Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

Latent Print Processing
Test No. 16-5190 Summary Report

This test was sent to 331 participants. Each sample pack contained three pieces of simulated crime scene evidence. Participants were asked to process each piece for latent fingerprints and report their findings. Data were returned from 270 participants (82% response rate) and are compiled into the following tables:

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

Manufacturer's Information

Each sample pack consisted of three items of simulated crime scene evidence. Each item was divided into marked sections and contained one latent fingerprint. The items consisted of a manila envelope (Item 1), a dual mirrored compact (Item 2), and a windowed mailer envelope (Item 3). Participants were asked to process each item for latent fingerprints, utilizing the method(s) deemed most appropriate for the substrate being examined.

SAMPLE PREPARATION-

New, unopened packages of manila envelopes and windowed envelopes were used for those samples that could not be cleaned. The nonporous compact used in this test was cleaned with water and a paper towel before latent prints were applied. Each item was divided into sections labeled A, B, C, and D, as one print would be deposited in only one of the four sections. For each item, either an acid or lipid enhancer was applied to the depositing individual's finger to assist in the longevity of the print. Each print was deposited with even pressure straight down onto the substrate. A randomly selected group of samples were processed in-house to confirm the location and viability of the deposited prints before shipping to participants.

SAMPLE PACK ASSEMBLY-

Each item was packed into its pre-labeled item envelope. Following predistribution testing, each item envelope was sealed with evidence tape and initialed with "CTS". These were then placed into a sample pack box and sealed with packaging tape.

VERIFICATION-

Predistribution examiners were able to recover ridge detail in the expected section of each item.

Item Number	Samples	Enhancer Used	Print Location
1	Manila envelope	Acid	A
2	Dual mirrored compact	Lipid	D
3	Windowed mailer envelope	Acid + Lipid	A

Summary Comments

Each sample pack contained three items of evidence to be processed for latent prints: a manila envelope (Item 1), a dual mirrored compact (Item 2), and a windowed mailer envelope (Item 3). Each item was divided into four quadrants and labeled with a letter A-D. Participants were asked to determine which of the four quadrants contained a latent print on each piece of evidence. (Refer to the Manufacturer's Information for preparation details).

Due to the tenuous nature of latent fingerprints, it was expected that some participants may not be successful with the recovery of the deposited print on each item. Participants who did not develop a print on an item were therefore not flagged as outliers to the consensus.

For Item 1, 148 of 270 participants (55%) located the print in section "A". A total of 117 participants (43%) were not able to locate a print on the item (reported "None"). One participant located a print in section "B", and another participant located a print overlapping quadrants "B" and "D". The remaining three participants provided answers that did not match the required format for the table and were therefore not tabulated. Because fewer than 75% of participants were able to report the location of the deposited print, no consensus could be reached for Item 1 and no outliers were indicated. For Item 2, 268 of 270 participants (99%) located the print in section "D". One participant was not able to locate the print on the item. The remaining one participant gave no response for this item and was therefore not tabulated. For Item 3, 265 of 270 participants (98%) located the print in section "A". Four participants were not able to locate a print on the item. The remaining one participant gave no response for this item and was therefore not tabulated.

Summary statistics for the reported development and preservation methods were calculated for each item at the end of each methods table. The techniques included in the summaries are those that were preloaded options from the CTS Web Portal, and do not reflect every answer provided by participants. These running totals are cumulative for each item; therefore, if a participant performed the same technique multiple times on one item, each occurrence was added into the final total. Across all three items, a majority of participants reported performing some type of nondestructive visual examination prior to conducting chemical development on each item. Additionally, most participants utilized photography as their most common preservation method across all three items.

For print development on the porous manila envelope (Item 1), a majority of participants used ninhydrin (reported 260 times) with heat and/or steam. This technique was frequently reported in conjunction with the use of DFO (reported 85 times), but both methods were also reported independently. Also commonly utilized prior to or following these chemical techniques was the use of an alternate light source (97).

For print development on the nonporous mirrored compact (Item 2), most participants utilized cyanoacrylate fuming as the primary processing technique (reported 240 times). Fingerprint powder was also common as a subsequent step following cyanoacrylate fuming to enhance ridge development (147). Dye staining was performed 136 times, 72 of those occurrences in conjunction with an alternate light source, after initial development with cyanoacrylate fuming. Only those entries that specifically included the identifier of "dye stain" in the Development Methods column were included in the final total. Significantly more participants attempted to lift the recovered print on Item 2 due to the nonporous, reflective nature of the substrate as an additional means of preservation (74).

For development of prints on the windowed envelope (Item 3), participants worked with a combination of porous and nonporous techniques, depending on which part of the envelope was being analyzed. The paper portion of the envelope was predominantly treated with ninhydrin, often in conjunction with heat and/or steam (reported 216 times). Similar to Item 1, some participants elected to first treat the Item 3 paper with DFO (67) prior to ninhydrin for enhanced ridge development. The plastic windows of the envelope were most frequently treated with cyanoacrylate fuming (209) and often followed up with powder dusting (177), yet some participants found the latent prints to be substantial enough to only require the powder dusting step.

For participants who reported observing first level detail in the prints on all three items, the development of the latent prints was usually sufficient for the ridge pattern of each print to be identified. Many participants do not perform print pattern analysis in their routine casework and, as such, reported "N/A" to the pattern type question; therefore, no official consensus is established for any of the items. For those who identified pattern types, the most common responses for each item were: Item 1 – Whorl; Item 2 – Loop; Item 3 – Whorl. The most frequent response for each item corresponds to the expected results for pattern reporting.

Print Location

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
244GGP	None	6TB4VM	A	8UYEK7	NONE
2EJBU4	none	6U6U22	None	8VQHA8	None
2GTRZA	-	6UM4PW	A	8XTGKZ	None
2JTNC3	A	6YF8JZ	None	8XUL94	A
32VZRD	None	6ZTL6N	A	94FNKK	A
36VBND	A	747WGJ	None	94VJWY	None
37QUPE	None	786MU6	A	99AK66	None
38WCNB	A	79KFXZ	A	9CBZP9	A
3CCCWF	None	7E86KV	None	9FRVKQ	None
3L3TRC	None	7GCT37	A	9JQ8GQ	A
3R6HE6	A	7J2YHW	A	9JWJ32	A
43JJ2V	none	7MJVV9	None	9KLPHR	A
44E34W	A	7WJJM6	A	9TFX3H	None
498YU9	A	7WN4B9	None	9TJHT8	None
4BEGQJ	A	87BP9W	A	9UUKE7	A
4C8MG6	None	89B3LN	NONE	9VKM47	None
4R3RF7	None	89FDQ8	A	9WJTML	None
4TTXVW	A	8CGH3R	A	9XENG6	A
64C767	A	8DMFJA	None	A6783W	None
6RYEQP	A	8H2E93	A	ABVQ6R	None
6TAEN6	None	8PLGDJ	None	AD2YMJ	A

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
AJADFG	A	CWAQRX	A	F7476R	None
AJC3KD	A	D39WGK	A	F7ZH9T	B-D
ANXRP3	A	D6DKYV	None	FBUC7U	None
APXZ92	A	D7RRKD	None	FBZULY	NONE
ARW3K3	A	D84QEL	A	FFQ97Y	None
B278FK	A	DGB7LU	None	FKFFDU	A
B8BW4K	None	DP3NXG	A	FQ9K7X	A
BBDW4H	None	DTJBBM	NONE	FRHVCU	A
BKHGCY	A	E4KWDE	A	FUNVJ2	None
BL6TVH	None	E8GKT2	None	FVZFYA	A
BNDB9Z	A	E9EQBF	A	FZDVT9	
BPAC4B	A	EAKMRX	A	G3ZULW	A
BPTZL7	None	ECRXAZ	None	G4TMGF	A
BRV6UK	None	EGLR82	None	G642VW	None
BYE4T6	None	EJQU8X	None	G8B6C7	A
BYJLR4	None	EKLBJU	A	G8TYDF	A
C3ERML	A	EQXMTV	A	GDGMPD	None
C6HM8N	None	EUCWPT	A	GGKAPW	NONE
CFZ8QK	None	EVM7VP	A	GLQ8UU	A
CGVPTL	A	EVQNTN	A	GUJH7B	A
CH8LXQ	A	EXCHLH	A	GVE29C	None
CQLBXK	A	F6BGKB	None	GWCC2U	A

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
GZDRLX	None	KMRACU	None	MZTP8P	None
H7UBCV	A	KRKE4D	A	N3RHKK	A
HDG2XQ	A	KUUJG3	A	N4M2LL	None
HJEW9B	None	KV7YB3	A	N7D6D8	A
HLKDNT	None	KX9Y8U	A	NABNGQ	None
HM2AFT	A	KZXCPC	A	NDBC3M	A
HM4YMB	A	KZZ2U9	None	NGVPW4	NONE
HPLT9X	A	L7M3V8	None	NJ28VY	None
HVDNZA	A	L9P6JN	A	NQ3LHL	A
HW42WU	None	L9RVP7	NONE	NTAJAH	A
J4KKLR	None	LAJQCE	A	NXW43J	A
J8K99N	A	LBU6QV	None	PATYQJ	A
JBJJ4N	A	LDJYGP	A	PHJKWH	None
JDVRHV	A	LGZYKQ	None	PJE3XJ	A
JE6U7F	A	LHTFPD	A	PJVEE3	A
JT294N	none	LPDHVU	None	PLKZGL	A
JXETDU	A	LQMNB4	A	PRBV9X	A
K34T6V	None	M4TZ3N	A	PYRCYM	None
K3N4RP	A	M96H9R	A	Q9TEGP	A
K42XMA	A	MFKM9J	A	QAM4KH	A
K6ADUF	None	MTR9ZP	A	QDNK6M	A
KA9X62	A	MWBYUL	None	QGKWVX	None

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
QHFFWY	A	TKFAPZ	None	X7KCT8	A
QRKA67	A	TLBQ4J	A	X7M2ZP	None
QU87FH	A	TPQF9D	None	X7M9ZW	A
QUV39K	None	U63QGF	A	XCKZ2X	A
QY2ZDJ	A	U7V8L3	A	XGK3CT	None
R2AFKP	A	UCJUG9	A	XHETH9	A
R6P3XU	None	UDTW6R	A	XV6K8H	None
R7JT2N	None	UENE8T	None	XVZ8L8	A
R8BVN4	Non	UGUZWE	A	XWC7EV	None
RAH8PD	None	UGXXCQ	B	XWVQM9	None
RJPGKJ	None	UKVKRL	N/A	Y3JPGU	None
RNKFTM	A	UWRWFD	None	Y9MWWX	A
RPCJF3	A	UZQ9BD	None	YBTUCE	A
RRY9L2	A	V79VPF	None	YCM8PC	A
RYHCVN	A	VFCB88	A	YH9XC8	None
T8RZ9M	A	VQURYE	A	YM4RA9	A
T9NGJY	None	W2C4ZC	None	YNXFUP	None
TBU29K	A	W42ZJG	A	YVZMCD	A
TCNPM9	None	WALRDB	None	Z2WDZF	None
TETGFL	None	WFTLMR	None	Z9G2PW	A
TFNZGN	None	WHDBRJ	None	ZACWKE	A
TKEAT8	A	WPGHNR	A	ZB8FLG	None

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
ZCZWTN	A				
ZELA2D	None				
ZMK4RD	None				
ZNB8GE	none				
ZNEQ73	None				
ZTLKYD	None				
ZVUR6C	A				
ZYQGKX	A				
ZZMWWV	A				

Response Summary Total Participants: 270

Location	Total
A	148
B	2
C	0
D	1
None	117

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
244GGP	D	6U6U22	D	8XTGKZ	D
2EJBU4	D	6UM4PW	D	8XUL94	D
2GTRZA	D	6YF8JZ	D	94FNKK	D
2JTNC3	D	6ZTL6N	D	94VJWY	D
32VZRD	D	747WGJ	D	99AK66	D
36VBND	D	786MU6	D	9CBZP9	D
37QUPE	D	79KFXZ	D	9FRVKQ	D
38WCNB	D	7E86KV	D	9JQ8GQ	D
3CCCWF	D	7GCT37	D	9JWJ32	D
3L3TRC	D	7J2YHW	D	9KLPHR	D
3R6HE6	D	7MJVV9	D	9TFX3H	D
43JJ2V	D	7WJJM6	D	9TJHT8	D
44E34W	D	7WN4B9	D	9UUKE7	D
498YU9	D	87BP9W	D	9VKM47	D
4BEGQJ	D	89B3LN	D	9WJTML	D
4C8MG6	D	89FDQ8	D	9XENG6	D
4R3RF7		8CGH3R	D	A6783W	D
4TTXVW	D	8DMFJA	D	ABVQ6R	D
64C767	D	8H2E93	D	AD2YMJ	D
6RYEQP	D	8PLGDJ	D	AJADFG	D
6TAEN6	D	8UYEK7	D	AJC3KD	D
6TB4VM	D	8VQHA8	D	ANXRP3	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
APXZ92	D	D7RRKD	D	FBZULY	D
ARW3K3	D	D84QEL	D	FFQ97Y	D
B278FK	D	DGB7LU	D	FKFFDU	D
B8BW4K	D	DP3NXG	D	FQ9K7X	D
BBDW4H	D	DTJBBM	D	FRHVCU	D
BKHGCY	D	E4KWDE	D	FUNVJ2	D
BL6TVH	D	E8GKT2	D	FVZFYA	D
BNDB9Z	D	E9EQBF	D	FZDVT9	D
BPAC4B	D	EAKMRX	D	G3ZULW	D
BPTZL7	D	ECRXAZ	D	G4TMGF	D
BRV6UK	D	EGLR82	D	G642VW	D
BYE4T6	D	EJQU8X	D	G8B6C7	D
BYJLR4	D	EKLBJU	D	G8TYDF	D
C3ERML	D	EQXMTV	D	GDGMPD	D
C6HM8N	D	EUCWPT	D	GGKAPW	D
CFZ8QK	D	EVM7VP	D	GLQ8UU	D
CGVPTL	D	EVQNTN	D	GUJH7B	D
CH8LXQ	D	EXCHLH	D	GVE29C	D
CQLBXK	D	F6BGKB	D	GWCC2U	D
CWAQRX	D	F7476R	D	GZDRLX	D
D39WGK	D	F7ZH9T	D	H7UBCV	D
D6DKYV	None	FBUC7U	D	HDG2XQ	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
HJEW9B	D	KV7YB3	D	N7D6D8	D
HLKDNT	D	KX9Y8U	D	NABNGQ	D
HM2AFT	D	KZXCPC	D	NDBC3M	D
HM4YMB	D	KZZ2U9	D	NGVPW4	D
HPLT9X	D	L7M3V8	D	NJ28VY	D
HVDNZA	D	L9P6JN	D	NQ3LHL	D
HW42WU	D	L9RVP7	D	NTAJAH	D
J4KKLR	D	LAJQCE	D	NXW43J	D
J8K99N	D	LBU6QV	D	PATYQJ	D
JBJJ4N	D	LDJYGP	D	PHJKWH	D
JDVRHV	D	LGZYKQ	D	PJE3XJ	D
JE6U7F	D	LHTFPD	D	PJVEE3	D
JT294N	D	LPDHVU	D	PLKZGL	D
JXETDU	D	LQMNB4	D	PRBV9X	D
K34T6V	D	M4TZ3N	D	PYRCYM	D
K3N4RP	D	M96H9R	D	Q9TEGP	D
K42XMA	D	MFKM9J	D	QAM4KH	D
K6ADUF	D	MTR9ZP	D	QDNK6M	D
KA9X62	D	MWBYUL	D	QGKWVX	D
KMRACU	D	MZTP8P	D	QHFFWY	D
KRKE4D	D	N3RHKK	D	QRKA67	D
KUUJG3	D	N4M2LL	D	QU87FH	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
QUV39K	D	U63QGF	D	XCKZ2X	D
QY2ZDJ	D	U7V8L3	D	XGK3CT	D
R2AFKP	D	UCJUG9	D	XHETH9	D
R6P3XU	D	UDTW6R	D	XV6K8H	D
R7JT2N	D	UENE8T	D	XVZ8L8	D
R8BVN4	D	UGUZWE	D	XWC7EV	D
RAH8PD	D	UGXXCQ	D	XWVQM9	D
RJPGKJ	D	UKVKRL	D	Y3JPGU	D
RNKFTM	D	UWRWFD	D	Y9MWWX	D
RPCJF3	D	UZQ9BD	D	YBTUCE	D
RRY9L2	D	V79VPF	D	YCM8PC	D
RYHCVN	D	VFCB88	D	YH9XC8	D
T8RZ9M	D	VQURYE	D	YM4RA9	D
T9NGJY	D	W2C4ZC	D	YNXFUP	D
TBU29K	D	W42ZJG	D	YVZMCD	D
TCNPM9	D	WALRDB	D	Z2WDZF	D
TETGFL	D	WFTLMR	D	Z9G2PW	D
TFNZGN	D	WHDBRJ	D	ZACWKE	D
TKEAT8	D	WPGHNR	D	ZB8FLG	D
TKFAPZ	D	X7KCT8	D	ZCZWTN	D
TLBQ4J	D	X7M2ZP	D	ZELA2D	D
TPQF9D	D	X7M9ZW	D	ZMK4RD	D

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
ZNB8GE	D				
ZNEQ73	D				
ZTLKYD	D				
ZVUR6C	D				
ZYQGKX	D				
ZZMWWV	D				

Response Summary Total Participants: 270

Location	Total
A	0
B	0
C	0
D	268
None	1

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
244GGP	A	6U6U22	A	8XTGKZ	A
2EJBU4	A	6UM4PW	A	8XUL94	A
2GTRZA	A	6YF8JZ	A	94FNKK	A
2JTNC3	A	6ZTL6N	A	94VJWY	A
32VZRD	A	747WGJ	A	99AK66	A
36VBND	A	786MU6	A	9CBZP9	A
37QUPE	A	79KFXZ	A	9FRVKQ	A
38WCNB	A	7E86KV	A	9JQ8GQ	A
3CCCWF	A	7GCT37	A	9JWJ32	A
3L3TRC	A	7J2YHW	A	9KLPHR	A
3R6HE6	A	7MJVV9	A	9TFX3H	A
43JJ2V	A	7WJJM6	A	9TJHT8	A
44E34W	A	7WN4B9	None	9UUKE7	A
498YU9	A	87BP9W	A	9VKM47	A
4BEGQJ	A	89B3LN	A	9WJTML	A
4C8MG6	A	89FDQ8	A	9XENG6	A
4R3RF7		8CGH3R	A	A6783W	A
4TTXVW	A	8DMFJA	A	ABVQ6R	A
64C767	A	8H2E93	A	AD2YMJ	A
6RYEQP	A	8PLGDJ	A	AJADFG	A
6TAEN6	A	8UYEK7	A	AJC3KD	A
6TB4VM	A	8VQHA8	A	ANXRP3	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
APXZ92	A	D7RRKD	A	FBZULY	A
ARW3K3	A	D84QEL	A	FFQ97Y	A
B278FK	A	DGB7LU	A	FKFFDU	A
B8BW4K	A	DP3NXG	A	FQ9K7X	A
BBDW4H	A	DTJBBM	A	FRHVCU	A
BKHGCY	A	E4KWDE	A	FUNVJ2	A
BL6TVH	A	E8GKT2	A	FVZFYA	None
BNDB9Z	A	E9EQBF	A	FZDVT9	A
BPAC4B	A	EAKMRX	A	G3ZULW	A
BPTZL7	A	ECRXAZ	A	G4TMGF	A
BRV6UK	A	EGLR82	A	G642VW	A
BYE4T6	A	EJQU8X	A	G8B6C7	A
BYJLR4	A	EKLBJU	A	G8TYDF	A
C3ERML	A	EQXMTV	A	GDGMPD	None
C6HM8N	A	EUCWPT	A	GGKAPW	A
CFZ8QK	A	EVM7VP	A	GLQ8UU	A
CGVPTL	A	EVQNTN	A	GUJH7B	A
CH8LXQ	A	EXCHLH	A	GVE29C	A
CQLBXK	A	F6BGKB	A	GWCC2U	A
CWAQRX	A	F7476R	A	GZDRLX	A
D39WGK	A	F7ZH9T	A	H7UBCV	A
D6DKYV	A	FBUC7U	A	HDG2XQ	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
HJEW9B	A	KV7YB3	A	N7D6D8	A
HLKDNT	A	KX9Y8U	A	NABNGQ	A
HM2AFT	A	KZXCPC	A	NDBC3M	A
HM4YMB	A	KZZ2U9	A	NGVPW4	A
HPLT9X	A	L7M3V8	A	NJ28VY	A
HVDNZA	A	L9P6JN	A	NQ3LHL	A
HW42WU	A	L9RVP7	A	NTAJAH	A
J4KKLR	A	LAJQCE	A	NXW43J	A
J8K99N	A	LBU6QV	A	PATYQJ	A
JBJJ4N	A	LDJYGP	A	PHJKWH	A
JDVRHV	A	LGZYKQ	A	PJE3XJ	A
JE6U7F	A	LHTFPD	A	PJVEE3	A
JT294N	A	LPDHVU	A	PLKZGL	A
JXETDU	A	LQMNB4	A	PRBV9X	A
K34T6V	A	M4TZ3N	A	PYRCYM	A
K3N4RP	A	M96H9R	A	Q9TEGP	A
K42XMA	A	MFKM9J	A	QAM4KH	A
K6ADUF	A	MTR9ZP	A	QDNK6M	A
KA9X62	A	MWBYUL	A	QGKWVX	None
KMRACU	A	MZTP8P	A	QHFFWY	A
KRKE4D	A	N3RHKK	A	QRKA67	A
KUUJG3	A	N4M2LL	A	QU87FH	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
QUV39K	A	U63QGF	A	XCKZ2X	A
QY2ZDJ	A	U7V8L3	A	XGK3CT	A
R2AFKP	A	UCJUG9	A	XHETH9	A
R6P3XU	A	UDTW6R	A	XV6K8H	A
R7JT2N	A	UENE8T	A	XVZ8L8	A
R8BVN4	A	UGUZWE	A	XWC7EV	A
RAH8PD	A	UGXXCQ	A	XWVQM9	A
RJPGKJ	A	UKVKRL	A	Y3JPGU	A
RNKFTM	A	UWRWFD	A	Y9MWWX	A
RPCJF3	A	UZQ9BD	A	YBTUCE	A
RRY9L2	A	V79VPF	A	YCM8PC	A
RYHCVN	A	VFCB88	A	YH9XC8	A
T8RZ9M	A	VQURYE	A	YM4RA9	A
T9NGJY	A	W2C4ZC	A	YNXFUP	A
TBU29K	A	W42ZJG	A	YVZMCD	A
TCNPM9	A	WALRDB	A	Z2WDZF	A
TETGFL	A	WFTLMR	A	Z9G2PW	A
TFNZGN	A	WHDBRJ	A	ZACWKE	A
TKEAT8	A	WPGHNR	A	ZB8FLG	A
TKFAPZ	A	X7KCT8	A	ZCZWTN	A
TLBQ4J	A	X7M2ZP	A	ZELA2D	A
TPQF9D	A	X7M9ZW	A	ZMK4RD	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
ZNB8GE	A				
ZNEQ73	A				
ZTLKYD	A				
ZVUR6C	A				
ZYQGKX	A				
ZZMWWV	A				

Response Summary Total Participants: 270

Location	Total
A	265
B	0
C	0
D	0
None	4

Development Methods

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
244GGP	Visual Examination	Examined with natural light
	Alternate Light Source	Examined with at 365nm and 495nm
	DFO	Placed evidence in dry oven (100 C) for aprox. 20 min, examined under ALS at 495nm
	Ninhydrin	Placed evidence in humidity chamber (temp. range 65-85 C) relative humidity (65 %) for aprox. 20 min, examine visually, stored in dark location for 24 hours, reexamine.
2EJBU4	Visual Examination	Used white light/laser/ALS
	1,2-Indanedione	Placed in forced air oven 10 min. 100 degrees C
	LASER	viewed with LASER light source
	Ninhydrin	Placed in humidifying oven for 15 mins. 70% humidity
	Visual Examination	Viewed with white light
2GTRZA	Visual Examination	White light, blue light (420-470 nm), UV-light, green light (490-560 nm). No visible print was seen.
	Ninhydrin	Climatcabine settings was 80 degrees and 65 % humidity, processingtime 10 minutes. No visible print was seen.
2JTNC3	Visual Examination	
	Alternate Light Source	Visual using ALS
	Laser	Visual using Laser
	1,2-Indanedione	100 degrees/ 20 minutes
	Ninhydrin	60 degrees/ 40% humidity/ 20 minutes
32VZRD	1,2-Indanedione	temp. 90°C, time 15 min.
	Ninhydrin	temp. 21°C, time 30 min., humidity 80%
36VBND	Visual Examination	In the white light and in whole spectrun of Polilight PL 500 (UV, 415, 450, 470, 480, 505, 530, 555, 660, 650) none fingerprint
	DFO	Discloses a fingerprint - section A
	Ninhydrin	No improvement the quality of the fingerprint
37QUPE	Visual Examination	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	
	Ninhydrin	80 C, 65% humidity, 3 minutes
38WCNB	White Light/ Laser	
	Indanedione	Processed w/ Indane - visualized w/ LASER. Humidity chamber - 10 minutes
	Ninhydrin	Processed w Ninhydrin - visualized w/ White Light. Humidity chamber 10 minutes
	Physical Developer	Process w/ Physical Developer - visualized w/ white Light
3CCCWF	Visual Examination	White light and magnification, no prints observed 6/7/16
	Ninhydrin	Batch #273 on 6/9/16, no prints observed.
	Physical Developer	Batch #429 on 6/9/16, no prints observed.
3L3TRC	DFO	temp: 100 C degrees, processing time: 10 minutes
	Ninhydrin	temp: 80 C degrees, 65 RH, processing time: 5 minutes
	Physical Developer (PD)	total processing time: 60 minutes
3R6HE6	Ninhydrin	spraying process with Ninhydrin in the fume cupboard; room temperature 20°C-30°C; storage in the climatic chamber; temperature 26°C, humidity 65%; for at least 12 hours
43JJ2V	Visual Examination	
	Ninhydrin	soaked envelope using a pipette, allowed to completely dry, application of heat
	1,2-Indanedione	soaked envelope using a pupette, allowed to completely dry, application of heat
	Alternate Light Source	515 nm with orange barrier filter
44E34W	Vis Search	Multiple wavelengths inc. UV
	DFO	Developed w/ heat
	Ninhydrin	Developed w/ heat & humidity
	PD	
498YU9	Visual Examination	Photographed overall appearance before processing

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	1,2-Indanedione	Applied IND, let dry in fume hood for 20 minutes, placed in IND oven for two hours
4BEGQJ	Visual Examination	First a visual examination.
	1,2-Indanedione	Then processed with Indanedione (with zinc), and then placed in a humidity cabinet for 15 minutes. Temperature: 80 degrees celsius, Humidity: 75%. With light source (495 nm) a weak latent print was visible.
	Ninhydrin	Same cabinet, same conditions, but only 3-4 minutes. The latent print was not enhanced.
4C8MG6	Visual Examination	Take a photo if necessary to secure that text etc will not be destroyed.
	Alternate Light Source	With daylight/white and crimescope different wavelength.
	DFO	(No information if the material has been wet). Test strip 30 min in 100°C positive result, envelope dipped in DFO, 30 min in 100°C
	Alternate Light Source	Forensic light crimescope wavelength 530-550 nm. No fingerprint detected.
	Ninhydrin	Test strip 5 min in 80°C and 62% humidity positive result, envelope dipped in NIN. 5 min 80°C and 62% humidity.
	Visual Examination	With white light. No fingerprint detected.
4R3RF7	Visual Examination	5-24-16: with magnification
	Ninhydrin	5-24-16: Batch 272. Further processing in Caron chamber after air dried. Examined with magnification.
	Physical Developer	6-9-16: Process with batch 429. Air dried. Examined with magnification.
4TTXVW	Visual Exam	Exam as-is w/ flashlight & ambient light
	IND-ZnCl w Laser Exam 532 nm /orange	Dry heat a clothes iron, approx. 2 minutes. Test strip processed prior.
	NIN (HFE-7100)	Heated w/ a steam iron approx 1-2 minutes. Test strip processed prior
64C767	Visual Examination	
	Alternate Light Source	
	DFO	100°C and 20 minutes
	Ninhydrin	80°C 62% Humidity and 5 minutes
	Powder Dusting	If its hade been a serious crime we hade send it to bigger lab for PD

