	Limit of Detection
LOQ	Limit of Quantitation
MDL	Method Detection Limit
NH3 (or NH3-N)	Ammonia
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NR	(Department of) Natural Resources
PT	Proficiency Testing
QC	Quality Control
QCS	Quality Control Standard
QM	Quality Manual
SM	Standard Methods for the Examination of Water and Wastes
SOP	Standard Operating Procedure
TP	Total Phosphorus
TSS	Total Suspended Solids
WET	Whole Effluent Toxicity
WPDES	Wisconsin Pollutant Discharge Elimination System
WWTP	Wastewater Treatment Plant

Common Lab Definitions

Phrase	Definition
Acceptance Limits	Limits established that are used to determine if the laboratory has analyzed a quality control sample or proficiency testing sample successfully.
Accuracy	The closeness of a measured value to an accepted reference value or standard.
Analyst	The designated person who performs the hands-on testing and who is responsible for meeting the required laboratory practices.
Analyte	Chemical substance, physical property, or organism analyzed in a sample.
Batch	A set of samples prepared or analyzed together using the same process, personnel, and lots of reagents.
Calibration	The process used to establish an observed relationship between the response of an analytical instrument and a known amount of analyte, or the process used to determine, by measuring or comparison with a reference standard, the correct value of each scale reading in an instrument, meter, or measuring device.
Calibration Blank	An aliquot that consists of the same matrix as that used for the calibration standards, but without the analytes. In other words, it is processed using the same procedure as the calibration standards except that no stock standard was added.
Calibration Curve	The graphical relationship between the known values, such as concentrations, of a series of calibration standards and their instrument response.
Calibration Standard	Solutions used to calibrate the instrument response with respect to analyte concentration.
Chain of Custody	Unbroken trail of accountability that ensures the physical security of samples, data, and records.
Continuing Calibration Verification	A standard of known concentration of analyte used to ensure the calibration is still valid throughout the analysis.
Control Limits	See acceptance limits.
Corrective Action	Any measure taken to eliminate or prevent the recurrence of the causes of problems (nonconformities, defects, or undesirable conditions).
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid.
Initial Calibration Verification	A standard of known concentration, prepared using second source standards, analyzed following the initial calibration and prior to measuring any samples to ensure the calibration is accurate.
Initial Demonstration of Capability	The process to determine if an analyst is qualified to perform laboratory testing.
Instrument Blank	A clean sample (e.g., distilled water) processed through the instrument steps of the measurement process; used to determine instrument contamination.
Interference	The combined or individual chemical components of a sample that may or may not cause a false positive measurement by an instrument.
Laboratory Control Sample (LCS)	A sample of a matrix without the analytes of interest spiked with a known amount of the analytes of interest. The purpose of an LCS is to determine whether the method process is in control and whether the laboratory can make accurate and precise measurements.
Limit of Detection (LOD)	The lowest concentration or amount of analyte that can be identified, measured, and reported with confidence that the concentration is not a false positive value. The DNR considers the LOD to be equivalent to the method detection limit.
Limit of Quantitation (LOQ)	The lowest concentration or amount of an analyte for which quantitative results can be obtained.
Method Blank	A clean matrix that is treated and processed exactly as a sample including exposure to all glassware, equipment, solvents, and reagents to measure contaminants in the measurement process.
Method Detection Limit (MDL)	The minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method

	blank results. The MDL is generated according to the procedure specified in the latest revision of 40 CFR Part 136, Appendix B.
Precision	The degree to which a set of measurements obtained under similar conditions conform to themselves. Precision is usually expressed as the standard deviation, variance, or range, in either absolute or relative terms.
Preservation	The refrigeration of and/or reagents added at the time of sample collection to maintain the chemical and/or biological integrity of the sample.
Proficiency Testing (PT)	A study where a sample is obtained from an approved proficiency testing sample provider to evaluate the ability of a laboratory to produce an analytical test result meeting the definition of acceptable performance. The concentration of the analyte in the sample is unknown to the laboratory at the time of analysis.
Qualify	A written statement accompanying test results to identify anomalies or issues that were encountered in generating the results.
Quality Control	The overall system of technical activities designed to measure and control the quality of test results.
Raw Data	Any original information from a measurement recorded in any form that allows the reconstruction and evaluation of the activity. Raw data include absorbance, emission counts, abundance, and millivolts. Raw data may be stored in hard copy or electronically.
Reagent Water	Water which has been treated to remove any impurities that may affect the quality of an analysis.
Sample Matrix	Collective inherent chemical, biological, and physical components and characteristics of a sample.
Standard Operating Procedures (SOPs)	A written document which details the method of an operation or analysis and which is accepted as the method for performing certain routine or repetitive tasks.