

Determining Latent Prints 'Of-Value' or 'No-Value'

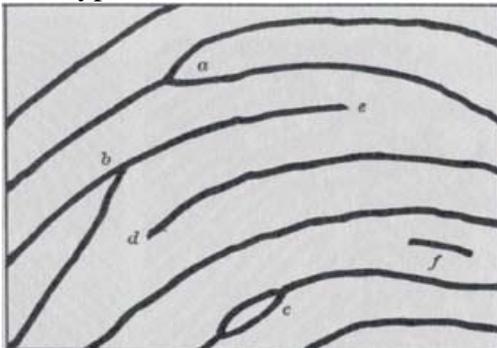
Allison Fischer – University of Baltimore  
Internship Program  
Maryland State Police – Forensic Science Division

Latent prints recovered from a crime scene can be crucial evidence for nearly any investigation. One factor which may not be clear is that frequently a latent print which has been successfully developed and recovered will not be good enough for an examiner to identify. The Maryland State Police Forensic Science Division policy on latent print suitability requires that the print is deemed to be identifiable. Prints of lesser value which may be suitable only for exclusion are not compared.

The determination of whether the impression is of value for comparison is based on the quantity and clarity of features (Hicklen, pg. 2). All subjective determinations are based on the opinion of the analyst performing the given examination. Such determinations are supported by the data and resources present at the time the examination is conducted and any conclusion is rendered. It is understood that opinions may vary within some degree and do not necessarily mean that either opinion is wrong or constitutes an error (MSP-LPIU SOP, pg. 1).

As there are no clear standards of sufficiency for individualization, every ridge present is potentially capable of being individualized based upon the ability of the analyst and their own criteria to reach a definable individualization threshold (Standards of Sufficiency Article, pg. 1). The examiner must use knowledge and understanding gained from training and experience to make judgments about the features of the sources and details in prints to reach a conclusion about the origin of the print in question. (The Fingerprint Sourcebook, 9-4).

A way to determine if a latent lift is ‘of-value’ or ‘no-value’, is to briefly search for individual minutiae throughout the print. Minutiae, also known as Galton details, consist of a uniting or dividing ridge (bifurcation), the end or beginning of a ridge (ending ridges), a short island (short ridge), and an enclosure (two bifurcations facing each other) (The Fingerprint Sourcebook, 1-9). The following reference can be used to see each type of minutiae as described above:



**A & B: Bifurcations**  
**C: Enclosure**  
**D & E: Ending Ridges**  
**F: Island**

The Fingerprint Sourcebook – Chapter 1  
pg. 1-9, Figure 1-10; Reprinted from Galton 1892

These types of characteristics are the primary features looked at to identify a print. These characteristics make the latent print unique depending on where they are located.

When assessing a latent print, it is important to consider variants in the contrast of the impression. There may be two latent’s of different contrast next to each other on the same surface. If the print of the higher contrast turns out to be of ‘no-value’, do not overlook the latent of lower contrast, for this latent may be ‘of-value’. When processing for latent prints, an evaluation is performed when ridge detail is observed to determine if it is sufficient to recover. Post recovery, will generally be the best time to perform a final field evaluation, under magnification, to decide if the print is good enough to submit for an examiner to possibly identify it.

If you are unsure if the latent you have is 'of-value' or 'no-value', you should send it into the lab to be examined. If you have determined that your print is 'of-value' or is of 'no-value', you should follow the procedure for the agency you are working under. If their policy is to submit all prints recovered at the scene, submit all prints back to the crime lab. For all submissions the latent print examiner will make the final decision about the latent being 'of-value' or 'no-value'.

This pictorial reference guide is to provide a general idea of how an MSP-LPIU examiner would decide if a print is 'of-value' or 'no-value'. This guide was created to assist crime scene technicians in determining the value of a latent because of three reasons:

