

TENNESSEE BUREAU OF INVESTIGATION

Forensic Services Division

Toxicology Quality Assurance and Procedures Manual

6.5 Sampling



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The following section applies to the sampling and sample selection concerning evidence submitted to the Toxicology Unit.

6.5.1 Liquid Samples

6.5.1.1 Liquid samples (e.g., blood, urine, vitreous humor, beverages, reconstituted residues, etc.) shall be rotated or inverted several times to ensure sample homogeneity prior to analysis.

6.5.2.2 If the examiner, based on their training, experience, and knowledge, does not feel the sample has reached homogeneity (e.g. clotted), he/she shall analyze the sample for qualitative purposes only.

6.5.2 Solid Samples

6.5.2.1 Solid samples (e.g., liver, muscle, other tissue samples, foodstuffs, etc.) shall be homogenized prior to analysis.

6.5.2.2 For tissue, combine approximately equal weights of tissue and water (e.g., 1 gm liver and 1 mL water) and homogenize with a tissue grinder, etc. Aliquots of the homogenate will be considered to be a representative sample of the whole.

6.5.2.3 Solid samples will be analyzed for qualitative purposes only unless otherwise noted.

6.5.3 Other Samples

6.5.3.1 Other samples (e.g., pill fragments from a gastric sample, multiple residues/stains from articles of clothing, etc.) may not allow for homogeneity. In these circumstances, sample selection is required.

6.5.3.2 If a specific portion of a larger sample is tested, the sample selection will be based on the training, experience, and knowledge of the examiner.

6.5.3.3 Documentation of the sample selection shall be maintained in the case file and include how the sample was selected. Diagram(s) of the location of sample selection and any other relevant information should be included as well.

6.5.3.4 Conclusions will only be reported on the portion of the sample selected. This may be done through detailed sample description (e.g., pill fragment recovered from gastric sample), which will be included on the Official Alcohol and/or Toxicology Report.