

15.1.3. If a specimen is submitted with a discrepancy, the testing result, along with the appropriate discrepancy code listed in Appendix C, will be placed on the SCD.

15.2. The LCO must authenticate his/her approval by signature or electronic means approved by the DASD CN.

15.3. Approved reporting names for the drugs used are THC, Cocaine, Amphetamine, Methamphetamine, MDMA, MDA, MDEA, codeine, morphine, heroin, PCP, LSD, secobarbital, butalbital, and phenobarbital. Any isomers reported will be described by the drug name followed by % relevant isomer, for example, Methamphetamine, 95% d isomer.

15.4. Test results will be expeditiously reported to the submitting unit. This may be accomplished by mail, message or electronically as approved by the DASD CN.

15.5. A computer generated listing of all forms that contain only negative results or specimens that were not testable can be used to report the negative results. All the appropriate discrepancy codes that are the final result for a specimen shall be recorded on the SCD or an approved computer generated form.

15.6. As soon as practical after LCO review, positive specimens will be placed in a freezer designated as permanent storage.

15.7. The originals of all chain of custody documents for positive specimens, along with their associated testing documents, will be filed in a secure storage area in the laboratory, or secure offsite storage facility as designated by the laboratory commander. The same documents are required for negative specimens but approved electronic copies may be filed in lieu of original documents. All testing and chain of custody documentation for specimens that tested positive will be maintained for three (3) years after which destruction is authorized. All testing and chain of custody documentation for specimens that tested negative will be maintained for 1 year after which destruction is authorized.

15.8. If a false positive result has been reported, the DTL commander must notify the Service Program Manager. The Service Program Manager must notify the ODASD CN and AFIP immediately. The appropriate corrective actions are described in DoDI 1010.16. The ODASD CN or the AFIP may require additional corrective actions.

15.9. If the percentage of false negative results exceeds the limit established by AFIP in the blind quality control samples, the DTL must take corrective actions recommended by AFIP.

15.10. The commander of the laboratory will appoint responsible individuals who will serve as custodians of records. Custodians will be responsible for ensuring that copies of records transmitted for official purposes are true and accurate reproductions of the original records.

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16. **Disposition of specimens.** After completion of testing, specimens will be processed in accordance with the procedures outlined below.

16.1. Positive specimens.

16.1.1. All positive specimens will be placed in long-term secure frozen storage. Chain of custody will be maintained on all specimens in long-term storage. The original SCD or supplemental chain of custody form will be annotated to reflect handling of each specimen. Specimens will be retained in long-term storage for a period of not less than one (1) year from the date of the transmitted report of results.

16.1.2. During the initial one-year period, the originating unit commander or legal representative may request, in writing, that the laboratory retain the specimen for an additional period of time. This request shall specify the length of time for which retention is requested and explain the reason that retention is required.

16.1.3. Upon expiration of the retention period, positive specimens may be discarded. The original SCD, supplemental chain of custody form, logbook, or Laboratory Information Management System (LIMS) will be used to document the disposal of the specimen at the end of the retention period.

16.1.4. Upon expiration of the retention period, positive specimens may be retained in a separate secure storage area for use in developmental work and special projects after removal of identifying numbers that link the specimen to official data records. The original SCD, supplemental chain of custody form, logbook, or LIMS will be used to document the transfer for special projects. No further chain of custody documentation is required for these specimens.

16.2. Negative specimens.

16.2.1. Negative specimens may be discarded after transmission of the negative report. Discard is documented by annotating the SCD, supplemental chain of custody form, logbook, or LIMS. The date entered shall accurately reflect the date the specimens were released from custody for disposal.

16.2.2. Negative specimens may be retained for use in developmental work or for special projects, after transmission of the negative report and removal of all identifying numbers or assignment of new identification numbers that cannot be linked to official data records. The transfer for special projects is documented by annotating the SCD, supplemental chain of custody form, logbook, or LIMS.

16.3. Discrepant specimens:

Specimens reported as adulterated/unfit for testing will be retained for the same period of time as positive specimens.

17. Retest Request.

17.1. After receiving a test result, the member, the member's attorney, the submitting commander, the MRO, or an attorney representing the submitting command, may request a retest. All requests shall be forwarded through the submitting command to the DTL that reported the result. Only one retest request from the member or representative per specimen will be honored unless the DTL Commander or court order directs further testing. The DTL Commander or designee has the right to retest any specimen when, in his/her opinion, the retesting will enhance the forensic result or clarify unusual information. The reason for a retest must be documented.

17.2. Retest of a specimen will consist of a procedure to confirm only the presence of the drug that was previously reported as positive. Retests will be performed using the approved confirmation method and reported as confirmed positive if the drug or target metabolite is present and the quantity is above the laboratory's established limit of detection.

