Major Topic	Category	Citation	Does the laboratory comply with this section?	300.1	Section or Comment
5.2 Personnel	Requirement	5.2.1	*When using staff who are undergoing training, appropriate supervision shall be provided.*	No	
5.2 Personnel	Requirement	5.2.1	*Personnel performing specific tasks shall be qualified on the basis of appropriate education, training, experience and/or demonstrated skills, as required.*	Yes	1.3 states " analysts experienced in the use of ion chromatography and in the interpretation of the resulting ion chromatograms."
5.2 Personnel	Requirement	5.2.2	*The management of the laboratory shall formulate the goals with respect to the education, training and skills of the laboratory personnel.*	No	
5.2 Personnel	Procedure	5.2.2	*The laboratory shall have a policy and procedures for identifying training needs and providing training of personnel.*	No	
5.2 Personnel	Requirement	5.2.2	*The training programme shall be relevant to the present and anticipated tasks of the laboratory.*	No	
5.2 Personnel	Requirement	5.2.2	*The effectiveness of the training actions taken shall be evaluated.*	No	
5.2 Personnel	Requirement	5.2.3	*The laboratory shall use personnel who are employed by, or under contract to, the laboratory.*	No	
5.2 Personnel	Requirement	5.2.3	*Where contracted and additional technical and key support personnel are used, the laboratory shall ensure that such personnel are supervised and competent and that they work in accordance with the laboratory's management system.*	No	
5.2 Personnel	Record	5.2.4	*The laboratory shall maintain current job descriptions for managerial, technical and key support personnel involved in tests and/or calibrations.*	No	
5.2 Personnel	Requirement	5.2.5	*The management shall authorize specific personnel to perform particular types of sampling, test and/or calibration, to issue test reports and calibration certificates, to give opinions and interpretations and to operate particular types of equipment.*	No	

5.2 Personnel	Record	5.2.5	*The laboratory shall maintain records of the relevant authorization(s), competence, educational and professional qualifications, training, skills and experience of all technical personnel, including contracted personnel.*	No	
5.2 Personnel	Requirement	5.2.5	*This information shall be readily available and shall include the date on which authorization and/or competence is confirmed.*	No	
5.2 Personnel	Requirement	5.2.6.1 a)	Any technical manager of an accredited environmental laboratory engaged in chemical analysis shall be a person with a bachelor's degree in the chemical, environmental, biological sciences, physical sciences or engineering,	No	
5.2 Personnel	Requirement	5.2.6.1 b)	Any technical manager of an accredited environmental laboratory limited to inorganic chemical analysis, other than metals analysis, shall be a person with at least an earned associate's degree in the chemical, physical or environmental sciences, or two (2) years of equivalent and successful college education,	No	
5.2 Personnel	Requirement	5.2.6.1 b)	Any technical manager of an accredited environmental laboratory limited to inorganic chemical analysis, other than metals analysis, shall have a minimum of sixteen (16) college semester credit hours in chemistry.	No	
5.2 Personnel	Requirement	5.2.6.2 a)	Such accreditation for a water treatment facility and/or a sewage treatment facility shall be limited to the scope of that facility's regulatory permit.	NA	
5.2 Personnel	Requirement	5.2.6.2 a)	Notwithstanding any other provision of this Section, a full-time employee of a drinking water or sewage treatment facility who holds a valid treatment plant operator's certificate appropriate to the nature and size of such facility shall be deemed to meet the educational requirements as the technical manager.	No	

5.2 Personnel	Requirement	5.2.6.2 a)	A technical manager shall have two (2) year testing experience devoted exclusively to the testing of environmental samples specified in the scope of the facility's regulatory permit.	No	
5.2 Personnel	Requirement	5.2.6.2 b)	Such accreditation for an industrial waste treatment facility shall be limited to the scope of that facility's regulatory permit.	NA	
5.2 Personnel	Requirement	5.2.6.2 b)	A full-time employee of an industrial waste treatment facility with a minimum of two (2) years of experience under supervision in testing of environmental samples taken within such facility for the scope of that facility's regulatory permit shall be deemed to meet the requirements for serving as the technical manager of an accredited laboratory.	No	
5.2 Personnel	Requirement	5.2.6.2 c)	Persons who do not meet the education credential requirements but possess the requisite experience of 5.2.6.1 shall qualify as technical manager(s) subject to the following conditions.	NA	
5.2 Personnel	Requirement	5.2.6.2 c) i	Persons who do not meet the education credential requirements but possess the requisite experience of 5.2.6.1 shall qualify as technical manager(s) if the person shall be a technical manager of the laboratory on the date the laboratory applies for accreditation and/or becomes subject to accreditation under this Standard	No	
5.2 Personnel	Requirement	5.2.6.2 c) i	Persons who do not meet the education credential requirements but possess the requisite experience of 5.2.6.1 shall qualify as technical manager(s) if the person shall have been a technical manager in that laboratory continuously for the previous twelve (12) months or more.	No	

