# POLICE DEPARTMENT
# BALTIMORE, MARYLAND

**10/16/14**

**MEMO:** On-site Assessment of NMS Laboratories
2300 Statford Ave
Willow Grove, PA 19090

**CC:** To File

To ensure compliance with Standard 17 of the FBI QAS Requirements (effective 09/01/11), an on-site assessment of NMS laboratories was conducted on October 16, 2014. NMS is a private laboratory located in Willow Grove, PA which provides forensic biology and DNA analysis services and is accredited under ASCLD-LAB to ISO-17025 standards. The following areas were assessed during the on-site visit and through document review.

Facilities
The facility was clean and secure. Entry into the building requires keycard access or voice page. A visitor log is required and maintained. All laboratory areas and evidence storage vaults inside the facility are secured by keypad access. The laboratory areas were clean and organized, with visible reagents and instrumentation clearly labeled. DNA examination areas are separated as required under QAS Standard 6.

Employees
The qualifications and training records of all forensic biology employees were examined. A total of 7 employees constitute the forensic biology section in the following roles: 1 Director/QA Manager, 1 Technical Leader, 5 Forensic Biologists. All employees meet the minimum qualifications and educational requirements under QAS Standard 5 for the roles they currently hold.

Audits
The audit documents, findings, and responses were reviewed for the 2012 QAS Internal Audit and the 2013 QAS External Audit. Findings were observed related to quality assurance documentation, proficiency testing, validations, critical reagents, NIST traceability, and casefile reviewing. All responses to the findings were found to be acceptable. Changes to protocols and specific documentation within the casefiles provided objective proof of remediations to several of these previous findings.
No 2014 audit documentation was reviewed, since no audits had yet occurred. The next scheduled audit for 2014 is to be in December (external: ASCLD-LAB ISO 17025 and QAS).

Corrective Actions
Internal Corrective and Preventative Actions and responses from the past six months were reviewed. All corrective actions appeared to have been addressed properly, and the resulting remediations are considered acceptable. The majority of the corrective actions concerned casework conducted by previously employed analysts under different management and did not

involve recent casework. The laboratory provided objective proof of a process to identify and document inconsistencies, as well as adequate methods to address issues found.

PowerPlex Fusion Validation

The PowerPlex Fusion internal validation was reviewed for suitability and compliance with the QAS Standards. This validation was previously reviewed and memorialized under the 2013 External QAS Audit. Only the final and most comprehensive version (3rd version) of the validation summary was reviewed.

The validation was found to be thorough, comprehensive, and well organized. All results and data were within the expected parameters and did not exhibit any large anomalies or inconsistencies. The experiments performed during the validation were repeatability, reproducibility, accuracy/precision, sensitivity, analytical and stochastic threshold studies, mixtures (2-4 person), contamination, and forensic type samples.

Protocols for PowerPlex Fusion were also reviewed. All applicable results and parameters determined in the internal validation were properly incorporated into the laboratory protocols. Based on the documentation and data provided, the PowerPlex Fusion internal validation is compliant with Standard 8 of the QAS Standards and is acceptable for use in casework.

Casefiles

A total of five casefiles involving the use of PowerPlex Fusion were examined. All the cases appeared to follow the correct procedures, had all required documentation, and were technically and administratively reviewed. Appropriate standards and controls were used in each case, and, where appropriate, contained documentation of any results outside of the accepted parameters and the remedial action taken (such as a peak in a QC blank or failed injection).

Based on the above observations, NMS Laboratories exhibits continued compliance with the FBI Quality Assurance Standards and maintains a laboratory program that ensures the quality and integrity of forensic testing. NMS is therefore an acceptable outsource vendor for forensic testing, and, more specifically, in the area of DNA analysis using PowerPlex Fusion.

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