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
6RYEQP	Vis	
	DFO / Heat via Iron - dry	Applied DFO - dried 10-15 seconds of iron
	Ninhydrin w/ NOVEC - Heat via iron-steam	Applied nin-dried 10-15 seconds of iron
6TAEN6	Visual Examination	Room temp, ambient light.
	Alternate Light Source	Mini Crime Scope - All wavelengths
	1,2-Indanedione	Room temp, wait time - next business day; humidity aided development
	Ninhydrin	Room temp, set time - next business day; humidity aided development
6TB4VM	Visual Examination	
	Alternate Light Source	Wavelengths used: 365 nm and 495 nm
	1,2-Indanedione-Zinc Chloride	Placed in humidity chamber for approx. 40 mins.; Set points: 70 degrees celsius, 65% relative humidity; Viewed with laser (532 nm)
6U6U22	Visual Examination	
	Ninhydrin	HFE with steam iron Lot # 032216
	Visual Examination	
	Physical Developer	app 9 minutes in PD and wash Lot NC16-98
	Visual Examination	
6UM4PW	Visual Examination	
	Alternate Light Source	RUVIS
	1,2-Indanedione	
	Ninhydrin	
6YF8JZ	Visual Examination	
	Ninhydrin	
	Humidity	Steam iron and then by a humidity chamber for 15 min.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
6ZTL6N	1,2-Indanedione	1,2-indanedione solution was prepared as follows: 0.125g of 1,2-indanedione was dissolved in solution of 5mL glacial acetic acid and 45 mL ethyl acetate followed by 450mL petroleum ether at room temperature. Item 1 was treated with 1,2-indanedione solution for 10 seconds. The sample was left to air-dry for a few minutes and was then put in an oven at 80 °C for 20 minutes.
	Alternate Light Source	Item 1 was observed with light source of 515 nm. An orange filter was used for visual observation.
747WGJ	Ninhydrin	Dipped in tray, dried, placed into hunidity chamber 80C, for 20 min
	Powder Dusting	Black magnetic powder
786MU6	Visual Inspection	White light and alternate lightsourse. No print was detected.
	DFO	Fragment of a print detected in quadrant A. The "print" is of no value.
	Nin and P.d	There were no improvement of the fragmentery ridges.
79KFXZ	Visual Examination	
	Alternate Light Source	
	1,2-Indanedione	oven 20 minutes, 100 degrees Celsius
	Ninhydrin	oven 10 minutes, 70 degrees Celsius, 70% humidity
7E86KV	Visual Examination	
	Ninhydrin	Processed for 3 days (over the weekend) Positive control was positive, negative control was negative. Item 1 was negative
	Physical Developer	Ran my positive control using the chemicals we had. Reagents were not working so item was not processed using P.D. No further development technique was available so item was not processed further.
7GCT37	Visual Examination	
	1,2-Indanedione	
	Heat	
	DFO	
	Heat	
	Photograph	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	
	Heat	
	Time	
	Visual Examination	after 5 days to check Ninhydrin development
	Time	
	Visual Examination	After additional 6 days to check Ninhydrin development
7J2YHW	Visual Examination	Ambient room temperature 60 degree F.
	Ninhydrin	Used submersion method. Allowed item to dry under fume hood for approximately 30 minutes. Applied heat and humidity via standard steam iron using deionized water.
	Visual Examination	Checked item for for development and contrast over a period of six days. Item remained in fume hood during this time.
7MJVV9	Visual Examination	no latents visible
	Ninhydrin	68deg; sprayed w/ ninhydrin @1235; no latents developed @1335
7WJJM6	Visual Examination	Natural light, white light and forensic light
	1,2-Indanedione Zinc Chloride	Immersion in the working solution. After, we put the Item in a drying chamber with TRIS control. Values: Temp. 100°C. Humidity: 0%. 20 minutes.
	Ninhydrin Petroleum Eter	Technical immersion. Drying chamber: Temp. 80°C. Humidity: 62%. 20 minutes.
	Physical Developer	Immersion in the working solution during 30 minutes. Dry item at room temperature during 24 hours.
7WN4B9	Ninhydrin	After taking a control print, the envelope was sprayed with ninhydrin and hung up to dry for 20mins. Afterwhich the envelope was steamed with an iron and left to sit overnight.
87BP9W	Visual	Negative Results
	Inherent Luminescence	Polilight PL500 @ multiple wavelengths. Negative results
	Iodine	Wand method. Negative results
	DFO	Dipping method. 1 minute. Examine with ALS 450 nm - 505 nm - latent developed (A).
	Ninhydrin	Dipping method. 1 minute. Minor enhancement visually.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
89B3LN	Alternate Light Source	Check the evidence with all spectrum of light
	DFO	Spray DFO twice, natural dry. Oven Temp. 100°C, Humidity 0%, 20 minutes
	Ninhydrin	Spray Ninhidrin, natural dry put evidence into the plastic bag, 36 hours at least
89FDQ8	Non-Destructive	Optical, Light source with the aid of Polilight 500 laser
	Chemical	Indonedione followed by heat press (170°C) FP developed but looks doty/disjointed, first level with whorl pattern
	Chemical	Ninhydrine - ve (if was positive could have enhanced with zinc-chloride +Liquid nitrogen)
	Physio Chemical	Physical Developer (smudges)
8CGH3R	Visual Examination	White and colored light before and after each development process
	Cyanoacrylate Fuming	Lumicyano™ (0.84g, 118°C, 77%RH, 14min), in a Foster Freeman MVC-1000MVC-1000
	1,2-Indanedione	165°C heating, 10s exposition under a press
	Ninhydrin	examination 24 hours after processing
8DMFJA	Visual Examination	
	Alternate Light Source	
	DFO	200 F, 20 minutes
	Ninhydrin	80 C, 65% humidity, 3 minutes
8H2E93	Visual Examination	Green light with orange filter
	DFO	Put in Caron chamber for 20 minutes at 100 degrees C
	Ninhydrin	Put in Caron chamber for 2 minutes at 80 degrees C with 65% humidity
	Physical Developer	Soaked 10 minutes in distilled water, 5 minutes in Maleic Acid, rinsed in distilled water, 15 minutes in PD, and rinsed in distilled water
8PLGDJ	Ninhydrin	Soaked envelope in ninhydrin for several seconds
	Steam dry	Dried with steam heat from iron
8UYEK7	Visual Examination	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	RTX (Ruthenium Tetroxide)	dipped
	Ninhydrin	dipped- processed using the Fingerprint Development Heat & Humidity Chamber (3 minutes @ 80 degrees Celsius & 65% RH (relative humidity))
8VQHA8	Visual Examination	White light with magnification
	Ninhydrin	White light with magnification, batch 273
	Physical Developer	White light with magnification, batch 430
8XTGKZ	Ninhydrin	Heat and humidity chamber utilized-90 minutes.
8XUL94	Visual Examination	Result: No print visible.
	Ninhydrin	Developed at 80°C and 65% RH for 6.5min. Result: Freagments of a weak fingerprint was developed in quadrant A. Neither pattern nor 2nd details could be determined. Please observe: DFO with 100C, without RH, should have been used before Ninhydrin in this case, but the DFO cabinet was out of order on that day. Referent control – prints deposited on a similar piece of paper the day before, by a Latent Print Stamp (Amino Acid Based) and human fingerprints, developed good quality prints.
94FNKK	Ninhydrin	Applied ninhydrin and used a development chamber at 80 degree celsius and 65% humidity for 3 minutes
94VJWY	Visual Examination	
	Alternate Light Source	
	DFO	100 C, 20 min
	Ninhydrin	80 C, 62% rH, 6 min
99AK66	Visual Examination	
	Ninhydrin	Processed with Nin working solution with HFE7100 base, air dried for 10 mins, steam iron used, left over night in dark area, no development observed.
	1,2-Indanedione	Processed with 1,2 Indanedione with Zinc Chloride HFE 7100 base, air dried for 5 mins, left in humid area for 30 mins, no development observed.
	Alternate Light Source	Polilight 500 used to view item 505-515 nm
9CBZP9	Visual Examination	under white light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	Fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	DFO	Baked in the chamber DFO at approximately 100°C (200°F) for 10 minutes; fluorescence examination in alternate light source (505 nm - 530 nm under orange barrier filter)
	Ninhydrin	In the chamber with a humidity 65% and temperature 50°C for 10 minutes; visual examination under white light and fluorescence examination in alternate light source (470 nm - 570 nm under orange and red color barrier filters)
9FRVKQ	Ninhydrin	Three (3) day process. Day 1 and 2: item was dipped into ninhydrin. Day 3: item was steamed.
9JQ8GQ	DFO / HFE Solution	Heated in 212° F for 10 min. Observed in blue-green light through orange filter
	Ninhydrine / Petroleum Ether Solution	Heated in 212° F for 10 min. Observed in white light
	ZnCl2 (Ready Solution manufactured by BVDA)	Heated in 212°F for 10 min. Observed in blue-green light through orange filter
9JWJ32	Visual Examination	White light magnification
	Ninhydrin	Soaked in Ninhydrin batch #273 for about 10 sec, let dry, put in Caron chamber for 2 hours
	Physical Developer	10 min in maleic acid, 10 min in PD solution batch #429, 10 min in water batch, let dry
9KLPHR	Alternate Light Source	Crimescope, laser beam 577 nm, laser beam 532 nm
	1,2-Indanedione	bath in solution of 1,2-indanedione/ZnCl2 and warm 10 s at 165 °C with a hot press
	Ninhydrin	bath in solution and 1 week at ambiant temprature and hygrometry sheltered from air and light
9TFX3H	Ninhydrin	dipped, air dry, the steam iron
	Checked after 24 hours	faint stain developed in quadrant A
	Ninhydrin-Acetone	dipped, air dry, steam iron no further development
	Checked after 24 hours	only faint purple stain developed in quadrant A
9TJHT8	Visual Examination	Evidence was examined under magnification prior to chemical processing.
	Ninhydrin	Treated with ninhydrin
	Curing process	Ninhydrin allowed to cure for a min. of 72 hrs

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	NIN-Steam	Evidence exposed to steam
9UUKE7	Visual Examination	
	RTX	
	Ninhydrin	80F at 65% RH for 3 minutes
9VKM47	Visual Examination	White light with magnification
	Alternate Light Source	Foster and Freeman CrimeLite ML2 with 460-510nm, bandwidth filter with orange barrier
	Ninhydrin	Batch #272 and processing in caron chamber
	Physical Developer	Batch #429
9WJTML	Visual Examination	
	Alternate Light Source	
	DFO	20 minutes processing time/Used heat chamber for 15 mins. to accelerate development
	Ninhydrin	Sprayed with Ninhydrin; Used iron with steam to accelerate development
	Powder Dusting	Magnetic Black Powder
9XENG6	1,2-Indanedione	10 seconds under heating press
A6783W	Visual Examination	6-17-16: Nothing observed, unglued flaps to lie flat
	Ninhydrin	6-17-16: Batch #273, Caron chamber, heat/humidity 60 degrees C and 60% humidity, 30 minutes, no prints observed
	Physical Developer	6-29-16: Batch #430, no prints observed.
ABVQ6R	Visual	Visual exam of envelope. No visible prints.
	Ninhydrin	Process envelope (under fume - wearing PPE) with Ninhydrin. Let dry for 24 hrs
	Visual	Examined envelope for any print development. Place envelope into humidity chamber. 80/40 humidity celicus for 1 hour
	Ninhydrin	No prints developed with Ninhydrin treatment. Treated envelope a second time with Ninhydrin. Let dry (1) hr place into chamber 1 hr - no development

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Physical Developer	Processed envelope with physical developer. Pre treatment soak env in Maleic Acid for 10 min. Place env in the physical developer solution rocking back/forth for 15 min. After rinsed in distilled water to remove excess. No prints developed. Let env dry (Both solutions were place into (2) separated glass trays)
AD2YMJ	Visual Examination	daylight
	Alternate Light Source	1. battery lamp Led Lenser P7.2. 2. light source Polilight PL500.
	DFO	100 C, 0% relative humidity
	Ninhydrin	80 C, 65% relative humidity
	Physical Developer	
AJADFG	Visual Exam White Light	room temperature 73° F flashlight
	1,2-Indanedione Zinc Chloride	Dip method viewed with a forensic light source with red goggles @ 535 nm
	Ninhydrin	Dip method steam iron 2-4 minutes
AJC3KD	Visual Examination	
	Alternate Light Source	Mini Crime Scope - All Wavelengths
	1,2-Indanedione	TracER Laser - 532 Wavelength Processing Time - Next Business Day
	Ninhydrin	HFE-7100 Processing Time - Next Business Day
ANXRP3	Visual Examination	White light and laser 532nm, with curved orange filter
	1,2-Indanedione	Apply solution by dipping, dry in vented hood, dry heat press two minutes at 100 degrees C
	Ninhydrin	Apply solution by dipping, dry in vented hood, wet heat applied with steam iron
	Zinc Chloride	Apply solution by spraying, dry in vented hood, wet heat applied with steam iron, laser exam
APXZ92	Visual Examination	
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	1,2-Indanedione	Mini Crime Scope @515 wavelength
	Ninhydrin	Humidity aided development
	Powder Dusting	Regular black

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ARW3K3	Visual Examination	Used/examined with white light and laser (532 nm) with curved orange filter
	1,2-Indanedione	Applied solution by squirting, dried in hood, dry heat press 2 minutes at 100 degrees C, laser 532 nm, curved orange filter
	Ninhydrin	Applied solution by squirting, dried in hood, wet heat, steam iron, white light
	Zinc Chloride	Applied solution by squirting, dried in hood, wet heat, steam iron, laser 532 nm curved orange filter
B278FK	1,2-Indanedione/Zinc	viewed with 505 nm and ALS with orange filter
B8BW4K	Visual Examination	oblique incandescent light 10 minutes
	Alternate Light Source	UV-365nm and 495nm crime scope 10 minutes
	DFO	temperature within range, 45minutes in the oven, 4 minutes evaluation time with 495 nm and orange filter
	Ninhydrin	temperature and humidity within range, 45 minutes in the chamber
BBDW4H	Ninhydrin	HFE Formulation, Steam Iron
BKHGCY	Visual Examination	
	White light + fluorescence examination (green light 480-560nm + bright red goggles, blue light 420-470nm yellow goggles).	
	Ninhydrin	Temperature 80°C, humidity 65% RH, time 5 minutes.
	White light + fluorescence examination (green light 480-560nm + bright red goggles, blue light 420-470nm yellow goggles).	
	Ninhydrin	Twice because the fingerprint was so faint.
BL6TVH	Visual Exam	Visual exam.
	DFO	DFO processing (100° C , 10 min, green light)
	Ninhydrin	Ninhydrin processing (80° C, 65% humidity, 5 min.)
	PD	Physical Developer. (15 mins in maelic acid, 15 mins in PD solution, double water rinse) Visual exam.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
BNDB9Z	Alternate Light Source	
	DFO	100 degrees Celsius, 0% RH, 20 minutes
	Ninhydrin	80 degrees Celsius, 65% Rh, 5 minutes
BPAC4B	Visual Examination	No visible latent
	1,2-Indanedione	Sprayed, let dry 5 min. Fingerprint chamber - 100 C 0% RH for 10 min
	Alternate Light Source	UV Light, w/orange goggles, visible latent, insufficient detail.
	Zinc Chloride	sprayed, let sit 5 min
	Alternate Light Source	UV light, w/ orange goggles, more visible detail, still insufficient
	Ninhydrin	sprayed, 5 min - nothing further
BPTZL7	Visual Examination	Examined using white light and magnification
	Ninhydrin	Batch #273, soaked item, let air dry. Placed in Caron Chamber 30 min, checked, placed back in for 30 min.
	Physical Developer	Batch #430, completed by [Name]. Examined by me on 6/29/16 using white light and magnification
BRV6UK	Visual Examination	
	Ninhydrin	
	Humidity Chamber	Humidity 70%, Heat 80 Degrees, 20 Minutes
BYE4T6	Visual Examination	Negative results
	Ninhydrin	Batch 273, negative results
	Physical Developer	Batch 430, negative results
BYJLR4	Visual Examination	White light magnication, negative
	Cyanoacrylate Fuming	Chamber, exposure 12 minutes, allowed to dry 60 minutes, Negative
	Ninhydrin	Batch #273, Caron chamber used, negative
	Physical Developer	Batch #429, negative
C3ERML	Visual	Flood lights, laser, ALS, UV - 10 minutes
	DFO / Laser / ALS	Dipped twice, place in oven 100° C for 15 minutes

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	Dipped, placed in humidity chamber 70° C 70% Rh for 15 minutes
	Physical Developer	Immersed in PD for approximately 20 minutes
C6HM8N	Visual Examination	No Latents Visible. Item was photographed.
	Alternate Light Source	No Latent Visible
	Ninhydrin	Item was dipped, dried and steamed with iron. No Latent Prints Developed. Item was allowed to hang overnight in fumehood. No Latent Prints developed.
	Ninhydrin	Item was re-dipped and processed with steam iron. No Latent prints developed. Item was photographed.
	Silver Nitrate	Item was dipped and exposed to UV light. No latent prints developed. Item was scanned at 1200dpi/tiff.
CFZ8QK	Visual Examination	
	Alternate Light Source	
	DFO	
	Ninhydrin	
	Physical Developer	
CGVPTL	Visual Examination	Regular lighting, UV light, ALS and laser
	DFO	Dipped in DFO - placed in oven (oven temp = 100° C) to accelerate process. Wait 24 hours before next step. Visualize w/ laser.
	Ninhydrin	Dipped in Ninhydrin- placed in hummidity chamber (hummidity chamber set to 70° C + 70% hummidity) to accelerate process. Wait 24 hours before next step.
	Zinc Chloride	Sprayed ZnCl2- placed in hummidity chamber (visualized with ALS)- wait 24 hours before next step
	Physical Developer	Maleic Acid pre-wash- then P.D.- let dry
CH8LXQ	Visual Examination	No ridge structure was visualized before processing
	1,2-Indanedione	1,2-Indanedione with ZnCl was sprayed on the item, then heated on a dry mounting press for 10 seconds at 320 degrees F. Then viewed at 505 nm with orange goggles
	Ninhydrin	sprayed with Ninhydrin and processed in a humidity chamber for 2:30 minutes at 80 degrees C and 70% relative humidity.
CQLBXK	Visual Examination	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	
	DFO	
	Ninhydrin	
	Physical Developer	
CWAQRX	Visual Examination	Blue/Green light with yellow/orange filter
	DFO	100 degrees Celsius for 20 minutes
	Ninhydrin	80 degrees Celsius for 2 minutes
	Physical Developer	10 minute pre-wash in distilled water, 5 minutes in Maleic Aid, Rinse in distilled water, Physical Developer for 15 minutes, Rinse in distilled water
D39WGK	Visual- DFO	~100° C oven, waited 24 hours for next step laser
	Ninhydrin	Humidity chamber @ ~70% humidity ~70° C waited 24 hours till next step
	Zinc Chloride	Humidity chamber @ ~70% humidity ~70° C wait 24 hours till next step used ALS
	Physical Developer	
D6DKYV	Ninhydrin	Processing time 14 days
D7RRKD	Visual Examination	
	Ninhydrin	Dipping method - 30 seconds, Air dried - 20 minutes, humidity chamber - 20 minutes
	Powder Dusting	Black magnetic powder
D84QEL	Visual Examination	Crimelite 2
	1,2-Indanedione	160°C during 10 sec
	Ninhydrin	48H at room temperature
DGB7LU	Ninhydrin	petroleum ether based/steam iron
DP3NXG	Visual Examination	Fluorescent overhead light
	Visual Examination	Incandescent copystand light
	Alternate Light Source	450nm Pollilight

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Alternate Light Source	505nm Pollilight
	Alternate Light Source	Laser
	1,2-Indanedione	100 degrees celcius for 20 minutes
	Ninhydrin	with acetone. Air dry; exam on 7/5/2016
DTJBBM	Visual Examination	OBLIQUE LIGHTING AND MAGNIFIER
	DFO	LET ITEM DEVELOP IN SECURED AREA FOR 3 DAYS. EXAMINED USING ALS (455nm & ORANGE GOGGLES)
	Ninhydrin	USED HEPTANE BASED NINHYDRIN. AFTER ITEM DRIED, USED STEAM IRON TO EXPEDITE DEVELOPMENT TIME.
E4KWDE	Ninhydrin	Carrier-Acetone, dipped, dried, heat/steam ~30 hours in oven @ ~50 degrees C, checked several times
E8GKT2	Visual Examination	6-20-16: Examined under white light and magnification. No prints observed.
	Ninhydrin	6-21-16: Soaked/agitated in Ninhydrin Batch #273, allowed to dry and processed in the Caron Chamber at 60 degrees C and 60% humidity for approximately 20 minutes. No prints observed.
	Physical Developer	6-29-16: Batch #430; PD processing completed by LP Tech [Name]. Item examine with no prints observed.
E9EQBF	Visual Examination	Overhead lighting, flashlight, white light
	Alternate Light Source	Wavelengths 350-620nm Rofin Polilight PL500
	DFO	Heat press used for ~10-12 seconds at 325 degrees Fahrenheit
	Ninhydrin	Steam iron used for ~10-12 seconds at ~320 degrees Fahrenheit (not in direct contact with the item)
	Physical Developer	Maleic Acid pre-wash for ~20 minutes; PD processed for ~10 minutes
EAKMRX	Visual Examination	Examination in white light, no marks visible.
	Alternate Light Source	Examination with green, blue and UV-light with forensic light source CrimeLite 82 (and googles). No marks visible.
	DFO	Treated with BVDA-mix, in climate chamber 10 min. and inspected with green light source (red googles). No marks identified.
	Ninhydrin	Treated with BVDA-mix, in climate chamber 5 min. Very weak reaction in box A.
ECRXAZ	Visual Examination	White light and magnification

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	Batch #273, Caron for 2 hours
	Physical Developer	Batch #430, processed by [Name]
EGLR82	Visual Examination	White light with magnification, no prints
	Alternate Light Source	485nm with orange filter, no prints
	Ninhydrin	Batch #272, caron chamber, no prints
	Physical Developer	Batch #429, no prints
EJQU8X	Ninhydrin	Ninhydrin was sprayed on envelope and developed for 4 hours. No prints appeared.
EKLBJU	Visual Examination	White light and fluorescence examination 350-650nm
	DFO	Item dipped in the Liquid, heated in oven for 20 minutes at 95°C. examine with 505nm
	Ninhydrin	Item dipped in the liquid, heated in oven for 10 minutes at 80°C, 65%R.h. examine with white light
EQXMTV	Visual	No visible ridges
	Indanedione 1,2	20 minutes @ 50°F & 75% humidity
	Ninhydrin w/ HFE	20 minutes @ 50°F & 75% humidity
EUCWPT	DFO	Oven : 100°C and 20'
	Ninhydrin	Dry: 2 days RH and temperature room
EVM7VP	1,2-Indanedione	3h, 50°C, 40% rel. humidity
	Ninhydrin	48h, 26°C, 65% rel. humidity
EVQNTN	Visual Examination	To evaluate the evidence (condition and type of material, development technique)
	Ninhydrin	Apply Ninhydrin using wash bottle, allow to dry and leave overnight room temperature for reaction. Next day placed in humidity chamber for 30 min.
	Physical Developer	Maleic Acid for pre-wash solution - 10 minutes. Solution A & B - 15 minutes - wash with distilled water
EXCHLH	Visual Examination	
	1,2-Indanedione	Heat Press, Bright Beam laser (532nm, orange barrier)

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	Steam Iron
F6BGKB	Visual Examination	No visible ridge detail
	Alternate Light Source	LASER - no inherent luminescence; ALS (Spex) - no inherent luminescence
	Ninhydrin	2X; Humidity chamber 60 degrees C/60% RH X 45 minutes; slight purple color - detail - Quadrant "A" - not suitable for identification - no pattern
	Physical Developer	No ridge detail
F7476R	Visual Examination	White LED light with magnification
	Ninhydrin	Submersion, 30 seconds, 60/60 temp & humidity for 30 minutes, accelerated dev.
	Physical Developer	Maleic Acid, Physical Developer-silver suspension wash, 10 minutes each process
F7ZH9T	Visual Examination	Viewed sample under natural and white light.
	DFO	Utilized a combined technique. First one the sample was sprayed with DFO solution and place into the oven at 100 °C for 20 minutes. After that the sample was viewed with Forensic ligth at 515 nm using orange goggles.
	Ninhydrin	The second treatment, in order to improve the quality of the sample. It was sprayed with Ninhydrin and placed in the oven for 5 minutes with 80 °C temperature and 65% Humidity.
FBUC7U	Visual Examination	300nm-700nm CrimeScope
	DFO	processing time 20 minutes
	Visual Examination	515nm-575nm Crime Scope
	Ninhydrin	processing time 10 minutes
FBZULY	Visual Examination	No ridge detail observed
	Ninhydrin	No ridge detail observed
FFQ97Y	Visual Examination	white light and magnification
	Ninhydrin	Caron chamber (60 degrees C/60% relative humidity), Start: 0738, Stop: 0838.
	Physical Developer	6-29-16: Complete by [Name]; Batch 430

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
FKFFDU	Visual Examination	
	Alternate Light Source	
	DFO	100 degrees Celsius, 20 minutes
	Ninhydrin	80 degrees Celsius, 65 % humidity, 5 minutes
FQ9K7X	Visual Examination	light
	Ninhydrin	Humidity 70%. Temp 70 celsius. aprox 5 minutes. weak pattern
	test/controll sample	positive
FRHVCU	Visual Examination	Ambient Light
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	1,2-Indanedione	Visualized with Mini Crime Scope @515 wavelength; spray application/air dry
	Ninhydrin	Spray application/air dry; humidity aided development; set time - overnight
FUNVJ2	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80 C, 65% humidity, 3 minutes
FVZFYA	DFO	Visual examination was done before processing. Dipped in DFO, laid flat to dry, dipped again, laid flat to dry. Put in DFO chamber for 10 min @ ~200° F
	ALS	@ 535 nm
FZDVT9	Visual Examination	white light, Polilight 415-555 nm
	Ninhydrin	30 min (Temperature 80°C, humidity 65 %)
	Physical Developer	
	Powder Dusting	magnetic black
G3ZULW	Visual Examination	White light, Laser, ALS
	DFO	Dry heat @ 100° C for 20 minutes
	Ninhydrin	Humid heat (wet bulb @ 70° C, dry bulb @ 80° C) for 6 minutes

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
G4TMGF	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm
	DFO	Observed VIS and under 532nm
	Ninhydrin	
	Physical Developer	
G642VW	Visual Examination	visual exam
	Ninhydrin	sprayed and sat for 2 hours
G8B6C7	Optical Detection	White light and colored observation with filters.
	DFO	2 dips and exposure to 100° C for 20'. Observation to 450 -560 nm with filters.
	Indanedione	2 dips and exposure to 100° C for 20'. Observations to 450 - 560 nm with filters.
	Ninhydrin	1 dip and 3 days in the dark at a minumum T° of 20° C
G8TYDF	Visual Examination	
	Alternate Light Source	
	DFO	
	Ninhydrin	
	Physical Developer	
GDGMPD	Visual	Observation of evidence porous material
	ALS - Alternate light source	UV light
	Photographed	Evidence photographed - copy of photos attached to case file as working copy
	Ninhydrin	Item dipped into Ninhydrin (NOVEC) reagent control good - lot NINNOVEC 160119
GGKAPW	7/07/16-Ninhydrin spray LOT #1202150 (QC tested with + and - controls prior to use & it reacted appropriately)	Ninhydrin spray applied to item 1 in Mystaire model MYAU54 fume hood while wearing PPE & allowed to air dry. Secured in locker to develop on 7/07/16. Removed item 1 from locker on 07/11/16. Very faint purple chemical reaction (Ruhemann's purple) was observed in quadrant A.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	7/11/16-Ninhydrin spray LOT #040716A (QC tested with + and - controls prior to use & it reacted appropriately)	Reprocessed with Ninhydrin spray in fume hood & allowed to air dry, then applied heat to accelerate chemical reaction. Only purple discoloration observed in Quadrant A - no further enhancements & no discernable ridge detail.
GLQ8UU	Visual Examination	Ambient Light
	Alternate Light Source	Mini Crime Scope - All wavelengths
	1,2-Indanedione	Spray application; air dry; visualized with orange goggles via the Mini Crime Scope @ 515 wavelength
	Ninhydrin	Spray application; air dry; set overnight; humidity aided development
GUJH7B	Visual Examination	
	Alternate Light Source	UV light 365nm, Crimscope 495nm with orange filter and 535nm with red filter
	1,2 Indanedione Zinc Chloride	Humidity chamber for ~30 minutes at 65% humidity and 80 degrees C 445-510nm
GVE29C	DFO	ALS with orange goggles @455nm steam iron 2.5 minutes
	Ninhydrin	Steam iron 3 minutes
	Ninhydrin (HFE7100)	Steam Iron 5 minutes
	Powder Dusting	Black magnetic powder
GWCC2U	Visual	w/oblique lighting, Ruvis, Blue-green (w/orange barrier filter) and UV Foster Freeman 82s Crimelites.
	black magnetic powder	n/a
	DFO	100° C w/ no humidity for 10 minutes and viewed w/ Blue-green Foster Freeman 82S Crimelite w/orange barrier filter and SPEX Forensics Crimescope tuned to 455nm w/ orange barrier filter.
	Ninhydrin	80°C/ 65% relative humidity for 20 minutes
GZDRLX	Visual Examination	no results
	Ninhydrin	Ninhydrin spray, sat for 2 hours, resprayed and sat for another 2 hours
H7UBCV	Visual Examination	
	RTX (0.2% Ruthenium Tetroxide)	Dipped and dried (approx 3 mins)

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	Dipped and dried (approx 3 mins) Placed in Fingerprint Development Chamber 3 mins at 80 degrees C and 65% RH. Repeated exposure to heat and humidity the next day
HDG2XQ	Ninhydrin	Dipped on 06-13-16 at 0118.
HJEW9B	DFO	Allowed to dry and heated to 95 Degree C for 25 min., viewed with laser, no latents developed.
	Ninhydrin	Allowed to dry and heated to 95 degree C for 15 min., visually inspected, no latents developed.
HLKDNT	Ninhydrin	Nin. Spray applied, then steam heat. Process repeated after no results.
	Iodine Fuming	Fumed with iodine. No ridge development observed.
	Alternate Light Source	Examined at various wavelength using all different barrier filter goggles. No ridge development observed.
	Physical Developer	Pre-wash rinse, pre-wash Maleic Acid bath, then Physical Develper bath. Very small possible area of ridge detail in quadrant A. Very spotty reaction, can't be sure the reaction are ridges.
HM2AFT	Visual (pre-photos)	Visual, RUVIS, Foster/Freeman Crimelite 82S Blue/Green w/orange goggles and UV with clear goggles
	DFO	Heat application at 100 degrees C approx 5 mins and viewed w/ Foster Freeman Crimelite 82S Blue/Green w/ orange goggles
HM4YMB	Ninhydrin	Acetone carrier, Spray, Oven (50 C for 10 minutes)
HPLT9X	Visual Examination	different wavelength of light and filters
	DFO spray	tempr. 90° C, 10 minutes chamber D+C 200A Sirche illuminator Polilight PL500 505-530 nm orange filters
	Ninhydrin Spray	tempr. 90° C, humidity 60%, 15 min. SafeFume Catri Chamber - natural and white light.
HVDNZA	Visual Examination	used strong flash light
	1,2-Indanedione	sprayed item, allowed to dry overnight; placed in CARON chamber (20min/100C/60%humid);
	Alternate Light Source	visual @ 515nm w orange filter
HW42WU	Visual Examination	No prints were seen.
	Alternate Light Source	(white light, blue and green fluorescence light): No prints were seen.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	DFO	(20 minutes processing time at 100 degrees Celsius): No prints were detected.
	Ninhydrin	(5 minutes processing time at 80 degrees Celsius and 62% RH): No prints were detected. This method were repeated once more, still no prints could be seen. Had we had Physical developer in our lab, this would have been the next step.
J4KKLR	Ninhydrin	Heat 80 degrees & Humidity 65% in a chamber for 20 minutes. Wait overnight to evaluate results.
J8K99N	Visual Examination	No fingerprint. The light sources (UV and visible) at the labeled wavelength 395-625 nm and white.
	DFO	Discloses a fingerprint. The fingerprint is visible in the light source 455 nm with orange goggles.
	Ninhydrin	No improvement in fingerprint quality.
JBJJ4N	Visual Examination	White, blue, green light
	DFO	20 min, 100 C, a few details not worth preserving was seen
	Ninhydrin	5 min, 80 C, 65 %RH, no print seen
JDVRHV	1,2-Indanedione	Heat press at ~160 degrees Celsius for: 10 seconds, 15 seconds, 15 seconds. Viewed with Laser at 532 nanometers with orange barrier filter between each heating.
	Ninhydrin	Heat and humidity from a steam iron
JE6U7F	Visual	Natural light, UV, Laser, ALS, flashlight
	DFO	20 min in the oven at 100° C Laser
	Ninhydrin	~5 minutes in the humidity chamber 70° C + 70% humidity
	Zinc Chloride	~5 minutes in the humidity chamber 70° C + 70% humidity ALS
	PD	10 min in pre wash. 20 min in PD solution
JT294N	Ninhydrin	45 minutes, Visual (NFO), Ninhydrin, Heat and Humidity Chamber, Visual (NFO)
JXETDU	1,2-Indanedione	Saturate Paper Ind/Heat Press 160 degrees Celsius for 10 seconds, Laser #1 @ 532 nm with orange barrier filter - Positive Control - LP053050516MK
	Ninhydrin	Saturate Paper Nin/Steam Iron (Heat and Steam) - Positive Control - LP009100715DPR

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Physical Developer	Maleic Acid (approx. 10 -15 minutes -with agitation) LP015062316JLK, if no bubbling then moved into Physical Developer (20 + minutes with agitation) LP019062316DPR and then H20 rinse, dried and examined
K34T6V	Visual Examination	5-25-16: Light and magnification
	Alternate Light Source	5-25-16: 460nm-510nm light and orange barrier
	Ninhydrin	6-6-16: Batch #273, Caron processing for 1 hour
	Physical Developer	6-9-16: Batch #429
K3N4RP	Visual Examination	White light
	Ninhydrin	Climatcabine settings was 80 degrees and 65 % humidity, processingtime 5 minutes. A fingerprint could be seen in section A but no visible details or pattern.
K42XMA	Visual Examination	White Light
	DFO	
K6ADUF	Visual Exam	Ambient light & flashlight /oblique lighting
	IND - Zn	Dry Heat press@ 330° F ~12 seconds Laser (532 nm) & orange filters
	Ninhydrin (HFE-7100)	Steam iron - 5 mins
	Black Magnetic Powder	Ambient lights
KA9X62	Alternate Light Source	cvarious crime litres used negative result
	DFO	DFO used and item placed in DFO cabinet for 20 mins, followed by crime lite examination to visualise ridge detail
	Ninhydrin	Ninhydrin treated, placed in Ninhydrin cabinet for 4 mins, no further development noticed
KMRACU	Visual Examination	
	Ninhydrin	After a visual examination, the manila envelope was dipped into ninhydrin.
KRKE4D	Visual	
	DFO	Visualize by laser - oven @ 100° C - waited 24 hours
	Ninhydrin	Humidity chamber @ 70° C & 70% humidity - waited 24 hours

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Zinc Chloride	Visualized by ALS - humidity chamber @ 70°, 70% humidity - waited 24 hours
	Physical Developer	waited until dry
KUUJG3	Visual and Fluorescence Examination	Using Polilight PL 500 with filters
	DFO	Temperature in the chamber 80° C processing time 20 minutes
	Ninhydrin	Temperature in the chamber 80° C humidity 62%, processing time 20 minutes
	Physical Developer	Processing time 20 minutes
KV7YB3	Visual Examination	
	Alternate Light Source	Mini Crime Scope - all light wavelengths
	1,2-Indanedione	Set time - Next business day; Room Temp
	Ninhydrin	Set time - Next business day; Room Temp
KX9Y8U	Visual Examination	
	1,2-Indanedione	Heat Press, 160 deg C, 10 seconds; Laser Exam, 532nm with orange barrier filter
	Ninhydrin	Steam Iron
	Physical Developer	20 minutes in Maleic Acid; 20 minutes in PD solution
KZXCPC	Visual Examination	side lighting
	1,2-Indanedione	heat press at 160 celsius for 12 seconds
	Ninhydrin	steam iron - high heat with maximum steam
KZZ2U9	Visual Examination	digital photos
	DFO	Oven at 212F for 10 mins, view ALS 495nm with orange filter
	Ninhydrin	steam iron
	Digital photos	
L7M3V8	Ninhydrin	Heat and Humidity
L9P6JN	Visual Examination	
	Alternate Light Source	Viewed with Mini Crime Scope under all wavelengths

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	1,2-Indanedione	Spray surface; let dry at room temp.; viewed with Mini Crime Scope @ 515 wavelength
	Ninhydrin	Spray surface; let dry; humidity aided development (overnight)
L9RVP7	Visual Examination	
	Alternate Light Source	365nm (UV) & 495nm
	DFO	Temperature - 100C (Dry Oven) (Approx. 25 min.)
	Ninhydrin	Temperature 70C/65% rH (Approx. 25 min.)
LAJQCE	Visual Examination	(VIS, UV, 415nm, 450nm, 505nm, 530nm) - none fingerprint
	DFO	discloses a fingerprint
	Ninhydrin	no improvement the quality of the fingerprint
LBU6QV	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80 C, 65% humidity, 3 minutes
LDJYGP	Visual exam with direct and oblique lighting	5 minutes with direct and oblique lighting
	1,2-Indanedione	dipped in 1,2 Indanedione-Zinc & dried - processed for approx. 15 minutes in Environmental Chamber with 65% humidity & 80 degrees Celsius. Photographed L2 (spotty ridge detail)
	Ninhydrin	dipped in Ninhydrin & dried - processed for approx. 15 minutes in Environmental Chamber with 65% humidity & 80 degrees Celsius. No reaction observed. Re-checked on 06-29-2016 for further chemical reaction or development. None observed.
LGZYKQ	Visual Examination	Oblique lighting - white light
	Ninhydrin	HFE 7100 (heat and steam applied)
	Alternate Light Source	Crimescope - all wavelengths and filters
LHTFPD	1-2 indanedione/zinc chloride	room temperature - 48 hours development
	Ninhydrin	room temperature - 48 hours development
LPDHVU	Visual Examination	White light and magnification
	Ninhydrin	One hour total in caron chamber; Batch #273