5.2 Personnel	Requirement	5.2.6.2 c) ii	Persons who do not meet the education credential requirements but possess the requisite experience of 5.2.6.1 shall be approved as a technical manager for only those fields of accreditation for which he/she has been technical manager in that laboratory for the previous twelve (12) months or more.	No	
5.2 Personnel	Exceptions	5.2.6.2 c) iii	A person who is admitted as a technical manager under these conditions, and leaves the laboratory, will be eligible for hire as a technical manager for the same fields of accreditation in another accredited laboratory.	No	
5.2 Personnel	Requirement	5.2.7	Data integrity training shall be provided as a formal part of new employee orientation and shall also be provided on an annual basis for all current employees.	No	
5.2 Personnel	Requirement	5.2.7	Employees are required to understand that any infractions of the laboratory data integrity procedures shall result in a detailed investigation that could lead to very serious consequences including immediate termination, debarment or civil/criminal prosecution.	No	
5.2 Personnel	Record	5.2.7	The initial data integrity training and the annual refresher training shall have a signature attendance sheet or other form of documentation that demonstrates all staff have participated and understand their obligations related to data integrity.	No	
5.2 Personnel	Requirement	5.2.7	Data integrity training requires emphasis on the importance of proper written narration on the part of the analyst with respect to those cases where analytical data may be useful, but are in one sense or another partially deficient	No	
5.2 Personnel	Record	5.2.7	The topics covered in such training shall be documented in writing (such as an agenda) and provided to all trainees.	No	

5.2 Personnel		5.2.7	At a minimum, the following topics and activities shall be included:	No	
5.2 Personnel	Requirement	5.2.7	The data integrity procedures may also include written ethics agreements, examples of improper practices, examples of improper chromatographic manipulations, requirements for external ethics program training, and any external resources available to employees.	No	
5.2 Personnel	Requirement	5.2.7.a	organizational mission and its relationship to the critical need for honesty and full disclosure in all analytical reporting, how and when to report data integrity issues, and record keeping;	No	
5.2 Personnel	Requirement	5.2.7.b	training, including discussion regarding all data integrity procedures;	No	
5.2 Personnel	Requirement	5.2.7.c	data integrity training documentation;	No	
5.2 Personnel	Requirement	5.2.7.d	in-depth data monitoring and data integrity procedure documentation; and	No	
5.2 Personnel	Requirement	5.2.7.e	specific examples of breaches of ethical behavior such as improper data manipulations, adjustments of instrument time clocks, and inappropriate changes in concentrations of standards.	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.1	*Laboratory facilities for testing and/or calibration, including but not limited to energy sources, lighting and environmental conditions, shall be such as to facilitate correct performance of the tests and/or calibrations.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.1	*The laboratory shall ensure that the environmental conditions do not invalidate the results or adversely affect the required quality of any measurement.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.1	*Particular care shall be taken when sampling and tests and/or calibrations are undertaken at sites other than a permanent laboratory facility.*	No	

5.3 Accommodation & Environmental Conditions	Record	5.3.1	*The technical requirements for accommodation and environmental conditions that can affect the results of tests and calibrations shall be documented.*	No	
5.3 Accommodation & Environmental Conditions	Record	5.3.2	*The laboratory shall monitor, control and record environmental conditions as required by the relevant specifications, methods and procedures or where they influence the quality of the results.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.2	*Due attention shall be paid, for example, to biological sterility, dust, electromagnetic disturbances, radiation, humidity, electrical supply, temperature, and sound and vibration levels, as appropriate to the technical activities concerned.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.2	*Tests and calibrations shall be stopped when the environmental conditions jeopardize the results of the tests and/or calibrations.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.3	*There shall be effective separation between neighbouring areas in which there are incompatible activities.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.3	*Measures shall be taken to prevent cross-contamination.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.4	*Access to and use of areas affecting the quality of the tests and/or calibrations shall be controlled.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.4	*The laboratory shall determine the extent of control based on its particular circumstances.*	No	
5.3 Accommodation & Environmental Conditions	Requirement	5.3.5	*Measures shall be taken to ensure good housekeeping in the laboratory.*	No	

5.3 Accommodation & Environmental Conditions	Procedure	5.3.5	*Special procedures shall be prepared where necessary.*	No	
5.4 Environmental Test Methods & Method Validation	Procedure	5.4.1	*The laboratory shall have instructions on the use and operation of all relevant equipment, and on the handling and preparation of items for testing and/or calibration, or both, where the absence of such instructions could jeopardize the results of tests and/or calibrations.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.1	*All instructions, standards, manuals and reference data relevant to the work of the laboratory shall be kept up to date and shall be made readily available to personnel (see 4.3).*	No	
5.4 Environmental Test Methods & Method Validation	Procedure	5.4.1	*The laboratory shall use appropriate methods and procedures for all tests and/or calibrations within its scope.*	No	Title of method includes drinking water only. Section 1.1 states method is applicable to " reagent water, surface water, ground water, and finished drinking water."
5.4 Environmental Test Methods & Method Validation	Procedure	5.4.1	*These include sampling, handling, transport, storage and preparation of items to be tested and/or calibrated, and, where appropriate, an estimation of the measurement uncertainty as well as statistical techniques for analysis of test and/or calibration data.*	Yes	2
5.4 Environmental Test Methods & Method Validation	Record	5.4.1	*Deviation from test and calibration methods shall occur only if the deviation has been documented, technically justified, authorized, and accepted by the customer.*	No	However 40 CFT 136.7 does allow some modifications
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*Laboratory-developed methods or methods adopted by the laboratory may also be used if they are appropriate for the intended use and if they are validated.*	No	