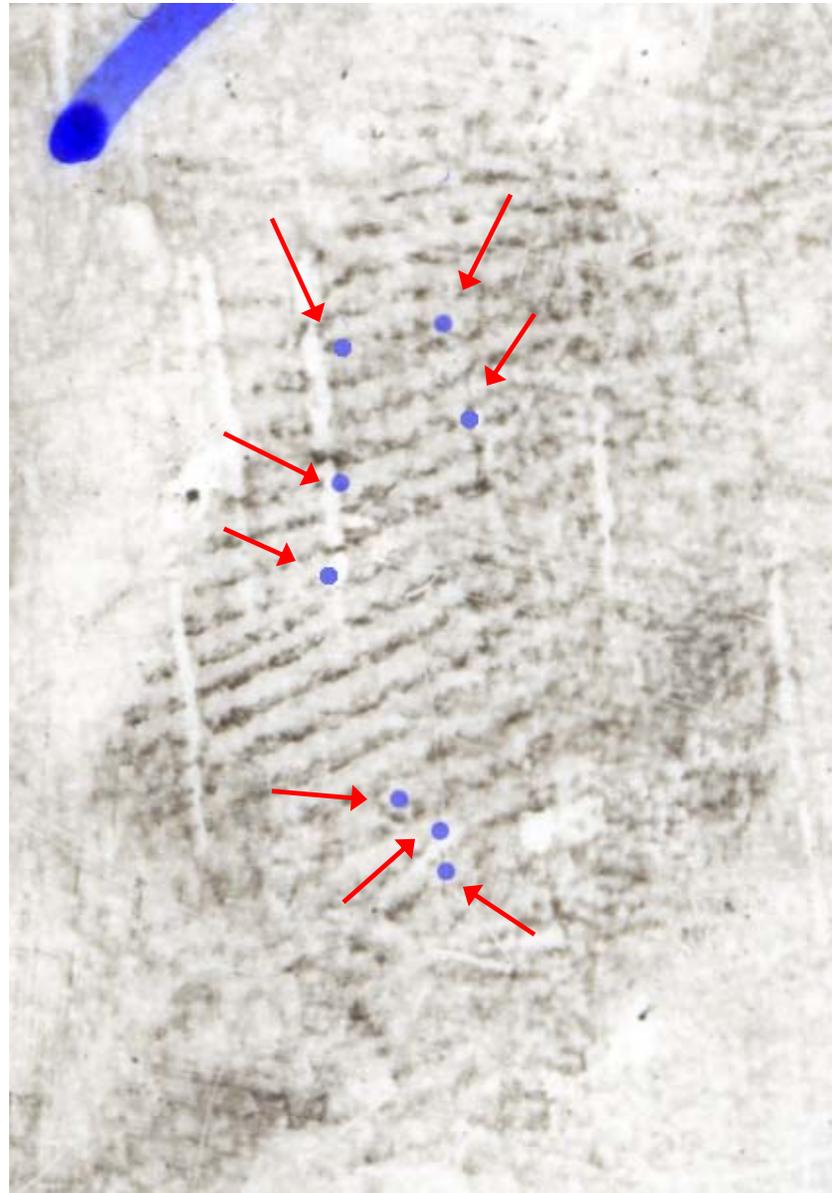
- Comments of prints being discarded which were of greater quality than some which were identified,
- Reporting that "good" latent's were recovered which were actually of 'no-value',
- Submission of lifts which disclosed none or very limited ridge detail.

This guide is intended to assist in making a decision about the value of a latent and to avoid sufficient prints from being discarded. Examples of both situations that may occur after recovering a print have been provided:

1: Latent 'Of-Value' (looks bad)

Enlargement of latent (without scale)

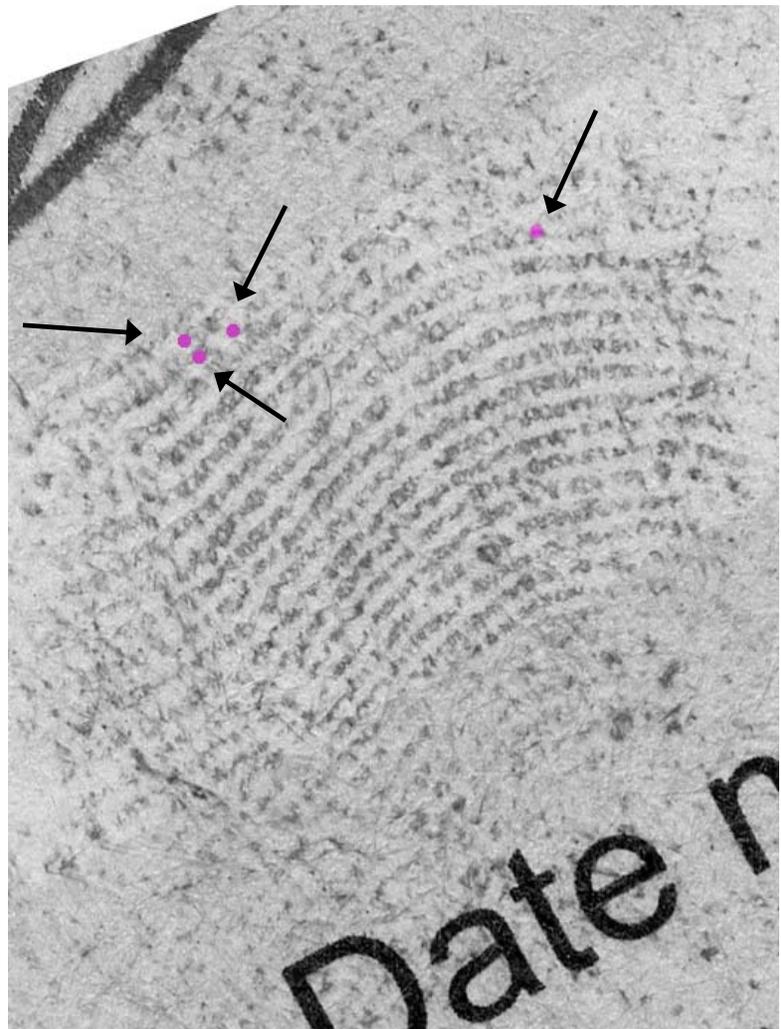
- Ridge detail is present
- This latent is 'of-value' because it includes sufficient clarity and unique characteristics (marked with blue dots)



2: Latent 'No-Value' (looks decent)

Enlargement of print (without scale)