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Physical Developer	Batch #430; completed by [Name]
LQMNB4	Ninhydrin	Placed in ninhydrin, dipped - 30 seconds. Air dry - 20 minutes. Humidity chamber - 20 minutes
	Visual Examination	small amount of ridge structure noted on edge of quadrant A and also on the back of envelope in quadrant A
M4TZ3N	Visual Examination	flashlight - no ridge detail
	DFO	no ridge detail
	TRacer Laser Forensic Light Source	ridge detail observed in quadrant A
	Ninhydrin	possible ridge detail but not in the area of quadrant A
M96H9R	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500
	1,2-Indanedione	Processing time: 10 minutes, temperature: 90°C.
	Alternate Light Source	Polilight PL 500 (505 – 530 nm light), orange barrier filter, optical instruments..
	Ninhydrin	Processing time: 72h, room temperature, dark place.
	Visual Examination	White light, optical instruments.
MFKM9J	Visual Examination	
	DFO	Dipped in working solution for 10 min, dried for 3 min, repeated these two steps, placed in oven for 20 min at approx. 90-100 degrees celsius
	Ninhydrin	Added heat and humidity immediately after spraying with NIN by using a steam iron, let item sit in a dark location for at least 24 hours prior to examination
	Physical Developer	Item was first immersed in Maleic acid for 10 min, then immersed in the working solution for 10 min while being agitated
MTR9ZP	Visual Examination	6/29/16
	Ninhydrin	6/29/16
	Steam	
	Time	6/29/16 (7 days)
	Visual Examination	7/6/16

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	7/6/16 respray
	Time	7/6/16 (5 days)
	Visual Examination	7/11/16
	Silver Nitrate	7/11/16
	Physical Developer	7/11/16
MWBYUL	Visual Examination	White light
	Alternate Light Source	Blue light 420-470 nm, green light 490-560 nm
	Ninhydrin	80 degrees Celsius, 65% RH, 5 min processing time followed by another 5 minutes of processing
MZTP8P	Visual Examination	
	Ninhydrin	
	Physical Developer	
	Bleach (PD enhancement solution)	
N3RHKK	Ninhydrin	5 days
N4M2LL	Visual Examination	no prints observed
	Ninhydrin	Caron chamber; Temp 60 degrees C/60% Humidity
	Physical Developer	Rinsed in Maleic Acid solution 10 min; soaked in PD solution 10 min; rinsed in water 10 min; dried
N7D6D8	Visual Examination	
	Alternate Light Source	viewed with UV light and CrimeScope @ 515nm
	DFO	placed in heat chamber for 20 mins @ 200F to accelerate reaction
	Ninhydrin	Placed in plastic bag over the weekend to accelerate development
NABNGQ	Visual Examination	Examined w/ white light and 450nm/orange barrier.
	Ninhydrin	Applied using a pipet allowed to dry, reapplied.
	Curing	Secured in a dark locker for minimum of 72 hrs.
	Visual Examination	Examined before application of steam.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Steam	Using a steam iron, repeated applications.
	Visual Examination	White light w/ magnification and 450nm/orange barrier
NDBC3M	Ninhydrin	5 min, 80C, RH62%
NGVPW4	Visual Examination	Fluorescent lighting
	Alternate Light Source	365nm and 495nm
	DFO	100 degrees Celsius for 25 minutes, 495nm
	Ninhydrin	70 degrees Celsius and 65% relative humidity for one hour
NJ28VY	Ninhydrin	A control sample was prepared with positive results. Sprayed Ninhydrin and allowed to dry for two hours. Placed the item into the heat chamber for approx. 20 minutes at 175 degrees. Removed after a cool down period of about two hours. The heat chambers are not equipped with humidifiers, due to the already high humidity in our geographical location. There was a faint area of developed Ninhydrin in quadrant "A" but no visible ridge detail - only a slight impression.
	Powder Dusting	After waiting for the impression to develop for a few days with no sufficient detail visible, an attempt was made to further develop the impression with Dual Contrast dusting powder. Still no better ridge detail was achieved, and not enough level one detail was visible to determine pattern type . Therefore, it was determined the impression was of no value for comparison purposes.
NQ3LHL	Visual	Examined with white (overhead) light, then ALS - Ridge Details Not Observed
	Iodine	Used disposable "Fumette" iodine foaming gun at room temp. For approx 15 sec. - No Ridge
	Nin in HFE7100	Saturated with wash bottle in vent hood. Allowed to stand at room temp. for approx 24 hrs, then process with a steam-iron for approx 5 sec. -Vis Ridge
NTAJAH	1,2-Indanedione	Humidity:65%, Temperature:90 celsius, Processing time:15 minutes, Cabinet: Forensic climate cabinet FKC-MK4
NXW43J	Ninhydrin	Temp 80 C, 65%rH, 6 min
PATYQJ	Ninhydrin	Allowed to dry, application of heat, given 2 days for further development
PHJKWH	Ninhydrin	painted on surface with brush, dried, heat/humidity applied with iron

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Powder Dusting	Magnetic powder applied in attempt to develop any latent prints
PJE3XJ	Visual Examination	White Light, Coherent Laser, and ALS to look for any inherent luminescence
	1,2-Indanedione	HFE based, Left at room temperature approximately 3 hours, Viewed under Coherent Laser
	Ninhydrin	HFE based, Left at room temperature overnight
PJVEE3	Ninhydrin	Saturated surface; let dry for 20 min.; used moist head (iron w/steam); placed in sealed plastic bag overnight.
PLKZGL	Visual Examination	White light
	DFO	Processing time 20 minutes, climatcabinet set on 100 degrees. Examination with lightsource 515 nm, orange filter. A visible print in section A.
	Ninhydrin	Climatcabinet set on 80 degrees and 65 % humidity. Processingtime 5 minutes. No visible print seen.
	Physical Developer (PD)	No visible print seen.
PRBV9X	Visual Examination	No ridge detail noted
	1,2-Indanedione	+ test print on similar paper. Dip, air dry, dry iron for approx. 30 seconds. Tracer Laser/orange goggles, ridge detail noted in quadrant A
PYRCYM	Ninhydrin	
	Physical Developer	
Q9TEGP	1,2-Indanedione	laser (532nm) and Orange Filter
QAM4KH	1,2-Indanedione	Room Temp; Processing Time - Until Dry, Viewed @515 wavelength
	Ninhydrin	Room Temp; Processing Time - 2 days, humidity aided development
QDNK6M	Visual Examination	Polilight PL500
	Alternate Light Source	Polilight PL500
	DFO	100 Celsius, 10 minutes
	Ninhydrin	30 Celsius, humidity 60%, 24 hours

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
QGKWVX	Ninhydrin	Dipped into Ninhydrin and then used a steam iron to heat item.
QHFFWY	1,2-Indanedione	Treated item and allowed to ait dry for 5 minutes. Heated in oven at 100 Degrees C with 0% relative humidity for 10 minutes.
	Alternate Light Source	Examined with ALS for latent print developement using 505 nm and orange goggles. Minimal developement observed.
	Zinc Chloride	Treated with Zinc Chloride to enhance latent print.
QRKA67	Visual Examination	
	Alternate Light Source	Crime Scope - all available wavelengths
	1,2-Indanedione	Visualized with Crime Scope @515 wavelength
	Ninhydrin	Applied and waited until next business day; humidity aided development
QU87FH	Laser / Visual	Green Laser 532 nm orange filter
	DFO	DFO / DFO oven 212°F 20 min. Laser 532 nm w/ orange filter
	Ninhydrin	Ninhydrin / Ninhydrin chamber 5 minutes at 175°F
QUV39K	Ninhydrin	Sprayed - develop for 24-48 hours
QY2ZDJ	Visual Examination	Ambient Light
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	1,2-Indanedione	Air dry - visualized next day with Mini Crime Scope @515 wavelength
	Ninhydrin	Air dry - humidity aided developement; visualized next day
R2AFKP	Visual Examination	White light and magnification
	Ninhydrin	Batch #272, Put in Caron for about 1 hour at about 60 degrees C and 60% Humidity
	Physical Developer	Batch #429, processed by [Name]
R6P3XU	Visual Examination	No friction ridges present.
	Ninhydrin	Ninhydrin sprayed on envelope and dried under fuming hood for approx. 10 minutes.
	Visual Examination	No friction ridges present.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Forensic Oven	Placed in forensic oven for 3 minutes at 80 degrees C 65% humidity.
	Visual Examination	No friction ridges present, left to sit overnight.
	Visual Examination	No friction ridges present.
	Ninhydrin	Re-applied ninhydrin and repeated above steps, with exception of sitting overnight.
	Visual Examination	No friction ridges present.
	Alternate Light Source	Examined under Alternate Light Source, no friction ridges present.
	Test Print	Created test print on similar type manila envelope using same ninhydrin formual. Repeated same process as above, with the exception of sitting overnight. The test print became visible a short time later confirming that there was not a flaw in the process or ninhydrin.
R7JT2N	Visual Examination	Examination under white light and magnification
	Ninhydrin	Batch #273, soak for approximately 5 seconds, dried thoroughly, Caron chamber (temp 60 degrees C/60% humidity) for 1 hour.
	Physical Developer	Batch #430, processed by [Name]
R8BVN4	Visual Examination	3 Minutes
	Inherent fluorescence by laser or alternate light source	10 Minutes
	DFO	30 Minutes Temperature 100 degree Celsius without humidity
	Laser of the alternate light source	10 Minutes
	Ninhydrin	30 Minutes Temperature 80 degree Celsius with humidity
RAH8PD	Iodine Fuming	Iodine fuming applicators
	DFO	Premix solution, applied by spraying, heat by dry iron, ALS (ultralite/BMT filter)
	Ninhydrin	Applied by dipping, humidity applied by steam iron
RJPGKJ	Visual Examination	White light and magnification
	Ninhydrin	Batch 273, Caron chamber at 60 degrees C and 60% relative humidity for 30 minutes.
	Physical Developer	Batch 430, Maleic acid 10 min, PD 10 min, water rinse 10 min.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
RNKFTM	Visual Examination	Ambient, LED flashlight, oblique
	1,2-Indanedione	With Zinc Chloride, heat press: ~160 degrees C for ~10 seconds
	Class IV Laser Exam	9 watts, 532nm, orange barrier filter
	Ninhydrin	Steam iron
	Visual Examination	Ambient
	Physical Developer	Maleic Acid prewash and water post rinse
	Visual Examination	Ambient
RPCJF3	DFO	
RRY9L2	Visual Examination	light and magnification
	Alternate Light Source	455-515 nm orange filter magnification
	DFO	In solution 10 seconds, air dry, in solutioon to satarate air dry dry heat iron approx. 212 F
	Alternate Light Source	570 nm red filter magnification
	Ninhydrin	in solution long enough to satarate, air dry, steam iron 212 F humidity and magnification
RYHCVN	Visual Examination	Item visually inspected with flashlight for ridge detail.
	1,2-Indanedione	The item was sprayed with IND (1,2-Indanedione), hung to dry for 3-5 minutes, put in a heating chamber at 50 degrees Celsius for approximately 40 minutes, then examined under the laser for ridge detail.
	Powder Dusting	The item was dusted with black powder and visually examined using light.
T8RZ9M	Visual Examination	
	1,2-Indanedione	Approximately 200 degress at approximately 1 hour 15 mins
T9NGJY	Ninhydrin	Let sit for 10 minutes after dipping, steam iron used for 10 minutes
TBU29K	Visual Examination	various light sources
	DFO	Caron Environmental chamber, 20 mins, 100 C
	Ninhydrin	Caron Environmental chamber, 2 mins, 80 C, 65% RH

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Physical Developer	Sirchie PD solutions, 15 mins
TCNPM9	Visual Examination	
	Ninhydrin	Allowed to react naturally for 24 hrs. Placed in humidifier for 30 min.
	Zinc Chloride	
	Physical Developer	Maleic Acid rinse for 10 min. P.D. for 15 min.
TETGFL	Visual Examination	5-25-16: visual with magnification and white light, no prints
	Alternate Light Source	5-25-16: visual with ALS, magnification, no prints.
	Ninhydrin	5-25-16: Batch 272; caron chamber, visual
	Physical Developer	Batch 429, visual
TFNZGN	Visual Examination	Under white light and magnification
	Ninhydrin	15 mins in humidity chamber, Batch #273 examined under white light and magnification
	Physical Developer	Batch #430
TKEAT8	Visual Examination	with differents type of light
	1,2-Indanedione	observation with cyan light 500nm and orange filter
	Ninhydrin	observation with white light (no results after ninhydrin process)
TKFAPZ	DFO	20 minutes, DFO
	Ninhydrin	5 minutes, Ninhydrin
TLBQ4J	Visual Examination	Oblique and direct lighting
	FSIS	Shortwave UV light and specialized filter
	Ninhydrin	Acetone based, applied and dried then applied heat and moisture with steam iron for approximately 5 minutes
TPQF9D	Visual Examination	5-24-16: white light and magnification
	Ninhydrin	6-16-16
	Physical Developer	6-9-16: Maleic, 10 mins; PD, 10 mins; wash, 10 mins.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
U63QGF	Visual Examination	
	Alternate Light Source	
	DFO	100 degrees Celsius, 20 minutes
	Ninhydrin	80 degrees Celsous, 65 humidity, 5 minutes
U7V8L3	Visual Examination	
	Alternate Light Source	
	DFO	
	Ninhydrin	
	Physical Developer	
UCJUG9	Visual Examination	
	1,2-Indanedione	Applied dry heat for approximately 10 seconds
	Alternate Light Source	Used Coherent TracER Laser, 532nm
UDTW6R	Visual Examination	No visible latent prints.
	1,2-Indanedione	Spray; let dry approx. 5 minutes.
	Heat	100 degree C, 0%RH, 10 minutes.
	Alternate Light Source	UV, 505 w/orange goggles. (Some detail)
	Zinc Chloride	Spray; let dry approx. 5 miinutes.
	Alternate Light Source	UV, 505 w/orange goggles. (Better detail)
	Ninhydrin	Spray; let dry approx. 15 minutes (No additional results)
UENE8T	Visual Examination	
	Alternate Light Source	
	Iodine	
	Ninhydrin	
	Physical Developer	
UGUZWE	Visual Examination	ambient and green light used
	DFO	processed at 100 degrees for 20 min.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	processed at 80 degrees for 2 minutes
	Physical Developer	processed for 15 min. in PD solution
UGXXCQ	Visual Examination	White Crime lite
	DFO	Temp 100c Time 20mins
	Ninhydrin	Temp 80c Humitity 62% Time 4mins
	Physical Developer	Not used, due to time restriction. Would carry out treatment for a serious case
UKVKRL	Visual Examination	different light sources and filters
	DFO	spray, temperature 90-95 C for 10 minutes (chamber SAFEFUME CA 30S) wavelenght 505-530 nm, orange filter
	Ninhydrin	spray, temperature 80 C, humidity 60% for 15 minutes (chamber SAFEFUME CA 30S), natural and white light
UWRWFD	Ninhydrin	Petroleum Ether base. Heat/steam applied.
UZQ9BD	Ninhydrin	heat/humidity applied
V79VPF	Visual Examination	White light and magnification
	Ninhydrin	60 degress C/60% humidity, 30 minutes in Caron Chamber
	Physical Developer	10 minutes Maleic Acid, 10 minutes Physical Developer, Tap water rinse
VFCB88	Ninhydrin	
VQURYE	Visual Examination	Ambient Light
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	1,2-Indanedione	Air dry, visualized via Mini Crime Scope @ 515 wavelength
	Ninhydrin	Air dry, humidity aided development, set time - next business day
W2C4ZC	Visual Examination	Examined under ambient light
	Ninhydrin	80 degrees celcius, 65% relative humidity, 5 minutes process in oven
	Visual Examination	Examined under ambient light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
W42ZJG	Visual Examination	No FRD found
	Indanedione	Laser @ 532nm w/ orange filter FRD of value is Quad "A" (developed w/steam iron)
	Ninhydrin	No FRD found
WALRDB	Visual Examination	
	DFO	Processing time: 30 minutes, temperature: 100°C
	Ninhydrin	Processing time: 6 minutes, temperature: 80°C, humidity: 62%
WFTLMR	Alternate Light Source	Examination with different wavelenght. No marks were found.
	DFO	DFO developmet was accelerated under control conditions at 90°C for 10 min - no marks have been detected
	Ninhydrin	Ninhydrin developmet was accelerated under control conditions at 80°C, 65 % RH for 3 min - no marks have been detected even after 24 hours in dark place.
WHDBRJ	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80 C, 65% humidity, 3 minutes
WPGHNR	1,2-Indanedione	
X7KCT8	Visual Examination	Used visible light and magnification
	Alternate Light Source	Visually examined using visible light and wavelengths 450-532 nm
	DFO	Sprayed, processed in an oven set at 100 degrees Celcius for 20 minutes
	Alternate Light Source	Visualized DFO using 450-532 nm wavelengths
	Ninhydrin	Used HFE solvent solution, sprayed, processed in an oven set at 60 degrees Celcius with 40% humidity for 20 minutes
	Visual Examination	Used visible light and magnification
X7M2ZP	Visual Examination	Nothing observed
	Ninhydrin	Sample was sprayed with Ninhydrin and placed intio a drying oven set at 80 degrees C, 65%RH, for 3 minutes.
	Visual Examination	Nothing observed

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Zinc Chloride	Sprayed item and placed into oven at 80 degrees C, 65% RH, for 30 minutes
	Visual Examination	Nothing observed
	Ninhydrin	Re-applied Ninhydrin and placed it into the oven at 80 degree C, 65% RH, for 3 minutes
	Visual Examination	Nothing observed -processing ended
X7M9ZW	Visual Examination	
	Alternate Light Source	
	DFO	
	Ninhydrin	
	Physical Developer	
XCKZ2X	Visual Examination	Ambient Lighting
	Alternate Light Source	Mini Crime Scope - all available wavelengths
	1,2-Indanedione	Set time - Until dry; visualized with Mini Crime Scope @515 wavelength
	Ninhydrin	Set time - next business day
XGK3CT	Visual Examination	No prints visable, photographed
	Ninhydrin - Pet Ether	steam iron, dipped twice, left overnight
	Physical Developer	Wash with solution 10 minutes agitated 15 minutes no prints visable
XHETH9	Visual Examination	Room light, Laser, Alternate Light Source
	1,2-Indanedione	100 degrees Celsius, 20 minutes, exam with Laser
	Ninhydrin	Carrier - HFE, Visual exam, Humidity chamber (70 degrees Celsius, 70% Humidity)
XV6K8H	Visual Examination	
	Ninhydrin	HFE 7100/iron with steam
	Silver Nitrate	UV exposure
XVZ8L8	Visual Examination	
	1,2-Indanedione	Heat Press 200 degrees for 15 minutes - viewed with laser

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	Humidity chamber 70% - 20 minutes
XWC7EV	Visual Examination	
	Alternate Light Source	
	Ninhydrin	
XWVQM9	Visual Examination	Desk lamp
	Ninhydrin	Nin HFE and steam iron
	Visual Examination	Desk lamp
	Physical Developer	10 min. Pre-Wash/10 min. PD
	Visual Examination	Desk lamp
Y3JPGU	Ninhydrin	Tray immersion 5 seconds, two applications of steam using an iron
Y9MWWX	Visual Examination	
	Alternate Light Source	
	DFO	
	Ninhydrin	
	Physical Developer	
YBTUCE	Visual Examination	White light. Negative for fingerprints.
	Alternate Light Source	Blue light, violet light, UV-light, green light. All negative for fingerprints.
	DFO	25 min processing time, HFE71DE/HFE7100 based working solution. WEAK positive reaction in section A.
	Ninhydrin	5 min processing time, HFE7100 based working solution. Negative for fingerprints.
YCM8PC	Visual Examination	overall, ambient light
	Alternate Light Source	350-650nm, white light, yellow, orange, red filter
	Ninhydrin	20 minutes, 80 degrees Celsius/65% humidity
	Physical Developer	50 min.
YH9XC8	Visual Examination	Looked at item under lamp.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Ninhydrin	Sprayed item with Ninhydrin HFE lot# 032216 and left it in the hood until dry. Followed with steam iron.
	Visual Examination	Looked at item for presence of friction ridge detail.
	Physical Developer lot # NC16-98-1	Placed item in maleic acid was then placed in physical developer for a couple seconds and then in a water bath.
	Visual Examination	Visually examined item right after water bath and once it was dry.
YM4RA9	Photos, Visual, RUVIS, ALS	UV and B/G 254 nm
	DFO, heat, ALS, photos	100 C/10min B/G orange filter
	Ninhydrin, Heat, Visual, Photos	80 C/50%/10 min
	Visual, Black Mag Powder, Visual, Photos	
YNXFUP	Visual Exam	Examined for ridge detail with ambient light
	Ninhydrin	Dipped in ninhydrin on 5/25/16, air dried, examined on 5/31/16
	Physical Developer	Pre-washed in maleic acid, 3 solution physical developer used
YVZMCD	Visual Examination	5/26: to search for visual fingerprints, prior to any chemical processing
	Ninhydrin	5/26
	steam	5/26:no detail observed, waited 5 days
	Visual Examination	5/31: very weak print observed, no ridge detail present
	Ninhydrin	5/31: very weak results photographed and retreated with ninhydrin and waited an additional 16 days
	Visual Examination	6/16: no ridge detail observed
	Visual Examination	6/17: no ridge detail observed
	1,2-Indanedione	6/17: treated and applied heat
	Physical Developer	6/17: no ridge detail observed
Z2WDZF	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80 C, 65% humidity, 3 minutes

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
Z9G2PW	Visual Examination	
	Alternate Light Source	LASER (532nm), 450nm, UV
	DFO	
	Ninhydrin	
	Physical Developer	
ZACWKE	Visual Examination	350-650 nm (using appropriate filter)
	DFO	100 degrees Celsius, 20 minutes
	Visual Examination	505-530 nm (using appropriate filter)
	Ninhydrin	80 degrees Celsius, 65% humidity, 30 minutes
	Visual Examination	white light and 350-650 nm (using appropriate filter)
ZB8FLG	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80 C, 65% humidity, 3 minutes
ZCZWTN	Visual Examination	Utilizing natural, fluorescent, and an LED flashlight
	Alternate Light Source	Utilizing an ALS at 510nm wavelength
	Iodine Fuming	Placed in chamber containing iodine crystals for approximately 20 minutes
	DFO	After application, item placed in an oven at 100°C for approximately 20 minutes
	Ninhydrin	After application, item placed in a humidity chamber at 80°C and 65% relative humidity for approximately 1 hour
	Physical Developer	Item placed in Maleic Acid wash for approximately 15 minutes, then placed in physical developer for approximately 20 minutes. Item then placed in water bath for approximately 10 minutes.
ZELA2D	Visual Examination	
	Ninhydrin	Humidity: 70%, Temp: 70 Celsius, aprox 5 minutes. pattern not visuable
	test, controll sample	positive resualt
ZMK4RD	Visual Examination	Alternate Light Source - no FRD detected
	Ninhydrin	Dry Heat iron - no steam

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
	Indanedione	Dry heat 15 min 100° C
	Oil Red O	90 min - No FRD development
ZNB8GE	Ninhydrin	Nin-print spray left 4 days in dark-no development. ALS at all wavelengths and filters revealed nothing. Additional application of Nin-print followed by steam-heat. No development
ZNEQ73	Visual Exam	Relative temperature of the processing room was 73° F. I conducted a visual exam first and notated NRDF
	Ninhydrin (Heptane)	(nonridge detail found). I then processed via Ninhydrin (H) via the submerge method, allowed to dry (30 minutes)
	Steam Iron	And then applied heat / humidity via a steam iron.
	Visual Exam	Did another visual exam = NRDF. Then allowed to develop futher for 6 days & performed visual exams daily
ZTLKYD	Visual Examination	Magnifying Light, Overhead Ambient Light
	Alternate Light Source	Examined for inherent fluorescence
	Ninhydrin	Saturated in Ninhydrin (HFE solution) for approximately 15 seconds, allowed to air dry, then applied steam heat for approximately 1 minute. This entire process was repeated twice. Examined article for development of friction ridge detail under white light.
	1,2-Indanedione	Saturated two pieces of filter paper in solution for approximately 10 seconds and allowed to air dry. This was repeated for a total of two saturations. Article was then sandwiched between the two filters and placed in a dry heat oven set at 60 degrees C for 10 minutes. Examined article for development of friction ridges with FLS.
ZVUR6C	Visual Examination	Various forensic light sources; including Laser (Tracer) & Ambient Lighting
	DFO	100 C, 0% RH, 20 minutes
	Ninhydrin	80 C, 65% RH, 2 minutes
	Physical Developer	Sirchie Pre-Mixed Solution, 15 minutes
ZYQGKX	Visual Examination (visible reflection + fluorescence)	
	Indanedione + Zinc chloride (pipetting)	Dry heat press at 165° for 10 seconds
	Ninhydrin (pipetting)	60h development: in the dark, at room temperature, with a relative humidity of 56%

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ZZMWWV	Visual Examination	Fluorescent and Incandescant Light
	Alternate Light Source	365nm, 445-510nm
	1,2-indanedione - ZnCl2	Lot 16-9; Humidity Chamber 70C 65%rh for approx. 30 minutes; 532nm

Response Summary

Participants: 270

Methods Utilized

Alternate Light Source	97	Ninhydrin	260
Cyanoacrylate Fuming	2	Powder Dusting	13
DFO	85	Visual Examination	242
Dye Stain	0	1,2-Indanedione	72

**Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
244GGP	Visual Examination	Examined evidence with natural light
	Alternate Light Source	Examined evidence at 365nm and 495nm
	Cyanoacrylate Fuming	Processed evidence in Cyanoacrylate fuming chamber for 15 minutes at Relative humidity 80%
	Dye Stain	Applied RAM to evidence and allowed to dry. Observed under 365nm ALS
2EJBU4	Visual Examination	White Light
	Cyanoacrylate Fuming	10 min. in fuming chamber- 12 min. purging
	Visual	Viewed with white light
	Dye Stain	Used R6G left item under the venthood 30 min. to dry
	LASER	Viewed under LASER
2GTRZA	Visual Examination	White light, a print was seen in section D.
	Cyanoacrylate Fuming	The cabinet settings was 80 % humidity and the hot plate was set on 120 degrees. Processtime 6 minutes.
	Powder Dusting	Ironpowder. 2 powder dustings with different lifting methods.
	Dye Stain	Basic Yellow 40.
2JTNC3	Visual Examination	
	Alternate Light Source	Visual with ALS
	Laser	Visual w/ Laser
	Cyanoacrylate Fuming	8 minutes, superglue chamber
32VZRD	Cyanoacrylate Fuming	temp. 21°C, time 15 min., humidity 80%
	Dye Stain	Bassic Yellow, light 350-505 nm
36VBND	Visual Examination	In the white light and in whole spectrun of Polilight 500 (UV, 415, 450, 470, 480, 505, 530, 555, 620, 650) discloses a fingerprint - section D
	Cyanoacrylate Fuming	Quality improvement was achieved fingerprint (40 minutes 80% humidity)
	Ardrox	Quality improvement was achieved fingerprint
	Basic Red	Quality improvement was achieved fingerprint

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
37QUPE	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75 % humidity, timed auto
	Dye Stain	Ardrox
38WCNB	White Light / Ruvis	
	Superglue Fuming	SG fuming - white light / Ruvis
	RAM dye stain	RAM dye stain - visualized w/ LASER & Crimescope
	Black Magnetic Powder	
3CCCWF	Visual Examination	White light and magnification, prints observed in Quadrant D. on 6/7/16
	Cyanoacrylate Fuming	Processed in Cyanosafe recirculation chamber. A control print was developed. Prints observed in Quadrant D on 6/8/16.
	Powder Dusting	Bi-chromatic powder. Prints observed in Quadrant D on 6/9/16.
	Dye stain - RAY	Treated with RAY Batch #606 on 6/9/16. Prints observed in Quadrant D.
3L3TRC	Visual Examination	
	Cyanoacrylate Fuming	temp: 120 C degrees, RH 80, processing time: 3.5 minutes
	Basic Yellow 40	dye stain
3R6HE6	Alternate Light Source	photography with sidelight (Foster & Freeman)
	Cyanoacrylate Fuming	steaming with cyanacrylate (cyan-cupboard); 20-35 drops of cyan; humidity 80%; 10-15 min steaming at 120°C-130°C; air cleaning
43JJ2V	Visual Examination	
	Powder Dusting	dual use black powder with placement of lift on a white backing
44E34W	Visual Search	Multiple wavelengths inc. UV
	CNA, Rhodamine	
	Gentian Violet, BY40	
	Powder	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
498YU9	Visual Examination	Photographed overall item. Observed print in quadrant 'D'
	Cyanoacrylate Fuming	Item in fume chamber for approx 10 minutes
	Powder Dusting	The powder did not enhance the print, therefore it was not lifted or photgraphed. No other prints were developed.
4BEGQJ	Visual Examination	The latent print was visible after visual examination.
	Cyanoacrylate Fuming	Humidity: 75%, Fuming time: 10 minutes.
	Basic Yellow (BY-40)	With use of BY-40, the latent print fluoresed with light source (445 nm).
4C8MG6	Visual Examination	The material was photographed before examination, visually examination in white light and with crimescope, fingerprint detected in section D, fingerprint was photographed.
	Cyanoacrylate Fuming	Test strip and the material in cabinet with 2 g glue in 4 min (Sandridge Superglue Processing Cabinet)
	Visual Examination	Visually examination, test strip positive, fingerprint in section D detected in white light, fingerprint was photographed.
	BY40	Applied on the material and washed off with water and then let it dry.
	Alternate Light Source	Forensic light crimescope wave light 445 nm and reviewed with yellow filter, fingerprint was detected in section D, fingerprint was photographed.
4TTXVW	Visual Exam	Ambient room light
	CAE Fuming	73.2° F, 62% RH approximately 5 minutes in fumes
	R6G (MeOH)	Atomized mist in methanol, allowed to dry
	Laser Exam	Laser at 532 nm / orange barrier filter
64C767	Visual Examination	light Source
	Cyanoacrylate Fuming	120°C 10 min and 1g BVDA glue
	Black Mikrosil	
6RYEQP	Vis	Photographed vis print quadrant D
	Cyano	document vis print quadrant D. Same quality as vis.
	Rhodamine 6G	sprayed & dried
	Laser	Vis under 532 nm w/ orange filter

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
6TAEN6	Visual Examination	Room temp, ambient lighting
	Alternate Light Source	Room temp, viewed at all wavelengths with Mini Crime Scope
	Cyanoacrylate Fuming	Safe Fume Chamber - Time: 15 mins/Humidity: 80%; Set time - Next business day
	Powder Dusting	Black powder
	Dye Stain	Rhodamine 6G; Wait time - till dry; visualized with Mini Crime Scope @ 515 wavelength
6TB4VM	Visual Examination	
	Alternate Light Source	Wavelengths used: 365 nm and 495 nm
	Cyanoacrylate Fuming	CA chamber set points: 80% relative humidity, fume time 15mins
	Dye Stain	RAM, viewed at 365 nm and 495 nm
6U6U22	Visual Examination	
	Cyanoacrylate Fuming	app 9 minutes
	Visual Examination	
	Dye Stain	R6G Lot #060816
	Alternate Light Source	Laser
	Visual Examination	
	Powder Dusting	BP
	Visual Examination	
6UM4PW	Visual Examination	Ridges visible in quadrant D.
	Cyanoacrylate Fuming	70% humidity. 13 minute development time
	Powder Dusting	Black powder
6YF8JZ	Visual Exam / Alternate Light Source	Ultralite ALS w/ BMT filter
	Cyanoacrylate Fuming	80% humidity for 12 minutes
	MBD (P-Methoxybenzylamino - 4 Nitrobenz - 2 - oxa - 1.3 Diazole)	
	Standard white powder	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
6ZTL6N	Visual Examination	Item 2 was examined visually with a flashlight.
	Cyanoacrylate Fuming	Item 2 was then treated with cyanoacrylate fuming for 10 minutes.
	Visual Examination	Item 2 was examined visually to find any new fingerprint developed.
747WGJ	Cyanoacrylate Fuming	Placed item in fuming chamber
	Powder Dusting	Black powder
786MU6	Visual Inspection	Daylight and white light. One print detected in qudrant D.
	CNA	Loctite 495, % RH 70 for 4 minutes. There was an improvement on the print.
	Basic Yellow 40	Further improvment on the print.
79KFXZ	Visual Examination	
	Cyanoacrylate Fuming	CA chamber, 10 minutes
	Dye Stain	R6G, Tracer Laser 1
	Powder Dusting	black powder
7E86KV	Visual Examination	Normal light. Print (Ridges) visible in Quad D.
	Cyanoacrylate Fuming	Fumed item along with positive & negative control. Enhanced ridges in Quad D.
	Black Powder (Magnetic)	Enhanced ridges in Quad D. Tape lifted ridge detail very faint but present. Positive control was positive. Negative control was negative
7GCT37	Visual Examination	
	Photography	latent print visible, photographed
	Cyanoacrylate Fuming	
	Powder Dusting	black powder
7J2YHW	Visual Examination	Ambient temperature 70 degrees F.
	Cyanoacrylate Fuming	Item fumed using Foster Freeman MVC 3000 with deionized water and "MicroBurst" cyanoacrylate.
	Visual Examination	Ridge detail present. Photographed ridge detail using Nikon D800 in RAW format.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Applied black fingerprint powder with fiberglass brush under a downdraft hood.
	Visual Examination	Attempts to lift the latent print were unsuccessful.
	Dye Stain	Applied Basic Yellow 40 dye stain via spray bottle. Allowed item to dry under fume hood for approximately one hour.
	Alternate Light Source	Viewed item at 450 nm with Rofin Polilight PL500. Due to the reflective surface of the mirror photography was not possible.
7MJVV9	Visual Examination	fingerprint visible - section D
	Powder Dusting	68deg; brushed/applied black/silver powder w/ fiberglas brush; developed latent, section D
7WJJM6	Visual Examination	Natural light, white light and forensic light
	Cyanoacrylate Fuming/ Ardrox	Put the Item in a cyanoacrylate fuming chamber during 15 minutes. Humidity: 80%. After staining with Ardrox.
7WN4B9	Cyanoacrylate Fuming Chamber	120° glue temperature. 80% relative humidity. 8 mins processing time.
	Black Powder	After gluing process was complete, black powder was used to process the mirror.
87BP9W	Visual	1 latent print in Quadrant "D"
	Inherent Luminescence	Polilight PL500 @ multiple wavelengths. Negative results
	Cyanoacrylate Ester Fume	Vacuum chamber. 25 minutes. Atmosphere exposure 30 minutes. No development - normal
	Rhodamine 6G	Spray application - examine with ALS @ 505 nm - latent in Quadrant "D" enhanced.
	Powder- Standard	Dusting - minimal enhancement - lift & affix to card.
89B3LN	Alternate Light Source	Check the evidence with all spectrum of forensic lights
89FDQ8	Non-destructive	Visual examination with the aid of forensic Light source and Laser (print photographed in situ) + episcopic coaxial Illumination
	Physico-chemical	Cyanoacrylate ester (superglue) +ve
	Physico	Vacume Metal Deposition (VMD) +ve extra unsuitable print developed on the back cover of mirror.
	Chemical	FP enchanced with Rhodamine + Ardrox Crystal. Violet Not used