5.4 Environmental Test Methods & Method Validation	Documentation	5.4.2	*When necessary, the standard shall be supplemented with additional details to ensure consistent application.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*The customer shall be informed as to the method chosen.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*The laboratory shall confirm that it can properly operate standard methods before introducing the tests or calibrations.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*If the standard method changes, the confirmation shall be repeated.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*The laboratory shall inform the customer when the method proposed by the customer is considered to be inappropriate or out of date.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*The laboratory shall use test and/or calibration methods, including methods for sampling, which meet the needs of the customer and which are appropriate for the tests and/or calibrations it undertakes.*	No	Section 1.1 does not statethe method is applicable to wastewater.
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*Methods published in international, regional or national standards shall preferably be used.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*The laboratory shall ensure that it uses the latest valid edition of a standard unless it is not appropriate or possible to do so.*	No	

5.4 Environmental Test Methods & Method Validation	Requirement	5.4.2	*When the customer does not specify the method to be used, the laboratory shall select appropriate methods that have been published either in international, regional or national standards, or by reputable technical organizations, or in relevant scientific texts or journals, or as specified by the manufacturer of the equipment.*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.3	*The introduction of test and calibration methods developed by the laboratory for its own use shall be a planned activity and shall be assigned to qualified personnel equipped with adequate resources.*	NA	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.3	*Plans shall be updated as development proceeds and effective communication amongst all personnel involved shall be ensured.*	NA	
5.4 Environmental Test Methods & Method Validation	Option	5.4.6	Quality control measurement data may be used to determine analytical uncertainty.	NA	
5.4 Environmental Test Methods & Method Validation	Procedure	5.4.6	Environmental testing laboratories shall have a procedure(s) for estimating analytical uncertainty.	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.7.1	*Calculations and data transfers shall be subject to appropriate checks in a systematic manner.*	No	
5.4 Environmental Test Methods & Method Validation		5.4.7.2	*When computers or automated equipment are used for the acquisition, processing, recording, reporting, storage or retrieval of test or calibration data, the laboratory shall ensure that:*	NA	

5.4 Environmental Test Methods & Method Validation	Documentation	5.4.7.2.a	*computer software developed by the user is documented in sufficient detail*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.7.2.a	*computer software developed by the user is suitably validated as being adequate for use;*	No	
5.4 Environmental Test Methods & Method Validation	Procedure	5.4.7.2.b	*procedures are established and implemented for protecting the data;*	No	
5.4 Environmental Test Methods & Method Validation	Procedure	5.4.7.2.b	*such procedures shall include, but not be limited to, integrity and confidentiality of data entry or collection, data storage, data transmission and data processing;*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.7.2.c	*computers and automated equipment are maintained to ensure proper functioning*	No	
5.4 Environmental Test Methods & Method Validation	Requirement	5.4.7.2.c	*computers and automated equipment are provided with the environmental and operating conditions necessary to maintain the integrity of test and calibration data.*	No	
5.5 Calibration Requirements	Requirement	5.5.1	*The laboratory shall be furnished with all items of sampling, measurement and test equipment required for the correct performance of the tests and/or calibrations (including sampling, preparation of test and/or calibration items, processing and analysis of test and/or calibration data).*	No	

5.5 Calibration Requirements	Requirement	5.5.1	*In those cases where the laboratory needs to use equipment outside its permanent control, it shall ensure that the requirements of this International Standard are met.*	No	
5.5 Calibration Requirements	Procedure	5.5.10	*When intermediate checks are needed to maintain confidence in the calibration status of the equipment, these checks shall be carried out according to a defined procedure.*	No	
5.5 Calibration Requirements	Procedure	5.5.11	*Where calibrations give rise to a set of correction factors, the laboratory shall have procedures to ensure that copies (e.g. in computer software) are correctly updated.*	No	
5.5 Calibration Requirements	Requirement	5.5.12	*Test and calibration equipment, including both hardware and software, shall be safeguarded from adjustments which would invalidate the test and/or calibration results.*	No	
5.5 Calibration Requirements	Requirement	5.5.13.1.a	All support equipment shall be maintained in proper working order.	No	
5.5 Calibration Requirements	Record	5.5.13.1.a	The records of all repair and maintenance activities, including service calls, shall be kept.	No	
5.5 Calibration Requirements	Requirement	5.5.13.1.b	All support equipment shall be calibrated or verified at least annually, using a recognized National Metrology Institute, such as NIST, traceable references when available, bracketing the range of use.	No	6.3 and 6.4 mention balances but no requirement to verify accuracy
5.5 Calibration Requirements	Requirement	5.5.13.1.b	The results of such calibration or verification shall be within the specifications required of the application for which this equipment is used or:	No	
5.5 Calibration Requirements	Option	5.5.13.1.b.i	i. the equipment shall be removed from service until repaired; or	No	
5.5 Calibration Requirements	Option	5.5.13.1.b.ii	ii. the laboratory shall maintain records of established correction factors to correct all measurements.	No	
5.5 Calibration Requirements	Record	5.5.13.1.c	Raw data records shall be retained to document equipment performance.	No	
5.5 Calibration Requirements	Documentation	5.5.13.1.d	On each day the equipment is used, balances, ovens, refrigerators, freezers and water baths shall be checked and documented.	No	

