

## WORK INSTRUCTIONS

### 1.2 Screening for Drugs-of-Abuse in Blood by EMIT

#### REFERENCE MATERIAL

##### Stock Reference Material Solution

1mg/mL: Benzoylecgonine, Lormetazepam, Methadone, d-Methamphetamine and Morphine.  
100µg/mL: 11-nor-9-carboxy- $\Delta^9$ -THC

##### Working Calibrator Solution

Add  $\approx$ 9mL Methanol to 10mL volumetric flask. Add the amount of stock reference material indicated in the following table. Bring flask to volume. Record lot numbers of reference material on reagent log. Solution is stable for 12 months when stored in freezer.

Stock Reference Material	Volume ( $\mu$ L)	Resulting Concentration (ng/ $\mu$ L)
Benzoylecgonine	50	5
Lormetazepam	50	5
Methadone	50	5
d-Methamphetamine	50	5
Morphine	50	5
11-nor-9-carboxy- $\Delta^9$ -THC	100	1

##### Working High Control (Level 5) Solution

When possible use reference material to prepare controls that are obtained from a difference source than the one used to prepare calibrators.

Add  $\approx$ 9mL Methanol to 10mL volumetric flask. Add the amount of stock reference material indicated in the following table. Bring flask to volume. Record lot numbers of reference material on reagent log. Solution is stable for 12 months when stored in freezer.

Stock Reference Material	Volume ( $\mu$ L)	Resulting Concentration (ng/ $\mu$ L)
Benzoylecgonine	100	10
Lormetazepam	100	10
Methadone	100	10
d-Methamphetamine	250	25
Morphine	200	20
11-nor-9-carboxy- $\Delta^9$ -THC	200	2

Working Additional Control Solution

When possible use reference material to prepare controls that are obtained from a different source than the one used to prepare calibrators.

Add  $\approx$ 9mL Methanol to 10mL volumetric flask. Add the amount of stock reference material indicated in the following table. Bring flask to volume. Record lot numbers of reference material on reagent log. Solution is stable for 12 months when stored in freezer.

Compound	Volume ( $\mu$ L)	Final Concentration (ng/ $\mu$ L)
Benzoylcegonine	50	5
Lormetazepam	50	5
Methadone	50	5
d-Methamphetamine	50	5
Morphine	50	5
11-nor-9-carboxy- $\Delta^9$ -THC	50	0.5

**ASSAY SET-UP**

Use same lot of negative whole blood to prepare calibrators, positive controls and negative control.

Blood Cut-off Calibrator Preparation**Calibrator 1 (200ng/mL): Opiates**

Add 40 $\mu$ L working calibrator solution to 1mL whole blood.

**Calibrator 2 (200ng/mL): Amphetamines**

Add 40 $\mu$ L working calibrator solution to 1mL whole blood.

**Calibrator 3 (20 or 100ng/mL): Cannabinoids, Cocaine-M & Methadone**

Add 20 $\mu$ L working calibrator solution to 1mL whole blood.

**Calibrator 4 (100ng/mL): Benzodiazepine**

Add 20 $\mu$ L working calibrator solution to 1mL whole blood.

Blood High Control Preparation

Add 20 $\mu$ L of high control stock solution to 1mL negative whole blood.