17.3. A specimen may be sent to another laboratory for retesting, if the following requirements are met:

17.3.1. Requests shall be made in writing through the submitting command and will include:

17.3.1.1. The name of the point of contact and phone number.

17.3.1.2. The DTL LAN and SSN of the member.

17.3.1.3. The complete address of the laboratory where the specimen is to be sent along with a point of contact.

17.3.1.4. An explanation of the testing requested from the designated recipient laboratory.

17.3.1.5. An indication that arrangements have been made to pay for any tests with a statement absolving the DTL of any monetary charges for the testing.

17.3.1.6. The commercial courier account number to pay for shipping the aliquot to the designated laboratory.

17.3.1.7. The minimum volume of urine needed to be sent. The DTL will attempt to meet the volume requirement; however, the DTL will maintain a minimum of 10 milliliters at the laboratory for its own retest purposes unless otherwise directed by the Military Service Drug Testing Program Manager, Board President, or military judge.

17.4. The DTL will document handling of the specimen on the original SCD or supplemental chain of custody form. A new chain of custody form will be prepared to document handling of the aliquot and will be mailed with the aliquot to the designated laboratory. The original bottle, remaining urine specimen, the original SCD, and any supplemental chain of custody forms will be retained by the DTL. The DTL will transmit a document that explains the testing to be performed or a copy of the requestor's letter that contains this explanation.

18. Bottle Request.

18.1. A request for the original specimen bottle for a court-martial or administrative board by the appropriate trial counsel/judge/board president/commander will be honored if the request is in writing and identifies the LAN, SSN of the member and a return mailing address.

18.2. The original SCD or supplemental chain of custody form shall be annotated to document the transfer of the remaining specimen to a new bottle labeled with all identifying numbers that were on the original bottle label and the date and location of subsequent storage of the new bottle. A new custody document shall be constructed or an affidavit generated to document the movement of the original bottle to court.

19. Document/Information Request.

19.1. Requests for documents and additional information shall be submitted in writing through the submitting commander or an attorney representing the Command. Requests will include the DTL LAN, the SSN of the member, trial date, and the name/address/phone number of the point of contact. The DTL shall make every effort to promptly respond to all requests and will answer all requests to the fullest extent possible.

19.2. Full Litigation Packet: The packet shall include a copy of all chain of custody documents for all assays attempted and performed, copies of all acceptable instrument printouts that directly involved the specimen, and all standards and controls run with the specimen. The DTL will also append a cover sheet to the litigation packet that contains LAN, SSN, and requestor's address. The litigation packet will include a summarized result sheet that lists the tests performed, dates of testing, drug concentrations for the specimen and statement of business records certification. A LCO shall authenticate the packet attesting that he/she reviewed the documents and that the business record certification statement is accurate.

19.3. Commander's/Summary Packet: This packet is an abbreviated litigation packet. The commander's packet shall, at a minimum, contain a copy of a results summary sheet that includes the tests performed, dates of the tests, and results of the tests.

19.4. A copy of each litigation packet shall be stored in the DTL files for a period of at least one year.

20. **Expert Witness/Consultant Request and Legal Assistance.**

20.1. The DTL will make every effort to accommodate requests for expert witnesses/consultants. When funding is provided by the requesting command, the DTL shall require receipt of accounting information or invitational travel orders, as appropriate, from the requesting unit at least ten (10) days in advance of when the witness will be required to testify. Installations will coordinate with the laboratory to schedule expert testimony.

20.2. The laboratory commander shall identify in writing a legal office that can be consulted for assistance.

21. **Test Panels.**

21.1. Each DTL will test all military personnel specimens for Amphetamines (confirmation required for amphetamine, d-methamphetamine, MDMA, MDA, and MDEA), BZE (cocaine metabolite), and THCA (marijuana metabolite). Each DTL shall pulse test, i.e. test less than 100% of samples received, for Barbiturates (confirmation required for butalbital, phenobarbital, and secobarbital), Opiates (confirmation required for codeine, morphine, and the heroin metabolite 6-acetylmorphine), LSD, and PCP. The fraction of specimens pulse tested shall be determined by the Service Drug Testing Program Manager and may include 100% testing. (See Appendix A for abbreviations)

21.2. Military applicant specimens will be tested for THCA (marijuana metabolite) and benzoylecgonine (cocaine metabolite).