5.5 Calibration Requirements	Requirement	5.5.13.1.d	The acceptability for use or continued use shall be according to the needs of the analysis or application for which the equipment is being used.	No	
5.5 Calibration Requirements	Requirement	5.5.13.1.e	Volumetric dispensing devices (except Class A glassware and Glass microliter syringes) shall be checked for accuracy on a quarterly basis.	No	10.4 requires accurate delivery of sample; no mention of class A. 11.3.2 requires 10.0 mL.
5.5 Calibration Requirements	Requirement	5.5.2	*It (equipment) shall be checked and/or calibrated before use (see 5.6).*	NA	
5.5 Calibration Requirements	Requirement	5.5.2	*Equipment and its software used for testing, calibration and sampling shall be capable of achieving the accuracy required and shall comply with specifications relevant to the tests and/or calibrations concerned.*	No	
5.5 Calibration Requirements	Requirement	5.5.2	*Calibration programmes shall be established for key quantities or values of the instruments where these properties have a significant effect on the results.*	No	
5.5 Calibration Requirements	Requirement	5.5.2	*Before being placed into service, equipment (including that used for sampling) shall be calibrated or checked to establish that it meets the laboratory's specification requirements and complies with the relevant standard specifications.*	No	
5.5 Calibration Requirements	Requirement	5.5.3	*Equipment shall be operated by authorized personnel.*	No	
5.5 Calibration Requirements	Requirement	5.5.3	*Up-to-date instructions on the use and maintenance of equipment (including any relevant manuals provided by the manufacturer of the equipment) shall be readily available for use by the appropriate laboratory personnel.*	No	
5.5 Calibration Requirements	Requirement	5.5.4	*Each item of equipment and its software used for testing and calibration and significant to the result shall, when practicable, be uniquely identified.*	No	
5.5 Calibration Requirements	Record	5.5.5	*The records shall include at least the following:*	NA	

5.5 Calibration Requirements	Record	5.5.5	*Records shall be maintained of each item of equipment and its software significant to the tests and/or calibrations performed.*	No	No records anywhere in the method.
5.5 Calibration Requirements	Record	5.5.5.a	*the identity of the software;*	No	
5.5 Calibration Requirements	Record	5.5.5.a	*the identity of the item of equipment*	No	
5.5 Calibration Requirements	Record	5.5.5.b	*type identification*	No	
5.5 Calibration Requirements	Record	5.5.5.b	*and serial number or other unique identification;*	No	
5.5 Calibration Requirements	Record	5.5.5.b	*the manufacturer's name*	Yes	
5.5 Calibration Requirements	Record	5.5.5.c	*checks that equipment complies with the specification (see 5.5.2);*	No	
5.5 Calibration Requirements	Record	5.5.5.d	*the current location, where appropriate;*	No	
5.5 Calibration Requirements	Record	5.5.5.e	*the manufacturer's instructions, if available, or reference to their location;*	No	
5.5 Calibration Requirements	Record	5.5.5.f	*dates, results and copies of reports and certificates of all calibrations*	No	
5.5 Calibration Requirements	Record	5.5.5.f	*dates, results and copies of reports and certificates of all adjustments*	No	
5.5 Calibration Requirements	Record	5.5.5.f	*dates, results and copies of reports and certificates of all acceptance criteria*	No	
5.5 Calibration Requirements	Record	5.5.5.f	*the due date of next calibration;*	No	
5.5 Calibration Requirements	Record	5.5.5.g	*the maintenance plan, where appropriate*	No	
5.5 Calibration Requirements	Record	5.5.5.g	*and maintenance carried out to date;*	No	
5.5 Calibration Requirements	Record	5.5.5.h	*any damage, malfunction, modification or repair to the equipment.*	No	
5.5 Calibration Requirements	Requirement	5.5.6	*The laboratory shall have procedures for safe handling, transport, storage, use and planned maintenance of measuring equipment to ensure proper functioning and in order to prevent contamination or deterioration.*	No	

5.5 Calibration Requirements	Requirement	5.5.7	*Equipment that has been subjected to overloading or mishandling, gives suspect results, or has been shown to be defective or outside specified limits, shall be taken out of service*	No	
5.5 Calibration Requirements	Requirement	5.5.7	*It (equipment) shall be isolated to prevent its use or clearly labelled or marked as being out of service until it has been repaired and shown by calibration or test to perform correctly.*	No	
5.5 Calibration Requirements	Requirement	5.5.7	*The laboratory shall examine the effect of the defect or departure from specified limits on previous tests and/or calibrations and shall institute the "Control of nonconforming work" procedure (see 4.9).*	No	
5.5 Calibration Requirements	Requirement	5.5.8	*Whenever practicable, all equipment under the control of the laboratory and requiring calibration shall be labelled, coded or otherwise identified to indicate the status of calibration*	No	
5.5 Calibration Requirements	Requirement	5.5.8	*Whenever practicable, all equipment under the control of the laboratory and requiring calibration shall be labelled, coded or otherwise identified to indicate the date when last calibrated*	No	
5.5 Calibration Requirements	Requirement	5.5.8	*Whenever practicable, all equipment under the control of the laboratory and requiring calibration shall be labelled, coded or otherwise identified to indicate the date or expiration criteria when recalibration is due.*	No	
5.5 Calibration Requirements	Record	5.5.9	*When, for whatever reason, equipment goes outside the direct control of the laboratory, the laboratory shall ensure that the function and calibration status of the equipment are checked and shown to be satisfactory before the equipment is returned to service.*	No	
5.6 Measurement Traceability	Procedure	5.6.3.1	*The laboratory shall have a programme and procedure for the calibration of its reference standards.*	NA	

