

Collaborative Testing Services, Inc. FORENSIC TESTING PROGRAM

# Manufacturer's Information Test No. 21-5601/5: Bloodstain Pattern Analysis

Each sample set contained the following images: Angle of Impact Determination Stains A - E (Item 1), Pattern Description: Single Pattern Recognition (Items 2, 3, and 4), and Pattern Description: Recognition and Description (Item 5) provided in photographic (5601) or digital download (5605) form. Participants were requested to determine the angle of impact of Stains A - E (Item 1), identify the pattern for Items 2 - 4, and write a brief description of the pattern(s) for Item 5. A digital download supplemental of the entire target image for Items 2-5 was provided to all participants as a courtesy.

### SAMPLE SET ASSEMBLY:

Once sample preparation was done, verification was completed, and photos produced, each photo set was placed into a pre-labeled sample pack envelope, sealed with evidence tape, and initialed with "CTS". Digital download media were provided as a zipped file on the CTS portal.

#### **VERIFICATION:**

Laboratories that conducted the predistribution examination of the Angle of Impact stains reported consistent results for each of the Angle of Impact Stains A - E, and their findings were comparable to the Preparation Angles. The responses of predistribution laboratories were consistent with the expected pattern identifications for Items 2 - 4 and the pattern description for Item 5.

SAMPLE PREPARATION: All stains were produced using human whole blood.

#### ANGLE OF IMPACT DETERMINATION:

For each impact, blood was released from a pipette at a height of approximately thirty-six inches above the impact surface. White posterboard targets were placed on an inclined plane at the following predetermined angles from the vertical:

<u>Stain</u>	Preparation Angle
А	10.9°
В	16.9°
С	10.9°
D	22.0°
E	29.0°

Please note that the Preparation Angle is the value used for the test preparation phase and may not necessarily represent the final angle of the drops. It is advised to wait for the Grand Mean statistics available in the Summary and Individual Reports before evaluating performance.

The information presented here details how test samples were prepared as well as any design specifications. This information does not necessarily represent the answers that should or could be obtained from an examination of the sample(s). Final interpretation of the results should be deferred until the summary report is available.

## Manufacturer's Information, continued Test No. 21-5601/5: Bloodstain Pattern Analysis

#### PATTERN DESCRIPTION:

- Item 2: A mixture of saliva and blood in a weigh boat was held approximately 12 inches from a vertical target. Compressed air was sprayed across the surface of the mixture in the direction of the target.
- Item 3: A dropper was filled with blood and held approximately 36 inches above a horizontal target. Several drops of blood were released in the same general area onto the target.
- Item 4: A sleeve was dipped and coated in blood along its outer side. While being worn, the sleeve was pressed against the vertical target, moved left to right and upwards, then lifted away.
- Item 5: A small volume of blood was deposited onto a horizontal target. Using a closed fist, the blood was struck. A dropper was used to deposit several individual drops of blood across the target surface in a linear fashion. When partially dry, one of these drops was passed through with a rag from left to right.

The information presented here details how test samples were prepared as well as any design specifications. This information does not necessarily represent the answers that should or could be obtained from an examination of the sample(s). Final interpretation of the results should be deferred until the summary report is available.