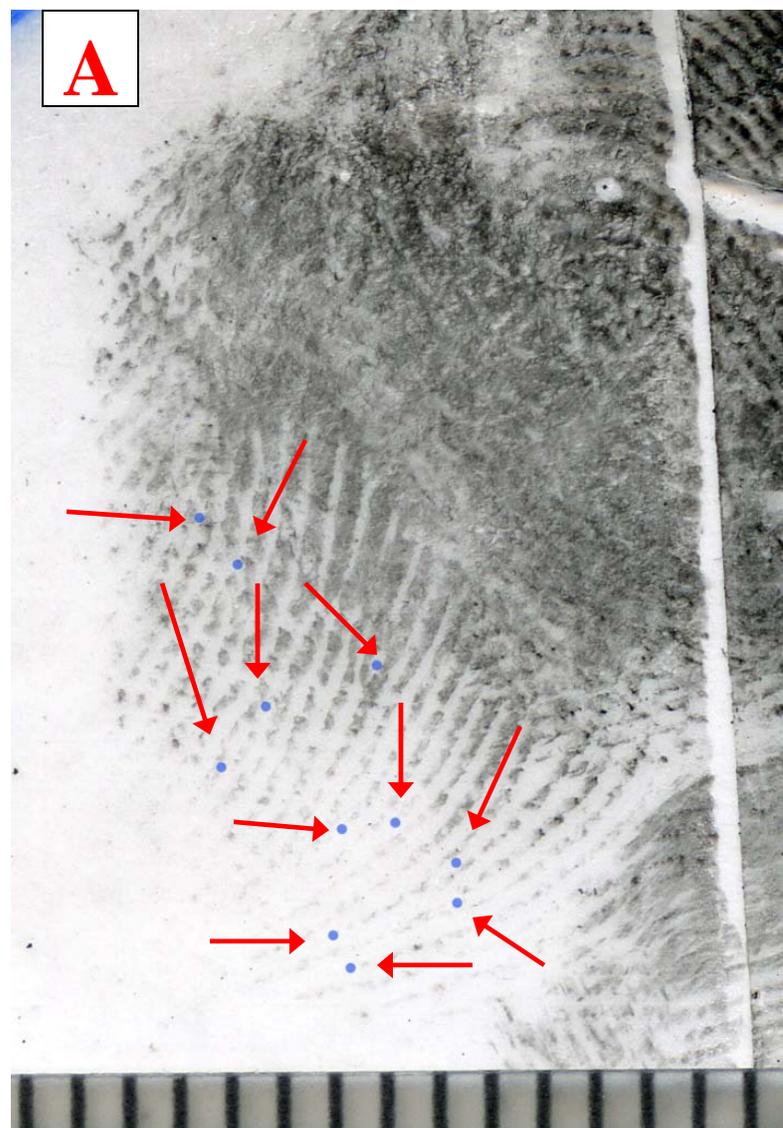
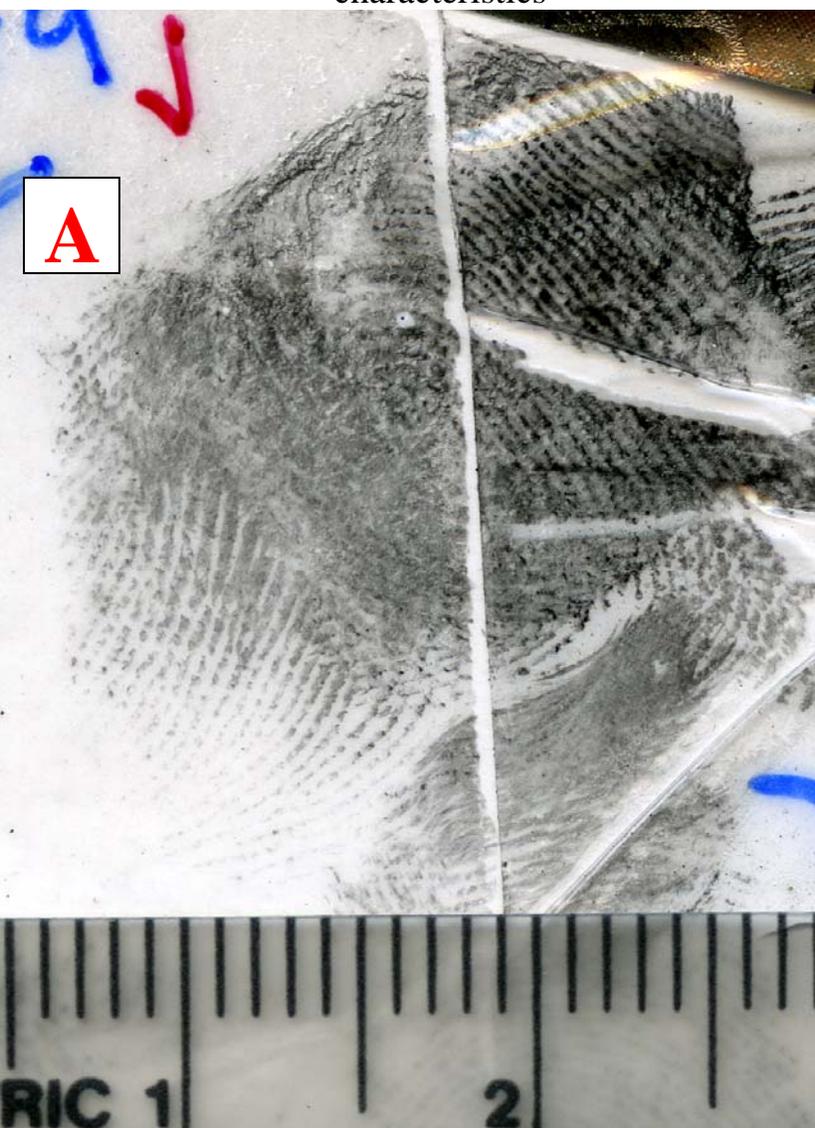
- Ridge detail is present
- This latent has 'no-value' because we were only able to find a few unique characteristics
- Even though there are a significant number of ridges present with good clarity, they do not present many unique characteristics