5.6 Measurement Traceability	Requirement	5.6.3.1	*Reference standards shall be calibrated by a body that can provide traceability as described in 5.6.2.1.*	NA	
5.6 Measurement Traceability	Requirement	5.6.3.1	*Such reference standards of measurement held by the laboratory shall be used for calibration only and for no other purpose, unless it can be shown that their performance as reference standards would not be invalidated.*	No	
5.6 Measurement Traceability	Requirement	5.6.3.1	*Reference standards shall be calibrated before and after any adjustment.*	No	
5.6 Measurement Traceability	Requirement	5.6.3.2	*Reference materials shall, where possible, be traceable to SI units of measurement, or to certified reference materials*	No	
5.6 Measurement Traceability	Requirement	5.6.3.2	*Internal reference materials shall be checked as far as is technically and economically practicable.*	No	
5.6 Measurement Traceability	Requirement	5.6.3.3	*Checks needed to maintain confidence in the calibration status of reference, primary, transfer or working standards and reference materials shall be carried out according to defined procedures and schedules.*	No	
5.6 Measurement Traceability	Procedure	5.6.3.4	*The laboratory shall have procedures for safe handling, transport, storage and use of reference standards and reference materials in order to prevent contamination or deterioration and in order to protect their integrity.*	No	
5.6 Measurement Traceability	Requirement	5.6.4.1	The laboratory shall provide satisfactory evidence of correlation of results, for example, by participation in a suitable program of inter-laboratory comparisons, proficiency testing, or independent analysis.	No	
5.6 Measurement Traceability	Requirement	5.6.4.1.a	Where commercially available, this traceability shall be to a national standard of measurement.	No	
5.6 Measurement Traceability	Requirement	5.6.4.1.b	Where possible, traceability shall be to national or international standards of measurement or to national or international standard reference materials.	No	

5.6 Measurement Traceability	Requirement	5.6.4.1.b	Internal reference materials shall be checked as far as is technically and economically practicable.	No	
5.6 Measurement Traceability	Procedure	5.6.4.2	Documented procedures shall exist for the purchase, receipt and storage of consumable materials used for the technical operations of the laboratory.	No	
5.6 Measurement Traceability	Record	5.6.4.2.a	The laboratory shall retain records for all standards, reagents, reference materials, and media, including the manufacturer/vendor	No	
5.6 Measurement Traceability	Record	5.6.4.2.a	The laboratory shall retain records for all standards, reagents, reference materials, and media, including the manufacturer's Certificate of Analysis or purity (if available)	No	
5.6 Measurement Traceability	Record	5.6.4.2.a	The laboratory shall retain records for all standards, reagents, reference materials, and media, including the date of receipt	No	
5.6 Measurement Traceability	Record	5.6.4.2.a	The laboratory shall retain records for all standards, reagents, reference materials, and media, including recommended storage conditions.	No	
5.6 Measurement Traceability	Record	5.6.4.2.b	For original containers, if an expiration date is provided by the manufacturer or vendor it shall be recorded on the container. If an expiration date is not provided by the manufacturer or vendor it is not required.	No	
5.6 Measurement Traceability	Record	5.6.4.2.c	Records shall be maintained on standard, reference material, and reagent preparation. These records shall indicate traceability to purchased stocks or neat compounds, reference to the method of preparation, date of preparation, expiration date and preparer's initials	No	
5.6 Measurement Traceability	Requirement	5.6.4.2.d	All containers of prepared standards, reference materials, and reagents shall bear a unique identifier	No	
5.6 Measurement Traceability	Requirement	5.6.4.2.d	All containers of prepared standards, reference materials, and reagents shall bear an expiration date.	No	

5.6 Measurement Traceability	Procedure	5.6.4.2.e	Procedures shall be in place to ensure prepared reagents meet the requirements of the method.	No	
5.6 Measurement Traceability	Requirement	5.6.4.2.f	Standards, reference materials, and reagents shall not be used after their expiration dates unless their reliability is verified by the laboratory.	No	
5.8 Handling Samples & Test Items	Procedure	5.8.1	*The laboratory shall have procedures for the transportation, receipt, handling, protection, storage, retention and/or disposal of test and/or calibration items, including all provisions necessary to protect the integrity of the test or calibration item, and to protect the interests of the laboratory and the customer.*	No	
5.8 Handling Samples & Test Items	Requirement	5.8.2	*The laboratory shall have a system for identifying test and/or calibration items.*	No	
5.8 Handling Samples & Test Items	Requirement	5.8.2	*The identification shall be retained throughout the life of the item in the laboratory.*	No	
5.8 Handling Samples & Test Items	Requirement	5.8.2	*The system shall be designed and operated so as to ensure that items cannot be confused physically or when referred to in records or other documents.*	No	
5.8 Handling Samples & Test Items	Requirement	5.8.2	*The system shall, if appropriate, accommodate a sub-division of groups of items and the transfer of items within and from the laboratory.*	No	
5.8 Handling Samples & Test Items	Record	5.8.3	*Upon receipt of the test or calibration item, abnormalities or departures from normal or specified conditions, as described in the test or calibration method, shall be recorded*	No	
5.8 Handling Samples & Test Items	Requirement	5.8.3	*When there is doubt as to the suitability of an item for test or calibration, or when an item does not conform to the description provided, or the test or calibration required is not specified in sufficient detail, the laboratory shall consult the customer for further instructions before proceeding and shall record the discussion.*	No	