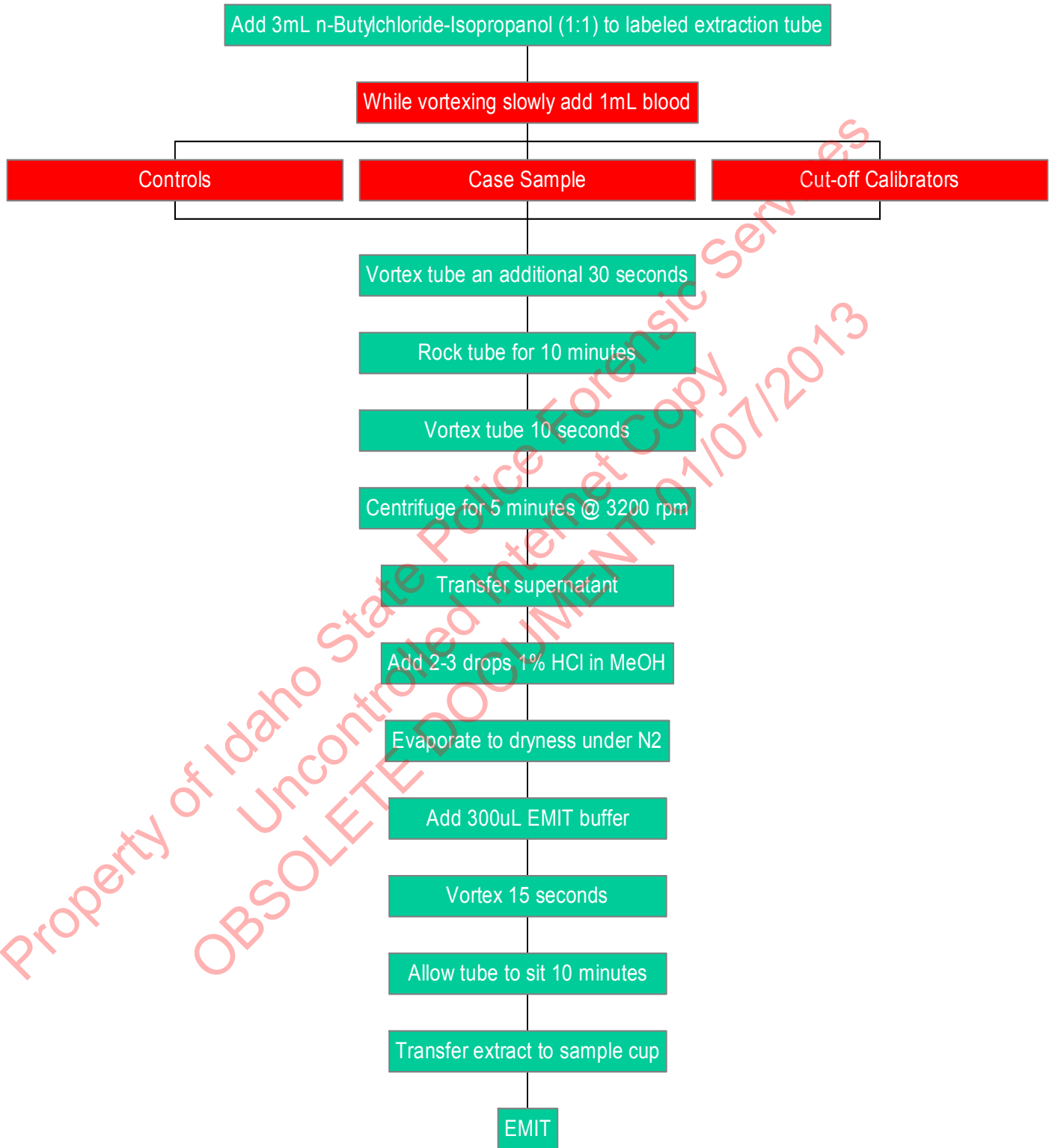
Stock Reference Material	Stock Concentration (ng/ $\mu$ L)	Control Concentration (ng/mL)
Benzoylcegonine	10	200
Lormetazepam	10	200
Methadone	10	200
d-Methamphetamine	25	500
Morphine	20	400
11-nor-9-carboxy- $\Delta^9$ -THC	2	40

Blood Additional Control Preparation (- 25% & +50% of Assay Cut-off)

<b>Additional Quality Controls for Benzodiazepine, Cocaine-M &amp; Methadone Assays</b>		
<b>100ng/mL Cut-off</b>		
	25% Below	50% Above
Concentration (ng/mL)	75	150
<i>Working Additional Controls Solution: 5ng/μL</i>		
Add the following volumes to 1mL each of whole blood:	15μL	30μL

<b>Additional Quality Controls for Amphetamine &amp; Opiate Assays</b>		
<b>200ng/mL Cut-off</b>		
	25% Below	50% Above
Concentration (ng/mL)	150	300
<i>Working Additional Controls Solution: 5ng/μL</i>		
<b>Additional Quality Controls for Cannabinoid Assay</b>		
<b>20ng/mL Cut-off</b>		
	25% Below	50% Above
Concentration (ng/mL)	15	30
<i>Working Additional Controls Solution: 0.5ng/μL</i>		
Add the following volumes to 1mL each of whole blood:	30μL	60μL

### BLOOD EXTRACTION PROCEDURE



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#### *Revision History*

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Revision No.	Issue Date	Revision/Comments
0	6/05/2009	Original Issue

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