### 3: Latent 'Of-Value' (looks bad)

#### Enlargement of print (with scale)

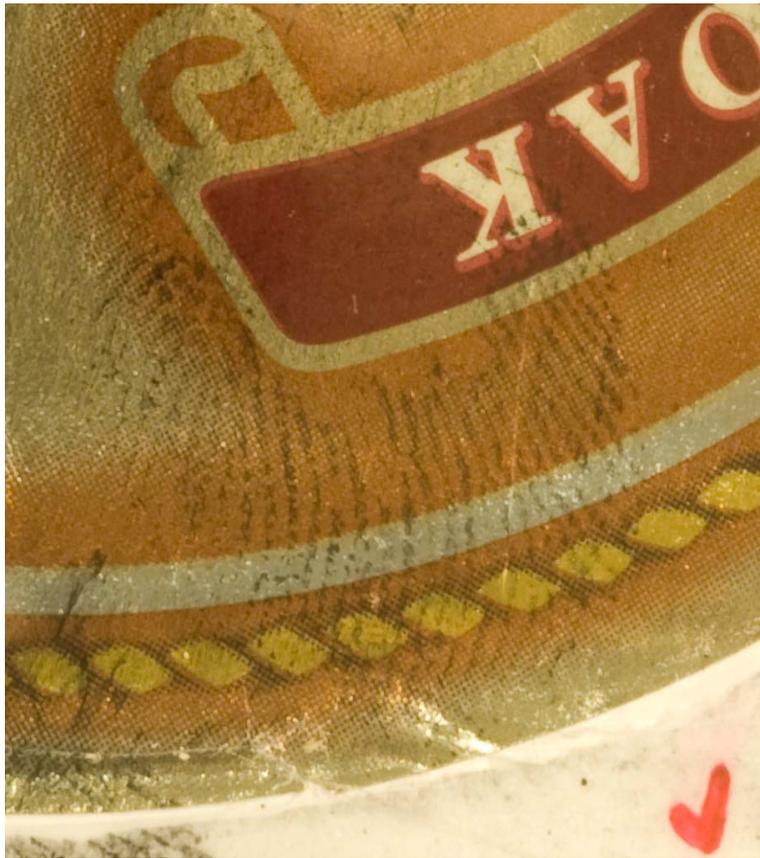
- Ridge detail is present
- Even though there are several void areas throughout the latent, there is sufficient ridge detail to be analyzed
  - The prints on each side of the large void area through the middle would be treated as two separate prints
- Part A: The latent on the left side of the void area is 'of-value' because we are able to find a significant number of unique characteristics



4: Latent 'Of -Value' (looks bad)

Enlargement of print (without scale)

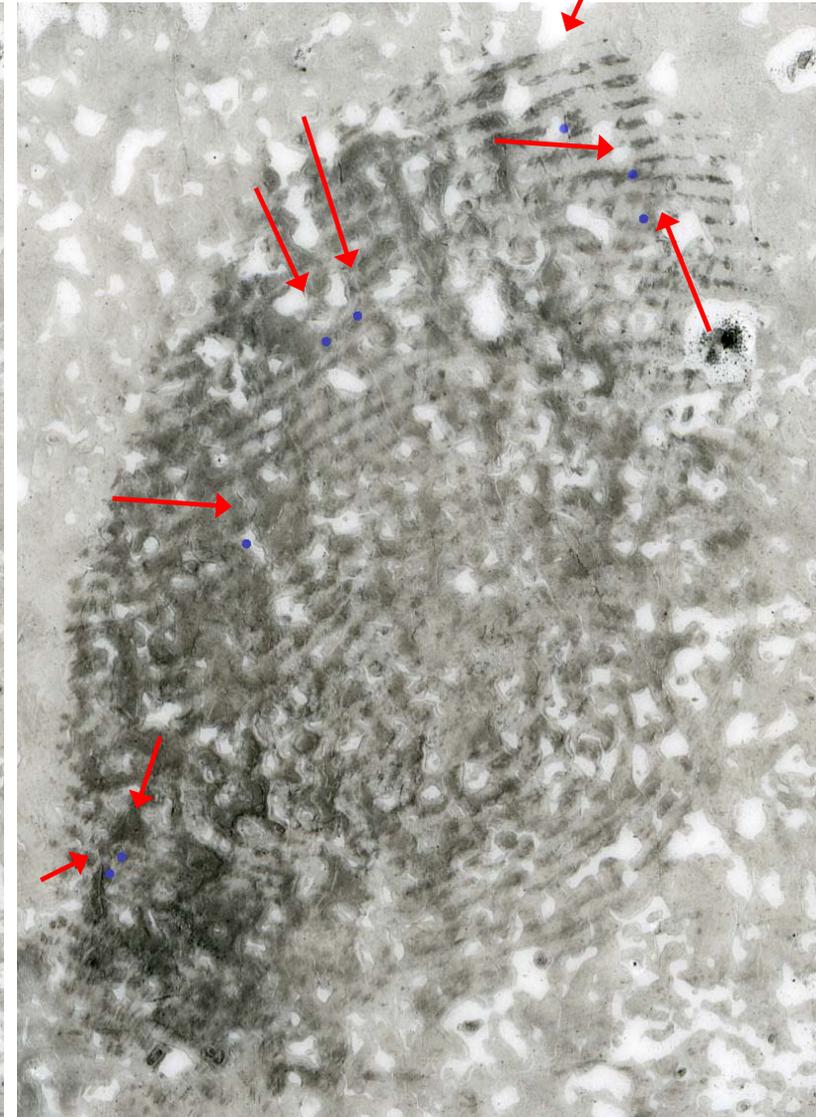
- Ridge detail is present
- Even though this latent when originally recovered was very difficult to see, there is enough sufficient ridge detail to be analyzed
- This latent is 'of-value' because it includes sufficient unique characteristics and clarity