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
8CGH3R	Visual Examination	White and colored light before and after each development process
	Cyanoacrylate Fuming	Lumicyano™ (0.84g, 118°C, 77%RH, 14min), in a Foster Freeman MVC-1000 cabinet
	Dye Stain	Rhodamine 6G
8DMFJA	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75 % humidity, timed auto
	Dye Stain	RAM
8H2E93	Visual Examination	Ambient/conventional lighting
	Cyanoacrylate Fuming	Put in Misonix chamber, 80% humidity cycle for 5 minutes, glue cycle for 7 minutes, purge cycle for 15 minutes
	Dye Stain	Basic Yellow - sprayed with squirt bottle and rinsed with water
8PLGDJ	Powder Dusting	Item dusted with black fingerprint powder
8UYEK7	Visual Examination	
	Cyanoacrylate Fuming	processed using Safe Fume Tank #2 (30 minutes @ 75% RH(relative humidity))
	Powder Dusting	
8VQHA8	Visual Examination	White light with magnification
	Cyanoacrylate Fuming	Cyanosafe chamber
	Powder Dusting	Black magnetic powder with white light and magnification
	Dye Stain	RAY batch 607, Foster and Freeman Crime Lite ML2
8XTGKZ	Cyanoacrylate Fuming	15 minute fuming and 15 minute purging process time.
	Dye Stain	7-P-methoxybenzylamino-4-nitrobenz-2oxa-1-3diazole
	Alternate Light Source	
8XUL94	Visual Examination	White light. Result: One clear visible print seen in quadrant D. Both pattern and 2nd level details were observed.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	1g of Cyanoacrylate glue developed for 7min. Cupboard settings: 140°C and 80% RH. Result: the visible print was clearly enhanced by CNA development. Referent control – prints were deposited on a piece of plastic, both by a Latent Print Stamp (Sebaceous Oil Secretions) and human fingerprints. Development of this test gave prints of good quality.
	Powder Dusting	Magna Jet Black, magnetic powder
94FNKK	Visual Examination	
	Cyanoacrylate Fuming	Fumed item at 250 degrees fahrenheit for 18 minutes
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Laser at 532 nm
94VJWY	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	fuming time 10 min, plate heat 120 C
	Powder Dusting	
	Dye Stain	Basic Yellow 40
99AK66	Visual Examination	Visible latent impression observed & photographed prior to processing.
	Powder Dusting	Mirror processed with silver fingerprint powder
9CBZP9	Visual Examination	under white light
	Alternate Light Source	Fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	Cyanoacrylate Fuming	In the fuming chamber with a humidity 80% for 15 minutes; visual examination under white light and fluorescence examination in alternate light source (350 nm - 650 nm under appropriate color barrier filters)
	Basic Yellow 40	Fluorescence examination in alternate light source (350 nm - 450 nm under yellow or orange color barrier filters)
9FRVKQ	Cyanoacrylate Fuming	Air Science Safe Fume system/72 degrees F/80% humidity/vent for 5 minutes
	Powder Dusting	Faurot "Chemist Gray" Powder/Dist by: Lynn Peavy Company/Fiberglass Brush
9JQ8GQ	Visual Observation	White light, DCS-3

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate	MVC-3000, 120°C, 80% RH, Fuming time 5 min 30 sec.
	Ardrox (Ready Solution)	Applied Ardrox then rinsed with deionized water. Observed in blue-green light through orange filter
	Basic Red (Ready Solution)	
9JWJ32	Visual Examination	white light magnification
	Cyanoacrylate Fuming	Cyanosafe for 20 min; let sit for one hour
	Powder Dusting	Black magnetic powder
	Dye Stain	RAY; pour chemical on, rinse off, let dry, examine with 420-470nm and orange filter
9KLPHR	Alternate Light Source	crimescope, laser beam 577 nm, laser beam 532nm, rasance and coaxial incident
	Lumicyano CST	luminescent cyanoacrylate warm at 120°C for fuming 40 minutes in MVC3000
	Dye Stain	solution of basic red 14 in methanol, treated with spray
9TFX3H	Cyanoacrylate Fuming	15 minutes @ 80% humidity
	Powder Dusting	
	R6G-Rhodamine	dipped and rinsed
	ALS	fluoreced
9TJHT8	Visual Examination	Patent print found and photographed
	Cyanoacrylate Fuming	78-79 F for 18 min inside fuming chamber
	Dye Stain	additional photographs taken and after application of MRM10 and powder.
9UUKE7	Visual Examination	
	Cyanoacrylate Fuming	74F at 75% RH for 26 minutes
	Powder Dusting	Dual-Use powder
9VKM47	Visual Examination	White light with magnification
	Alternate Light Source	Foster and Freeman CrimeLite ML2 with 460-510nm bandwidth filter with orange barrier
	Cyanoacrylate Fuming	Cyanosafe - 20 minute processing, 60 min rest time

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Black powder
	Dye Stain	RAY batch #605, Foster and Freeman CrimeLite ML2 with 460-510nm bandwidth filter with orange barrier
9WJTML	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Used Cyanoacrylate Fuming Chamber at 80% humidity for 20 minutes fuming time.
	Dye Stain	Used RAM dye-stain; then alternate light source
	Powder Dusting	Used Black Powder to dust item
9XENG6	Visual Examination	
	Cyanoacrylate Fuming	12 minutes @ Foster Freeman MVC 3000
A6783W	Visual Examination	Print observed in Quadrant D
	Cyanoacrylate Fuming	6-30-16: CA print observed after processing in Cyanosafe 20 mins
	Powder Dusting	7-5-16: Black powder, print enhanced
	Dye stain - RAY	7-6-16: Batch #608, print enhanced
ABVQ6R	Visual	Photographed visible print
	Super Glue Fuming	Wearing PPE, placed mirror (suspended) inside chamber, place jar of warm water inside chamber, place a dime size amount of Super Glue in a small tin tray, place inside chamber onto a hot plate. Also inside chamber a control test. Let Item fume for 2 minutes, vent 30 min.
	Rhodamine 6G	Rinsed mirror with fluorescent dye stain let dry 30 min.
	Black powder	Photographed print processed mirror with black powder lift print - place onto lift card
AD2YMJ	Visual Examination	daylight
	Alternate Light Source	battery lamp Led Lenser P7.2 2. light source Polilight PL500
	Cyanoacrylate Fuming	9 minutes glue cycle, 1.5 g Cyanobloom
	Powder Dusting	Magnetic jet black B- 45200
	Dye Stain	Basic Yellow 40, examination using light sources Polilight PL500 and Quaser 2000/30.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
AJADFG	Visual Exam White Light	room temperature 73° F flashlight
	Cyanoacrylate Ester Fuming (CA)	room temperature 73° F humidity chamber with hot water pan present ~3 min. fuming
	MBD Dye Stain	room temperature. viewed with yellow goggles / filter 435 nm to 475 nm forensic light source
AJC3KD	Visual Examination	
	Alternate Light Source	Mini Crime Scope - All Wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - Processing time 15 min @ 80% Humidity
	Powder Dusting	Regular Black Powder
	Dye Stain	Rhodamine 6G - Wait Time = Until Dry, Visualized with TracER Laser @ 532 wavelength
ANXRP3	Visual Examination	white light and Ruvis 254 nm
	Cyanoacrylate Fuming	Mystaire CA-6000, 1 g CA, 80% humidity for 20 minutes, purge for 10 minutes, white light and ruvis
	Dye Stain	Rhodamine 6G, sprayed, rinsed with water, compressed air to dry, examined with laser
APXZ92	Visual Examination	
	Alternate Light Source	Mini Crime Scope - all wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - set time: next business day
	Powder Dusting	Black Magna
	Dye Stain	Rhodamine 6G - visualized with Mini Crime Scope @515 wavelength
ARW3K3	Visual Examination	white light and Ruvis 254 nm
	Cyanoacrylate Fuming	Mystaire CA-6000, 0.8 g CA, 80% humidity for 20 minutes
	Dye Stain	Rhodamine 6G, sprayed, rinsed with water, compressed air to dry, examined with laser
B278FK	Magnetic Powder	
B8BW4K	Visual Examination	oblique incandescent light 5 minutes
	Alternate Light Source	UV-365nm and 495nm crime scope, 5 minutes per light source
	Cyanoacrylate Fuming	15 minutes in chamber, evaluation time 5 minutes

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	ARDROX	UV365nm, time of processing including drying about1 hour
BBDW4H	Visual Examination	Oblique light
	Powder Dusting	Magnetic powder
BKHGCY	Visual Examination	White light. The fingerprint was so clearly that we documented it by photo before the CNA!
	Cyanoacrylate Fuming	Glue time 8 min, glue temp 120° C and 80% RH.
	Visual Examination	White light
	Photografing the fingerprint	
	Superglue Fluorescent dye staining Basic Yellow 40 + fluorescence examination (blue light 420-470nm,yellow goggles)	
	Photografing the fingerprint	
BL6TVH	Visual Exam	1. The dual mirrored compact was examined by the white light. 2. The fingerprint was photographed.
	UV Exam	3. UV Exam. 4. Photograph
	Super Glue Fuming	5. Super Glue fuming (MVC3000); RH80, glue temp - 120° C, glue time - 15 mins.
	Visual Exam	6. Visual Exam. 7. Photograph
BNDB9Z	Alternate Light Source	
	Cyanoacrylate Fuming	80% RH, 120 degrees Celsius on the hot plate
	Dye Stain	Basic Yellow 40
BPAC4B	Visual Examination	Latent and ridge detail observed
	Powder Dusting	Magnetic powder used
BPTZL7	Visual Examination	Examined using white light and magnification
	Cyanoacrylate Fuming	12 min fuming cycle, allowed to sit for 1 hour. Examined using white light and magnification.
	Dye Stain	RAY batch #607, coat object with RAY, rinse and let air dry.
	Powder Dusting	Dusted with black magnetic powder evenly, examined using white light and magnification

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
BRV6UK	Visual Examination	
	Cyanoacrylate Fuming	Humidity 70%, 13 minutes
	Powder Dusting	
BYE4T6	Visual Examination	Print observed in Quadrant D
	Cyanoacrylate Fuming	Print observed in Quadrant D
	Dye Stain	RAY, Batch 607, Print observed in Quadrant D
	Powder Dusting	Black powder, negative results
BYJLR4	Visual Examination	White light magnification, positive
	Cyanoacrylate Fuming	Chamber, exposure 12 minutes, allowed to dry 60 minutes, no improvement
	Dye Stain	Ardrox, Batch #89, Allowed to dry, no improvement
	Powder Dusting	Black powder, no improvement
C3ERML	Visual	Flood light, laser, ALS, UV - 10 minutes, photo
	Cyanoacrylate Ester	C- vaporized on hot plate, 15 minutes, visual exam photograph
	Ray / Laser / ALS	Enhanced w/ dyes (Ardrox, Rhodamine, Basic Yellow) Laser / ALS, photograph, 10 minutes
	Powder	Brush & Powder - 10 minutes
C6HM8N	Visual Examination	Latent print visible in Quadrant D - Item photographed.
	Cyanoacrylate Fuming	Latent Print Visible in Quadrant D.
	Rhodamine 6G + Alternate Light Source	Latent Print Visible in Quadrant D - Photographed.
	Powder Dusting	Latent Print visible in Quadrant D - Tape Lifted.
CFZ8QK	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
CGVPTL	Visual Exam	Regular light (flashlight), UV, ALS, Laser

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Ester Fuming	Fume in chamber (~10 minutes)
	Ardrox	Dye stained item, examined under the UV light
	Rhodamine 6G	Dye stained item, examined under the laser with orange goggles.
	Powder	Used black powder and brush
CH8LXQ	Visual Examination	Ridge structure was noted on the mirror before processing
	Alternate Light Source	The reflective ultraviolet light imaging system (RUVIS) was used to search for prints and photograph before superglue processing
	Cyanoacrylate Fuming	A Foster and Freeman MVC 1000 superglue chamber was used. Glue time-15 minutes UV time-1 minute Temp- 120 C Relative Humidity- 80%
	Alternate Light Source	RUVIS was used to view and photograph prints after superglue
	Dye Stain	Rhodamine, Ardrox, and Basic Yellow were used to make RAY dye stain. The evidence was sprayed then rinsed with water. The evidence was viewed with a polilight at 415nm with yellow goggles
CQLBXK	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	(RAM)
CWAQRX	Visual Examination	Ambient/Conventional lighting
	Cyanoacrylate Fuming	Humidity 80%: Humidity cycle: 5 minutes, Glue Cycle: 5 minutes, Purge Cycle: 10 minutes
	Dye Stain	Sprayed with squirt bottle until covered. Rinsed with water.
D39WGK	Visual	UV, Laser, ALS
	Super Glue	
	Ardrox and Rhodamine	Ardrox - UV, Rhodamine - Laser
	Power	
D6DKYV	Cyanoacrylate Fuming	5 drops of cyanoacrylate, 30 min. processing time, at atmospheric pressure = kPa-15
D7RRKD	Visual Examination	observed ridge structure prior to processing in quadrant D

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Black fingerprint powder - twirl method for a few seconds
D84QEL	Visual Examination	Crimelite 2
	LumicyanoTM	Fumigation chamber = SafeFume Air Science CA30S, 0.063g of powder and 1.6 g of solution - Visualization with Crimelite 2 + Labino UV
DGB7LU	Krimesite imager	viewed @ 254 nm
	Cyanoacrylate Fuming	applied for 5 minutes/viewed with KSI
	Powder Dusting	applied carbon-based powder
	Dye Stain	applied RAM
	Alternate Light Source	viewed @ 445 nm with yellow filter
DP3NXG	Visual Examination	Fluorescent overhead light
	Alternate Light Source	Lumatech 570
	Co-axial Light	Visual exam
	Cyanoacrylate Fuming	In fuming chamber
	Dye Stain	Ardrox
	Alternate Light Source	Pollilight UV
	Powder Dusting	Black Powder
DTJBBM	Visual Examination	OBLIQUE LIGHTING AND MAGNIFIER. RIDGE DETAIL OBSERVED IN QUAD D.
	Cyanoacrylate Fuming	PROCESSED FOR 10 MIN IN FUMING CHAMBER WITH BEAKER OF WARM WATER. RIDGE DETAIL OBSERVED IN QUAD D.
	Powder Dusting	PROCESSED ITEM USING BLACK LATENT POWDER. RIDGE DETAIL OBSERVED IN QUAD D.
E4KWDE	Cyanoacrylate Fuming	Peavey Print Glue @ 20 minutes, ~80% humidity, ~78 degrees F
E8GKT2	Visual Examination	6-20-16: Examined under white light and magnification. Print observed in Quadrant D. LP photographed, 1 image.
	Cyanoacrylate Fuming	6-21-16: Processed in Cyanosafe recirculating chamber. Control print positive. Print observed in Quadrant D. LP photographed, 2 images

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	6-29-16: Item dusted with magnetic powder. Print observed in Quadrant D. LP photographed, 1 image.
	Dye Stain	6-29-16: RAY Batch #607. Item treated with RAY, rinsed, and examined with Crime Lite ML2 with a 450nm filterand orange barrier. Print observed in Quadrant D. LP photographed, 2 images
E9EQBF	Visual Examination	Overhead lighting, flashlight, white light
	Alternate Light Source	Wavelengths 350-620nm Rofin Polilight PL500
	Cyanoacrylate Fuming	Processed at ~80% humidity for 9 minutes
	Magnetic Powder	Evident Black magnetic Fingerprint Powder Lot 201504053
	Dye Stain	Applied MRM-10
EAKMRX	Visual Examination	Examination in white light, clear visible prints in quadrant D.
	Alternate Light Source	Examination with green, blue and UV-light with forensic light source CrimeLite 82 (and googles). Clear prints still visible.
	Cyanoacrylate Fuming	Combined with dyeing (coumarin), clear prints still visible.
	Dye Stain	Treated with BY40. Prints still very clear and visible.
ECRXAZ	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Test strip utlitized, processing time 12 minutes, diffused lighting
	Dye Stain	RAY, batch #607, orange filter/blue light
	Powder Dusting	Black powder, direct lighting
EGLR82	Visual Examination	White light with magnification, print (1)
	Alternate Light Source	485nm with orange filter, no enhancement
	Cyanoacrylate Fuming	Cyanosafe with 1 hour rest time, Print (2)
	Powder Dusting	Black powder, Print (1)
	Dye Stain - RAY	Ray dye batch #605, Print (3), 30 minute dry time after processing.
EJQU8X	Visual Examination	Faint print in quadrand D
	Photographed	Photographed item before processing
	Powder Dusting	Applied black fingerprint powder to all quadrants

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
EKLBJU	Visual Examination	White light and fluorescence examination 350nm - 650nm
	Cyanoacrylate	Processing in fuming cabinet for 15 minutes heat superglue to about 120°C and humidity about 75% Rh. exam with white light
	Basic Yellow 40	Spray item, wash it by water, let it dry. exam with 450nm
EQXMTV	Visual	Fingerprint ridges visible in quadrant D
	Super Glue / Visual	AutoCycle in Foster Freeman Super Glue Chamber
EUCWPT	Visual Examination	
	Cyanoacrylate Fuming	80% RH
EVM7VP	Visual Examination	
	Cyanoacrylate Fuming	10 min fuming time
EVQNTN	Visual Examination	To evaluate the evidence (development technique, type of material, condition of material)
	CAE (Super Glue)	Warm water approx. 160° F; hotplate approx. 400° F processed for 2 minutes
	Reg Rhodamine 6G	Apply solution and rinse with methanol. Examine prints with FLS on 515 nm with orange goggles
EXCHLH	Visual Examination	
	Cyanoacrylate Fuming	Air Science chamber, 15 minutes, 80% humidity, 72 degrees F
	Dye Stain	R6G, Bright Beam laser (532nm, orange barrier)
F6BGKB	Visual Examination	Ridge detail noted in Quadrant "D" - suitable for identification - right slant loop
	Alternate Light Source	LASER and ALS (Spex) - No additional ridge detail
	Cyanoacrylate Fuming	No additional ridge detail; ridge detail captured with photography
F7476R	Visual Examination	White LED light with magnification
	Cyanoacrylate Fuming	Atmospheric chamber, 19 minutes
	Powder Dusting	Black powder, camel hair brush
	Dye stain - RAY	Submersion, approximately 30 seconds

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
F7ZH9T	Visual Examination	Viewed sample under natural and white light. A print was identify in quadrant D.
	Photography	A photograph was taken of the sample to document the discovery.
	Cyanoacrylate Fuming	The fuming was initiated in the fuming chamber at last 15 minutes with 65% Humidity.The sample is the viewied with natural and white light.
	Staining with Basic Yellow	The Basic Yellow was applied with a spray application, washed in water and air dried.
	Alternate Light Source	Viewed with Forensic ligth at 415 nm using yellow goggles.
FBUC7U	Visual Examination	
	Cyanoacrylate Fuming	processing time 4 minutes
	Dye Stain	BY40
	Visual Examination	445nm
FBZULY	photography	Used my new invention (visible latent mirror adaptor) to photograph the un-processed latent.
FFQ97Y	Visual Examination	white light and magnification
	Cyanoacrylate Fuming	Cyanosafe-12 minutes
	Dye Stain	RAY
	Powder Dusting	Black powder
FKFFDU	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	10 minutes
	Basic Yellow 40	
FQ9K7X	Visual Examination	light, we found one fingerprint in box D
	Cyanoacrylate Fuming	Humidity 70%, aprox 2,45 min. No need of BY40
	test/controlsample	positive
FRHVCU	Visual Examination	Ambient light
	Alternate Light Source	Mini Crime Scope - all wavelengths available

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Safe Fume Chamber - 15mins @ 80% humidity; set time - overnight
	Powder Dusting	Magna Black
	Dye Stain	Rhodamine 6G - Visualized with Mini Crime Scope @ 515 wavelength; orange filter goggles
FUNVJ2	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75 % humidity, timed auto
	Dye Stain	RAM
FVZFYA	Visual Exam	Photographed area of ridge detail
	CA fumed	approx 8 min
	Blk Powder	Photographed area again. Then took 2 tape lifts
FZDVT9	Visual Examination	white light
	Cyanoacrylate Fuming	15 min glue processing
G3ZULW	Visual Examination	White light, Laser, ALS
	Cyanoacrylate Fuming	Foster & Freeman MVC 5000; approx. 70 minutes
	Rhodomine 6G	N/A
	Powder Dusting	Black Powder
G4TMGF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Observed VIS and with RUVIS
	Dye Stain	RAM-observed with 365nm, 450nm, and 532nm
G642VW	Visual Examination	oblique lighting
	Powder Dusting	magnetic powder
G8B6C7	Optical Detection	White light and coaxial incident
	Cyanoacrylate	about 80 % hygrometry

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
G8TYDF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	This was followed with a RUVIS light source exam
	RAM	
GDGMPD	Visual	Observation of evidence non-porous material
	ALS - Alternate light source	UV light
	Super Glue - Cyanoacrylate	Cyanoacrylate- in chamber for approx. 12 mins. Lot # 1211100 control good
	Black powder	Black powder to prepare for tape lift
GGKAPW	Cyanoacrylate Lot #031913 (QC tested with + and - controls prior to use & it reacted appropriately)	Processed item 2 with Cyanoacrylate in Misonix CA-3000 fuming chamber at approx 73% humidity for approx 7 minutes while wearing PPE.
	Black powder & fiberglass brush	After removing from chamber, applied black powder to mirrored surfaces labeled A-D with a fiberglass brush in a Misonix Model FE-36 down draft hood while wearing PPE. Developed (1) latent print of possible (LPV) value in Quadrant D.
GLQ8UU	Visual Examination	Ambient light
	Alternate Light Source	Mini Crime Scope - all available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 mins @ 80% humidity; allowed to set until next business day
	Powder Dusting	Bi-Chromatic
	Dye Stain	Rhodamine 6G - spray application; air dry; visualized with orange goggles via the Mini Crime Scope @ 515 wavlength
GUJH7B	Visual Examination	
	Alternate Light Source	UV light 365nm, Crimscope 495nm with orange filter and 535nm with red filter
	Cyanoacrylate Fuming	"HOT STUFF" cyanoacrylate adhesive LPDU lot 14-18 in Safefume chamber for 15minutes at 80% humidity
	Dye Stain	RAM viewed with UV light (365nm)
GVE29C	Cyanoacrylate Fuming	20 minutes @ 80% humidity
	Powder Dusting	brush with powder

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
GWCC2U	Visual	w/oblique lighting, Ruvis, Blue-green (w/orange barrier filter) and UV Foster Freeman 82s Crimelites
	Cyanoacrylate ester	Auto cycle in Foster Freeman MVC5000
	black magnetic powder	n/a
GZDRLX	Visual Examination	oblique lighting, print was visible
	Powder Dusting	magnetic powder
H7UBCV	Visual Examination	
	Cyanoacrylate Fuming	26 minutes at 75% RH
	Powder Dusting	Dual-Use powder
HDG2XQ	Powder Dusting	Black magnetic powder, Started dusting on 06-13-16 at 0020
HJEW9B	Cyanoacrylate Fuming	Vacuum Cyanoacrylate fuming for 90 min., chamber temperature at approximately 35 degree C
	UV/ Band Pass Filter Viewing	Shone UV Light and viewed through digital camera using a band pass filter (FSIS)
	Dye Stain	R6G. Allowed to dry and viewed with laser. No new latents developed.
HLKDNT	Gel-lift	Visible print in quadrant D, attempted to lift with Gel-lift, then scanned on Gel Scanner.
	Cyanoacrylate Fuming	CA chamber for approximately 7 minutes processing.
	Gel-lift	Gel lift after CA processing then scanned on gel scanner.
	Powder Dusting	Dusted with regular black powder.
	Gel-lift	Gel lift after powder processing then scanned on gel lift scanner.
HM2AFT	Visual pre-photos	Regular lighting photographs, RUVIS, ALS Crimelite Blue/Green 82S w/orange goggles and UV w/ clear goggles.
	Cyanoacrylate Ester	Auto cycle - Foster Freeman Visual/RUVIS photographs
	Birchomatic powder	Sirchie Brand Black/white combined
HM4YMB	Cyanoacrylate Fuming	SafeFume Chamber, 20 minutes at 80 % humidity and 73.5 F
HPLT9X	Visually in visual examination	daily light (natural light), white light

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Tempr. 20° C, humidity 80% - 20 minutes Safefume Catri chamber, white light
	Ardrox	Fluorescent dye solution spray UV light and UV filter
	Safranin O	Fluorescent dye solution spray, illuminator Polilight PL500 505-530nm, orange filter
HVDNZA	Visual Examination	strong flash light
	Cyanoacrylate Fuming	MVC 3000 (10 min@80C/humid; 15min@120C/glue; purge 20min)
	Rhodamine 6G	sprayed/rinsed/dried overnight
	Alternate Light Source	visual exam @515nm with orange filter
HW42WU	Visual Examination	One print was seen in section D.
	Alternate Light Source	(white light, blue and green fluorescence light): The same print was seen.
	Cyanoacrylate Fuming	(10 minutes fuming time): The same print was enhanced.
J4KKLR	Powder Dusting	Black powder applied with brush.
J8K99N	Visual Examination	Discloses a fingerprint. The fingerprint is visible in the white light source.
	Cyanoacrylate Fuming	No improvement in fingerprint quality.
	Dye Stain	Improve the quality of fingerprint after use Basic Yellow 40. The best visibility in the light source 455 nm with yellow goggles.
JBJJ4N	Visual Examination	white light
	Powder Dusting	magna jet (magnetic powder)
	Cyanoacrylate Fuming	ca 7 min
	Dye Stain	Basic Yellow 40 in 95 % ethanol
	Alternate Light Source	Blue light
JDVRHV	Cyanoacrylate Fuming	Heat and humidity increased. Timing and duration not recorded.
	Dye Stain	Viewed with Laser at 532 nanometers with orange filter.
JE6U7F	Visual	Natural light, flashlight, UV, ALS, Laser
	CAE Fuming	~15 min in the fuming chamber

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Black Powder	flashlight
	Ardrox	UV
	Rhodamine	Laser
JT294N	Cyanoacrylate Fuming	30 minutes, visual cyano visual
	Powder Dusting	5 minutes visual, powder, visual
JXETDU	Cyanoacrylate Fuming	In Glue Chamber - approx. 10 minutes - Positive Control - Visual Exam
	Dye Stain	R6G MEOH and Laser #1 @ 532nm with orange barrier filter - Positive Control - LP004052616JLK
	Powder Dusting	White Powder, 2 Lifts of same Latent Print
K34T6V	Visual Examination	5-25-16: White light and magnification
	Alternate Light Source	5-25-16: 460nm-510nm Light and orange barrier
	Cyanoacrylate Fuming	6-6-16: Test print positive
	Powder Dusting	6-29-16: Magnetic, Bounce lighting
	Dye Stain - RAY	6-29-16: Batch 607
K3N4RP	Visual Examination	A weak fingerprint was seen in white light in section D.
	Cyanoacrylate Fuming	Amount of glue: 2 gram. The cabinet settings was 80 % humidity and the hot plate was set on 120 degrees. A clear fingerprint was seen in section D.
	Powder Dusting	Carbonpowder
K42XMA	Visual Examination	White Light
	Super Glue	Temperature 126° C Humidity 81%
K6ADUF	Visual Exam	Ambient light & flashlight / oblique lighting
	Super Glue fuming (CAE)	~5 drops of Super Glue Temp: 73.0° F RH: 32% - ~15-20 mins before venting
	R6G (MeOH)	Laser (532 nm) & orange filter
KA9X62	Alternate Light Source	Various crime lites used, ridge detail noticed at visual examination
	Cyanoacrylate Fuming	Superglued to enhance ridge detail

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Dye Stain	bY40 stained item to enhance ridge detail
KMRACU	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Black powder was used
KRKE4D	Visual	
	Super Glue	
	Dye Stains - Ardrox / Rhodamine	UV for Ardrox. Laser for Rhodamine
	Powder	
KUUJG3	Visual and Fluorescence Examination	using Polilight PL 500 with filters
	Super Glue fuming	humidity in the chamber 80%, temperature of the heater block 120° C, time processing 5 minutes
	Basic Yellow 40	aplication of the solution by spraying
KV7YB3	Visual Examination	
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 25 mins @ 80% humidity; set time - next business day
	Powder Dusting	Magna Black
	Dye Stain	Rhodamine 6G - Set time - until dry
KX9Y8U	Visual Examination	
	Cyanoacrylate Fuming	10 minutes
	Dye Stain	R6G with Laser Exam; 532mn, orange barrier filter
KZXCPC	Visual Examination	side lighting
	Cyanoacrylate Fuming	66 farenheit, 80% humidity, 15 minutes fuming time
	Dye Stain	Rhodamine 6G
KZZ2U9	Visual Examination	digital photos
	Swab	collection of potential DNA

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	40 min. cycle, photos of ridge detail
	Powder Dusting	black fingerprint powder, photos of ridge detail, collected lift of ridge detail
L7M3V8	Cyanoacrylate Fuming	Approximately 30 minutes in SG chamber
	Dye Stain	ALS
L9P6JN	Visual Examination	
	Alternate Light Source	Mini Crime Scope - viewed under all wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 min run time @ 80% humidity; let set overnight
	Powder Dusting	Bi-Chromatic powder
	Dye Stain	Rhodamine 6G; let dry at room temp; visualized with Mini Crime Scope @ 515 wavelength
L9RVP7	Visual Examination	
	Alternate Light Source	365nm (UV), 495nm
	Cyanoacrylate Fuming	80% rH /(Approximately - 15 min. (fume time))
	Dye Stain	RAM (365nm - 515nm)
LAJQCE	Visual Examination	(VIS, UV, 415nm, 450nm, 505nm, 530nm) - discloses a fingerprint
	Cyanoacrylate Fuming	no improvement the quality of the fingerprint
	Basic Yellow 40	quality improvement was achieved fingerprint
LBU6QV	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75 % humidity, timed auto
	Dye Stain	RAM
LDJYGP	Visual exam with oblique lighting	5 minutes oblique lighting; photographed L1 in section D
	Cyanoacrylate Fuming	approx. 33 minutes Cyanoacrylate fuming (CA) in chamber - 5 min. to bring chamber up to 80% humidity, 13 min. CA fuming, 15 min. CA purging. L1 still visible in section D and photographed under oblique lighting.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Dye Stain	Rhodamine 6G (R6G) fluorescent dye stain poured over item & dried; L1 in section D still visible under laser light & orange filter - photographed L1
LGZYKQ	Visual Examination	Oblique lighting - white light
	Cyanoacrylate Fuming	Air Science Printmaster PRO, 80% humidity, 66 deg F, 15 mins
	Powder Dusting	Black volcanic powder
LHTFPD	Lumicyano Powder/solution 4%	hygrometry > 75% 15 minuts
LPDHVU	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	12 minutes running time in chamber, followed by 60 minutes in chamber not running
	Dye Stain	RAY batch #607, Foster and Freeman CrimeLite ML with a 460-510nm filter and orange barrier.
	Powder Dusting	Black powder
LQMNB4	Powder Dusting	Twirl method for application
	Visual Examination	Ridge structure noted in quadrant D
M4TZ3N	Visual Examination	flashlight - ridge detail observed in quadrant D
	RUVIS	ridge detail observed in quadrant D - photographed quadrant D
	Cyanoacrylate Fuming	ridge detail observed in quadrant D
	Powder Dusting	black powder, ridge detail observed in quadrant D, lifted
	Dye Stain	Rhodmine 6G used to dye stain entire item
	TRacer Laser Forensic Light Source	ridge detail observed in quadrant D - photographed
M96H9R	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500.
	Cyanoacrylate Fuming	Processing time: 10 min, humidity - 85%.
	Visual Examination	White light, optical instruments.
	Dye Stain	Ardrox.
	Alternate Light Source	UV (Polilight PL 500).

