



6.0 Volatiles Analysis Toxicology Competency and Proficiency Tests

6.1 BACKGROUND

In accordance with the *Toxicology Training Plan*, a trainee will complete a competency test consisting of \geq six (6) specimens which contain representative commonly encountered analytes. Thereafter, the analyst will complete an annual proficiency test in each toxicology subdiscipline that they are currently conducting casework.

6.2 SCOPE

This method describes the criteria to be applied to the evaluation of results obtained for both competency and proficiency testing for ethanol and other volatiles analysis.

6.3 PROCEDURE

6.3.1 Competency Tests

6.3.1.1 The competency test can be ordered through a reliable vendor.

6.3.1.2 The acceptable alcohol concentration range is determined from the target value provided by the manufacturer of the competency test.

6.3.1.3 Reported values must fall within $\pm 10\%$ of the target value reported by manufacturer.

6.3.1.4 If all volatiles are not detected and/or the quantitative ethanol value(s) reported does not fall within the allowable range, analysis procedures will be reviewed and additional training may be required as deemed appropriate by the Discipline Leader. The analyst will be required to perform an additional competency test.

6.3.2 Proficiency Tests

6.3.2.1 The blood alcohol proficiency test can be ordered through an ASCLD/LAB approved vendor and/or Department of Transportation (DOT).

- 6.3.2.1.1 To comply with ASCLD/LAB International proficiency test requirements it is necessary for each laboratory to successfully complete one external test from an ASCLD/LAB International approved provider.
- 6.3.2.1.2 As described in Volatiles AM 11.0, in order to comply with IDAPA 11.03.01 (approval to perform alcohol determinations for legal purposes), a laboratory must take part in an Idaho State Police Forensic Services (ISP-FS) recognized proficiency testing program.
- 6.3.2.1.3 A single proficiency test can be used to comply with both IDAPA and ASCLD/LAB International requirements as long as it is an ASCLD/LAB approved test.
- 6.3.2.1.4 The appropriate tests to be ordered will be evaluated yearly by the Quality Assurance Manager with input from the Discipline Leader.
- 6.3.2.1.5 The acceptable alcohol concentration range is determined from the target value provided by the manufacturer of the competency test.
- 6.3.2.1.6 The target value will be based only on the compilation of results provided by ASCLD/LAB accredited laboratories.
- 6.3.2.1.7 The acceptable range is the target value \pm two standard deviations or 10%, whichever is greater.
- 6.3.2.1.8 Reported values must fall within this acceptable range.
- 6.3.2.1.9 If the value reported does not fall within the allowable range, analysis procedures will be reviewed and additional training may be required as deemed appropriate by the Discipline Leader. The analyst will be required to perform a competency test prior to resuming casework.

Revision History

6.0 Review of Volatiles Analysis Proficiency and Competency Tests

| Revision | Issue Date | History |
|-----------------|-------------------|--|
| 0 | 04-25-2002 | Original Issue |
| 1 | 05-24-2006 | Update, additional test providers added |
| 2 | 05-07-2007 | Updated format |
| 0 | 01-20-2011 | Initial version as 1.0, split from toxicology discipline analytical methods. Formerly Toxicology AM 5.7. |

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