5: Latent 'Marginal-Value' (looks decent)

Enlargement of print (with scale)

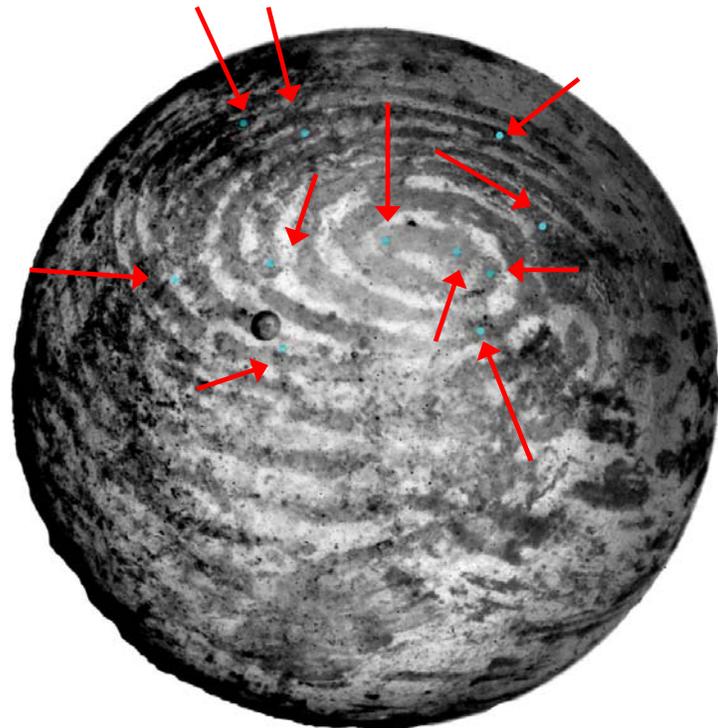
- Ridge detail is present
- The value of this latent is questionable because the limited clarity makes it difficult to distinguish the detail being examined.
- Even though this appears to be a nearly complete finger print, the clarity is a major concern when magnified.



6: Latent 'Of-Value' (looks bad)

Enlargement of print (without scale)

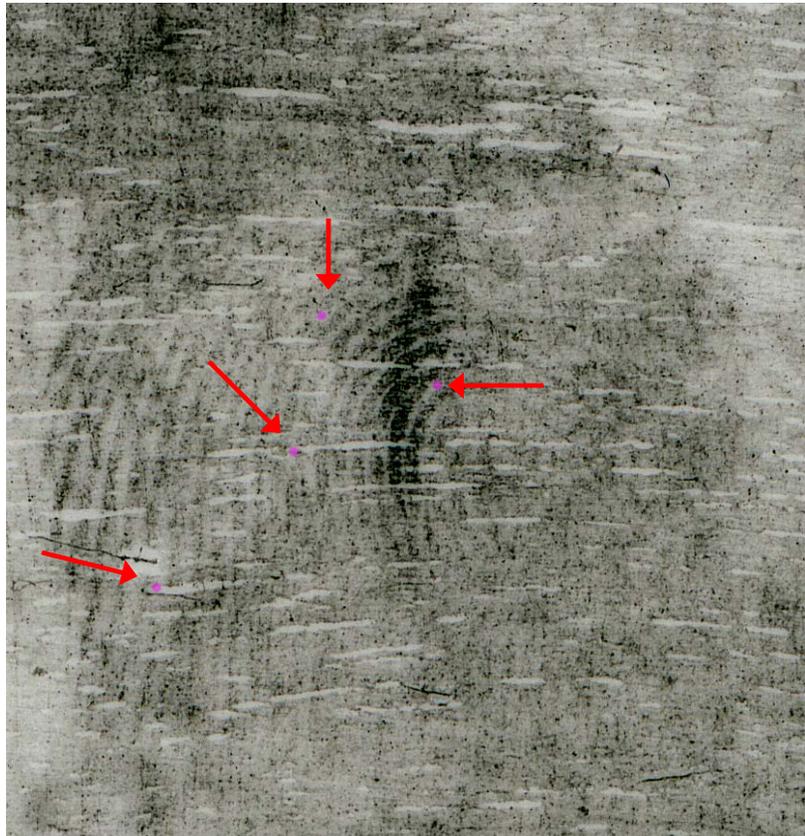
- Ridge detail present on gel capsule
- Even though this latent was difficult to see because it was found on the end of a gel capsule, there is sufficient ridge detail to be analyzed
- This latent is 'of-value' because it includes sufficient unique characteristics and clarity



