Final



# Illinois State Police

Forensic Sciences Command 630 E. Washington, Springfield IL 62701

Rockford Laboratory, 200 S. Wyman, Rockford IL 61101

Forensic Science Center, 1941 W. Roosevelt, Chicago IL 60608

Westchester Laboratory, 10001 Roosevelt Rd., Westchester IL, 60154

Morton Laboratory, 1810 S. Main, Morton IL, 61550

Joliet Laboratory, 515 E. Woodruff Rd., Joliet IL 60432

Springfield Laboratory, 2040 Hill Meadows Dr., Springfield IL 62702

- Indexing Laboratory, 3710 E. Lakeshore Drive, Springfield IL 62712

Research & Development Laboratory, 2060 Hill Meadows Dr., Springfield IL 62702

Metro-East Laboratory, 10023 Bunkum Rd., Fairview Heights IL 62208

Southern Illinois Laboratory, 606 E. College, Carbondale IL 62901

# Report on Conformance with ISO/IEC 17025:2005 and the FQS-I Forensic Requirements for Accreditation (FRA-1 and others as applicable)

Reassessment conducted on 2007/08/26 - 30 and 2007/09/10 - 14

Forensic Quality Services, Inc. 7881 114<sup>th</sup> Ave, Largo FL 33773 Tel (727) 541-2228 Fax (727) 547-2692

Email pcw@forquality.org

### Toxicology

## Non-conformities

- 5.4.2 The laboratory shall confirm that it can properly operate standard methods before introducing the tests or calibrations. If the standard method changes, the confirmation shall be repeated.
- 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.
- 5.4.5.1 (FRA-1)a) All technical procedures used by a forensic science laboratory should be fully validated before being used on casework.
- 5.4.5.3 The range and accuracy of the values obtainable from validated methods (e.g. the uncertainty of the results, detection limit, selectivity of the method, linearity, limit of repeatability and/or reproducibility, robustness against external influences and/or cross-sensitivity against interference from the matrix of the sample/test object), as assessed for the intended use, shall be relevant to the customers' needs.

The Toxicology Section received two new GC/MS (#5 & #6) around July 2007. The instruments are currently marked in-service with no restrictions indicated by the analysts. The validation records pertaining to quantitations consisted of a single cocaine/benzoylecgonine run. The analyst explained that this run as accepted would apply to all other quantitations. The analyst explained there were no published guidelines on how to perform GC or GC/MS validations nor was this a planned event with the technical leader for Toxicology. Additionally, acceptance criteria for ion ratios (SIM Quantitations) were not published and were accepted visually. Uncertainty, LOD, reproducibility, robustness and scope were not addressed in the validation records for the new instruments.

#### Concerns

4.3.2.2c invalid or obsolete documents are promptly removed from all points of issue or use, or otherwise assured against unintended use;

Two procedures were found in the Pipet Dilutor logbook. One procedure was dated 1996 and the other was undated. The analyst interviewed referred to the 1996 procedure due to the infrequency of use. Both procedures accomplished the same goal but were procedurally different. It is suggested that the section only include current procedures in individual logbooks.

#### Comments

- 1- The Toxicology Section utilizes low and high in-house controls for their ethanol analysis. The containers stored in the refrigerator are labeled as high or low with the date prepared and the initials of the preparer. Sequence logs and control charts only document the type of control, not which lot or date prepared. It is recommended that the section record an identifying number or date in order to establish traceability of controls used to cases.
- 2- TX-IA-I states ethanol measurements are linear to 2.0 g/dL. Calibration data within the Westchester Toxicology Section establishes linearity from 0.050 0.300 g/dL. Case