5.8 Handling Samples & Test Items	Procedure	5.8.4	*The laboratory shall have procedures and appropriate facilities for avoiding deterioration, loss or damage to the test or calibration item during storage, handling and preparation.*	No	
5.8 Handling Samples & Test Items	Requirement	5.8.4	*Handling instructions provided with the item shall be followed.*	No	
5.8 Handling Samples & Test Items	Record	5.8.4	*When items have to be stored or conditioned under specified environmental conditions, these conditions shall be maintained, monitored and recorded.*	No	
5.8 Handling Samples & Test Items	Requirement	5.8.4	*Where a test or calibration item or a portion of an item is to be held secure, the laboratory shall have arrangements for storage and security that protect the condition and integrity of the secured items or portions concerned.*	No	
5.8 Handling Samples & Test Items	Procedure	5.8.5.a	The laboratory shall have a documented system for uniquely identifying the samples to be tested, to ensure that there can be no confusion regarding the identity of such samples at any time.	No	
5.8 Handling Samples & Test Items	Procedure	5.8.5.a	This system shall include identification for all samples, sub-samples, preservations, sample containers, tests, and subsequent extracts and/or digestates.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.5.b	This laboratory code shall maintain an unequivocal link with the unique field ID code assigned to each sample.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.5.c	The laboratory ID code shall be placed as a durable mark on the sample container.	No	
5.8 Handling Samples & Test Items	Record	5.8.5.d	The laboratory ID code shall be entered into the laboratory records	No	
5.8 Handling Samples & Test Items	Requirement	5.8.5.d	The laboratory ID code shall be the link that associates the sample with related laboratory activities such as sample preparation.	No	

5.8 Handling Samples & Test Items		5.8.5.e	In cases where the sample collector and analyst are the same individual, or the laboratory pre-assigns numbers to sample containers, the laboratory ID code may be the same as the field ID code.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6	The laboratory shall have a written sample acceptance policy that includes the following:	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include sample identification	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include the location of collection	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include the date of collection	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include the time of collection	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include collector's name	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include preservation type	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include sample type	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.a	proper, full, and complete documentation, which shall include any special remarks concerning the sample;	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.b	proper sample labeling to include unique identification	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.b	proper sample labeling to include a labeling system for the samples with requirements concerning the durability of the labels (water resistant) and the use of indelible ink;	No	

5.8 Handling Samples & Test Items	Requirement	5.8.6.c	use of appropriate sample containers;	Yes	8.1
5.8 Handling Samples & Test Items	Requirement	5.8.6.d	adherence to specified holding times;	Yes	8.2
5.8 Handling Samples & Test Items	Requirement	5.8.6.e	sufficient sample volume to perform the necessary tests;	Yes	8.1
5.8 Handling Samples & Test Items	Procedure	5.8.6.f	procedures to be used when samples show signs of damage, contamination or inadequate preservation; and	No	
5.8 Handling Samples & Test Items	Requirement	5.8.6.g	qualification of any data that do not meet the above requirements.	No	
5.8 Handling Samples & Test Items	Procedure	5.8.7.1	The laboratory shall implement procedures for verifying and documenting preservation.	No	
5.8 Handling Samples & Test Items	Record	5.8.7.2.a	retain correspondence and/or records of conversations concerning the final disposition of rejected samples; or	No	
5.8 Handling Samples & Test Items	Record	5.8.7.2.b	fully document any decision to proceed with the analysis of samples not meeting acceptance criteria.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.2.i	The condition of these samples shall be noted on the chain of custody or transmittal form and laboratory receipt documents.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.2.ii	The analysis data shall be appropriately qualified on the final report.	No	
5.8 Handling Samples & Test Items	Record	5.8.7.3	The laboratory shall utilize a permanent chronological record such as a logbook or electronic database to document receipt of all sample containers.	No	
5.8 Handling Samples & Test Items	Record	5.8.7.3.a	This sample receipt log shall record the following:	NA	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.a.i	client/project name,	No	

5.8 Handling Samples & Test Items	Requirement	5.8.7.3.a.ii	date and time of laboratory receipt,	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.a.iii	unique laboratory ID code, and	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.a.iv	signature or initials of the person making the entries.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.b	During the login process, the following information shall be unequivocally linked to the log record or included as a part of the log.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.b	If such information is recorded/documented elsewhere, the records shall be part of the laboratory's permanent records, easily retrievable upon request and readily available to individuals who will process the sample.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.b.i	The field ID code, which identifies each sample, shall be linked to the laboratory ID code in the sample receipt log.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.b.ii	The date and time of sample collection shall be linked to the sample and to the date and time of receipt in the laboratory.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.b.iii	The requested analyses (including applicable approved method numbers) shall be linked to the laboratory ID code.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.7.3.b.iv	Any comments resulting from inspection for sample rejection shall be linked to the laboratory ID code.	No	
5.8 Handling Samples & Test Items	Record	5.8.7.4	All documentation, such as memos, chain of custody, or transmittal forms that are transmitted to the laboratory by the sample transmitter, shall be retained.	No	
5.8 Handling Samples & Test Items	Record	5.8.7.5	A complete chain of custody record form, if utilized, shall be maintained.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.8	If a client specifies that a sample is to be used for evidentiary purposes, then a laboratory shall have a written SOP for how that laboratory will carry out legal chain of custody.	No	