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WebCode	Development Methods	Method Details
MFKM9J	Visual Examination	
	Cyanoacrylate Fuming	Processed in a humidity chamber
	Dye Stain	Used Rhodamine 6G
	Powder Dusting	Used traditional black powder
MTR9ZP	Visual Examination	6/29/16
	Cyanoacrylate Fuming	6/29/16
	Powder Dusting	black and magnetic powders used
MWBYUL	Visual Examination	White light
	Alternate Light Source	Blue light 420-470 nm, green light 490-560 nm
	Powder Dusting	
MZTP8P	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	532 nm
	Powder Dusting	
N3RHKK	Powder Dusting	Magnetic Powder
N4M2LL	Visual Examination	Multiple light sources; print observed
	Cyanoacrylate Fuming	Cyanosafe chamber, set to 20 minutes process time
	Powder Dusting	Black powder and brush
	Dye stain - RAY	Batch 608; rinsed on surface, excess rinsed off with water, dried; Foster Freeman CrimeLite ML2 with 420-470 bandwidth and orange filter
N7D6D8	Visual Examination	
	Alternate Light Source	viewed using UV & CS @ 515nm
	Cyanoacrylate Fuming	SafeAir Chamber: 80% humidity, heated glue to approx 104C
	Dye Stain	RAM (viewed using UV & CS @ 475-535nm
	Powder Dusting	Grey Powder

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
NABNGQ	Visual Examination	White light (direct reflect, bounce, oblique)
	Visual Examination	450nm with orange barrier
	Cyanoacrylate Fuming	Atmospheric Chamber:75% humidity/15 min fume
	Powder Dusting	Magnetic Powder applied with mag brush
	Dye Stain	MRM-10 applied with a wash bottle
	Visual Examination	Performed after each method listed above
NDBC3M	Cyanoacrylate Fuming	5 min, RH50%
	BY40 and lightsource	445nm
NGVPW4	Visual Examination	Fluorescent lighting
	Alternate Light Source	365nm and 495nm
	Cyanoacrylate Fuming	80% relative humidity for 15 minutes
	Dye Stain	MBD, 495nm
NJ28VY	Visual Examination	Upon an initial visual examination, an impression was clearly visible in quadrant "D" of the mirror in the compact.
NQ3LHL	Visual	Examined with white (flashlight) oblique lighting - Ridge Details observed
	Cyanocrylate	Super glued in "Misonix CA-6000" chamber, at 60% Humidity, for 10 min - Vis. Ridge
	Powder	Dusted in vent-hood, using black magnetic powder
NTAJAH	Visual Examination	The fingerprint in section A was visible and could be photographed directly
	Cyanoacrylate Fuming	Temperature:120 celsius, Humidity:78%, Time:15 minutes, Cabinet: Foster & Freeman MVC3000
	Powder Dusting	Fingerprint powder black
NXW43J	Powder Dusting	
PATYQJ	Krimesite Imager (RUVIS)	
	Cyanoacrylate Fuming	
	Krimestie Imager (RUVIS)	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Black powder
PHJKWH	Visual Examination	
	Reflective Ultraviolet Light Imagins System	254nm light source with RUVIS technology
	Cyanoacrylate Fuming	
	2nd exam with RUVIS	254nm light with RUVIS
	Powder Dusting	
	Dye Stain	Rhodamine 6G w/ 515nm wavelength light
PJE3XJ	Visual Examination	White Light, Coherent Laser, and ALS to look for any inherent luminescence
	Cyanoacrylate Fuming	Superglue chamber for 11 minutes at 80% humidity
	Dye Stain	Rhodamine 6G, Methanol based, Viewed under Coherent Laser
PJVEE3	Cyanoacrylate Fuming	CA Chamber @ 60% humidity for 13 minutes processing time & 10 minutes purge time.
	Black power/clear lifting tape	very poor quality detail
	Magnetic black powder/clear lifting tape	Very poor quality detail
	Photoshop	Calibrate; gray scale; levels
PLKZGL	Visual Examination	White light, A visible print was seen in section D.
	Cyanoacrylate Fuming	The cabinet settings was 80 % humidity and the hot plate was set on 120 degrees. Processingtime 8-10 minutes. A visible print was seen in section D.
	Dye Stain	With Basic Yellow 40. Examination with lightsource at 445 nm, yellow filter.
PRBV9X	Visual Examination	Visible ridge detail in quadrant D
	Cyanoacrylate Fuming	+ test print, 15 minute fume at 80 degree humidity. Ridge detail visible in section D
	R6G/Laser	+ test print, ridge detail visible in section D. Orange goggles used
PYRCYM	Visual Examination	
	Cyanoacrylate Fuming	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Dye Stain	Rhodamine 6G
	Alternate Light Source	
	Powder Dusting	
Q9TEGP	Cyanoacrylate Fuming	(8 min, CA02, Control Positive)
	Dye Stain	R6G Laser (532nm) with Orange Filter
QAM4KH	Cyanoacrylate Fuming	Temp - Room; Humidity - 80%; Time - 15 Mins; Allowed to sit overnight.
	Powder Dusting	Room temp; processed the entire surface
	Dye Stain	Rhodamine 6 G; Room Temp; Allowed to dry; Viewed at 515 Wavelength
QDNK6M	Visual Examination	Polilight PL500
	Alternate Light Source	Polilight PL500
	Cyanoacrylate Fuming	humidity 80%, 30 minutes
	Dye Stain	Ardrox
	Dye Stain	Safranin O
QGKWVX	Cyanoacrylate Fuming	For 15 min
	Powder Dusting	
QHFFWY	Visual Examination	Visual examination detected a print on the mirrored surface.
	Magnetic powder dusting	Processed mirror with magnetic powder to enhance print.
QRKA67	Visual Examination	
	Alternate Light Source	Crime Scope - All available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 min @ 80% humidity; set time - next business day
	Powder Dusting	Magna Powder
	Dye Stain	Rhodamine 6G - Visualized with Crime Scope @ 515 wavelength
QU87FH	Visual / Laser	Green Laser 532 nm orange filter
	Cyanoacrylate	Cyanoacrylate / vacuum chamber, 40 minutes in chamber

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Finger print powder / black	black powder / brush
QUV39K	Super Glue	Super Glue chamber- 3 minutes
	Bi-Chromatic Powder	Dusted developed print
QY2ZDJ	Visual Examination	Ambient light
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 25mins @80% humidity; set time - next business day
	Powder Dusting	Black Magna
	Dye Stain	Rhodamine 6G - Air dry; visualized with Mini Crime Scope @ 515 wavelength
R2AFKP	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Placed in tank for 5 minutes
	Dye Stain - RAY	Batch #605, Examined with Foster and Freeman Crime Lite ML with a 460 nm-510 nm bandwidth filter and orange barrier
	Powder Dusting	Black powder
R6P3XU	Visual Examination	Visual examination revealed one latent print in section D. Scaled photos with ambient and oblique lighting taken prior to further processing.
	Powder Dusting	Impression enhanced with the application of black powder.
R7JT2N	Visual Examination	Examination under white light and magnification
	Cyanoacrylate Fuming	Cyanosafe recirculation chamber, test print positive, 12 minutes processing in chamber, evidence sits one hour
	Powder Dusting	Black powder
	Dye Stain	RAY batch #607, apply stain, rinse thoroughly, pat dry, allow to dry fully
R8BVN4	Visual Examination	3 Minutes
	light source (white light - LED)	5 Minutes
	Cyanoacrylate Fuming	50 Minutes (liquid superglue)
	light source (white light - LED)	5 Minutes
	Ardrox (cyanoacrylate dye)	30 Minutes

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	UV light	10 minutes
	Powder Dusting	5 Minutes (black powder)
RAH8PD	CA	Air Science 48S Chamber (80% humidity for 8 minutes)
	White Magnetic Powder	
RJPGKJ	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Cyanosafe chamber 20 min fuming, 1 hour drying
	Powder Dusting	Black powder
	Dye stain - RAY	Batch 606, observed using Foster Freeman Crime Lite ML2 with orange filter
RNKFTM	Visual Examination	Ambient, LED flashlight, oblique
	Cyanoacrylate Fuming	chamber with humidity added
	Visual Examination	Ambient, LED flashlight, oblique
	Dye Stain	Rhodamine 6G, MeOH
	Class IV Laser Exam	9 watts, 532nm, orange barrier filter
RPCJF3	Cyanoacrylate Fuming	Lumicyano
RRY9L2	Visual Examination	light and magnification
	Alternate Light Source	455-515 nm orange filter
	Cyanoacrylate Fuming	.7g SG, 80% humidity, 350 F heat, 10 min.
	Visual Examination	light and magnification
	Dye Stain	R6G
	Alternate Light Source	495 nm, orange filter
RYHCVN	Visual Examination	Item visually inspected with flashlight for ridge detail.
	Cyanoacrylate Fuming	Item processed with Cyanoacrylate (Super glue chamber) for 10 minutes, at 80% humidity, with one teaspoon of super glue in dish. Bright light was used to examine item for ridge detail.
	Dye Stain	The item was sprayed with Rhodamine 6G, hung to dry (for 3-5 minutes), then examined under the laser, at 532nm wave length with an orange filter, for ridge detail.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	The item was dusted with black powder and visually examined using light for ridge detail.
T8RZ9M	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	
T9NGJY	Cyanoacrylate Fuming	15 minutes @ 80% humidity
	Powder Dusting	fingerprint brush - ridge detail
TBU29K	Visual Examination	
	Cyanoacrylate Fuming	Misonix CA-6000 chamber, 80% RH, 9:33 fuming time
	Dye Stain	Rhodamine 6G, methanol based solution
TCNPM9	Visual Examination	
	Super Glue	Time 3 min. Hotplate temp. apox. 375°. Water temp between 140° and 160°
	Dye Stain	Rhodamine 6G with Methanol Rinse
TETGFL	Visual Examination	5-25-16: Visual with magnification and white light with photos, section D on mirror
	Alternate Light Source	5-25-16: Visual with ALS and magnification. No enhancement from visual photo
	Cyanoacrylate Fuming	5-25-16: Visual with photography, CA with positive test print and 1 hour dry time, photo taken.
	Powder Dusting	5-25-16: Visual with black powder and photo taken.
	Dye Stain	5-25-16: Visual; Polilight with orange filter, photo
TFNZGN	Visual Examination	Under white light and magnification
	Cyanoacrylate Fuming	12 min processing run, sit for 1 hour, examined under white light and magnification
	Powder Dusting	Black powder, light dusting examined under white light and magnification
	Dye stain - RAY	Rinse, pat dry, air dry, Batch #605, examined with 450nm and orange filter
TKEAT8	Visual Examination	with differents type of light

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	observation with white light
TKFAPZ	Visual Examination	Visible light
	Cyanoacrylate Fuming	Humidify until 80%, glue time 10 minutes.
TLBQ4J	Visual Examination	Oblique and direct lighting
	FSIS	Shortwave UV light and specialized filter
	Cyanoacrylate Fuming	wand, sweeping motion for approximately 3 minutes
TPQF9D	Visual Examination	5-25-16: White light, prints found, photographed
	Cyanoacrylate Fuming	6-16-16: in Cyvac - no enhancement to print, no new prints found
	Dye Stain	6-7-16: RAY
	Alternate Light Source	6-7-16 450nm ALS with orange filter, no enhancement to print, no new prints found.
	Powder Dusting	6-7-16: Black powder, no enhancement, no new prints
U63QGF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	10 minutes
	Basic Yellow 40	
U7V8L3	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
UCJUG9	Visual Examination	
	Cyanoacrylate Fuming	Fumed for 10 minutes
	Powder Dusting	Black Powder
UDTW6R	Visual Examination	Visible latent print.
	Powder Dusting	Magnetic, Visable latent print.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
UENE8T	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	20 minutes
	Dye Stain	Rhodamine 6G
	Powder Dusting	
UGUZWE	Visual Examination	ambient lighting used
	Cyanoacrylate Fuming	processed at 80% humidity for 9 min. and 30 sec.
	Dye Stain	methanol based R6G used
UGXXCQ	Visual Examination	White Crime Lite examination
	Cyanoacrylate Fuming	Cabinet temp 120c Humidity 75-90% Glue cycle 15min (Auto cycle)
	Dye Stain	BY40
	Basic Violet 3	Not used, but may be used for potential further ridge detail enhancement
UKVKRL	Visual Examination	different light sources and filters
	Cyanoacrylate Fuming	temperature 25C, humidity 80% for 15 min. (chamber SAFEFUME CA 30S), natural and white light
	Ardrox	spray, wavelenght UV, UV filter
	Basic Red 14	spray, wavelenght 505-530 nm, orange filter
UWRWFD	Krime Site Imager	KSI using UV light with photography
	Cyanoacrylate Fuming	Approximately 10-12 drops superglue in aluminum dish on a warming plate. Placed in sealed chamber for 5-10 minutes.
	Powder Dusting	Applied black powder.
	Dye Stain	Applied fluorescent dye (RAM - Rhodamine 6G/Ardrox P-133D/MDB)
	Alternate Light Source	Viewed fluorescent dye at wavelength 455 using yellow filter
UZQ9BD	Cyanoacrylate Fuming	
	Dye Stain	MBD
	Alternate Light Source	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
V79VPF	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Cyanosafe - 8 minute processing, 30 minutes rest/cure time
	Powder Dusting	Magnetic powder
	Dye Stain	RAY, solution applied, rinsed with tap water
VFCB88	Powder Dusting	
VQURYE	Visual Examination	Ambient light
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 25min @ 80% humidity; set time - next business day
	Powder Dusting	Bi-Chromatic powder w/camel hair brush
	Dye Stain	Rhodamine 6G - Mini Crime Scope @515 wavelength
W2C4ZC	Visual Examination	Examined under ambient light
	Cyanoacrylate Fuming	80% relative humidity, 15 minute glue time
	Visual Examination	Examined under ambient light
	Dye Stain	Basic yellow 40 dye (ethanol)
	Alternate Light Source	Fluorescent light examination using blue foster & freeman Crimelite 82s (420-470nm wavelength)
W42ZJG	Visual Examination	FRD of value Quad "D"
	CA	12 min @ 72% humidity - no additional FRD developed
	Fingerprint Powder	Nylon brush dusted - no additional FRD developed
WALRDB	Visual Examination	
	Cyanoacrylate Fuming	Amount of glue: 2 g, glue processing time: 10 minutes
	Dye Stain	Basic Yellow 40
WFTLMR	Visual Examination	Mark in section D has been found.
	Cyanoacrylate Fuming	Controled conditions: 80 % RH, CA temperature was 120°C. Mark in section D has been recovered.
WHDBRJ	Visual Examination	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75 % humidity, timed auto
	Dye Stain	Ardrox
WPGHNR	Visual Examination	white light
	Alternate Light Source	RUVIS
	Cyanoacrylate Fuming	RUVIS
	Alternate Light Source	RUVIS
	Dye Stain	Basic Yellow 40
	Alternate Light Source	Blue light with orange goggles
X7KCT8	Visual Examination	Used visible light and magnification
	Alternate Light Source	Used wavelengths 450-532 nm
	Cyanoacrylate Fuming	Fumed for 10 minutes with heat plate and humidity in chamber
	Visual Examination	Used visible light and magnification
	Dye Stain	Rhodamine 6G, sprayed
	Alternate Light Source	Used wavelength 532 nm to visualize dye stain
	Powder Dusting	Black magnetic powder
	Visual Examination	Used visible light and magnification
X7M2ZP	Visual Examination	Visaul exam with and without oblique lighting
	Powder Dusting	Dusted with black powder
	Visual Examination	Ridge detail observed and photographed
X7M9ZW	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
XCKZ2X	Visual Examination	Ambient lighting
	Alternate Light Source	Mini Crime Scope - All available wavelengths

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 mins @80% humidity; set time - next business day
	Powder Dusting	Magna Powder
	Dye Stain	Rhodamine 6G - set time - until dry; visualized with Mini Crime Scope @ 515 wavelength
XGK3CT	Visual Examination	Print visible photographed with scale
	Cyanoacrylate Fuming	Print viable same as prior 15 minutes @ 80% humidity
	Powder Dusting	Print Visible photographed with scale
XHETH9	Visual Examination	Room light, Laser, Alternate Light Source
	Cyanoacrylate Fuming	Fish tank used with hot water and heating source, approximately 10 minutes
	Dye Stain	R6G, visual exam with orange barrier glasses
	Powder Dusting	Black magnetic powder
XV6K8H	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	MRM-10
	Powder Dusting	Black Magna
XVZ8L8	Visual Examination	
	Cyanoacrylate Fuming	1 gram of CA, 80% humidity, hot plate, 10 minutes fume time
	Dye Stain	Rhodamine 6G
XWC7EV	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	RAM
XWVQM9	Visual Examination	Desk lamp
	Cyanoacrylate Fuming	Misonix CA-3000 Fuming Chamber - 9 min.
	Visual Examination	Desk lamp

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Powder Dusting	Black powder
	Visual Examination	Desk lamp
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Bright Beam Laser (green)
Y3JPGU	Cyanoacrylate Fuming	80% humidity for 15 minutes
Y9MWWX	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	
YBTUCE	Visual Examination	White light. Positive reaction, fingerprint in section D -> Photo
	Alternate Light Source	Blue light, Violet light, UV-light, green light. Positive reaction for the same fingerprint in D.
	Cyanoacrylate Fuming	6 min processing time. Followed by powder dusting. Positive reaction in section D -> Photo
	Powder Dusting	Positive reaction in D.
	Dye Stain	Basic Yellow 40. Positive reaction in D.
YCM8PC	Visual Examination	overall, ambient light, flashlight
	Alternate Light Source	350-650nm, white light, yellow, orange, red filters
	Lumicyano	35 min
	Alternate Light Source	350-530nm, yellow and orange filters
	Dye Stain	Rhodamine 6G
	Alternate Light Source	450-530nm with orange filter
	Powder Dusting	Black
YH9XC8	Visual Examination	Look at item under lamp.
	Cyanoacrylate Fuming	Using a fish tank CA fumed item for 5 minutes.
	Visual Examination	Look at item for presence of friction ridge detail.
	Powder Dusting	Regular black powder was used to process item.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
YM4RA9	Photos, Visual, Photos, Labeled, Photos	
	RUVIS, ALS, Cyanoacrylate, Visual photos	Foster/Freeman chamber UV and B/G orange filter
	RUVIS, Powders, Visual, Photos, Lift, Photos	254 nm, heavy black & white powder
YNXFUP	Visual Examine	Examined for ridge detail with ambient light
	Cyanoacrylate Fuming (CA)	CA tank - atmosphere, allowed to fume ~25 minutes
	MBD Dye Stain	Rinsed w/ MBD, allowed to air dry
	Black Magnetic Powder	
YVZMCD	Visual Examination	5/26: to search for visual fingerprints, prior to any chemical processing
	Cyanoacrylate Fuming	5/26
	Powder Dusting	5/26: black powder
	Dye Stain	5/26: Ardrox
	Alternate Light Source	5/31
Z2WDZF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75 % humidity, timed auto
	Dye Stain	Ardrox
Z9G2PW	Visual Examination	
	Alternate Light Source	LASER (532nm), 450nm, UV, RUVIS
	Cyanoacrylate Fuming	
	Dye Stain	RAM
ZACWKE	Visual Examination	350-650 nm (using appropriate filter)
	Cyanoacrylate Fuming	20 minutes, 80% humidity
	Visual Examination	white light and 505-530 nm (using appropriate filter)
	Basic Yellow 40	application and water washing
	Visual Examination	350-450 nm (using appropriate filter)

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
ZB8FLG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75 % humidity, timed auto
	Dye Stain	Ardrox
ZCZWTN	Visual Examination	Utilizing natural, fluorescent, and an LED flashlight
	Alternate Light Source	Utilizing an ALS at 510nm wavelength
	Cyanoacrylate Fuming	Placed in a cyanoacrylate chamber with superglue heated on hotplate for approximately 15 minutes at a relative humidity of 60%
	Dye Stain	Rhodamine 6G (methanol based) - observed under an ALS at 510nm and an orange filter
	Dye Stain	Ardrox (methanol based) - observed under an ultraviolet light source at 365nm
	Powder Dusting	Black magentic powder utilized
ZELA2D	Visual Examination	light
	Cyanoacrylate Fuming	Humidity 70%, aprox 3 minutes. After visual examination and photografing visuable pattern)
	Basic Yellow 40	Sprayed/rinced with water
	test/control sample	positive
ZMK4RD	CAE Fuming	12 min relative humidity 80%
	Powder Processing	After having photographed latent visible after CAE fuming Powder processing did not enhance any further
ZNB8GE	Visual Examination	
	gelatin lift	black gel, GLScan
	Cyanoacrylate Fuming	manual chamber, steam
	gelatin lift	black gel, GLScan
ZNEQ73	Visual Exam	Relative temperature of the processing room was 73° F. I did a visual exam and observed a latent print in Quadrant D. Before processing I photographed the latent print.
	Cyanoacrylate Fuming	I then CA (super glue) fumed it in the fuming chamber

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
	Visual Exam	and performed another visual exam.
	BLFP (black latent fingerprint powder)	Then I powder developed a latent print with BLFP & lifted it (3 times) onto a lift card.
ZTLKYD	Visual Examination	Magnifying light, Overhead Ambient Light.
	Cyanoacrylate Fuming	Placed in fuming chamber with .65 grams of cyanoacrylate and fumed for 17 minutes at approximately 75% Relative Humidity. The chamber's heating element reaches 212 degrees Fahrenheit.
	Dye Stain	Applied methanol-based R6G and allowed to air dry. Rinsed with Methanol and allowed to air dry.
	Alternate Light Source	Examined R6G-treated article under Laser.
	Powder Dusting	Magnetic powder was applied to dry article.
ZVUR6C	Visual Examination	Various Forensic Light Sources; including Laser (Tracer) & Ambient Lighting
	Cyanoacrylate Fuming	Misonix CA-6000 Chamber 7 minute Fuming Cycle
	Dye Stain	water based solution
ZYQGKX	Visual Examination (visible reflection & fluorescence)	
	Superglue fuming = Lumicyano Powder	Glue temperature = 117°. Relative humidity = 78%. Processing time = 40 mn.
ZZMWWV	Visual Examination	Fluorescent and Incandescant Light
	Alternate Light Source	365nm 445-510nm
	Cyanoacrylate Fuming	Lot 16-7; CA chamber 80%rh for approx. 15 minutes
	Dye Stain	RAM Lot 16-7; 365nm

Response Summary

Participants: 270

Methods Utilized

Alternate Light Source	100	Ninhydrin	0
Cyanoacrylate Fuming	240	Powder Dusting	147
DFO	0	Visual Examination	257
Dye Stain	136	1,2-Indanedione	0

**Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
244GGP	Visual Examination	Examined evidence with natural light
	Alternate Light Source	Examined evidence under 365nm and 495nm
	Cyanoacrylate Fuming	Processed evidence in cyanoacrylate fuming chamber for 15 min at relative humidity 80%
	Powder Dusting	Applied black magnetic powder to plastic portion of the envelope
	1,2-Indanedione-Zinc Chloride	Placed evidence in humidity chamber Temp. range (65-85 C), relative humidity (65%) or aprox 20 min. Examined with ALS at 445-510nm
2EJBU4	Visual Examination	White Light/Laser/ALS
	Cyanoacrylate Fuming	10 min. fuming chamber-12 ming purge
	Visual Examination	Viewed with White Light
	1,2-Indanedione	Once sprayed placed under venthood for 1 hr.
	LASER	Viewed with LASER
	Ninhydrin	Once sprayed placed in humidifying chamber for 15 min. 70% humidity
	Visual Examination	Viewed with White Light
	Dye Stain	R6G on the window of envelope
	LASER	Viewed with Later
2GTRZA	Visual Examination	White light, blue light (420-470 nm), UV-light, green light (490-560 nm). No visible print was seen.
	Cyanoacrylate Fuming	The cabinet settings was 80 % humidity and the hot plate was set on 120 degrees. Processtime 6 minutes. A visible print was seen in section A (plastic part).
	Powder Dusting	Ironpowder
	Ninhydrin	Climatcabine settings was 80 degrees and 65 % humidity, processingtime 5 minutes. A visible print was seen in section A on the paper part of the envelope.
2JTNC3	Visual Examination	
	Alternate Light Source	Visual w/ ALS
	Laser	Visual w/ Laser
	Cyanoacrylate Fuming	8 minutes/ superglue chamber
	1,2-Indanedione	100 degrees/ 20minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
32VZRD	Cyanoacrylate Fuming	temp. 21°C, time 15 min., humidity 80%
	1,2-Indanedione	temp. 90°C, time 15 min.
	Ninhydrin	temp. 21°C, time 30 min., humidity 80%
	Dye Stain	Bassic Yellow (only envelope windows), light 350-505 nm
36VBND	Visual Examination	In the white light and in whole spectrun of Polilight PL 500 (UV, 415, 450, 470, 480, 505, 530, 555, 620, 650) None fingerprint
	DFO	Discloses a fingerprint on envelope (only on paper) Section A
	Ninhydrin	No improvement the quality of the fingerprint
	Cyanoacrylate Fuming	Discloses a fingerprint - Section A
	Ardrox / Basic Red	Quality improvement was achieved fingerprint
37QUPE	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75% humidity, auto timed
	Ninhydrin	80 C, 65% humidity, 3 minutes
	Dye Stain	Ardrox, Rhodamine 6G
38WCNB	(Plastic Window) White light/ Ruvis	
	Envelope - White Light/ LASER	
	Plastic window - SG - White Light Ruvis	
	(Plastic Window) - RAM	visualized w/LASER
	Envelope - Indanedione	humidity chamber visualized w/LASER
	Envelope - Ninhydrin	humidity chamber vis w/ White Light
	Envelope - Physical Developer	White Light
	Plastic Window - Magnetic Powder	
3CCCWF	Visual Examination	White light and magnification. Prints observed in Quadrant A on 6/7/16.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Processed in Cyanosafe Recirulation Chamber on 6/8/16. A control print was developed. Prints observed in Quadrant A.
	Powder Dusting	Cellophane: Processed with Black magnetic powder. Prints observed in Quadrant A on 6/9/16.
	Dye Stain - RAY	Cellophane: Treated with RAY batch #606 on 6/9/16. Prints observed in Quadrant A.
	Ninhydrin	Processed with Batch #273 on 6/9/16. Prints observed in Quadrant A.
	Physical Developer	Processed with Batch #429 on 6/9/16. Prints observed in Quadrant A.
3L3TRC	Visual Examination	
	Powder Dusting	
	DFO	temp: 100 C degrees, processing time: 10 minutes
	Ninhydrin	temp: 80 C degrees, RH 65, processing time: 5 minutes
	Physical Developer (PD)	total processing time: 60 minutes
3R6HE6	Cyanoacrylate Fuming	steaming with cyanacrylate (cyan cupboard); 20-30 drops of cyan; humidity 80%; 10-15 min steaming at 120°C-130°C; air cleaning
	Alternate Light Source	photography with sidelight and black paper to contrast the trace on the viewing window of the envelope
	Ninhydrin	spraying process with Ninhydrin in the fume cupboard; storage in the climatic chamber, temperature 26°C; humidity 65%, for at least 12 hours
43JJ2V	Visual Examination	
	Cyanoacrylate Fuming	(plastic window of envelope) approximately 8-10 minutes
	Ninhydrin	(paper portion of envelope) soaked envelope using a pupette, allowed to completely dry, application of heat
44E34W	Visual Search, CAN	Window + Paper
	DFO, Ninhydrin, PD	Paper DFO developed w/ heat. Nin developed w/ heat & humidity
	Rhodamine, Gentian Violet, BY40	Window
	Powder	Window
498YU9	Visual Examination	Photographed overall item before processing. Observed partial print on plastic window in quadrant 'A'.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	Powdered print on window and second window also. Then, observed that the powder adhered to ridges on paper, therefore I powdered the paper next to the partial print on the window. A print developed on the envelope
	1,2-Indanedione	Applied IND, let dry in fume hood for 20 minutes, placed in IND oven for approx. two hours. The IND did not enhance the print in quadrant 'A', therefore not photographed. No other prints developed.
4BEGQJ	Visual Examination	From a visual examination, the tip of the latent print was visible on the the window of the envelope.
	Cyanoacrylate Fuming	The envelope was then placed in the cyanoacrylate cabinet. Humidity: 75%, Fuming time: 10 minutes.
	Ninhydrin	Afterwards dipped in ninhydrin up to the area where the envelopes window starts. The bottom half of the latent print was visible, but only that the ridge flow indicated the possible pattern type.
	Powder Dusting	In an attempt to enhance the tip of latent print that existed upon the window part of the envelope, I used magnetic powder, on and around this area. The latent print on both, window and paper parts was significantly enhanced.
4C8MG6	Visual Examination	Fingerprint detected in section A, on plastic film. Fingerprint photographed with white light.
	Cyanoacrylate Fuming	Test strip and material in cabinet with 2 g glue and 4 min (Sandridge Superglue Processing Cabinet). Test strip positive.
	Powder Dusting	Powder dusting with magnetic powder. Fingerprint photographed with white light.
	DFO	Test strip 30 min 100°C. Test strip positive result. Material 30 min 100°C.
	Alternate Light Source	Forensic light source crime scope 570-580 nm. Fingerprint photographed with filter. Fingerprint is fluorescene.
	Ninhydrin	Test strip 5 min 80°C and 62% humidity. Test strip positive result. Material 5 min 80°C and 62% humidity. Fingerprint photographed with white light. The fingerprint is in purple colour. Fingerprint was photographed in white light.
4TTXVW	Visual Exam	Ambient room light & flashlight
	IND Zncl & Black Mag Powder (on windows)	Wash bottle, Dry heat w/ clothes iron, approx. 2 minutes. Test strip processed prior
	Laser Exam 532 nm / orange	orange barrier filter
	NIN (HFE-7100)	Heated w/ a steam iron, approx. 1-2 minutes. Test strip processed prior
64C767	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C 10 min and 1 g BVDA glue half fingerprint was developed on plastic window
	DFO	100°C 20 min The other half of the print developed on the paper
	Ninhydrin	80° C 62% Humidity and 5 minutes (Negative)
6RYEQP	Vis	
	Cyano Fuming for windows on envelope	15 minutes
	DFO / Laser / Nin w/ NOVEC	DFO - applied dried / 10-15 seconds - FLS iron dry nin w/NOVEC - applied dried/ 10-15 sec iron steam
	R6G	applied dried. viewed under 532 nm
6TAEN6	Visual Examination	Ambient lighting
	Alternate Light Source	All wavelengths on Mini Crime Scope
	Cyanoacrylate Fuming	Safe Fume Chamber - Time=15 min/Humidity=80%; set time= Next business day
	Powder Dusting	Magna Black
	1,2-Indanedione	Wait time - until dry; visualized with Mini Crime Scope @ 515 wavelength
	Ninhydrin	Set time - Next business day; humidity aided development
	Dye Stain	Rhodamine 6G; Wait time - Until dry; visualized with Mini Crime Scope @ 515 wavelength
6TB4VM	Visual Examination	
	Alternate Light Source	Wavelengths Used: 365 nm and 495 nm
	Cyanoacrylate Fuming	CA chamber set points: 80% relative humidity, fume time 15 mins
	Powder Dusting	Black non-magnetic powder
	1,2-Indanedione-Zinc Chloride	Placed in humidity chamber for approx. 30 mins.; Set points: 70 degrees celsius, 65% relative humidity; Viewed with laser (532 nm)
6U6U22	Visual Examination	
	Ninhydrin	HFE with steam iron Lot # 032216
	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	app 8 minutes
	Visual Examination	separated paper and plastic
	Physical Developer	and wash app 8 minutes each Lot NC16-98 paper only
	Visual Examination	
6UM4PW	Visual Examination	
	Alternate Light Source	RUVIS. Ridges visible in quadrant A on paper.
	Cyanoacrylate Fuming	70% humidity for 13 minutes
	Powder Dusting	Black Powder. LP visible.
	1,2-Indanedione	Processed further to develop portion of print more.
	Ninhydrin	
6YF8JZ	Visual Exam / Alternate Light Source	Ultralite ALS w/ BMT Filter
	Cyanoacrylate Fuming	80% humidity for 12 minutes
	MBD (P- Methoxybenzylamino- 4- Nitrobenz- 2- oxa- 1,3- Diazole)	
	Ninhydrin, Iodine, Humidity	Humidity - steam iron
6ZTL6N	Visual Examination	Item3 was examined visually with a flashlight.
	Cyanoacrylate Fuming	Item 3 was then treated with cyanoacrylate fuming for 10 minutes.
	1,2-Indanedione	1,2-indanedione solution was prepared as follows: 0.125g of 1,2-indanedione was dissolved in solution of 5mL glacial acetic acid and 45 mL ethyl acetate followed by 450mL petroleum ether at room temperature. Item 3 was treated with 1,2-indanedione solution for 10 seconds. The sample was left to air-dry for a few minutes and was then put in an oven at 80 °C for 20 minutes.
	Alternate Light Source	Item 3 was observed with light source of 515 nm. An orange filter was used for visual observation.
747WGJ	Iodine Fuming	Placed item in plastic bag with iodine and shook
	Powder Dusting	Black magnetic powder
786MU6	Visual Inspection	Withe light and alternate light sourse. "Vague" ridges on the plastic window. In quadrant A.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	CNA	Loctite 495. % RH 70 4 minutes, improvment on the print.
	BY40	On the plastic window (cut out), large improvment on the print. Good clarity.
	DFO then Nin then PD on the paper	DFO = Fragmentery ridges beside the window. Nin= no improvment. PD = No improvment.
	Summery	A part of a print, with good clarity and a number of details - good for individualization was detected on the plastic surface of the envelope. The use of DFO, Nin and PD on the paper beside the window were not successful, only fragmentery ridges were detected, with DFO. Based on the fact above there was no first level detail recovered.
79KFXZ	Visual Examination	
	Alternate Light Source	Crimescope ALS 315 to 535nm, Tracer Laser 1
	Cyanoacrylate Fuming	CA chamber, 10 minutes
	Dye Stain	R6G brushed on windows, Tracer Laser 1
	1,2-Indanedione	oven 20 minutes at 100 degrees Celsius
	Ninhydrin	oven 10 minutes, 70 degrees Celsius, 70% humidity
7E86KV	Visual	Normal environment, no ridges visible.
	ALS	
	Iodine Fuming	Iodine fuming (+) control; neg (-) on item ~2 min
	Super Glue Fuming	Super Glue fuming ~5 min (+) control and (+) item
	Magnetic Powder (Black)	Used magnetic powder to enhance ridge detail took photographs and archived
7GCT37	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	magnetic powder
7J2YHW	Visual Examination	Ambient room temperature 70 degree F.
	Powder Dusting	Applied black magnetic powder to windowed portions of envelope. Continued onto paper to developed half of latent print that was on window.
	Visual Examination	Photographed the latent print developed in quadrant A. No attempt was made to lift them print so that the paper envelope would not tear.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Applied via the submersion method. Item allowed to dry for approximately 30 minutes. Applied heat and humidity via steam iron with deionized water.
	Visual Examination	Item was examined for the development of ridge detail over the course of four days. No additional ridge detail was developed.
7MJVV9	Visual Examination	no fingerprint visible
	Cyanoacrylate Fuming	68deg; removed the clear/see thru window from the envelope; placed the window in the cyano. fuming chamber @1305; removed @1410
	Ninhydrin	sprayed the envelope w/ ninhydrin @ 1300; removed @1355
	Powder Dusting	brushed/applied black/silver powder w/ a fiberglas brush on the window; develped a partial latent in section A
7WJJM6	Visual Examination	Natural light, white light and forensic light
	Cyanoacrylate Fuming	The same process as for Item 2
	Ardrox	Ardrox staining only the plastic window of the envelope
	1,2-Indanedione Zinc Chloride	The same process as for Item 1
	Ninhydrin Petrolium Eter	The same process as for Item 1
	Physical Developer	The same process as for Item 1
7WN4B9	Ninhydrin	The envelope was sprayed with ninhydrin (except for the plastic windows).
	Black Powder	The envelope was hung up to dry for 20 mins. After which it was processed with black powder on the plastic windows of the envelope. Last, the envelope was steamed and left overnight to sit.
87BP9W	Visual	1 latent print in Quadrant "A" on window - partially visible
	Inherent Luminescence	Polilight PL500 @ multiple wavelengths. Negative results
	Powder - Magnetic	Dusting - lower half of latent developed on paper along with print on window
89B3LN	Alternate Light Source	Check the evidence with all spectrum of forensic lights
	Powder Dusting	Use Sirchie magnetic powder 114L
89FDQ8	Non-destructive	Visual examination with the aid of polilight + laser +ve photographed in situ (F3)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Physico-Chemical	Cyanoacrylate ester (superglue) +ve (F3)
	Chemical	Indanedione + heat press (170°C) + ve FP (F4), Ninhydrin -ve
	Physico-Chemical	Physical Developer - smudges
8CGH3R	Visual Examination	White and colored light, before and after each development process
	Cyanoacrylate Fuming	Lumicyano™ (0.84g, 118°C, 77%RH, 14min), in a Foster Freeman MVC-1000 cabinet
	1,2-Indanedione	165°C heating, 10s exposition under a press
	Ninhydrin	examination 24 hours after processing
8DMFJA	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75% humidity, auto timed
	Ninhydrin	80 C, 65% humidity, 3 minutes
	Dye Stain	RAM
8H2E93	Visual Examination	Ambient/conventional lighting and green light with orange filter
	Cyanoacrylate Fuming	Misonix chamber, 80% humidity cycle for 5 minutes, glue cycle for 7 minutes, purge cycle for 15 minutes
	DFO	Caron chamber, 100 degrees C for 20 minutes
	Dye Stain	Basic Yellow - sprayed with squirt bottle and rinsed with water
	Ninhydrin	Caron Chamber, 80 degrees C w/ 65% humidity for 2 minutes
	Physical Developer	Soaked 10 minutes in distilled water, 5 minutes in Maleic Acid, rinsed in distilled water, 15 minutes in PD, rinsed in distilled water
8PLGDJ	Magnetic powder	Item lightly dusted with black magnetic powder
8UYEK7	Visual Examination	
	Cyanoacrylate Fuming	processed using Safe Fume Tank #2 (30 minutes @ 75% RH(relative humidity))
	Powder Dusting	
	RTX (Ruthenium Tetroxide)	dipped

