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| Laboratory Name: | A2LA Master Code: |
| Location: | Assmnt ID: |
| | Cert No. |

Assessor Instructions: Review a representative sample of laboratory reports to adequately cover the methods on the Scope of Accreditation, to determine compliance with the current DoD ELAP QSM Appendix E requirements (attached). Record the results in the table below and enter relevant information in the A2LA test method review matrix (Form A312).

| Laboratory Report ID | Method | Compliant | | Comment |
|----------------------|--------|-----------|---|---------|
| | | Y | N | |
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Appendix E – SW-846 Reporting Requirements

In the absence of client specified reporting criteria, the reporting requirements outlined below shall be used for hard-copy data reports from the laboratory. They are divided into mandatory requirements for all printed data reports, and optional requirements. Optional reporting requirements are those that may be required by a specific project, depending upon the needs of the project. The following elements are required: cover sheet, table of contents, case narrative, analytical results, sample management records, and QA/QC information. Information for third-party review may be required depending on project-specific requirements or the method being used. The requirements below do not dictate what records the laboratory should maintain.


1. Cover Sheet. The cover sheet shall specify the following information:
 - Title of report (i.e., test report, test certificate)
 - Name and location of laboratory (to include a point of contact, phone and facsimile numbers)
 - Name and location of any subcontractor laboratories, and appropriate test method performed
 - Contract number
 - Unique identification of the report (such as serial number)
 - Client name and address
 - Project name and site location
 - Statement of data authenticity and official signature and title of person authorizing report release
 - Amendments to previously released reports that clearly identify the serial number for the previous report and state the reason(s) for reissuance of the report
 - Total number of pages

2. Table of Contents. Laboratory data packages should be organized in a format that allows for easy identification and retrieval of information. An index or table of contents shall be included for this purpose.

3. Case Narrative. A case narrative shall be included in each report. The purpose of the case narrative is to:
 - Describe any abnormalities and deviations that may affect the analytical results, and
 - Summarize any issues in the data package that need to be highlighted for the data user to help them assess the usability of the data.

The case narrative shall provide:

- A table(s) summarizing samples received, providing a correlation between field sample numbers and laboratory sample numbers, and identifying which analytical test methods were performed. If multiple laboratories performed analyses, the name and location of each laboratory should be associated with each sample.
- A list of samples that were received but not analyzed
- A description of extractions or analyses that are performed out of holding times

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- A definition of all data qualifiers or flags used
- Identification of deviations of any calibration standards or qc sample results from appropriate acceptance limits and a discussion of the associated corrective actions taken by the laboratory
- Identification of samples and analytes for which manual integration was necessary
- appropriate notation of any other factors that could affect the sample results (e.g., air bubbles in VOC sample vials, excess headspace in soil VOC containers, the presence of multiple phases, sample temperature and sample pH excursions, container type or volume, etc.)
- identification of numerical results outside of limits of quantitation

4. Analytical Results. The results for each sample shall contain the following information at a minimum: (Information need not be repeated if noted elsewhere in the data package.)

- Project name and site location
- Field sample id number as written on custody form
- Laboratory sample id number
- Matrix (soil, water, oil, etc.)
- Date sample extracted or prepared
- Date and time sample analyzed
- Method numbers for all preparation, cleanup, and analysis procedures employed
- Analyte or parameter
- Method reporting limits and method limits of quantitation (at or above the low-level standard concentration) adjusted for sample-specific factors (e.g., aliquot size, dilution/concentration factors, moisture content)
- All samples and analytes for which manual integration occurred, including the cause and justification
- Limits of detection or method detection limits
- Analytical results with correct number of significant figures
- Any data qualifiers assigned
- Concentration units
- Dilution factors
- Any dilutions or concentrations for all reported data, and if neat or less diluted results are available, recorded and reported data from both runs
- Percent moisture or percent solids (all soils are to be reported on a dry weight basis)

The following information is optional but may be required site-specifically:

- Laboratory name and location (city and state)
- Sample description
- Sample preservation or condition at receipt
- Date and time sample collected
- Date sample received
- Sample aliquot analyzed
- Final extract volume
- CAS numbers
- Statements of the estimated uncertainty of test results


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5. Sample Management Records. These types of records include the documentation accompanying the samples:
 - Chain-of-custody records
 - Shipping documents
 - Records generated by the laboratory which detail the condition of the samples upon receipt at the laboratory (e.g., sample cooler receipt forms)
 - Telephone conversation records associated with actions taken or quality issues
 - If the laboratory collected the sample, sampling procedures

6. QA/QC Information. The minimum internal QC data package must include:
 - Matrix spikes percent recovery
 - Relative percent difference (RPD) of required duplicates
 - LCS percent recoveries
 - In-house LCS control limits, if they exceed DoD limits (see Appendix G section G.7)
 - Surrogate percent recoveries (organics)
 - Tracer recoveries (radiochemical)
 - Method blank results
 - Preparation, analysis, and other batch numbers
 - QC acceptance criteria for MS, LCS, surrogates, etc.
 - Spike concentrations for MS, LCS, surrogates, etc.

7. Information for Third-Party Review. The information listed below is required if third-party (from outside the laboratory) data validation or verification is to be performed. This information is therefore optional and is provided only when the project-specific requirements specify that a third-party review will occur:
 - Calibration data from the initial calibration curve
 - Initial calibration verification (ICV)
 - Continuing calibration verification(s) (CCV)
 - Performance standards analyzed in conjunction with the test method (e.g., tuning standards, degradation check standards, etc.)
 - Preparation, analysis, and other batch numbers¹
 - Raw data (e.g., chromatograms, mass spectrum results)
 - Matrix spike (MS), if applicable (includes spike target concentration levels, measured spike concentration, and calculated recoveries)¹
 - Rpd of required duplicates (e.g., MS, LCS, field duplicates)¹
 - Method blank results¹
 - LCS recoveries¹
 - Surrogate recoveries (organics)¹
 - Serial dilutions (SD) percent difference (inorganics)
 - Post-digestion spikes recovery (inorganics)

¹ Required for other purposes identified in number 6, QA/QC Information.

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- Project action levels, DQOs, MQOs, and associated acceptance criteria
- Supporting documentation (e.g., run logs, sample preparation logs, standard preparation logs).

In addition, the data package for third-party review may include summary forms from method detection limit studies.

The data validation guidelines for performance-based methods established in other DoD guidance on data review and data validation, EPA national functional guidelines, EPA regional functional guidelines, and project-specific guidelines for validation may all have distinct reporting formats. The appropriate validation guidelines should be consulted to determine what type of data package is required.