BLOOD INFORMATION SHEET

PREAMBLE

Blood is a bodily fluid that delivers necessary substances to the body's cells – such as nutrients and oxygen – and transports waste products away from those same cells. Hemoglobin is a component of blood and transports oxygen from the lungs to the rest of the body (i.e. the tissues) where it releases the oxygen for cell use.

TESTS AND LIMITATIONS

Following a visual examination of an item of evidence, which may or may not require the use of enhanced lighting, candidate stains (those which appear blood-like) are tested using biochemical methods.

- **Kastle Meyer Test**

  A test that involves the sequential addition of three chemicals to a candidate stain. The production of a characteristic pink colour following addition of the third chemical indicates a positive test.

  False-positive tests have been observed with certain substances, such as some types of fresh plant material and a few chemicals, but none of these would have the visual characteristics of candidate stains for testing in the first place.

  The test is quite sensitive, and positive results are possible even in the absence of visible staining.

  A positive Kastle Meyer test on a blood-like stain indicates the presence of blood. When positive test results are obtained in the absence of visible staining or with staining that is not blood-like, conclusions are worded to reflect associated limitations.

  The Kastle Meyer test cannot distinguish human from animal blood.

- **ABAcard® HemaTrace® Test**

  This is a test used to confirm that blood stains are of human origin. The commercially produced test card specifically binds the hemoglobin of humans and higher primates, and produces a distinct visual reaction when it does.

  The blood of most commonly encountered animals produces negative results with this test (positive results have been reported with ferret blood).

  Heavily degraded blood stains may produce negative results.

DEPOSITION & PERSISTENCE

- Dried blood stains that have been deposited onto inert surfaces and which are undisturbed and otherwise protected from the elements are stable and detectable for many years.
- Exposure of blood stains to moisture, sunlight, heat or chemicals will increase the likelihood of degradation, which in turn may render stains undetectable and/or may damage any associated DNA.
- Blood stains on items of clothing/fabric may persist and be detectable following laundering.