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	dipped- processed using the Fingerprint Development Heat & Humidity Chamber (3 minutes @ 80 degrees Celsius & 65% RH (relative humidity))
8VQHA8	Visual Examination	White light with magnification
	Cyanoacrylate Fuming	Cyanosafe chamber
	Ninhydrin	Batch 273
	Powder Dusting	Black magnetic Powder
	Dye Stain	RAY, Batch 607
	Physical Developer	Batch 430
8XTGKZ	Cyanoacrylate Fuming	15 minute fuming and 15 minute purging process time.
	Magnetic powder	Celaphane windows only.
	Ninhydrin	Heat and humidity chamber utilized-90 minutes.
8XUL94	Visual Examination	White light. Result: One print was observed in quadrant A, placed with the top of the print on the plastic window, and the lower part on the outside of the envelope.
	Procedure	The plastic window was removed from the envelope with a scalpel to enable two separate development methods.
	Cyanoacrylate Fuming	The plastic window: 1g of Cyanoacrylate glue for about 6 min. Cupboard settings: 140°C and 80% RH. Result: The print was enhanced by CNA development. Referent control – prints were deposited on a similar piece of plastic, both by a Latent Print Stamp (Sebaceous Oil Secretions) and human fingerprints. Development of this test gave prints of good quality.
	Ninhydrin	Paper envelope: Developed 7 min in cupboard at 80C and 65% RH. Result: a weak print was shown in quadrant A. Please observe: DFO with 100C, without RH, should have been used before Ninhydrin in this case, but the DFO cabinet was out of order on that day. Referent control – prints were deposited on a similar piece of envelope, both by a Latent Print Stamp (Amino Acid Based) and human fingerprints, one day before development. Development of this envelope gave prints of good quality.
	Final prins	Both separate parts of the developed print were assembled before final photographing. Result: Pattern and 2nd level details were visible in the developed print.
94FNKK	Visual Examination	
	Cyanoacrylate Fuming	Fumed item at 250 degrees fahrenheit for 18 minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	Powdered the plastic windows
	Ninhydrin	Used development chamber at 80 degrees fahrenheit with 65 % humidity for 3 minutes
	Powder Dusting	used additional powder to get better contrast
94VJWY	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	fuming time 10 min. 120 C.
	Powder Dusting	only on plastic window
	DFO	100 C, 20 min, only on paper
	Ninhydrin	80 C, 62% rH, 6 min, only on paper
	Dye Stain	Basic Yellow 40, only on plastic window
99AK66	Visual Examination	Item was porous and non-porous substrate
	Powder Dusting	Magnetic powder used and fingerprint impression developed partially on each substrate
9CBZP9	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	DFO	surfaces envelopes without windows; fluorescence examination after 3 days in alternate light source (505 nm - 530 nm under orange barrier filter)
	Ninhydrin	surfaces envelopes without windows; visual examination after 3 days under white light and fluorescence examination in alternate light source (470 nm - 570 nm under orange and red color barrier filters)
	Cyanoacrylate Fuming	in the fuming chamber with a humidity 80% for 15 minutes; visual examination under white light and fluorescence examination in alternate light source (350 nm - 650 nm under appropriate color barrier filters)
	Powder Dusting	Ferromagnetic Powder Black; visual examination under white light
9FRVKQ	Ninhydrin	Three (3) day process/ Painted the ninhydrin only on the white paper portion of the envelope
	Cyanoacrylate Fuming	After processing with ninhydrin was completed the envelope was processed with cyanoacrylate fuming. Air Science Safe Fume system/72 degrees F/80% humidity/vent for 5 minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	Sirchie "Hi-Fi" Silk Black Powder
9JQ8GQ	Visual (on plastic window)	White light (DSC-3). The part of fingerprint which was deposited on paper was not visible initially
	Next: On Plastic Cyanoacrylate, Ardrox, Bichromatic Magnetic powder	CA: 3x30 min in vacuum chamber, Ardrox: applied with blotting paper only on plastic, powder applied with magnetic brush
	On Paper DFO, Ninhydrine, ZnCl2	Processed the same way as item A
9JWJ32	Visual Examination	white light magnification
	Cyanoacrylate Fuming	20 min in Cyanosafe, let sit for one hour
	Powder Dusting	Black magnetic powder
	Dye Stain	RAY; pour chemical on item, rinse off, let dry, examine with 420-470nm and orange filter
	Ninhydrin	Soaked in chemical batch #273 about 10 sec, let dry, put in Caron chamber for 2 hours
	Physical Developer	10 min in maleic acid, 10 min in PD solution batch #429, 10 min in water bath, let dry.
9KLPHR	Alternate Light Source	Crimescope, laser beam 577 nm, laser beam 532 nm, rasance and coaxial incident
	Lumicyano CST	Luminescent cyanoacrylate warm at 120°C for fuming 40 minutes in MVC3000
	1,2-Indanedione	bath in solution of 1,2 indanedione/ZnCl2 and warm at 40°C since 1 hour in laboratory oven
	Ninhydrin	bath in solution and 1 week at ambient temperature and hygrometry shelterd from air and light
	Dye Stain	solution of basic red 14 in methanol and treated with spray
9TFX3H	Powder Dusting	magnetic black powder print developed on window/paper quadrant A
	Ninhydrin	dipped, air dry, then steam iron
	Checked on 6/15/16	no further development
9TJHT8	Visual Examination	Patent print found
	Alternate Light Source	Patent print photographed.
	Cyanoacrylate Fuming	18 minutes inside fuming chamber. Photographed.
	Dye Stain	MRM10 & powder. no benefit. Photographed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Allowed to cure fo 72 hrs. Exposed to steam.
9UUKE7	Visual Examination	
	RTX	
	Ninhydrin	80F at 65% RH for 3 minutes
	Cyanoacrylate Fuming	74F at 75% RH for 26 minutes
	Powder Dusting	Dual-Use Powder
9VKM47	Visual Examination	White light with magnification
	Alternate Light Source	Foster and Freeman CrimeLite ML2 with 460-510nm bandwidth filter with orange barrier
	Cyanoacrylate Fuming	Cyanosafe - 20 minute processing, 60 minute rest time
	Powder Dusting	Black magnetic powder
	Dye Stain	RAY batch #605, viewed using Foster and Freeman CrimeLite ML2 with 460-510nm bandwidth filter with orange barrier
	Ninhydrin	Batch #272 and processing in Caron chamber
	Physical Developer	Batch #429
9WJTML	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	Used Cyanoacrylate Fuming Chamber at 80% humidity for 20 minutes fuming time.
	Dye Stain	RAM was used. RAM was only applied to plastic windowed area of mailer envelope
	DFO	Used dry iron to accelerate development
	Ninhydrin	Used iron with steam to accelerate development
	Powder Dusting	Black Powder
9XENG6	1,2-Indanedione	10 seconds under heating press
	Cyanoacrylate Fuming	12 Minutes @ Foster & Freeman MVC 3000
	Dye Stain	Basic Red 14
A6783W	Visual Examination	6-17-16: Cut folds on sides of envelope to lie flat to facilitate processing, visible

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	6-17-16: Cyanosafe 20 mins, print found on Quadrant A of cellophane window. CA prints observed. Cut out.
	Ninhydrin	6-17-16: Cellophane windows for Ninhydrin processing on paper part. Ninhydrin, then Caron heat/humidity chamber 60 degress C/60% humidity, 30 mins, no prints
	Physical Developer	6-29-16: Batch #430
	Powder Dusting	7-5-16: Black Magnetic Powder, print enhanced
	Dye Stain - RAY	7-6-16: Batch #608, print enhanced
ABVQ6R	Visual	Photographed
	Super Glue Fuming (window portion)	Wear PPE, protected porous area from Super Glue. Place envelope (suspended) inside chamber, place warm jar of water inside chamber. A dime size amount of Super Glue inside chamber place inside a tin tray onto a hot plate inside chamber. Also a control test print. Let fume for 2 min - vent 30 min.
	Black Powder (window portion)	Processed window portion with black powder (1 lift)
	Visual	
	Physical Developer	Soak porous portion of env with Ninhydrin let dry 24 hrs - Examined - no development porous portion. Place in humidity chamber 80% / 40C for 1 hr. No development - porous portion. Processed with physical developer, soak in Maleic Acid for 10 min after place in phys. dev. solution rocking back/forth for 15 min. - No development. Rinse in distilled water to remove excess (Both solution place in (2) separated glass trays)
AD2YMJ	Visual Examination	daylight
	Alternate Light Source	1. battery lamp Led Lenser P7.2 2. light source Polilight PL500
	Cyanoacrylate Fuming	15 minutes glue cycle, 1.5 g Cyanobloom
	Powder Dusting	Magnetic jet black B- 45200
	Ninhydrin	80 C, 65% relative humidity
	Physical developer	
AJADFG	Visual Exam White Light	Flashlight room temperature 73° F
	Cyanoacrylate Ester Fuming (CA)	room temperature 73° F humidity chamber with hot water pan 3 min. fuming time. control print used
	1,2-Indanedione Zinc Chloride IND/ZN	Dip method. Red goggles / filter @ 535 nm with a forensic light source
	Ninhydrin	steam iron 2-4 minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
AJC3KD	Visual Examination	
	Alternate Light Source	Mini Crime Scope - All Wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - Processing Time 15 mins @ 80% Humidity
	1,2-Indanedione	TracER Laser @ 532 Wavelength, Visualized the next Business Day
	Ninhydrin	HFE-7100, Processing Time - Next Business Day
	Dye Stain	Rhodamine 6 G - Visualized with TracER Laser @532 Wavelength, Wait time - Until Dry
ANXRP3	Visual Examination	White light, Ruvis and laser 532nm
	Cyanoacrylate Fuming	Window - Mystaire CA-6000, 1 g CA, 80% humidity for 20 minutes, purge for 10 minutes, white light and Ruvis
	Dye Stain	Window - Rhodamine 6G, sprayed, rinsed with water, compressed air to dry, examined with laser 532nm, curved orange filter
	1,2-Indanedione	Paper - Applied solution by dipping, dried in hood, dry heat press, two minutes at 100 degrees C
	Ninhydrin	Paper - Apply solution by dipping, dry in vented hood, wet heat applied with steam iron
	Zinc Chloride	Paper - Apply solution by spraying, dry in vented hood, wet heat applied with steam iron, laser exam
APXZ92	Visual Examination	
	Alternate Light Source	Mini Crime Scope - all available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber; set time - next business day
	1,2-Indanedione	Mini Crime Scope @515 wavelength
	Ninhydrin	Humidity aided development; set time - next business day
	Powder Dusting	Black Magna
	Dye Stain	Rhodamine 6G - Mini Crime Scope @ 515 wavelength
ARW3K3	Visual Examination	Examined with white light, Ruvis and laser
	1,2-Indanedione	Paper - Applied solution by squirting, dried in hood, dry heat press 2 minutes at 100 degrees C, laser
	Ninhydrin	Paper - Applied solution by squirting, dried in hood, wet heat, steam iron, white light
	Zinc Chloride	Paper - Applied solution by squirting, dried in hood, wet heat, steam iron, laser 532 nm

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Window - Mystaire CA-6000, 0.8 g CA, 80% humidity for 20 minutes
	Dye Stain	Window - Rhodamine 6G, sprayed, rinsed with water, examined with laser
B278FK	Magnetic Powder	
	1,2-Indanedione / Zinc	viewed with 505 nm ALS and orange filter
B8BW4K	Visual Examination	oblique incandescent light 10 minutes
	Alternate Light Source	UV-365nm and 495nm crime scope, 5 minutes per light source
	Cyanoacrylate Fuming	15 minutes in chamber, evaluation time 7 minutes
	Powder Dusting	Black non-magnetic powder used on plastic window of an envelope, evaluation time 7minutes
	1,2-Indanedione-Zinc Chloride	temperature and humidity of a chamber within range, 10minutes evaluation time with 495nm and orange filter
BBDW4H	Cyanoacrylate Fuming	atmospheric pressure
	Ninhydrin	HFE formulation, Steam iron
BKHGCY	Visual Examination	
	Photography (with a black background) of the fingerprint on the plastic window of the envelope.	
	White light + fluorescence examination (green light 480-560nm + bright red goggles, blue light 420-470nm yellow goggles)	
	We documented the fingerprint with a photo then the plastic window of the envelope was sprayed with Superglue Fluorescent dye staining Basic Yellow 40 + fluorescence examination (blue light 420-470nm,yellow goggles).	
	Photography	
	Ninhydrin	On the rest of the envelope we used Ninhydrin to develope the fingerprint.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Twice because the fingerprint was so faint.
BL6TVH	Visual Exam	Visual Exam.
	Super Glue Fuming	Super Glue fuming, Photograph.
	DFO	DFO processing technique. Examined by the green light. Photograph.
	Ninhydrin	Ninhydrin processing technique. (Enhancing at a temperature of 100° C and humidity of 100.) White light exam.
	PD	Physical Developer (15 mins in maleic acid, 15 min in PD solution, double water rinse.) Visual exam.
BNDB9Z	Alternate Light Source	
	Cyanoacrylate Fuming	80% Rh, 120 degrees Celsius on the hot plate
	DFO	100 degress Celsius, 0% RH, 20 min
	Ninhydrin	80 degrees Celsius, 65% RH, 5 min
	Dye Stain	Basic Yellow 40
BPAC4B	Visual Examination	Nothing visible
	Alternate Light Source	Krimesite Imageer used, UV lighting, no visible latent
	Powder Dusting	Magnetic Powder used, latent now visible
BPTZL7	Visual Examination	Examined using white light and magnification
	Cyanoacrylate Fuming	12 minute fuming cycle. Allow to sit for one hour. Separated cellophane and paper envelope.
	Dye Stain	Cellophane only: RAY Batch #607, coat object, rinsed with water, allowed to air dry.
	Powder Dusting	Cellophane only: Dusted using magnetic black powder to evenly coat item
	Ninhydrin	Paper envelope only: Batch #273, soaked, let air dry, placed in Caron chamber for 30 minutes, checked and placed back in chamber for additional 30 minutes.
	Physical Developer	Paper envelope only: Batch #430, completed by [Name], examined by me on 6/29/16 using white light and magnification
BRV6UK	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	
	Humidity Chamber	Humidity 70%, Heat 80 degrees, 20 Minutes
BYE4T6	Visual Examination	Visible print observed in Quadrant A
	Cyanoacrylate Fuming	Visible print observed in Quadrant A
	Ninhydrin	Batch 273, Print observed in Quadrant A
	Physical Developer	Batch 430, Neg. results
	Dye Stain	RAY, Batch 607, Print observed.
	Powder Dusting	Negative results
BYJLR4	Visual Examination	White light magnification, positive
	Cyanoacrylate Fuming	Chamber, exposure 12 minutes, allowed to dry 60 minutes, no improvement
	Ninhydrin	Batch #273, Caron chamber, positive
	Dye Stain	Ardrox, Batch #89, positive
	Powder Dusting	Black powder, no improvement
	Physical Developer	Batch #429, no improvement
C3ERML	Visual	Flood light, LASER, ALS, UV - 10 minutes, photo
	Ruthenium Tetroxide (RTX)	Sprayed - works on both non porous & porous surfaces
	Window - Cyanoacrylate Ester	Vaporized on hot plate, 15 minutes, visual exam, photograph
	Window - Ray / LASER / ALS	Enhanced w/ dyes (Ardrox, Rhodamine, Basic Yellow) LASER / ALS, photograph, 10 minutes
	Window - PowDer	Brush & powder - 10 minutes
	Envelope - DFO	
	Envelope - Ninhydrin	Dipped, placed in humidity chamber 70° C 70% Rh for 15 minutes
	Envelope - Physical Developer	Imersed in PD for approximately 20 minutes
C6HM8N	Visual Examination	Visible latent in windowed area of Item 3 - Quadrant A.
	Cyanoacrylate Fuming	Visible latent in windowed area of Item 3 - Quadrant A.
	Ninhydrin	No additional latent prints developed with Ninhydrin

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Rhodamine 6G + ALS	Latent print digitally photographed in windowed area of Quadrant A.
CFZ8QK	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Powder Dusting	
	DFO	
	Ninhydrin	
	Dye Stain	
	Phyical Developer	
CGVPTL	Visual Exam	Regular lighting, UV, ALS, laser
	Cyanoacrylate Ester Fuming	Fume in chamber (~10 minutes)
	Powder (Applied to plastic windows only)	Black powder brushed on windows (trying to avoid paper)
	Dye Stains: Ardrox then Rhodamine 6G (applied to plastic windows only)	Ardrox visualized with UV, Rhodamine visualized with Laser
	DFO	Dipped in DFO, allowed to develop for 24 hours @ room temp visualized using laser
	Ninhydrin	Dipped in Ninhydrin, placed in hummidity chamber (70° C, 70% hummidity) for ~15 minutes, allowed to develop for 24 hours @ Room temp
	Zinc Chloride	Sprayed with ZnCl2, placed in Hummidity Chamber (70° C , 70%) for ~15 min allowed to develop for 24 hours @Room temp
	Physical Developer	Maleic Acid pre-wash- then P.D. (~10 min)- then allowed to dry
CH8LXQ	Visual Examination	No ridge structure was visualized before processing
	Alternate Light Source	RUVIS was used to search for ridge structure on the plastic part of the envelope before superglue
	Cyanoacrylate Fuming	A Foster and Freeman MVC 1000 superglue chamber was used. Glue time-15 minutes UV time-1 minute Temp- 120 C Relative Humidity- 80%
	Alternate Light Source	RUVIS was used to view and photograph prints after superglue

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	The evidence was sprayed with 1,2 indanedione with ZnCl then heated on a dry mounting press for 10 seconds at 320F and viewed at 505nm with orange goggles
	Ninhydrin	The evidence was sprayed with Ninhydrin and placed in a humidity chamber for 2:30 minutes at 80C at 70% relative humidity
CQLBXK	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	DFO	
	Ninhydrin	
	Dye Stain	(RAM)
	Physical Developer	
CWAQRX	Visual Examination	Ambient/Conventional/Green light
	Cyanoacrylate Fuming	Humidity 80%: Humidity cycle 5 minutes, Glue Cycle 5 minutes, Purge cycle 10 minutes
	DFO	100 degrees Celsius for 20 minutes
	Dye Stain	Sprayed until covered. Rinsed with water.
	Ninhydrin	80 degrees Celsius for 2 minutes
	Physical Developer	10 minute pre-wash in distilled water, 5 minutes in Maleic acid, rinse in distilled water, physical developer for 15 minutes, rinse in distilled water
D39WGK	Window of envelope: Visual	
	Window of envelope: Superglue	
	Window of envelope: Powder	
	Window of envelope: Ardrox	UV
	Window of envelope: Rhodamine	LASER
	Envelope avoiding window: Visual	
	Envelope avoiding window: DFO	~100°C oven, LASER

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Envelope avoiding window: Ninhydrin	humidity chamber, ~70% humidity & 70°C
	Envelope avoiding window: Zinc chloride	humidity chamber, ~70% humidity & 70°C, ALS
	Envelope avoiding window: Physical developer	
D6DKYV	Powder Dusting	processing time 2 minutes
	Ninhydrin	processing time 13 days
D7RRKD	Visual Examination	Observed ridge structure in quadrant A on plastic window portion
	Powder Dusting	Applied black magnetic fingerprint powder using magnetic wand. Developed latent print on plastic window and paper portion of quadrant A
D84QEL	Visual Examination	Crimelite 2
	LumicyanoTM	Fumigation chamber : SafeFume Air Science CA30S ; 0.063g of powder + 1.6g of solution during 30min of fumigation
	1,2-Indanedione	during 24H at room temperature
	Ninhydrin	during 48H at room temperature
DGB7LU	Krimesite imager	viewed @254 nm
	Ninhydrin	petroleum ether based/steam iron
	Cyanoacrylate Fuming	applied for 5 minutes/viewed with KSI
	Powder Dusting	applied carbon-based powder to windows
	Dye Stain	applied RAM to windows of envelope
	Alternate Light Source	viewed @445 nm with yellow filter
DP3NXG	Visual Examination	Fluorescent overhead light (positive on window)
	Co-axial	Visual (positive on window)
	Alternate Light Source	Laser (positive on paper and window (with black backing card))
	Cyanoacrylate Fuming	Nickel sized superglue on foil container with fuming chamber for apprx. 25 mins
	1,2-Indanedione	90 degrees celcius for 18 minutes
	Alternate Light Source	Laser with orange filter

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
DTJBBM	Visual Examination	OBLIQUE LIGHTING AND MAGNIFIER
	Powder Dusting	USED MAGNETIC POWDER ON PLASTIC WINDOWS OF ENVELOPE. RIDGE DETAIL OBSERVED IN QUAD A. PROTECTED RIDGE DETAIL WITH LIFTING TAPE PRIOR TO USING NINHYDRIN.
	Ninhydrin	USED HEPTANE BASED NINHYDRIN ON PAPER PORTION OF ENVELOPE. AFTER DRYING, USED STEAM IRON TO EXPEDITE THE DEVELOPMENT PROCESS. NO OTHER RIDGE DETAIL OBSERVED.
E4KWDE	Cyanoacrylate Fuming	Peavey Print Glue @20 minutes, ~80% humidity, ~78 degrees F
	Powder Dusting	Black Magnetic
E8GKT2	Visual Examination	6-20-16: Examined under white light and magnification, no print observed.
	Cyanoacrylate Fuming	6-21-16: Processed in Cyanosafe recirculation chamber. Control print positive. Print observed in Quadrant A on cellophane window. LP photographed, 2 images. Cellophane window separated from envelope for processing, designated as Item 003A. Quadrants A & C marked on cellophane.
	Ninhydrin	6-21-16: Envelope portion only, agitated in Ninhydrin Batch #273, allowed to dry and processed in the Caron Chamber at 60 degrees C/60% relative humidity for approximately 20 mins. No prints observed.
	Physical Developer	6-29-16: Envelope portion only, Batch #430, PD processing completed by LP Tech [Name]. No prints observed on 6/30/16.
	Powder Dusting	6-29-16: Black magnetic powder on cellophane window dusted with magnetic powder. Print observed in Quadrant A. LP scanned.
	Dye Stain	6-29-16: On cellophane window, RAY Batch #607 applied to cellophane window, item examined with Crime Lite ML2 with a 450nm filter and orange barrier. Print observed in Quadrant A. LP photographed.
E9EQBF	Visual Examination	Overhead lighting, flashlight, white light
	Alternate Light Source	Wavelengths 350-620nm Rofin Polilight PL500
	Cyanoacrylate Fuming	Processed at ~80% humidity for 9 minutes
	Magnetic Powder	Evident Black magnetic Fingerprint Powder Lot 201504053
	Dye Stain	Applied MRM-10 only clear window only
	DFO	Heat press used for ~10-12 seconds at 325 degrees Fahrenheit

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Ninhydrin	Steam iron used for ~10-12 seconds at ~320 degrees Fahrenheit (not in direct contact with the item)
	Physical Developer	Maleic Acid pre-wash for ~20 minutes; PD processed for ~10 minutes
EAKMRX	Visual Examination	Examination in white light, visible prints in the window quadrant A
	Alternate Light Source	Examination with green, blue and UV-light with forensic light source CrimeLite 82 (and googles). Print not visible in any of these lights.
	Cyanoacrylate Fuming	Combined with dyeing (coumarin), clear print in window.
	DFO	Treated with BVDA-mix, in climate chamber 10 min. and inspected with green light source (red googles). No marks identified.
	Ninhydrin	Treated with BVDA-mix, in climate chamber 5 min. Very weak reaction in box A.
	Powder Dusting	Clear print both in window and on paper
ECRXAZ	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Test strip utilized; Processing time 12 minutes, diffused lighting
	Ninhydrin	Envelope paper: Batch #273, Caron 2 hours
	Physical Developer	Envelope paper: Batch #730, processed by [Name]
	Dye Stain	Plastic: RAY batch #607, orange filter/blue light
	Powder Dusting	Black powder, direct lighting
EGLR82	Visual Examination	white light with magnification, no prints
	Alternate Light Source	485nm with orange filter, no prints
	Cyanoacrylate Fuming	Cyanosafe, one hour rest, Prints (1)
	Ninhydrin	Envelope - Caron with rest, no prints
	Powder Dusting	Cellophane, magnetic, Prints (1)
	Dye Stain - RAY	Cellophane, Batch #605, Prints (1)
	Physical Developer	Envelope, Batch #429, no prints
EJQU8X	Visual Examination	No visible prints
	Ninhydrin	Sprayed Ninhydrin on envelope and a faint print appeared in Quadrant A.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	Magnetic powder applied to the envelope, print appeared in quardrant A.
EKLBJU	Visual Examination	White light and fluorescence examination 350nm - 650nm
	DFO	Porous area soaked by swab of cotton wool, left for one day, exam with 505nm
	Ninhydrin	Porous area soaked by swab of cotton wool, left for one day, exam with white light
	Cyanoacrylate	Processing in fuming cabinet for 15 minutes with heat superglue to about 120°C and humidity 75% Rh
	Fluorescence powder	Powder applied by the brush at non-porous area
EQXMTV	Envelope: Visual	Fingerprint ridges visible in quadrant A
	Envelope: Super Glue / Visual	Autocycle in Foster Freeman Super Glue chamber
	Envelope: RAM / ALS	RAM w/ petroleum ether sprayed
	Window: Indanedione	20 minutes @ 50°F & 75% humidity
EUCWPT	Powder Dusting	Black Magnetic Powders: windowed area, but finally the fingerprint was fully developed in the non porous area both as porous.
	Cyanoacrylate Fuming	After powders on cutted and windowed and area (plastic-non porous)
	DFO	Paper
	Ninhydrin	After that DFO
EVM7VP	Cyanoacrylate Fuming	
	Ninhydrin	
EVQNTN	Visual Examination	To evaluate the evidence/condition and type of material, development technique
	CAE (Super Glue)	Warm water approx. 160° F; hotplate approx. 400° F. processed for 2 minutes
	Powder (Black magnetic)	Brush applicator on the surface of paper and clear plastic window on paper
	Ninhydrin (Nin)	Apply Ninhydrin, allow to dry and placed on humidity chamber for
EXCHLH	Visual Examination	
	Powder Dusting	Black magnetic powder on clear plastic area

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	Heat Press, Bright Beam laser (532nm, orange barrier)
	Ninhydrin	Steam Iron
F6BGKB	Visual Examination	no visible ridge detail
	Alternate Light Source	LASER and ALS (Spex) - no visible ridge detail
	Cyanoacrylate Fuming	Partial print on windowed portion of envelope in Quadrant "A"
	Ninhydrin	Additonal ridge detail on paper portion of envelope Quadrant "A" connected to partial print on windowed portion of envelope; suitable for identification - whorl pattern
F7476R	Visual Examination	White LED light with magnification
	Cyanoacrylate Fuming	Atmospheric chamber, 19 minutes
	Powder Dusting	Black powder on window only, camel hair brush
	Dye Stain - Ardrox	Windows only, submersion
	Ninhydrin	Submersion, 30 seconds, 60/60 temp/humidity chamber, accelerated dev. for 30 min.
	Physical Developer	Maleic Acid, Physical Developer-silver suspension, wash, 10 minutes for each process
F7ZH9T	Visual Examination	Viewed sample under natural and white light.
	Cyanoacrylate Fuming	Due to the compostition of the sample structure in order to mantein the sample integrity, we covered the envelope surface with plastic film and left the plastic window exposed. The fuming was initiated in the fuming chamber at last 15 minutes with 65% Humidity.The sample is viewied with natural and white light.
	Photography	A photograph was taken to document the print recovered in the window of quadrant A.
	Ninhydrin	The second treatment, the sample was sprayed with Ninhydrin, placed in the oven for 5 minutes with 80 °C temperature and 65% Humidity. After that, It was placed into a plastic bag for 24-48 hours in order to minimize the exposure to ligth and finally viewed the print under natural and white light.
FBUC7U	Visual Examination	
	Cyanoacrylate Fuming	processing time 7 minutes
	Powder Dusting	Magna Jet Black