7: Latent 'No-Value' (looks decent)

Enlargement of print (without scale)

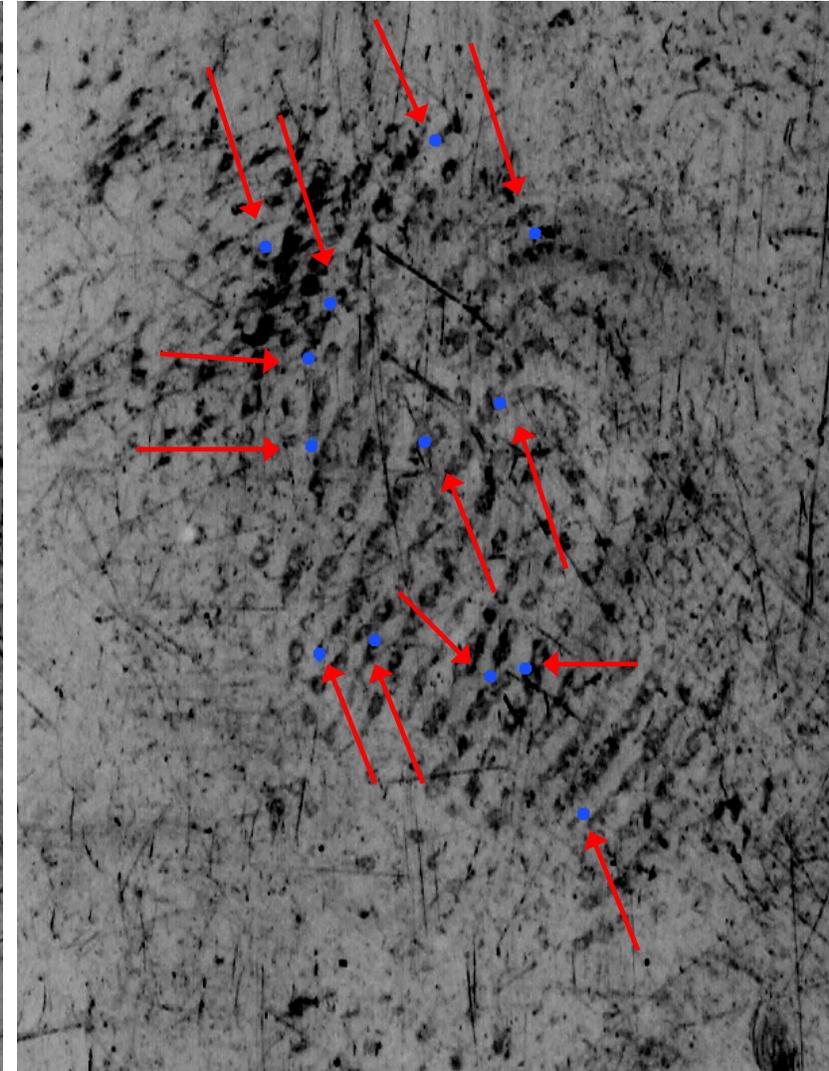
- Ridge detail present
- This latent has 'no-value' because the limited clarity makes it impossible to locate a sufficient number of unique characteristics
- Even though this appears to be a nearly complete finger print, there are few clearly visible unique characteristics



8: Latent 'Of-Value' (looks bad)

Enlargement of print (without scale)

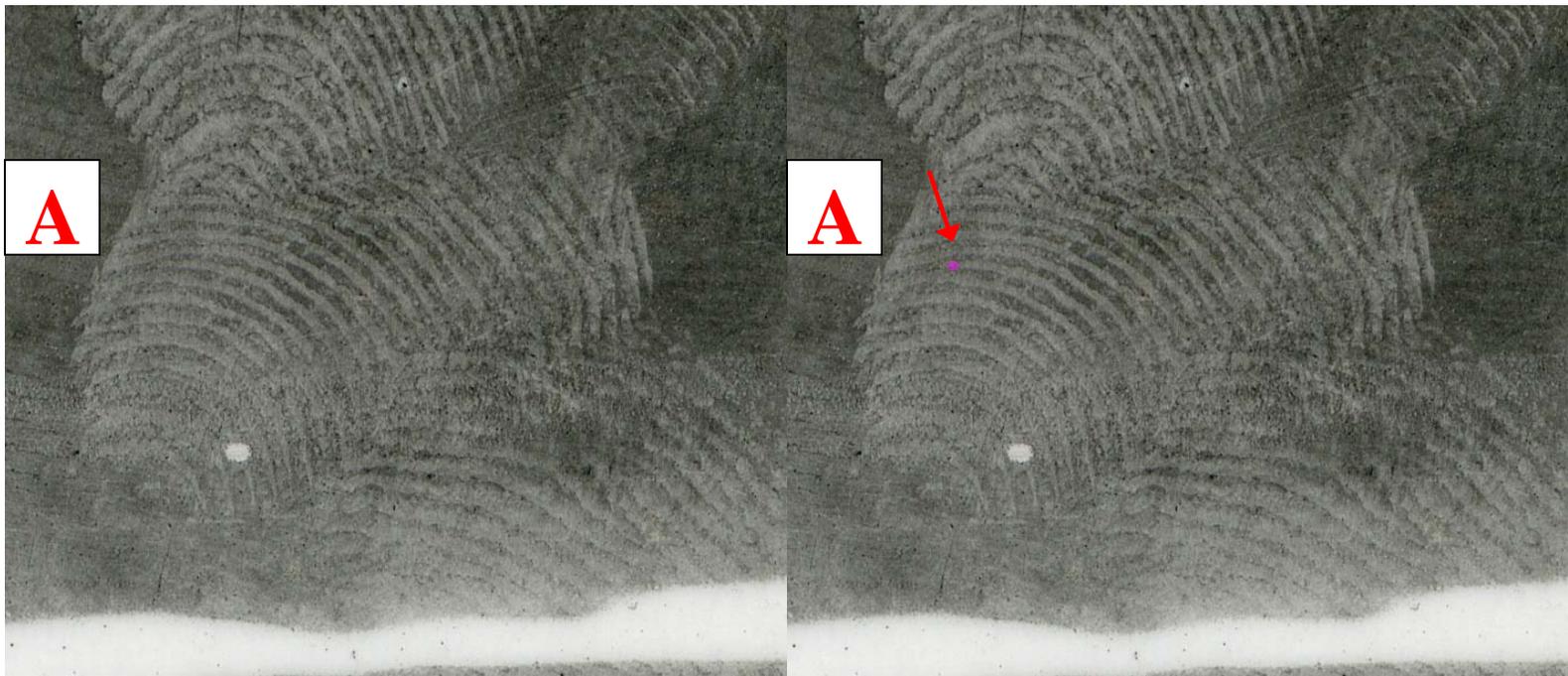
- Ridge detail present
- Even though this latent is difficult to see, there is sufficient ridge detail to be analyzed
- This latent is 'of-value' and contains at least thirteen (13) unique characteristics