5.8 Handling Samples & Test Items	Requirement	5.8.9.a	Samples shall be stored according to the conditions specified by preservation protocols.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.9.a.i	For samples with a specified storage temperature of 4°C, storage at a temperature above the freezing point of water to 6°C shall be acceptable.	NA	
5.8 Handling Samples & Test Items	Requirement	5.8.9.a.i	Samples that require thermal preservation shall be stored under refrigeration that is +/-2°C of the specified preservation temperature unless regulatory or method specific criteria exist.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.9.a.ii	Samples shall be stored away from all standards, reagents, and food. Samples shall be stored in such a manner to prevent cross contamination.	No	
5.8 Handling Samples & Test Items	Requirement	5.8.9.b	Sample fractions, extracts, leachates and other sample preparation products shall be stored according to Section 5.8.9 a) above or according to specifications in the method.	No	
5.8 Handling Samples & Test Items	Procedure	5.8.9.c	The laboratory shall have SOPs for the disposal of samples, digestates, leachates and extracts or other sample preparation products.	No	
5.9 QA	Requirement	5.9.1	*The laboratory shall have quality control procedures for monitoring the validity of tests and calibrations undertaken.*	NA	
5.9 QA	Record	5.9.1	*The resulting data shall be recorded in such a way that trends are detectable and, where practicable, statistical techniques shall be applied to the reviewing of the results.*	No	
5.9 QA	Requirement	5.9.1	*This monitoring shall be planned and reviewed and may include, but not be limited to, the following:*	No	
5.9 QA	Option	5.9.1.a	*regular use of certified reference materials and/or internal quality control using secondary reference materials;*	No	
5.9 QA	Option	5.9.1.b	*participation in interlaboratory comparison or proficiency-testing programmes;*	No	
5.9 QA	Option	5.9.1.c	*replicate tests or calibrations using the same or different methods;*	No	

5.9 QA	Option	5.9.1.d	*retesting or recalibration of retained items;*	No	
5.9 QA	Option	5.9.1.e	*correlation of results for different characteristics of an item.*	No	
5.9 QA	Requirement	5.9.2	*Quality control data shall be analysed and, where they are found to be outside pre-defined criteria, planned action shall be taken to correct the problem and to prevent incorrect results from being reported.*	Yes	9.3
5.9 QA	Requirement	5.9.3.a	All laboratories shall have detailed written protocols in place to monitor the following quality controls:	NA	
5.9 QA	Requirement	5.9.3.b	All quality control measures shall be assessed and evaluated on an on-going basis and quality control acceptance criteria shall be used.	Yes	9
5.9 QA	Requirement	5.9.3.c	When it is not apparent which is more stringent, the QC in the mandated method or regulations is to be followed.	NA	
5.9 QA	Procedure	5.9.3.c	The laboratory shall have procedures for the development of acceptance/rejection criteria where no method or regulatory criteria exist.	No	
5.9 QA	Requirement	5.9.3.c	The laboratory shall ensure that the essential standards outlined in Technical Modules or mandated methods or regulations (whichever are more stringent) are incorporated into their method manuals.	No	
5.9 QA	Requirement	5.9.3.c	The quality control protocols specified by the laboratory's SOP shall be followed (see Section 4.2.8.5 in this Standard).	Yes	9
5.10 Reporting Results	Requirement	5.10.1	*The results of each test, calibration, or series of tests or calibrations carried out by the laboratory shall be reported accurately, clearly, unambiguously and objectively, and in accordance with any specific instructions in the test or calibration methods.*	NA	

5.10 Reporting Results	Exemption	5.10.1	*In the case of tests or calibrations performed for internal customers, or in the case of a written agreement with the customer, the results may be reported in a simplified way.*	NA	
5.10 Reporting Results	Requirement	5.10.1	*The results shall be reported, usually in a test report or a calibration certificate (see Note 1), and shall include all the information requested by the customer and necessary for the interpretation of the test or calibration results and all information required by the method used. This information is normally that required by 5.10.2, and 5.10.3 or 5.10.4.*	No	Section 12 discusses reporting, but only includes reporting analytical result
5.10 Reporting Results	Requirement	5.10.1	*Any information listed in 5.10.2 to 5.10.4 which is not reported to the customer shall be readily available in the laboratory which carried out the tests and/or calibrations.*	No	
5.10 Reporting Results	Requirement	5.10.10	Some regulatory reporting requirements or formats, such as monthly operating reports, may not require all items listed below; however, the laboratory shall provide all the required information to their client for use in preparing such regulatory reports.	NA	
5.10 Reporting Results	Requirement	5.10.10	Laboratories operated solely to provide data for compliance purposes (in-house or captive laboratories) shall have all applicable information specified in Section 5.10 readily available for review by the accreditation body.	NA	
5.10 Reporting Results	Requirement	5.10.10	However, formal reports detailing the information are not required if:	NA	
5.10 Reporting Results	Requirement	5.10.10.a	the in-house laboratory is itself responsible for preparing the regulatory reports; or	NA	

5.10 Reporting Results	Requirement	5.10.10.b	the laboratory provides information to another individual within the organization for preparation of regulatory reports. The facility management shall ensure that the appropriate report items are in the report to the regulatory authority, if such information is required; or	NA	
5.10 Reporting Results	Requirement	5.10.2	*Each test report or calibration certificate shall include at least the following information, unless the laboratory has valid reasons for not doing so:*	NA	
5.10 Reporting Results	Requirement	5.10.2.a	*a title (e.g. "Test Report" or "Calibration Certificate");*	No	
5.10 Reporting Results	Requirement	5.10.2.b	*the name and address of the laboratory, and the location where the tests and/or calibrations were carried out, if different from the address of the laboratory;*	No	
5.10 Reporting Results	Requirement	5.10.2.c	*unique identification of the test report or calibration certificate (such as the serial number), and on each page an identification in order to ensure that the page is recognized as a part of the test report or calibration certificate, and a clear identification of the end of the test report or calibration certificate;*	No	
5.10 Reporting Results	Requirement	5.10.2.d	*the name and address of the customer;*	No	
5.10 Reporting Results	Requirement	5.10.2.e	*identification of the method used;*	No	
5.10 Reporting Results	Requirement	5.10.2.f	*a description of, the condition of, and unambiguous identification of the item(s) tested or calibrated;*	No	
5.10 Reporting Results	Requirement	5.10.2.g	*the date of receipt of the test or calibration item(s) where this is critical to the validity and application of the results, and the date(s) of performance of the test or calibration;*	No	
5.10 Reporting Results	Requirement	5.10.2.h	*reference to the sampling plan and procedures used by the laboratory or other bodies where these are relevant to the validity or application of the results;*	No	