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
FBZULY	Cyanoacrylate Fuming	opened envelope to a flat state, covered paper with other shield paper and superglued both sides of the windows. Photographed the resulting print on the window. Removed shielding paper and processed envelope with ninhydrin.
	Ninhydrin	
FFQ97Y	Visual Examination	white light and magnification
	Cyanoacrylate Fuming	Cyanosafe for 12 minutes
	Ninhydrin	Paper: Caron Chamber 60 degrees C/60% relative humidity, Start: 0738, Stop: 0938.
	Physical Developer	Paper: 6-29-16 completed by [Name], Batch 430
	Dye Stain	RAY on plastic
	Powder Dusting	Black powder on plastic
FKFFDU	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	10 minutes
	DFO	100 degrees Celsius
	Ninhydrin	
	Basic Yellow 40	
FQ9K7X	Visual Examination	light
	Cyanoacrylate Fuming	Plastic window. Humidity 75 %. approx. 2.45 minutes. first detail level recovered
	Ninhydrin	Paper envelope. Humidity 70 %. Temp 70 celsius. apporx 5 minutes. none first detail recovered
	test/controlsample	positive
FRHVCU	Visual Examination	Ambient light
	Alternate Light Source	Mini Crime Scope - All wavlengths available
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 min @ 80% humidty; set time - overnight
	1,2-Indanedione	Spray application; visualized with Mini Crime Scope @515 wavelength w/orange goggles
	Ninhydrin	Spray application; set time - overnight; humidity aided development

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	Black Magna
	Dye Stain	Rhodamine 6G - Spray application - air dry; visualized with Mini Crime Scope @515 wavelength w/orange goggles
FUNVJ2	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75% humidity, auto timed
	Ninhydrin	80 C, 65% humidity, 3 minutes
	Dye Stain	Ardrox
FVZFYA	Visual Exam	no detail seen on "windows"
	DFO	Dipped in DFO, air dry, dip again, air dry. DFO chamber for 10 min @ ~200° F
	Ninhydrin	Dipped in ninhydrin. Applied heat w/iron on 6/1/16.
FZDVT9	Visual Examination	White light, Polilight 415-555 nm
	Cyanoacrylate Fuming	15 min glue processing
	Ninhydrin	10 min (Temperature 80°C, humidity 65 %)
	Powder Dusting	magnetic black
G3ZULW	Visual Examination	White light, Laser, ALS
	Cyanoacrylate Fuming	Foster & Freeman MVC 5000; approx 70 minutes
	DFO	Dry heat @ 100° C for 20 minutes
	Ninhydrin	Humid heat (wet bulb @ 70° C, dry bulb @ 80° C) for 6 minutes.
G4TMGF	Visual Examination	
	Alternate Light Source	365nm, 450nm, and 532nm
	Cyanoacrylate Fuming	Observed VIS and RUVIS
	DFO	Observed VIS and 532nm
	Ninhydrin	
	Dye Stain	RAM-observed with 365nm, 450nm, and 532nm
	Physical Developer	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
G642VW	Visual Examination	oblique lighting
	Powder Dusting	magnetic powder
G8B6C7	Optical Detection	White light + colored observation with filters
	Cyanoacrylate (for the windows)	about 80% hygrometry
	DFO	2 dips and exposure to 100° C for 20'
	Indanedione	2 dips and exposure to 100° for 20'
	Ninhydrin	A dip and 3 days in the dark at a minimum T° of 20°
G8TYDF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	DFO	
	Ninhydrin	
	RAM	
	Physical Developer	
GDGMPD	Visual - ALS	Observation of evidence - porous material & partial non-porous section - UV light
	Photographed	Evidence photographed - copy of photos attached to case file as working copy
	Black Powder	Black Powder used for non-porous section in Quad A & C
	Ninhydrin	Item dipped in to Ninhydrin (NOVEC) Reagent Control good - Lot NINNOVEC 160019
GGKAPW	7/7/16 Black magnetic Powder & magnetic applicator	Processed (2) clear plastic-like windows on item 3 (in quadrants A & C) with black magnetic powder & a magnetic applicator in Misonix model FE-36 down draft hood while wearing PPE. Developed (1) latent "print" of possible value partially on window in quadrant A & partially on paper portion of envelope in quadrant A to right of window.
	7/07/16 Ninhydrin spray LOT #120215D (QC tested with + and - controls prior to use & it reacted appropriately)	Applied Ninhydrin spray to item 3 in Mystaire MYAU54 fume hood while wearing PPE & allowed to air dry. Secured in locker to develop on 07/07/16. Removed item 3 from locker on 07/11/16. No further development / enhancement observed on envelope after Ninhydrin processing.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
GLQ8UU	Visual Examination	Ambient Light
	Alternate Light Source	Mini Crime Scope - all available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 mins @ 80% humidity; allowed to set until next business day
	1,2-Indanedione	Spray application; air dry; visualized via Mini Crime Scope @ 515 wavelength
	Ninhydrin	Spray application; air dry; humidity aided development; allowed to set until next business day
	Powder Dusting	Bi-Chromatic
	Dye Stain	Rhodamine 6G - air dry; visualized using Mini Crime Scope @ 515 wavelength
GUJH7B	Visual Examination	
	Alternate Light Source	UV light 365nm, Crimscope 495nm with orange filter and 535nm with red filter
	Cyanoacrylate Fuming	"HOT STUFF" cyanoacrylate adhesive LPDU lot 14-18 in Safefume chamber for 15minutes at 80% humidity
	Powder Dusting	SIRCHIE Magnetic Laten Print Powder No. BPM114L LPDU lot 13-1
	1,2 Indanedione Zinc Chloride	Humidity chamber for ~30 minutes at 65% humidity and 80 degrees C445-510nm
GVE29C	DFO	Steam iron 2 min ALS with orange goggles @455 & 530 nm
	Ninhydrin-Acetone	Steam iron 2 minutes
	Ninhydrin-HFE7100	Steam Iron 1 minute
GWCC2U	Visual	w/oblique lighting, Ruvis, Blue-green (w/orange barrier filter) and UV Foster Freeman 82s Crimelites
	black magnetic powder	n/a
	DFO	100° C w/no humidity for 10 minutes and viewed w/ Blue-green Foster Freeman 82s Crimelite with orange barrier filter
	Ninhydrin	80° C / 65% relative humidity for 20 minutes
GZDRLX	Visual Examination	oblique lighting, print was visible on window
	Powder Dusting	magnetic powder
H7UBCV	Visual Examination	Removed windows for seperate processing.
	RTX	Envelope without windows) Dipped and dried (approx 3 minutes)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Dipped and dried (approx 3 minutes) Placed in Fingerprint Development Chamber for 3 minutes at 80 degrees C 65% RH. Repeated exposure to heat and humidity the next day.
	Powder Dusting	Window areas removed for seperate processing. Cyanoacrylate fuming 26 minutes 75% RH the dusted with Dual-Use powder.
HDG2XQ	Powder Dusting	Black powder was used to dust windows of envelope on 06-13-16 at 0038
	Ninhydrin	Dipped envelope but pipetted around windows on 06-13-16 at 0121
HJEW9B	Cyanoacrylate Fuming	Vacuum cyanoacrylate fuming for 90 min., chamber temperature at approximately 35 degree C.
	UV Band Pass Filter Viewing	Shone UV light on plastic windows and viewed thru digital camera using a band press filter (FSIS). * plastic window removed from envelope.
	DFO	Paper portion allowed to dry and heated at 95 degree C for 25 min., viewed with laser, no latents developed.
	Ninhydrin	Paper portion allowed to dry and heated at 95 degree C for 15 min., visually inspected, no latents developed.
HLKDNT	Ninhydrin	Nin. spray, then steam heat (for porous envelope).
	Powder Dusting	Dusted clear plastic window after visualizing impression in window area. Continuous area of print captured on adjacent paper portion of envelope.
HM2AFT	visual pre-photos	Reg/Side lighting photography, RUVIS photography, ALS Crimelite 82S Blue/Green w/orange goggles and UV
	Black mag powder	N/A
HM4YMB	Cyanoacrylate Fuming	SafeFume chamber, 20 minutes at 80 % humidity and 73.5 F
	Powder Dusting	Black magnetic powder
HPLT9X	Visual Examination	Different wavelength of light and filtres
	DFO spray	Tempr. 90°C, 10min. Chamber DFC 200A Sirche, illuminator Polilight PL500 505-530nm orange filter
	Ninhydrin spray	Tempr. 90°C, humidity 60% chamber Catri Safefume, 20 minutes, natural and white light
	Cyanoacrylate Fuming	Tempr. 25°C, humidity 80%, 20 minutes Chamber Catri Safefume
	Black rubby powder	Magnetic applicator, natural light, UV, 505-530nm orange filter

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
HVDNZA	Visual Examination	strong flashlight
	Cyanoacrylate Fuming	MVC 3000 (80C/10min/humid; 120C/15min; purge 20 min); strong flashlight visual
	1,2-Indanedione	sprayed on, allowed to dry overnight, placed in CARON chamber (20min/100C/60%humid);
	Alternate Light Source	visual with ALS @515nm with orange filter
	Rhodamine 6G	sprayed, rinsed, allowed to dry
	Alternate Light Source	visual with ALS @515nm with orange filter
HW42WU	Visual Examination	Half a print was detected on the plastic part in section A.
	Alternate Light Source	(White light, blue and green fluorescence light): A weaker second half of the same print was visible (on the paper part) using blue fluorescence light.
	Cyanoacrylate Fuming	(Fuming time 10 minutes): The same print was observed on the plastic and preserved with photography.
	DFO	(20 minutes processing time at 100 degrees Celsius): The half of the print on the paper could be seen.
	Ninhydrin	(5 minutes processing time at 80 degrees Celsius and 62% RH): The half of the print on the paper could be seen. However this half of the print was not consider clear enough for preservation.
J4KKLR	Powder Dusting	Magnetic powder on windows of envelope
	Ninhydrin	Used on paper portion of envelope
J8K99N	Visual Examination	Discloses a part of fingerprint on plastic surface of envelope window.
	Cyanoacrylate Fuming	Improve the quality of fingerprint on plastic surface of envelope window.
	Powder Dusting	Discloses a second part of that fingerprint on paper surface of envelope after use dark fingerprint powder.
JBJJ4N	Visual Examination	white, blue, green light
	Cyanoacrylate Fuming	ca 7 min
	Powder Dusting	magna jet (magnetic powder), on window only, part of fingerprint develops.
	DFO	20 min, 100 C, on paper only, no useful prints appears
	Ninhydrin	ca 5 min, 80 C, 65 %RH, on paper only, no useful prints appear
	Powder Dusting	magna jet (magnetic powder), on all, whole useful fingerprint appears on paper and window.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
JDVRHV	1,2-Indanedione	Heat press at ~160 Celsius for: 10 seconds, 15 seconds, 15 seconds. Viewed with laser at 532 nanometers with orange barrier between each application of heat.
	Ninhydrin	Heat and humidity from steam iron to catalyze development.
JE6U7F	Visual	Natural light, flashlight, UV, ALS, Laser
	CAE Fuming	~15 min in the fuming chamber
	DFO	20 min in the oven 100° C Laser
	Ninhydrin	~5 min in the humidity chamber 70° C + 70% humidity
	Zinc Chloride	~5 min in the humidity chamber 70° C + 70% humidity ALS
	Powder	Flashlight
	Ardrox	UV
	Rhodamine	Laser
	PD	10 min in pre wash. 20 min in PD solution
JT294N	Powder Dusting	10 minutes visual magnetic powder visual
JXETDU	1,2-Indanedione	Saturate Paper with Ind/Examine with Laser #1 @ 532nm with orange barrier filter - Positive Control - LP053050516MK
	Ninhydrin	Saturate Paper with Nin/Apply Heat and Steam from Iron - Positive Control - LP009100715DPR
	Cyanoacrylate Fuming	Two transparent envelope window cells - Glue Chamber approx. 10 minutes with humidity added - Positive Control
	Dye Stain	R6G MEOH - two transparent envelope window cells - Examine with Laser #1 @ 532 nm with orange barrier filter - Positive Control - LP004052616JLK
	Physical Developer	Envelope - Maleic Acid (10 - 15 minutes with agitation) LP015062316JLK when no bubbling - then moved into Physical Developer (20 -30 minutes) with agitation LP019062316DPR, then H20 rinse, dried and examined
K34T6V	Visual Examination	5-25-16: White light and Magnification
	Alternate Light Source	5-25-16: 460nm-510nm light and orange barrier
	Cyanoacrylate Fuming	6-6-16: Test print positive
	Ninhydrin	6-6-16: Batch #273, Caron processing for 1 hour
	Physical Developer	6-9-16: Batch #429

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	6-29-16: Magnetic powder
	Dye Stain - RAY	6-29-16: Batch #607, Rofin Polilight Flare Plus 2
K3N4RP	Visual Examination	White light.
	Cyanoacrylate Fuming	Amount of glue: 2 gram. The cabinet settings was 80 % humidity and the hot plate was set on 120 degrees. A clear fingerprint was seen in section A (on the plastic part).
	Powder Dusting	Magna jet-powder
	Ninhydrin	Climatcabine settings was 80 degrees and 65 % humidity, processingtime 5 minutes.
K42XMA	Visual Examination	White Light
	Super Glue	Temperature 125° C Humidity 82%
	DFO	
K6ADUF	Visual Exam	Ambient lights & flashlight / oblique lighting
	Ninhydrin (HFE-7100)	Steam iron ~8 - 10 mins
	Black Magnetic Powder	Ambient lights
KA9X62	Alternate Light Source	various crime lite used ridge detail noticed on plastic window section of enevlope
	Cyanoacrylate Fuming	Superglue used to enhance ride detail on plastic window section
	DFO	DFO used, placed item in DFO cabinet 20 mins followed by crime lite examination to visualise ride detail on paper section of envelope
	Ninhydrin	Ninhydrin used, placed item 4 mins in Ninhydrin cabinet, Ridge detail was better at DFO
KMRACU	Visual Examination	
	Powder Dusting	Black magna powder was used on the window and as the print developed on the window, I saw ridges on the paper also, so I continued with black powder on the paper portion of the envelope in quadrant A only.
	Ninhydrin	After the print was lifted, the entire envelope was dipped in ninhydrin.
KRKE4D	Visual	
	SuperGlue	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder	
	DFO	LASER, oven @ 100° C, waited 24 hous
	Ninhydrin	humidity chamber 70° C / 70%, waited 24 hours
	Zinc Chloride	humidity chamber 70° C / 70%, waited 24 hours
	Dye Stains - Ardrox/Rhodamine	UV - Ardrox, LASER - Rhodamine
	Physical Developer	waited until dry
KUUJG3	Visual and Fluorescence Examination	using Polilight PL 500 with filters
	Super Glue fuming on the window surface	masked paper area, tem. of the heater block 120° C, humidity in the chamber 80%, time fuming 5 minutes
	DFO	room conditions, applying the solution with a brush on paper area
	Ninhydrin	room conditions, applying the solution with a brush on paper area
	Basic Yellow 40 on the window surface	applying the solution with a brush
KV7YB3	Visual Examination	
	Alternate Light Source	Mini Crime Scope - all available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 25 min @ 80% humidity; set time - next business day
	Powder Dusting	Magna Black
	1,2-Indanedione	Set time - Next business day
	Ninhydrin	Set time - Next business day
	Dye Stain	Set time - Until dry
KX9Y8U	Visual Examination	
	Cyanoacrylate Fuming	10 minutes
	Powder Dusting	Magnetic Powder on plastic windows only
	1,2-Indanedione	Heat Press, 160 deg C, 10 seconds; Laser Exam - 532nm with orange barrier filter
	Ninhydrin	Steam Iron
	Physical Developer	10 minutes in Maleic Acid; 10 minutes in PD solution

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
KZXCPC	Visual Examination	side lighting
	1,2-Indanedione	heat press at 160 celsius for 12 seconds
	Ninhydrin	steam iron - high heat with maximum steam
KZZ2U9	Visual Examination	digital photos
	Powder Dusting	Ultra blue magnetic powder - on plastic window of envelope. Ridge detail developed in quad. A, half on plastic, half on paper (w/ mag powder)
	Digital photos	macro, tiff, jpeg, - using white paper inside envelope to cover interior pattern of envelope
	Lift card	
	DFO	oven - 212 F for 10 mins, ALS 495nm w/ orange filter
	Ninhydrin	steam iron
L7M3V8	Cyanoacrylate Fuming	30 minutes in SG chamber
	Powder Dusting	Magnetic powder
	Ninhydrin	On papre part of envelope
L9P6JN	Visual Examination	
	Alternate Light Source	Visualized with Mini Crime Scope with all wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 min run time @80% humidity; let set overnight
	1,2-Indanedione	Spray surface; let dry; visualized with Mini Crime Scope @ 515 wavelength
	Ninhydrin	Spray surface; humidity aided development; let rest overnight
	Powder Dusting	Bi-Chromatic
	Dye Stain	Rhodamine 6G - Spray surface; let dry; visualized with Mini Crime Scope @ 515 wavelength
L9RVP7	Visual Examination	
	Alternate Light Source	365nm (UV) & 495nm
	Cyanoacrylate Fuming	80% rH / (Approx. fume time - 15 minutes)
	Powder Dusting	Black Magentic Powder
	1,2 Indanedione/ZnCl2	Temp. 70 C/65% rH (Appx. 25 min.) 495-515nm

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
LAJQCE	Visual Examination	VIS, UV, 415nm, 450nm, 505nm, 530nm - discloses fingerprint - on window- section A
	DFO	discloses fingerprint - on envelope (only on paper) - section A
	Ninhydrin	no improvement the quality of the fingerprint
	Cyanoacrylate Fuming	discloses fingerprint (better quality) - on window - section A
	Basic Yellow 40	quality improvement was achieved fingerprint
LBU6QV	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75% humidity, auto timed
	Ninhydrin	80 C, 65% humidity, 3 minutes
	Dye Stain	RAM
LDJYGP	Visual exam with oblique lighting	5 minutes oblique lighting
	1,2-Indanedione	dipped in 1,2 Indanedione-Zinc (IND-Zn) & dried - processed for approx. 15 minutes in Environmental Chamber with 65% humidity & 80 degrees Celsius. Photographed L3a in section A (part of latent print may have been placed down on windowed portion of envelope, which was originally believed to be paper but did not react with IND-Zn)
	Cyanoacrylate Fuming	approx. 33 minutes Cyanoacrylate fuming (CA) in chamber - 5 min. to bring chamber up to 80% humidity, 13 min. CA fuming, 15 min. CA purging. Looked for ridge detail in the window of section A oblique lighting and RUVIS. Possible faint detail present, but unable to capture
	Ninhydrin	dipped in Ninhydrin & dried - processed for approx. 15 minutes in Environmental Chamber with 65% humidity & 80 degrees Celsius. No reaction observed. Re-checked on 06-29-2016 for further chemical reaction or development. None observed.
	Dye Stain	Rhodamine 6G (R6G) fluorescent dye stain poured over windowed portion of envelope section A & dried; L3b in section A visible under laser light & orange filter - photographed L3b include windowed portion of section A
	Dye Stain	Rhodamine 6G (R6G) fluorescent dye stain poured over windowed portion of envelope sectioin C & dried; viewed under laser light windowed portion of section C - no reaction
LGZYKQ	Visual Examination	Oblique lighting - white light
	Cyanoacrylate Fuming	Air Science Printmaster PRO, 80% humidity, 66 deg F, 15 mins

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	Black volcanic powder
	Ninhydrin	HFE 7100 (heat and steam applied while protecting plastic)
	Alternate Light Source	Crimescope - all wavelengths and filters
LHTFPD	Lumicyano Powder/solution 4%	hygrometry > 75% 15 minuts
	1-2 indanedione/zinc chloride	room temperature - 48 hours development
	Ninhydrin	room temperature - 48 hours development
LPDHVU	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	12 minutes running time in chamber, followed by 60 minutes in chamber not running.
	Dye Stain	RAY on window section, batch #607, Foster and Freeman CrimeLite ML with a 460-510nm filter and orange barrier.
	Ninhydrin	Paper section batch #273, one hour total in caron chamber.
	Physical Developer	Paper section, Batch #430, completed by [Name]
	Powder Dusting	Black powder
LQMNB4	Powder Dusting	Applied magnetic powder using a magnetic wand, developed latent print on plastic window in quadrant A
	Visual Examination	Ridge structure observed in quadrant A
M4TZ3N	Visual Examination	flashlight - ridge detail observed in quadrant A (on window of envelope)
	RUVIS	ridge detail observed in quadrant A (on window of envelope)
	Cyanoacrylate Fuming	ridge detail observed in quadrant A (on window of envelope)
	RUVIS	ridge detail observed in quadrant A (on window of envelope)
	DFO	no ridge detail developed on the white paper envelope - ridge detail observed in quadrant A (on window of envelope) - photographed
	TRacer Laser Forensic Light Source	ridge detail observed in quadrant A - photographed
	Ninhydrin	no ridge detail developed on the white paper envelope
M96H9R	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	Only at paper area using a brush, room temperature, dark place, processing time: 72h, processing time: 72h.
	Alternate Light Source	Polilight PL 500 (505 – 530 nm light), orange barrier filter, optical instruments.
	Ninhydrin	Only at paper area using a brush, room temperature, dark place, processing time: 72h..
	Visual Examination	White light, optical instruments.
	Cyanoacrylate Fuming	Processing time: 10 min, humidity - 85%.
	Visual Examination	White light, optical instruments.
	Dye Stain	Ardrox.
	Alternate Light Source	UV (Polilight PL 500).
MFKM9J	Visual Examination	
	Cyanoacrylate Fuming	Processed in a humidity chamber
	Powder Dusting	On the acetate window and envelope; used traditional black powder
	Ninhydrin	On the paper envelope only; Added heat and humidity immediately after spraying with NIN by using a steam iron, let item sit in a dark location for at least 24 hours prior to examination
	Dye Stain	Applied Rhodamine 6G to the acetate window and it bled onto the surrounding paper and provided additional contrast to the part of the print on the paper
	Oil Red O	Entire item was immersed in the working stain solution for 90 minutes, then immersed in a buffer solution for 5 min, then rinsed with distilled water
	Physical Developer	Just the envelope was immersed in Maleic acid for 10 min, then immersed in the working solution for 10 min while being agitated, lastly it was rinsed with 50% bleach water
MTR9ZP	Visual Examination	6/29/16
	Cyanoacrylate Fuming	6/29/16
	Powder Dusting	6/29/16 magnetic powder
	Ninhydrin	6/29/16
	Steam	6/29/16
	Time	6/29/16 (7 days)
	Visual Examination	7/6/16

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Time	7/6/16 (5 days)
	Visual Examination	7/11/16
MWBYUL	Visual Examination	White light
	Alternate Light Source	Blue light 420-470 nm, green light 490-560 nm
	Cyanoacrylate Fuming	The window (CNA): 80% RH, 5 minutes processing time, glue temperature 120 degrees Celsius
	Dye Stain	The window (dye stain): Basic Yellow 40
	Ninhydrin	The envelope (ninhydrin): 80 degrees Celsius, 65% RH, 5 min processing time followed by another 5 minutes
MZTP8P	Visual Examination	
	Cyanoacrylate Fuming	
	Ninhydrin	
	Physical Developer	
	Bleach (PD Enhancement Solution)	Bleach sol'n is 50% Bleach and 50% distilled H2O
	Dye Stain	Rhodmine 6G
	Alternate Light Source	532 nm
	Powder Dusting	
N3RHKK	Powder Dusting	magnetic powder on window part
	Ninhydrin	5 days
N4M2LL	Visual Examination	no prints observed
	Ninhydrin	Paper envelope: Batch 273 - Caron Chamber temp 60 degress C, humidity 60%.
	Physical Developer	Paper envelope: Batch 430, rinsed in Maleic Acid 10 min., soaked in PD 10 min., rinsed with water 10 min., then dried.
	Cyanoacrylate Fuming	Plastic window: Cyanosafe processed 20 minutes
	Powder Dusting	Plastic window: Black powder and brush
	Dye Stain - RAY	Batch 608, rinsed on surface, excess rinsed off with water, dried. CL2 Foster Freeman CrimeLite ML2 with 420-470 bandwidth and orange filter.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
N7D6D8	Visual Examination	
	Alternate Light Source	viewed with UV & CS @ 515nm
	Cyanoacrylate Fuming	SafeAir Chamber: 80% humidity, heated glue to approx 104C
	DFO	accelerated using dry iron
	Ninhydrin	Placed in plastic bag over the weekend to accelerate development
	Dye Stain	RAM on windows only (viewed using UV & CS @ 475-535nm
	Powder Dusting	Magnetic Black powder on windows
NABNGQ	Visual Examination	White light and 450nm/orange barrier
	Cyanoacrylate Fuming	Atmospheric Chamber: 75% humidity/15min fume
	Ninhydrin	Applied twice with pipet to paper portion only
	Curing	Stored in dark locker for minimum of 72 hours
	Visual Examination	Before and after steam, white light and 450nm
	Steam	Steam iron / pulled window back from heat
	Powder Dusting	Magnetic: Applied to window only
	Dye Stain	MRM-10: Applied to window only
NDBC3M	Cyanoacrylate Fuming	5 min, RH50%
	BY40 and lightsource	445nm
	Ninhydrin	5 min, 80C, RH62%
NGVPW4	Visual Examination	Fluorescent lighting
	Alternate Light Source	365nm and 495nm
	Cyanoacrylate Fuming	80% relative humidity for 15 minutes
	Powder Dusting	Black, non-magnetic, fluorescent lighting
	1,2 Indanedione Zinc Chloride	70 degrees Celsius and 65% relative humidity for 30 minutes, 495nm
NJ28VY	Ninhydrin	A control sample was prepared with positive results. Ninhydrin was sprayed on the mailer and was allowed to dry for about two hours. The item was then placed into the heat chamber for 20 minutes at 175 degrees. Very faint ridge detail could be seen in quadrant "A" of the item.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Powder Dusting	A light powder dusting was used to further enhance the development of the print. The powder dusting developed the latent to the point that the latent could be used for comparison purposes.
NQ3LHL	Visual	Examined with white (flashlight) oblique lighting - Ridge Details observed
	Iodine	Used disposable "fumettes" iodine fuming gun, at room temp, approx 15 sec - no add. dev.
	Powder	Dusted in vent-hood, using black magnetic powder (on paper & window) - additional development
NTAJAH	Cyanoacrylate Fuming	Temperature:120 celsius, Humidity: 79%, Time:15 minutes
	Powder Dusting	Magnetic jet black fingerprint powder
	Ninhydrin	Temperature:72 celsius, Humidity: 65%, Cabinet:Forensic climate cabinet FKC-MK4
NXW43J	Cyanoacrylate Fuming	Temp 140 C, 80% rH, 10 min
	Ninhydrin	Temp 80 C, 65 % rH, 6min
	Powder Dusting	
PATYQJ	Krimesite Imager (RUVIS)	
	Cyanoacrylate Fuming	
	Krimesite Imager (RUVIS)	
	Ninhydrin	Applied with brush to preserve non-porous surfaces
	Powder Dusting	Black powder
PHJKWH	Visual Examination	
	Reflective Ultra Violet Light Imaging System	254nm light source with RUVIS technology
	Ninhydrin	Petroleum Ether base, withheld heat until after CA fume
	Cyanoacrylate Fuming	
	RUVIS	2nd RUVIS examination
	Powder Dusting	Magnetic powder on windows / paper after heat, humidity applied
	Dye Stain	Rhodamine 6G w/ 515nm wavelength light

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
PJE3XJ	Visual Examination	White Light, Coherent Laser, and ALS to look for any inherent luminescence
	Cyanoacrylate Fuming	Superglue chamber for 11 minutes at 80% humidity
	1,2-Indanedione	HFE based, Applied only to the paper areas of the envelope, Left at room temperature approximately 3 hours, Viewed under Coherent Laser
	Ninhydrin	HFE based, Applied only to the paper areas of the envelope, Left at room temperature overnight
	Dye Stain	Rhodamine 6G, Methanol based, Applied only to windowed areas of the envelope, Viewed under Coherent Laser
PJVEE3	Ninhydrin	Side B & D; Saturated surface; let dry for 20 minutes; moist heat (iron w/steam); neg. prints.
	Cyanoacrylate Fuming	Side A & C; CA chamber @ 60% humidity for 13 minutes processing time/10 minutes purge time.
	Magnetic black powder	Side A & C; Mag powder over window portion of envelope; pos. for partial print, upper portion of finger.
	1,2-Indanedione	Side A & C; neg. results
	Ninhydrin	Sides A & C; neg. results
	Magnetic black powder	Side A & C on paper; Positive results.
PLKZGL	Visual Examination	White light. No visible print seen.
	Cyanoacrylate Fuming	The cabinet settings was 80 % humidity and the hot plate was set on 120 degrees. Processingtime 8-10 minutes. A visible print was seen in section A.
	Powder Dusting	Magna jet-powder.
	DFO	Processing time 20 minutes, climatcabinet set on 100 degrees. Examination with lightsource 515 nm, orange filter.
	Ninhydrin	Climatcabinet set on 80 degrees and 65 % humidity. Processingtime 5 minutes.
	Physical Developer (PD)	
PRBV9X	Visual Examination	No ridge detail noted
	Cyanoacrylate Fuming	+ test print, 15 minute fume at 80% humidity, ridge detail visible on window in A
	1,2-Indanedione	+ test print, dip, air dry, dry iron approx. 30 seconds. Tracer Laser/orange goggles. Additional ridge detail in A
	R6G/Laser	+ test, ridge detail visible in window in A

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
PYRCYM	Visual Examination	
	Cyanoacrylate Fuming	
	Ninhydrin	
	Dye Stain	Rhodamine 6G after removing the plastic window
	Powder Dusting	plastic window only
	Physical Developer	Envelope only
Q9TEGP	Cyanoacrylate Fuming	(8 min, CA02, Control Positive)
	Dye Stain	R6G Laser (532nm) with Orange Filter
	1,2-Indanedione	laser (532nm) and Orange Filter
	Ninhydrin	26.6 celsius, 80% humidity
QAM4KH	1,2-Indanedione	Room Temp; Processing Time - Until Dry; Viewed under 515 wavelength (porous only)
	Ninhydrin	Room Temp; Process time - 2 days; Humidity Aided Development
	Cyanoacrylate Fuming	Safe Fume Chamber (window)
	Dye Stain	R6G; Processing Time - Until Dry; Viewed under 515 wavlength
QDNK6M	Visual Examination	Polilight PL500
	Alternate Light Source	Polilight PL500
	Cyanoacrylate Fuming	humidity 80%, 30 minutes
	DFO	72 hours, without heating (application only on paper)
	Ninhydrin	30 Celsius, humidity 60%, 24 hours (application only on paper)
	Dye Stain	Ardrox (application only on plastic windows)
	Dye Stain	Safranin O (application only on plastic windows)
QGKWVX	Magnetic latent powder	
	Ninhydrin	Dipped into Ninhydrin and then used a steam iron to heat the item.
QHFFWY	Visual Examination	Visual examination with KrimeScope Imager yielded negative results.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Magnetic powder	Processed clear plastic window on envelope with magnetic powder which resulted in latent print developement on the plastic next to the paper edge. Continued processing with magnetic powder on the paper next to plastic which developed additional latent print ridge detail on the paper.
QRKA67	Visual Examination	
	Alternate Light Source	Crime Scope with all available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 15 mins @ 80% humidity; set time - next business day
	Powder Dusting	Magna Powder (window of mailer only)
	1,2-Indanedione	Visualized with Crime Scope @515 wavelength (envelope only)
	Ninhydrin	Envelope only; set time - next business day; humidity aided development
	Dye Stain	Rhodamine 6G - window only; visualized with Crime Scope @ 515 wavelength
QU87FH	Visual / Laser	Green laser 532 nm orange filter
	Fingerprint powder / black	Black powder with brush on plastic windows of envelope and on paper next to print developed on plastic
	DFO	DFO / DFO oven 212°F 20 min. Laser 532 nm w/ orange filter
	Ninhydrin	Ninhydrin / Ninhydrin chamber 5 minutes at 175° F
QUV39K	Super Glue	Super Glue chamber- 3 minutes
	Bi-Chromatic Powder	Dusted acetate windows on envelope
	Ninhydrin	Sprayed - develop for 24-48 hours
QY2ZDJ	Visual Examination	Ambient light
	Alternate Light Source	Mini Crime Scope - All available wavelengths
	1,2-Indanedione	Air dry (paper), visualized with MCS @515 wavelength
	Ninhydrin	Air dry (paper), visualized - next business day
	Cyanoacrylate Fuming	Cyanovac (plastic) - 1 hour processing; set time - next business day
	Powder Dusting	Regular Black (plastic)
	Dye Stain	Rhodamine 6G (plastic) - Visalized with MCS @515 wavelength