9: Latent 'No-Value' (looks decent)

Enlargement of print (without scale)

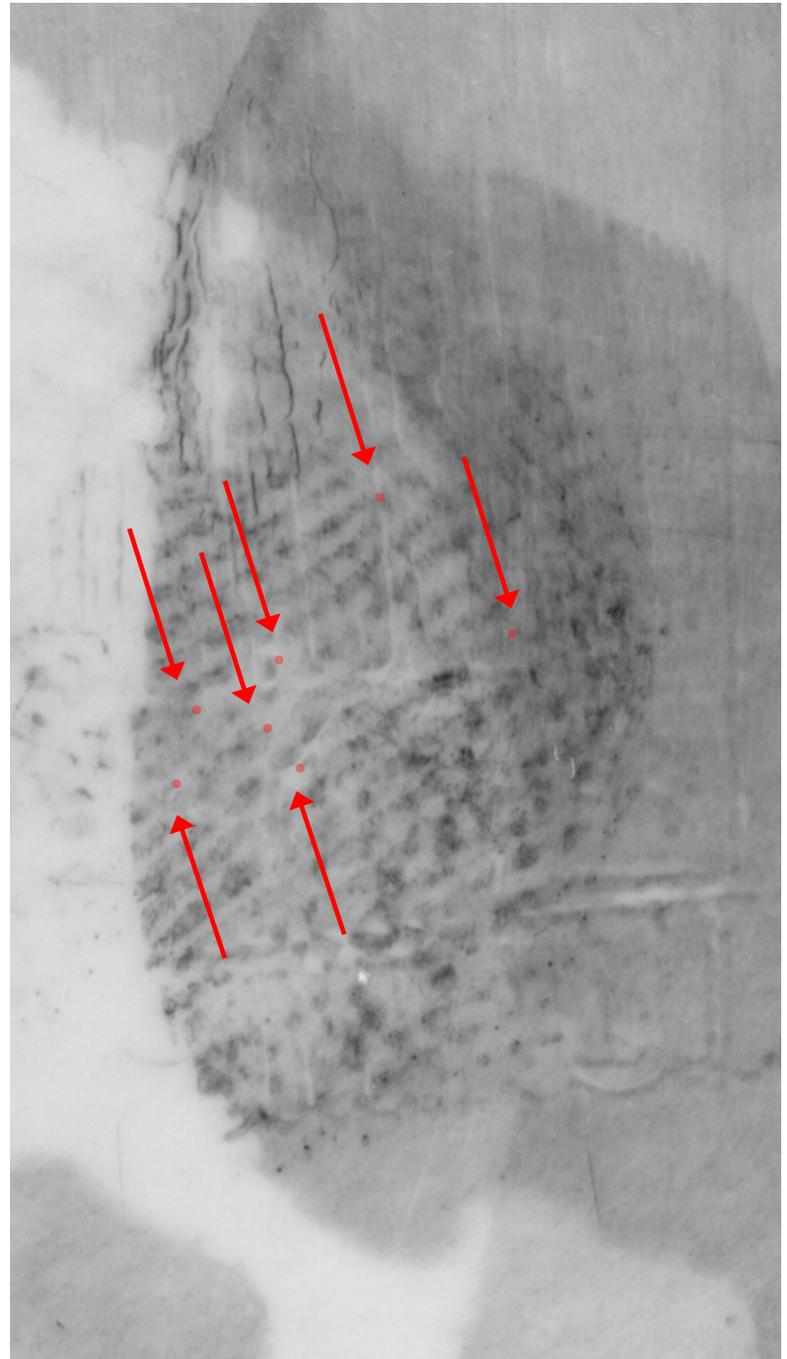
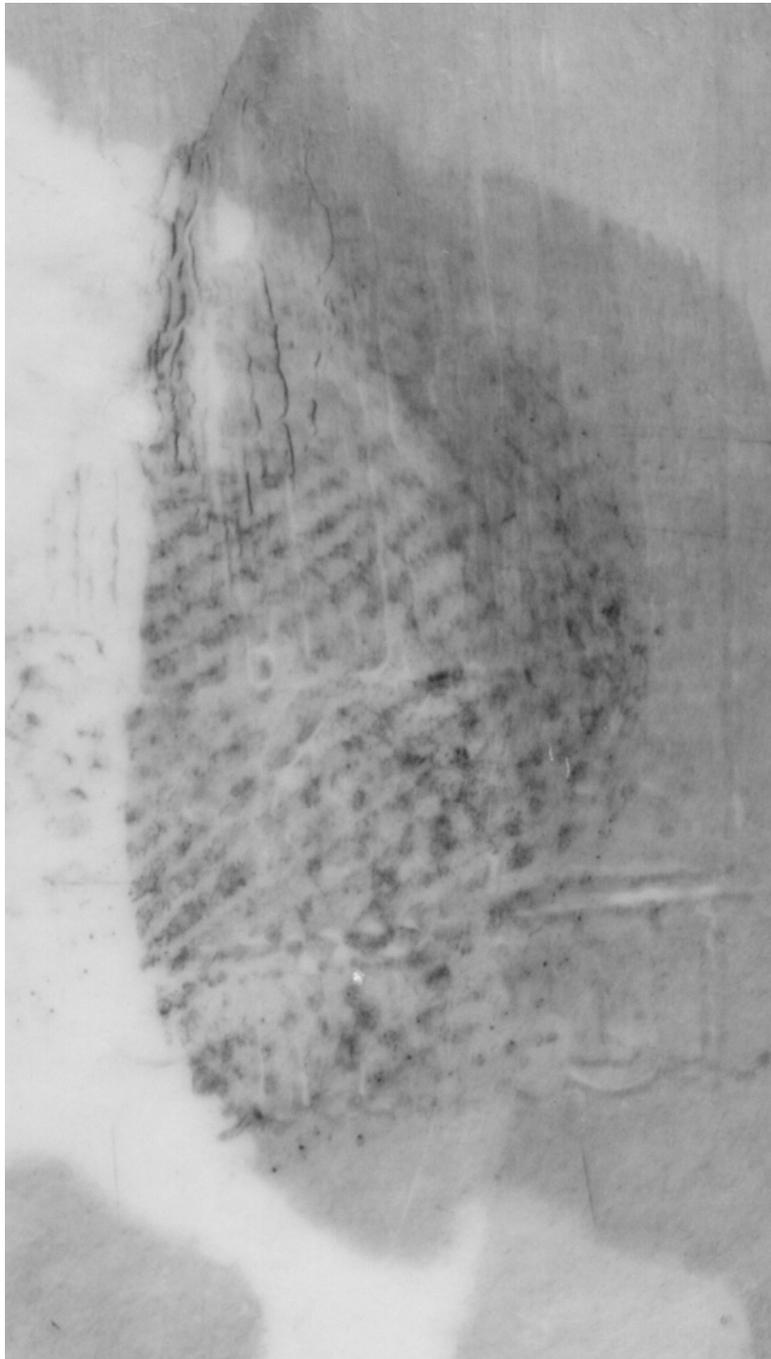
- Ridge detail present
  - Even though there are a significant number of ridges present with good clarity, they present a lot of overlay.
  - The superimposed ridges indicates that this latent lift would be treated as three separate prints.
- Part A: This latent has 'no-value' because we were only able to find a few unique characteristics



10: Latent 'Of-Value' (looks bad)

Enlargement of print (without scale)

- Ridge detail present
- Even though this latent is difficult to see, there is sufficient ridge detail to be analyzed
- This latent is 'of-value' and has seven (7) unique characteristics plotted for demonstration.



## **Bibliography**

*Friction Ridge Impression Values*. N.p., 17 Mar. 2014. Web. 06 Aug. 2014.  
<<http://www.latent-prints.com/conclusions.htm>>.

Hicklin, Austin R., JoAnn Buscaglia, and Maria A. Roberts. "Article in Press – Forensics Science International." *Assessing the Clarity of Friction Ridge Impressions* (2012): n. pag. Web.

Holder, Eric H., Laurie O. Robinson, and John H. Laub. "Chapter 1: History." *The Fingerprint Sourcebook*. Washington, DC: U.S. Dept. of Justice, Office of Justice Programs, National Institute of Justice, 2011. N. pag. Print.

Holder, Eric H., Laurie O. Robinson, and John H. Laub. "Chapter 9: Examination Process." *The Fingerprint Sourcebook*. Washington, DC: U.S. Dept. of Justice, Office of Justice Programs, National Institute of Justice, 2011. N. pag. Print.

MARYLAND STATE POLICE Forensic Sciences Division Latent Print/Impression Unit. "TECHNICAL STANDARD OPERATING PROCEDURE." *Section 08 – Friction Ridge Impression Examinations* (2014): n. pag. Print.