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22. **Cutoff Concentrations.**

22.1. For all screens:

Amphetamines (amphetamine, methamphetamine)	500 ng/mL
MDMA (ecstasy)	500 ng/mL
Barbiturates	200 ng/mL
BZE, cocaine metabolite	150 ng/mL
LSD	500 pg/mL
Marijuana, cannabinoids	50 ng/mL
Opiates, morphine	2000 ng/mL
PCP	25 ng/mL

22.2. For confirmation:

Amphetamines	
Amphetamine	500 ng/mL
Methamphetamine	500 ng/mL total & \geq 20% d-isomer

MDMA	500 ng/mL
MDEA	500 ng/ml
MDA	500 ng/mL
Barbiturates	200 ng/mL
Cocaine, benzoylecgonine	100 ng/mL
LSD	200 pg/mL
LSD metabolite, 2-oxo-3-hydroxy-LSD	1 ng/mL
Marijuana, THCA	15 ng/mL
Opiates	
Morphine	4000 ng/mL
Codeine	2000 ng/mL
Heroin, 6-Acetylmorphine (6AM)	10 ng/mL
PCP	25 ng/mL

22.3. Reporting Requirements

22.3.1. Specimens with a valid chain of custody and screening and confirmation values for a specific drug equal to or greater than the cutoff value will be reported as positive for that drug. All other properly submitted specimens will be reported as negative for the drug of interest.

22.3.2. All specimens with a positive screen for morphine must have a confirmation test for morphine and codeine. If morphine is positive, the specimen must be tested for 6-AM. If the 6-AM test is positive, the specimen will be reported as positive for heroin.

22.3.3. All specimens that are positive for methamphetamine will have an isomer analysis. If the specimen is $\geq 20\%$ d-methamphetamine and the total methamphetamine is ≥ 500 ng/mL, the specimen will be reported as positive for methamphetamine. If the specimen is $< 20\%$ d-methamphetamine, it will not be reported as positive for methamphetamine.

22.3.4. Specimens with a positive initial test for LSD may be confirmed for either LSD or the LSD metabolite 2-oxo-3-hydroxy-LSD using the respective cutoff concentrations shown above.

23. **Quality Assurance (QA).** QA is a comprehensive program through which the laboratory verifies and documents the accuracy and quality of test results. The internal QA Program should monitor quality control, internal methods development and validation, instrument and drug certification, personnel certification, overall data review, instrument/equipment calibrations, open and blind external proficiency performance, and external audits.

23.1. The DTL will participate in the AFIP inspection and proficiency programs. The laboratory shall describe in their SOP how they will comply with the requirements of these programs. After results of the proficiency program are reported by the AFIP, the AFIP proficiency material may be used as internal controls and reference material.

23.2. Each DTL shall validate all procedures once a year to ensure that testing results are accurate and precise. Records of these validations will be kept for the same period of time as records for positive specimens that were tested under the auspices of this validation. Each DTL SOP will describe validation procedures.

23.3. Each DTL will verify through scientific studies or intra-assay check samples that carryover of drug from one specimen to another is negligible. The DTL SOP will describe the procedures to control for carryover.

24. **Quality Control (QC).** Each laboratory will establish an internal QC program to provide guidelines for the preparation, certification and performance of controls and standards and to establish criteria for review of technical data.

25. **Computer Requirements.** For the LIMS computer the following are required in the processing of any military specimens.

25.1. The computer security system shall comply with DoD Directive 8500.1, "Information Assurance". A continuity of operations plan shall be prepared and reviewed by the U.S. Army Medical Information Support Services Activity in accordance with AR 25-1 as detailed in AR 380-19.

25.2. Each specimen shall be tracked within the LIMS using specific identifiers to include the SSN, LAN, submitting unit code, and dates of specimen receipt and reporting of results. The LIMS shall maintain a forensic record of each action taken on an individual specimen.

25.3. LCOs who reviewed and approved the screening, quality control, and confirmation results shall be identified and this information shall be retrievable from the LIMS. The LIMS shall also be able to verify that these steps have been completed before results may be reported manually or electronically.

25.4. The LIMS shall be capable of verifying that the SSN on the SCD matches the SSN on the bottle.

25.5. The LIMS shall maintain an audit trail of changes to the records. This record shall include the original information, the new information, the date/time of the change and the identity of the individual that made the change.

26. **Equipment**

26.1. Screening and Confirmation Equipment are described in appendices.

26.2. Analytical balances, pH meters, automatic pipetors, pipets, and any other equipment

used to make quantitative measurements used for forensic purposes in the laboratory shall be certified for accuracy annually. Weights used to certify the balance shall be at least Class S.

26.3. Centrifuges shall be maintained in good working order and kept clean.

26.4. Documentation of certification shall be maintained with forensic records and kept for the same length of time as records of the tests that were based on the equipment.

27. **Safety**

27.1. The laboratory shall maintain operating procedures to maximize personnel safety.

27.2. The DTL SOP shall describe safety procedures in accordance with Good Laboratory Practice (GLP).

28. **Facility/Environment/Power**

28.1. The facility shall have air conditioning, heating, and power that will maintain the laboratory in accordance with GLP.

28.2. In case of primary power failure the laboratory shall have backup power or plans for operations under these conditions.

28.3. Equipment with integrated computer systems shall be connected to an Uninterrupted Power Source (UPS) or a similar system to protect these critical components from power surges.