



3.1 Introduction – No Activities

3.2 Orientation Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP, TP102, 1.0 Introduction and 2.0 Operations.			

3.3 Drug Overview Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Review External Document, VA DFS, Controlled Substances Procedures Manual, Sections 6 – 7 and 17 – 30 for use as reference throughout the training program.			
b.	Read the references (as available)			
c.	Review the references (as available)			
d.	Answer the questions			
e.	Develop a “Drug Known” notebook			

3.4 Sample Management Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP Sections 4.0 – 8.0, 10.1-10.3 and Sampling SOP, QP102.10.1.			
b.	Review the references (as available)			
c.	Observe training mentor receive a forensic drug sample, to include identification of the proper analytical scheme.			
d.	Read Weighing SOP, QP102.10.2 and Forensic Drug Chemistry SOP Section 10.4.			
e.	Perform the procedure outlined in Forensic Drug Chemistry SOP Section 10.5.2.			
f.	Observe the training mentor weigh a forensic drug sample and determine an appropriate sample for analysis.			
g.	Answer the questions			



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3.5 Marijuana Identification Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP Sections 7.1-7.1.3 and External Document, VA DFS, Controlled Substances Procedures Manual, Section 6, Marijuana and Hashish Oil.			
b.	Read Color Test Working Instructions Section 2.1.			
c.	Read Drug Identification Bible pp 386-407 and review pp 581-686.			
d.	Read the references (as available)			
e.	Review the references (as available)			
f.	Observe training mentor perform analysis of known marijuana sample.			
g.	Prepare Modified Duquenois-Levine color test reagent.			
h.	Conduct analysis of known marijuana sample under the supervision of the training mentor.			
i.	Conduct examination of plant training samples keep notes in "Drug Known" book.			
j.	Conduct Duquenois-Levine Ratio Test			
k.	Answer the questions			
l.	Complete the Marijuana/Plant Material Training Exam.			

3.6 Pharmaceutical Preparations Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP Section 7.1.2 and 7.1.4 and External Document, VA DFS, Controlled Substances Procedures Manual, Section 7.			
b.	Review the references (as available)			
c.	Add description and drawing of pharmaceutical preparations to "Drug Known" book.			
d.	Answer the questions			
e.	Observe training mentor conduct visual identification and analysis of unknown pills or tablets.			
f.	Conduct visual identification and prepare sample for analysis under the supervision of the training mentor.			



3.7 Color Tests Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP Sections 7.1.5 and 10.2			
b.	Read Color Tests Working Instructions.			
c.	Read Reagent Check SOP, QP102.1.			
d.	Read the references (as available)			
e.	Prepare color test reagents for the following: (1) Marquis, (2) Cobalt Thiocyanate, (3) Sodium Nitroprusside.			
f.	Perform the following color tests on all available drug standards (using secondary standards when possible) or as directed by the training mentor: (1) Marquis, (2) Cobalt Thiocyanate, (3) Sodium Nitroprusside. Annotate results in “Drug Known” book; add additional color tests information not currently for reference.			
g.	Answer the questions			

3.8 Extraction Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Extractions Working Instructions.			
b.	Review <u>The Merck Index</u> for solvents of commonly submitted drugs.			
c.	Add information useful for extractions to “Drug Known” book (ie. Solvents soluble in, acid/basic/neutral, typical extraction schemes for sample type, etc.)			
d.	Review commonly used extraction methods with training mentor.			
e.	Answer the questions			

3.9 Fourier Transform Infrared Spectrometer Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP Sections 7.1.7, 9.3, 10.7 and Maintenance Plan SOP, QP102.5.			
b.	Read the references			
c.	Answer the questions			



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d.	Observe training mentor prepare sample, conduct analysis, and interpret analysis on FTIR.				
e.	Analyze the following drug standards (using secondary where available) using FTIR: <ul style="list-style-type: none"> • Methamphetamine • Amphetamine • Cocaine HCl • Cocaine Base • Others identified by training mentor <p>Match spectra to WPDCL data base or other literature sources. Annotate key peaks in “Drug Known” book.</p>				

3.10 Gas Chromatography Mass Spectrometry Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP Sections 7.1.6, 9.1 – 9.2, 10.6 and Maintenance Plan SOP, QP102.5.			
b.	Read the references			
c.	Review the references			
d.	Answer the questions			
e.	Perform an autotune on the GC/MS and describe what each value on the report represents. What types of parameter values may indicate a problem with the instrument?			
f.	Compare the mass spectral data for ephedrine, pseudoephedrine, methamphetamine, and propoxyphene. What are the significant differences which make these spectra unique to their parent compound?			
g.	Compare the mass spectra for LSD and LAMPA and indicate their differences.			
h.	Obtain an unknown spectrum from your training mentor. Using interpretive methods, give as much information about the unknown compound as possible. Review findings with training mentor. Training mentor will conduct re-training if interpretation is inadequate.			
i.	Perform a headspace injection of a mixture of volatile solvents.			
j.	Obtain unknown drug samples (at least one of each: powder, pill/tablet, rock, plant material) from your training			



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	mentor. Analyze these samples using any and all methods qualified to perform. Report results to training mentor.				
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3.11 Reporting Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Read Forensic Drug Analysis SOP Section 12, Quality Manual 2.10 and Reporting Results SOP, QP102.10.			
b.	Observe the training mentor or qualified analyst perform the steps below: 1) Technical review of forensic drug report and supporting documentation 2) Administrative review of forensic drug report 3) Distribution of report			
c.	Prepare a written report of two unknown samples from 3.10.1q			
d.	Explain the following terms used for reporting: <ul style="list-style-type: none"> • Insufficient for Identification • No controlled substance found • Inconclusive 			

3.12 Courtroom Testimony Activities

		Trainee Initials	Completion Date	Mentor Initials
a.	Observe at least one forensic scientist give expert testimony regarding forensic drug analysis.			
b.	Participate as the forensic drug analysis expert in a moot court exercise.			



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Revision Table

Revision #	Effective date	Revised by	Description of Revisions
Original	05/14/2013	A. Hutson	

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Authorization

This Standard Operating Form, Original Issue, has been approved and authorized by:

Bethany P. Pridgen, MFS
Forensic Lab Manager

Date

Ralph M. Evangelous
Chief of Police

Date

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