5.10 Reporting Results	Requirement	5.10.2.i	*the test or calibration results with, where appropriate, the units of measurement;*	Yes	12.3
5.10 Reporting Results	Requirement	5.10.2.j	*the name(s), function(s) and signature(s) or equivalent identification of person(s) authorizing the test report or calibration certificate;*	No	
5.10 Reporting Results	Requirement	5.10.2.k	*where relevant, a statement to the effect that the results relate only to the items tested or calibrated.*	No	
5.10 Reporting Results	Requirement	5.10.3.1	*In addition to the requirements listed in 5.10.2, test reports shall, where necessary for the interpretation of the test results, include the following:*	No	
5.10 Reporting Results	Requirement	5.10.3.1.a	*deviations from, additions to, or exclusions from the test method, and information on specific test conditions, such as environmental conditions;*	No	
5.10 Reporting Results	Requirement	5.10.3.1.b	*where relevant, a statement of compliance/non-compliance with requirements and/or specifications;*	No	
5.10 Reporting Results	Requirement	5.10.3.1.c	*where applicable, a statement on the estimated uncertainty of measurement; information on uncertainty is needed in test reports when it is relevant to the validity or application of the test results, when a customer's instruction so requires, or when the uncertainty affects compliance to a specification limit;*	No	
5.10 Reporting Results	Requirement	5.10.3.1.d	*where appropriate and needed, opinions and interpretations (see 5.10.5);*	No	
5.10 Reporting Results	Requirement	5.10.3.1.e	*additional information which may be required by specific methods, customers or groups of customers.*	No	
5.10 Reporting Results	Requirement	5.10.3.2	*In addition to the requirements listed in 5.10.2 and 5.10.3.1, test reports containing the results of sampling shall include the following, where necessary for the interpretation of test results:*	NA	
5.10 Reporting Results	Requirement	5.10.3.2.a	*the date of sampling;*	No	

5.10 Reporting Results	Requirement	5.10.3.2.b	*unambiguous identification of the substance, material or product sampled (including the name of the manufacturer, the model or type of designation and serial numbers as appropriate);*	No	
5.10 Reporting Results	Requirement	5.10.3.2.c	*the location of sampling, including any diagrams, sketches or photographs;*	No	
5.10 Reporting Results	Requirement	5.10.3.2.d	*a reference to the sampling plan and procedures used;*	No	
5.10 Reporting Results	Requirement	5.10.3.2.e	*details of any environmental conditions during sampling that may affect the interpretation of the test results;*	No	
5.10 Reporting Results	Requirement	5.10.3.2.f	*any standard or other specification for the sampling method or procedure, and deviations, additions to or exclusions from the specification concerned.*	No	
5.10 Reporting Results	Requirement	5.10.5	*When opinions and interpretations are included, the laboratory shall document the basis upon which the opinions and interpretations have been made. Opinions and interpretations shall be clearly marked as such in a test report.*	No	
5.10 Reporting Results	Requirement	5.10.6	*When the test report contains results of tests performed by subcontractors, these results shall be clearly identified.*	No	
5.10 Reporting Results	Requirement	5.10.6	*The subcontractor shall report the results in writing or electronically. When a calibration has been subcontracted, the laboratory performing the work shall issue the calibration certificate to the contracting laboratory.*	No	
5.10 Reporting Results	Requirement	5.10.7	*In the case of transmission of test or calibration results by telephone, telex, facsimile or other electronic or electromagnetic means, the requirements of this International Standard shall be met (see also 5.4.7).*	No	
5.10 Reporting Results	Requirement	5.10.8	*The format shall be designed to accommodate each type of test or calibration carried out and to minimize the possibility of misunderstanding or misuse.*	No	

5.10 Reporting Results	Requirement	5.10.9	*Material amendments to a test report or calibration certificate after issue shall be made only in the form of a further document, or data transfer, which includes the statement: "Supplement to Test Report [or Calibration Certificate], serial number... [or as otherwise identified]", or an equivalent form of wording.*	No	
5.10 Reporting Results	Requirement	5.10.9	*Such amendments shall meet all the requirements of this International Standard.*	No	
5.10 Reporting Results	Requirement	5.10.9	*When it is necessary to issue a complete new test report or calibration certificate, this shall be uniquely identified and shall contain a reference to the original that it replaces.*	No	
5.10 Reporting Results	Requirement	5.10.11.a	Time of sample preparation and/or analysis if the required holding time for either activity is less than or equal to seventy-two hours.	No	
5.10 Reporting Results	Requirement	5.10.11.b	Results that are reported on a basis other than as received (e. g., dry weight).	No	
5.10 Reporting Results	Requirement	5.10.11.c	Any non-accredited tests shall be clearly identified as such to the client when claims of accreditation to this Standard are made in the analytical report or in the supporting electronic or hardcopy deliverables.	No	
5.10 Reporting Results	Requirement	5.10.11.d	Clear identification of numerical results with values outside the calibration range.	No	