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
R2AFKP	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Placed in tank for 5 minutes
	Ninhydrin	Batch #272, Put in Caron for about 1 hour at about 60 degrees C and 60% humidity
	Physical Developer	Batch #429, process by [Name]
	Dye Stain - RAY	Batch #605, examined with Foster & Freeman Crime Lite ML with a 460nm-510nm band width filter and orange barrier
	Powder Dusting	Black powder
R6P3XU	Visual Examination	No friction ridges visible.
	Powder Dusting	Black magnetic powder applied to surface of windowed envelope.
	Visual Examination	Dusting revealed one latent print in section A, partially on the paper and partially on the window.
	Backer Card	White card placed behind latent print on envelope window to improve visibilty of same.
R7JT2N	Visual Examination	Envelope, examined under white light and magnification
	Ninhydrin	Envelope,, batch #273, soak approximately 5 seconds, dried thoroughly, Caron chamber (temp 60 degrees C/60% humidity) for one hour
	Physical Developer	Envelope, Batch #430, processed by [Name]
	Visual Examination	Windows, Examined under white light and magnification
	Cyanoacrylate Fuming	Windows, cyanosafe reciculation chamber, test print positive, 12 minutes processing in chamber, evidence sits one hour.
	Powder Dusting	Windows, Black powder
	Dye Stain	RAY, batch #607, apply stain, rinse thoroughly, pat dry, allow to fully dry
R8BVN4	Visual Examination	3 Minutes
	light source (white light - LED)	5 Minutes
	Cyanoacrylate Fuming	50 Minutes (liquid superglue)
	light source (white light -LED)	5 Minutes
	Ardrox (cyanoacrylate dye)	30 Minutes
	UV light	10 Minutes
	Powder Dusting	5 Minutes (black powder)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	DFO	30 Minutes temperature 100 degree Celsius without humidity
	laser of alternate light source	10 Minutes
	Ninhydrin	30 Minutes temperature 80 degree Celsius with humidity
RAH8PD	CA (Mailer windows)	Air Science 48 S Chamber (80% humidity for 8 minutes)
	White Magnetic Powder (Mailer Windows)	
	Iodine Fuming / DFO (Paper)	I.F. Applicators / premix, spray, dry iron, ALS, (Ultralite/BMT filter)
	Ninhydrin (Paper)	Dipping, humidity applied by steam iron
RJPGKJ	Visual Examination	White light and magnification
	Cyanoacrylate Fuming	Cyanosafe chamber 20 min fuming, 1 hour drying
	Powder Dusting	Black powder
	Dye Stain - RAY	On cellophane window only, Batch 606 observed using Foster Freemen Crime Lite ML2 with orange filter
	Ninhydrin	Paper envelope only, Batch 273, Caron chamber at 60 degrees C and 60% relative humidity for 30 minutes.
	Physical Developer	Batch 430, Maleic acid for 10 min, PD for 10 min, water rinse for 10 min
RNKFTM	Visual Examination	Ambient, LED flashlight, oblique
	1,2-Indanedione	(paper only) With Zinc Chloride, heat press: ~160 degrees C for ~ 10 seconds
	Class IV Laser Exam	(paper only) 9 watts, 532nm, orange barrier filter
	Ninhydrin	(paper only) Steam iron
	Visual Examination	(paper only) Ambient
	Cyanoacrylate Fuming	(plastic windows only) Chamber with humidity added
	Visual Examination	(plastic windows only) Ambient, LED flashlight, oblique
	Dye Stain	(plastic windows only) Rhodamine 6G, MeOH
	Class IV Laser Exam	(plastic windows only) 9 watts, 532nm, orange barrier filter
	Physical Developer	(paper only) Maleic Acid prewash, water post rinse
	Visual Examination	(paper only) Ambient

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
RPCJF3	Cyanoacrylate Fuming	Lumicyano
	DFO	
RRY9L2	Visual Examination	light and magnification
	Alternate Light Source	455-515 nm orange filter
	Powder Dusting	black magnetic powder
	DFO	In solution 10 seconds, air dry, in solution to saturate, air dry dry heat iron approx 212 F
	Alternate Light Source	570 nm red filter and magnification
	Ninhydrin	In solution to saturate, air dry, steam iron for heat approx 212 F and humidity
RYHCVN	Visual Examination	Item visually inspected with flashlight for ridge detail.
	Cyanoacrylate Fuming	Item processed with Cyanoacrylate (Super glue chamber) for 10 minutes, at 80% humidity, with one teaspoon of super glue in dish. Bright light was used to examine item for ridge detail.
	1,2-Indanedione	The item was sprayed with IND (1,2-Indanedione), hung to dry for 3-5 minutes, put in a heating chamber at 50 degrees Celsius for approximately 40 minutes, then examined under the laser for ridge detail.
	Powder Dusting	The item was dusted with black powder and visually examined using light.
T8RZ9M	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	
	1,2-Indanedione	Approximately 200 degress for approximately 1 hour
T9NGJY	Powder Dusting	magnetic powder wand
TBU29K	Visual Examination	same as items 1-2
	Cyanoacrylate Fuming	same as item 2
	Dye Stain	same as item 2
	DFO	same as item 1
	Ninhydrin	same as item 1
	Physical Developer	same as item 1

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
TCNPM9	Visual Examination	
	Super Glue (windows only)	Time 3 min. Hotplate temp. apox. 370°. Water temp between 140° and 160°
	Powder	Blk magnetic powder
	Ninhydrin	Allowed to react naturally for 24 hrs. Placed in humidifier for 30 min.
TETGFL	Visual Examination	5-28-16: White light magnification
	Alternate Light Source	5-28-16: Visual, CrimeLite with orange filter
	Ninhydrin	5-28-16: Envelope, visual, Batch 272, Caron Chamber, no prints
	Cyanoacrylate Fuming	5-29-16: Cellophane, visual, Test print positive, white lighting and photos
	Powder Dusting	5-29-16: Cellophane, black powder, visual, photography
	Dye Stain	5-29-16: Cellophane, RAY batch 605, photography
	Physical Developer	6-9-16: Envelope, Visual, no prints.
TFNZGN	Visual Examination	Under white light and magnification
	Cyanoacrylate Fuming	12 min processing, sit for 1 hour, examined under white light and magnification, cellophane windows were removed and resuperglued
	Ninhydrin	porous parts layed open used ninhydrin for 15 mins in humidity chamber, Batch #273, examined under white light and magnification
	Powder Dusting	Black powder on cellophane windows, examined under white light and magnification
	Physical developer	Porous parts used Physical developer Batch #430
	Dye Stain - RAY	Cellophane windows used RAY, Batch #605, examined with 450nm and orange filter
TKEAT8	Visual Examination	with differents type of light
	Cyanoacrylate Fuming	observation with white light and UV light
	1,2-Indanedione	observation with cyan light 500nm and orange filter
	Ninhydrin	observation with white light (no results after ninhydrin process)
TKFAPZ	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	Humidity until 80%, glue time 10 minutes
	Dye Stain	Basic Yellow 40
	Ninhydrin	
TLBQ4J	Visual Examination	Oblique and direct lighting
	FSIS	Shortwave UV light and specialized filter
	Ninhydrin	Aqueous, applied with steam iron for approximately 5 minutes
	Powder Dusting	Fluorescent Mag Powder "Dazzle Orange" (no ALS was used)
TPQF9D	Visual Examination	5-25-16: Ridge detail found and photographed
	Cyanoacrylate Fuming	6-6-16: Ridge detail on viewing dindow - top, photographed
	Ninhydrin	6-6-16: Applied with brush to paper only, no prints
	Dye Stain	6-7-16: RAY, viewing window only; ridge detail possibly improved and photographed, no enhancement.
	Powder Dusting	6-7-16: Black powder, viewing window only; no enhancement, no prints
	Physical Developer	6-9-16: Paper only, no prints.
U63QGF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	DFO	
	Ninhydrin	
	Basic Yellow 40	
U7V8L3	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	DFO	
	Ninhydrin	
	Dye Stain	
	Physical Developer	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
UCJUG9	Visual Examination	
	Cyanoacrylate Fuming	Fumed for 10 minutes
	Powder Dusting	Black Magnetic Powder on Quadrants A and C only
	1,2-Indanedione	Applied dry heat for approximately 10 seconds
	Alternate Light Source	Used Coherent TracER Laser, 532nm
UDTW6R	Visual Examination	No visible latent print.
	Alternate Light Source	UV lighting with Krime Site with negative results.
	Powder Dusting	Magnetic; visible latent print.
UENE8T	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Iodine	
	Ninhydrin	
	Powder Dusting	Magnetic powder
	Powder Dusting	Black carbon powder
UGUZWE	Visual Examination	ambient and green light used; positive results seen with ambient lighting
	Cyanoacrylate Fuming	processed at 80% humidity for 9 min. 30 sec.
	DFO	processed at 100 degrees for 20 min.
	Ninhydrin	processed at 80 degrees for 2 min.
	Physical Developer	processed for 15 min. in PD solution
UGXXCQ	Visual Examination	White Crime Lite
	Cyanoacrylate Fuming	Cabinet temp 120c Humidity 75-90% Glue cycle 15min (Auto cycle)
	Gel lift	Using black gel to lift the SG developed ridge detail
	Powder Dusting	Fluorescent Green/examine with Crime lite ML (476nm)
	Ninhydrin	Temp 80c Humitity 62% Time 4mins

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	DFO	Temp 100c Time 20mins
	Physical Developer	Not used, but may be used to develop further areas of ridgr detail
UKVKRL	Visual Examination	different light sources and filters
	DFO	spray, temperature 90-95 C for 10 minutes (chamber SAFEFUME CA 30S), wavelenght 505-530 nm, orange filter
	Ninhydrin	spray, temperature 80 C, humidity 60% for 15 minutes (chamber SAFEFUME CA 30 S), natural and white light
	Cyanoacrylate Fuming	temperature 25 C, humidity 80% for 15 minutes (chamber SAFEFUME CA 30S), natural and white light
	Powder Dusting	Black Rubby Powder, magnetic applicator, wavelenght: natural. UV, 505-530 nm with suitable filters
UWRWFD	Krime Site Imager	Plastic Window: KSI using UV light with photography
	Cyanoacrylate Fuming	Plastic Window: Approximately 10-12 drops superglue in aluminum dish on a warming plate. Placed in sealed chamber for 5-10 minutes.
	Powder Dusting	Plastic Window: Applied black powder. Partial print on window, dust picked up additional detail on paper
	Dye Stain	Plastic Window: Applied fluorescent dye (RAM - Rhodamine 6G/Ardrox P-133D/MDB)
	Alternate Light Source	Platic Window: Viewed fluorescent dye at wavelength 455 using yellow filter
	Ninhydrin	Paper Areas: Petroleum Ether base. Heat/steam applied.
UZQ9BD	Powder Dusting	magnetic powder
V79VPF	Visual Examination	White light and magnification
	Ninhydrin	Caron Chamber 60 degrees C/60% humidity for 30 minutes
	Powder Dusting	Magnetic Powder
	Physical Developer	10 minutes Maleic Acid, 10 minutes Physical Developer solution, tap water rinse
	Dye Stain	RAY, solution applied, rinsed with tap water
VFCB88	Powder Dusting	
VQURYE	Visual Examination	Ambient light
	Alternate Light Source	Mini Crime Scope - all available wavelengths

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	1,2-Indanedione	Air dry; visualized with Mini Crime Scope @ 515 wavelength
	Ninhydrin	Air dry; Set time - next business day; humidity aided development
	Cyanoacrylate Fuming	Save Fume Chamber - 25 min @ 80% humidity; Set time - next business day
	Powder Dusting	Bi-Chromatic powder w/Camel hair brush
	Dye Stain	Rhodamine 6G - visualized with MCS @515 wavelength
W2C4ZC	Visual Examination	Examined under ambient light
	Cyanoacrylate Fuming	80% relative humidity, 15 minute glue time
	Visual Examination	Examined under ambient light
	Ninhydrin	80 degrees celcius, 65% relative humidity, 5 minutes process time in oven
	Visual Examination	Examined under ambient light
W42ZJG	Visual Examination	No FRD found
	(Magnetic Powder) Mag Pdr on glassine windows and slight surrounding area	FRD of value found in Quad "A" on glassine window only.
	Indanedione	No additional detail developed
	ORO	No additional detail developed
WALRDB	Visual Examination	
	Cyanoacrylate Fuming	Amount of glue: 2 g, glue processing time: 10 minutes
	Powder Dusting	Magnetic powder, black
	DFO	Processing time: 30 minutes, temperature: 100°C
	Ninhydrin	Processing time: 6 minutes, temperature: 80°C, humidity: 62%
WFTLMR	Alternate Light Source	Wavelenght: 400-4007nm. Mark in non-porous part of section A has been found
	Cyanoacrylate Fuming	Controle conditions: 80% RH, CA temperature was 120°C. Mark in non-porous part of sector A has been detected. There was visible many individual characteristic but no core. We were unable to make pattern determination.
	Ninhydrin	Ninhydrin developmet was accelerated under control conditions at 80°C, 65 % RH for 3 min. Purpure smudge was detected but no friction ridges.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
WHDBRJ	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75% humidity, auto timed
	Ninhydrin	80 C, 65% humidity, 3 minutes
	Dye Stain	RAM
WPGHNR	Visual Examination	white light
	Alternate Light Source	RUVIS
	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	1,2-Indanedione	
	Alternate Light Source	505nm with orange goggles
X7KCT8	Visual Examination	Using visible light and magnification
	Alternate Light Source	Using wavelengths 450-532 nm
	Cyanoacrylate Fuming	Fumed for 10 minutes using a heating plate and humidity in the chamber
	Visual Examination	Using visible light and magnification
	DFO	Sprayed, processed in an oven set at 100 degrees Celsius for 20 minutes
	Alternate Light Source	Visualized DFO using wavelengths 450-532 nm
	Ninhydrin	Used an HFE solvent solution, sprayed, processed in an oven set at 60 degrees Celsius with 40% humidity for 20 minutes
	Visual Examination	Using visible light and magnification
	Powder Dusting	Black magnetic powder
	Visual Examination	Using visible light and magnification
	Dye Stain	Rhodamine 6G, sprayed
	Alternate Light Source	Visualized dye stain using 532 nm wavelength
X7M2ZP	Visual Examination	Visually examined -no ridge detail visible
	Powder Dusting	Dusted with magnetic black powder

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Visual Examination	Friciton ridge skin impression visible
X7M9ZW	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Magnetic powder	
	DFO	
	Ninhydrin	
	Dye Stain	
	Physical developer	
XCKZ2X	Visual Examination	Ambient lighting
	Alternate Light Source	Mini Crime Scope - all available wavelengths
	Cyanoacrylate Fuming	Safe Fume Chamber - 15min @80% humidity; set time - next business day
	Powder Dusting	Magna Powder (plastic only)
	1,2-Indanedione	Spray application; set time - until dry; visualized with Mini Crime Scope @515 wavelength
	Ninhydrin	Spray application; set time - next business day
	Dye Stain	Rhodamine 6G - set time - until dry; visualized with Mini Crime Scope @515 wavelength
XGK3CT	Visual Examination	No print visible - photographed
	Powder Dusting	Print developed in box A on plastic and paper
	Ninhydrin Pet Ether	Steam iron no further print developement
XHETH9	Visual Examination	Room light, Laser, Alternate Light Source
	Ninhydrin	Carrier - HFE, brushed on around windows, let develop overnight prior to CA-fuming
	Cyanoacrylate Fuming	Fishtank used with hot water and heat source, approximately 10 minutes
	Powder Dusting	Black magnetic powder on windows, and enhanced friction ridge detail on the paper portion)
XV6K8H	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Cyanoacrylate Fuming	non-porous areas only, porous areas covered
	Powder Dusting	Black magna
	Ninhydrin	porous areas only
	Dye Stain	MRM-10/non-porous areas only
XVZ8L8	Visual Examination	
	Cyanoacrylate Fuming	1 gram CA, 80% humidity, hot plate, 10 minutes fume time
	Dye Stain	Rhodamine 6G, Spray on, let dry, view with laser
	1,2-Indanedione	heat press 200 degrees, 15 minutes view with laser
	Ninhydrin	humidity chamber 70%, 20 minutes
XWC7EV	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Ninhydrin	
	Dye Stain	RAM
XWVQM9	Visual Examination	Desk lamp
	Cyanoacrylate Fuming	Misonix CA-3000 Fuming Chamber - 9 min.
	Visual Examination	Desk lamp
	Ninhydrin	Nin HFE and Blue M Temperature Humidity Chamber at 109 degrees F / 70% humidity
	Visual Examination	Desk lamp
	Physical Developer	10 min. Pre-Wash/10 min. PD
	Visual Examination	Desk lamp
Y3JPGU	Powder Dusting	began processing the windows, when a print developed, processed surrounding area
Y9MWWX	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	DFO	
	Ninhydrin	
	Dye Stain	
	Physical Developer	
YBTUCE	Visual Examination	White light. Positive reaction on window in section A. ->Photo
	Alternate Light Source	Blue light, Violet light, UV-light. Weak reaction in section A.
	Cyanoacrylate Fuming	6 min processing time. Followed by (magnetic) powder dusting. Positive reaction in section A -> Photo
	Powder Dusting	Positive reaction in section A.
	DFO	25 min processing time. HFE71DE/HFE7100 based working solution. Negative for fingerprints.
	Ninhydrin	5 min processing time. HFE7100 based working solution. Negative for fingerprints.
YCM8PC	Visual Examination	overall, ambient light, flashlight
	Alternate Light Source	350-650nm, white light, yellow, orange red filters
	Lumicyano	35 min.
	Alternate Light Source	350-530nm, yellow and orange filters
	Ninhydrin	20 min. 80 degrees Celsius, 65% humidity
	Physical Developer	15 min.
	Powder Dusting	Black, on the two windows of the envelope
YH9XC8	Visual Examination	Item examined under lamp.
	Cyanoacrylate Fuming	Using a fish tank CA fumed item for 5 minutes.
	Visual Examination	Visually examined item for friction ridge detail and removal of plastic from envelope.
	Ninhydrin	Processed with ninhydrin HFE lot #032216 by spraying item and leaving it to dry in hood followed by steam iron.
	Visual Examination	Item was visually examined after steam iron.
	Physical Developer lot# NC16-98-1	Item was in maleic acid bath followed by physical developer for a couple seconds and then a water bath.
	Visual Examination	Item visually examined after processing and once it was dry.
	Powder Dusting	Plastic windows were processed with regular black powder.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Visual Examination	Plastic windows were visually examined after powdering.
YM4RA9	Photos, Visual, RUVIS, Photos, ALS	254 nm UV and B/G orange filter
	Black Mag Powder, Visual, Labeled, Photos	
	Lifted, Photos	tape on white backer
YNXFUP	Visual Exam	Examined for ridge detail w/ ambient light
	CA fuming, black magnetic powder	Used same procedures as used for item 2
	Ninhydrin	Same procedures as item 1
	Physical Developer	Same procedures as item 1
YVZMCD	Visual Examination	5/26: to search for visual fingerprints, prior to any chemical processing
	Cyanoacrylate Fuming	5/26
	Powder Dusting	5/26: magnetic powder
	Ninhydrin	5/26: wait 4 days
	Visual Examination	5/31
	Visual Examination	6/16: no additional detail observed
Z2WDZF	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75% humidity, auto timed
	Ninhydrin	80 C, 65% humidity, 3 minutes
	Dye Stain	Ardrox
Z9G2PW	Visual Examination	
	Alternate Light Source	LASER (532nm), 450nm, UV, RUVIS
	Cyanoacrylate Fuming	
	DFO	
	Ninhydrin	
	Dye Stain	RAM

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Physical Developer	
ZACWKE	Visual Examination	350-650 nm (using appropriate filter)
	Cyanoacrylate Fuming	20 minutes, 80% humidity (only window)
	Visual Examination	white light and 505-530 nm (using appropriate filter)
	DFO	72 hours (only paper), 22 degrees Celsius, 60% humidity
	Visual Examination	505-530 nm (using appropriate filter)
	Ninhydrin	72 hours (only paper), 22 degrees Celsius, 60% humidity
	Visual Examination	white light and 350-650 nm (using appropriate filter)
	Basic Yellow 40	application and water washing
	Visual Examination	350-450 nm (using appropriate filter) (only window)
ZB8FLG	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120 C, 75% humidity, auto timed
	Ninhydrin	80 C, 65% humidity, 3 minutes
	Dye Stain	Ardrox
ZCZWTN	Visual Examination	Utilizing natural, fluorescent, and an LED flashlight
	Alternate Light Source	Utilizing an ALS at 510nm wavelength
	Cyanoacrylate Fuming	Placed in a cyanoacrylate chamber with superglue heated on hotplate for approximately 15 minutes at a relative humidity of 60%
	Iodine Fuming	Placed in chamber containing iodine crystals for approximately 20 minutes
	DFO	After application, item placed in an oven at 100°C for approximately 20 minutes
	Ninhydrin	After application, item placed in a humidity chamber at 80°C and 65% relative humidity for approximately 1 hour
	Physical Developer	Plastic windows of envelope separated prior to PD processing. Envelope placed in Maleic Acid wash for approximately 15 minutes, then placed in physical developer for approximately 20 minutes. Envelope then placed in water bath for approximately 10 minutes.
	Dye Stain	For separated plastic windows only - Rhodamine 6G (methanol based) - observed under an ALS at 510nm and an orange filter

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
	Dye Stain	For separated plastic windows only - Ardrox (methanol based) - observed under an ultraviolet light source at 365nm
	Powder Dusting	For separated plastic windows only - black magentic powder utilized
ZELA2D	Visual Examination	light
	Cyanoacrylate Fuming	Humidity 70%, aprox 3minutes
	Magna	Plastic-part. Detail recovered at the plastic-part. pattern would have been at paper-part
	Ninhydrin	Paper-part. humidity 70%. Temp 70 Celsius. aprox 5 minutes. no pattern visuable at papper-part
	test/control sample	positive (CNA och Ninhydrin)
ZMK4RD	CAE	Window cellophane - removed and fumed. Visible latent right side of quadrant A
	Black Powder	Photographed - no improvement
	Iodine	Envelope - No FRD development
	Indandione	Envelope - Heat with 60% humidity 100° for 10 min
ZNB8GE	Ninhydrin	Nin-print, paper only
	Cyanoacrylate Fuming	manual chamber, steam
ZNEQ73	Visual Exam	Relative temperature of the processing room was 73° F. I conducted a visual exam and notated NRDF.
	Black Magnetic Powder (non porous surface)	I used magnetic powder in the plastic window areas via the magnetic wand.
	Visual Exam	I developed a latent print in Quadrant A, photographed it and did another visual exam.
	Ninhydrin (Heptane) (porous surface)	I then processed via Ninhydrin (H) via the painting method, allowed to dry (30 min) and applied heat/humidity via a steam iron. Did another visual exam & allowed to develop further for 6 days (visual exam daily)
ZTLKYD	Visual Examination	Magnifying Light, Overhead Ambient Light.
	Alternate Light Source	Examined article for inherent fluorescence.
	Powder Dusting	Magnetic powder was applied across both porous and non-porous substrates present to develop print that spanned both.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
ZVUR6C	Visual Examination	VARIOUS FORENSIC LIGHT SOURCES INCLUDING LASER (TRACER) & AMBIENT LIGHTING
	Cyanoacrylate Fuming	MISONIX CA-6000 CHAMBER 7 MINUTES FUMING CYCLE
	Dye Stain	WATER BASED SOLUTION
	DFO	100 C, 0% RH, 20 MINUTES
	Ninhydrin	80 C, 65% RH, 2 MINUTES
	PHYSICAL DEVELOPER	Sirchie Pre-Mixed Solutions, 15 minutes
ZYQGKX	Visual Examination (visible reflection + fluorescence)	
	Superglue fuming = Lumicyano Powder	Glue temperature = 117°. Relative humidity = 78%. Processing time = 40 mn.
	Indanedione + Zinc chloride (pipetting) = gently directed only on the paper area (not on the window)	60h development = in the dark, at room temperature, with a relative humidity of 56%
	Ninhydrine (pipetting)	48h development = in the dark, at room temperature, with a relative humidity of 56%
ZZMWWV	Visual Examination	Fluorescent and Incandescant
	Alternate Light Source	365nm 445-510nm
	Cyanoacrylate Fuming	Lot 16-7; CA chamber 80%rh for approx. 15 minutes
	Powder Dusting	Black Magnetic Powder 13-1
	1,2-indanedione - ZnCl2	Lot 16-9; Humidity Chamber 70C 65%rh for approx. 30 minutes; 532nm

Response Summary

Participants: 270

Methods Utilized

Alternate Light Source	102	Ninhydrin	216
Cyanoacrylate Fuming	209	Powder Dusting	177
DFO	67	Visual Examination	263
Dye Stain	94	1,2-Indanedione	64

**Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

Preservation Methods

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
244GGP	Photography	Nikon D810, ADAMS
2JTNC3	Photography	tether, using laser with orange filter after 1, 2 Indandione
32VZRD	Photography	
36VBND	Photography	DFO
38WCNB	Digital Photography	1:1
3R6HE6	Photography	
43JJ2V	Photography	JPEG/Raw format
	Scanning	24-bit color, 1200 dpi resolution, file type .tif
44E34W	Photography	
498YU9	Photography	Using DCS-4 with ALS @ 480 nm and an orange/yellow filter. Print was in quadrant 'A' and no other prints developed
4BEGQJ	Photography	Photography after Indanedione, light source (495 nm).
	Store together with the documents	Normally we cut the print out from these types of material, for storage together with the documents.
4C8MG6	Photography	No fingerprints was detected IF fingerprints had been detected it had been photographed before and between the methods.
4R3RF7	Scanning	Flatbed scanner number 5 at 1200 dpi. Two images saved. See image metadata for scanner settings.
4TTXVW	Photograph	Used Laser @ 532 nm w/ orange barrier filter, in RAW format w/ scale
64C767	Photography	
6RYEQP	Photography	DFO developed print- Quad A
	Scan	nin developed print- Quad A could barely see print- better development @ DFO stop

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
6TAEN6	Photography	Documentation purpoes only; picture taken after In-Zn and Ninhydrin
6TB4VM	Photography	Nikon D700 camera, ADAMS software
6ZTL6N	Photography	photographed with scale
786MU6	Photo	Photograph after DFO with lightsours 500-550nm/ orange-red filter.
79KFXZ	Photography	
7E86KV	Digital Photography	
7GCT37	Photography	
7J2YHW	Scanning	Scanned quadrant A at 1200 ppi to show that ridge detail was present.
7WJJM6	Photographed	1,2 Indanedione zinc chloride: Forensic Light (475 nm) Ninhydrin and Physical Developer: White light
7WN4B9	n/a	
87BP9W	Photography	digital format, RAW
89FDQ8	Digital Camera Nikon D300 Handling	60mm lense, F22, manual mode, ISO 200, Life size 5 + 2 orange + graph (F2) Digital images stored on DIMS Carefull handling of the exhibit (F0) not to get damage with proper packaging
8CGH3R	Photography	pictures taken under visible light or fluorescent examination
8H2E93	Photography	Used Digital Capturing System (DCS-4). DFO was photographed using green light and orange filter
8PLGDJ	Photography Lifting	Photographed print with scale Lifted print with white gel lift
94FNKK	Scanning	
99AK66	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
9CBZP9	Photography	After DFO - in alternate light source at 530 nm using a orange colored bandpass filter
9FRVKQ	No prints were developed	
9JQ8GQ	Photo	DCS-3, Manual
9JWJ32	Scanning Packaging	Scanner 7, see metadata, 1 image, direct lighting original packaging, sealed, initialed and dated
9KLPHR	Photography	
9TJHT8	None	No latent print developed.
9UUKE7	Photography	
9XENG6	Photography	
AD2YMJ	Photography	
AJADFG	Digital Photography	
AJC3KD	Photography	TracER Laser - 532 Wavelength
ANXRP3	Photography	digital images, copy stand, 1000 ppi or greater, stored secure drive/server
APXZ92	Photography	After indanedione - captured with Mini Crime Scope @515 wavelength
ARW3K3	Photography	digital images, copy stand, 1000 ppi or greater, stored secure drive/server
B278FK	Photography	with 505 nm ALS and orange filter
B8BW4K	Photography	Evaluated photo stored in ADAMS
BKHGCY	Photography	
BNDB9Z	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
BPAC4B	Photography	Digital photography / CD-R & Server
BPTZL7	Photography Packaging	Digital image to preserve quality of print at time observed. packaged separate, sealed with evidence tamper tape.
C3ERML	Digital Photography	5.0 RTV, Compact Disc
CFZ8QK	None	
CGVPTL	Digital Photography	At DFO step only
CH8LXQ	Photography	The polilight was set to 505nm and the evidence was photographed with an orange filter
CQLBXK	None	
CWAQRX	Photography	Digital Capturing System (DCS-4), DFO: green light with orange filter
D39WGK	Photography	with DFO and laser
D6DKYV	Scanning	Image of (+) & (-) controls kept in photo lab
D84QEL	Photography	
DP3NXG	Photography	
DTJBBM	Photography	DIGITAL PHOTO TAKEN AND UPLOADED INTO LIMS SYSTEM.
E4KWDE	Photography	
E9EQBF	Photography	Fujifilm IS Pro DSLR
EJQU8X	Photography	Photographs were taken before and after examination
EQXMTV	none	
EUCWPT	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
EVM7VP	Photography	
EVQNTN	Photography	Used existing light. Used Nikon camera Control Pro for viewing. Processed using Photoshop Procedure
EXCHLH	Photography	Bright Beam laser (532nm, orange filter)
F6BGKB	Scanning	ADAMS-FORAY: scanner - record shot; scanner - ridge detail (purple) - no pattern - not suitable for identification
F7ZH9T	Photography	First, We took a photo of the print in digital format and saved it. Then the photo is treated in order to clearly identify the print.
FBZULY	none	
FKFFDU	Photography	After DFO and Ninhydrin
FQ9K7X	Photography Scanning	photography or scanning depends on the material
FRHVCU	Photography	w/orange filer
FVZFYA	Photography	Photographed. Calibrated & authenticated in ADAMS then burned to CD.
G3ZULW	Photography	Nikon D300: Laser/curved filter
G4TMGF	None	
G8B6C7	DFO Indanedione	Latent print photographed Latent-print photographed.
G8TYDF	None	
GDGMPD	Photographs	Evidence photographed - and working copy attached to case file.
GGKAPW	7/11/16- Photographed item 1 Quadrant A with & without scale 7/11/16- Heat Sealed Item 1 inside	Department issued digital camera - Nikon D80 Inside clear plastic & resealed inside original evidence envelope with piece of cardboard.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
	7/11/16- Photo Card	Sealed in evidence bag
GLQ8UU	Photography	Photograph taken after In-Zn
	Scanning	Scanned image after Ninhydrin @1200dpi
GUJH7B	Photography	Nikon D800
	upload to ADAMS	Authenticated Digital Asset Management System
GWCC2U	Digital Photography	Nikon D7000 w/macros lens - files stored as jpg & nef
H7UBCV	Photography	Nikon - D3300
HDG2XQ	Photography	Photographed results on 06-18-16 at 0051 & 0053 (2 photographs)
HJEW9B	None	No latents developed
HM2AFT	Photography	Nikon D80 - digital camera macro lens JPEG fine
HM4YMB	Photography	
HPLT9X	Photo	camera Nikon D800e AF Nikkor 105mm with evidence scale
HVDNZA	Photography	Nikon D810 w orange filter, ALS 515nm
J8K99N	Photography	The fingerprint photographed using DFO.
JDVRHV	Photography	Photography with laser at 532 nm with orange filter.
JE6U7F	Digital Photography	
JXETDU	Photography	Captured with Nikon D810 and Laser #1 @ 532nm with orange barrier filter
K3N4RP	Photography	Settings: timeautomatic, F11, 50 mm objective
K42XMA	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
KA9X62	Photography	DCS4 capture system used with correct light source to photograph ridge detail at DFO
KMRACU	Visual	No prints were visualized.
KRKE4D	Digital Photography	
KUUJG3	Checking Effectiveness	Test strip with amino acids
KV7YB3	Photography	TracER Laser @ 532 wavelength
KX9Y8U	Photography	Digital; TIFF format
KZXCPC	Photography	Digital photography
KZZ2U9	Photography	digital photos
L7M3V8	Scanning	Scanned
L9P6JN	Photography	One taken after each chemical processing step
L9RVP7	Photography	Nikon D700
	ADAMS	Automated Digital Asset Management System
LAJQCE	Photography	fingerprint photographed at every stage of research
LDJYGP	Photography	raw file photo with scale (L2) - spotty ridge detail in section A Photographed under laser with orange filter after IND-Zinc treatment
LHTFPD	Photography	DCS4 (Foster and Freeman)
LQMNB4	Photography	Ridge structure was photographed using a digital camera and Foray
M4TZ3N	Photography	DFO and TRacer Laser were used to photograph the ridge detail observed in quadrant A
M96H9R	Photography	Canon EOS 60D, 100 mm lens.
MTR9ZP	Photography	7/11/16 With ALS 530 nm with orange/red filter

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
N3RHKK	Scanning	EPSON Photo V700
N7D6D8	Photography	
NABNGQ	None	None
NDBC3M	Photography	
NGVPW4	Photography	Nikon D810 and ADAMS Foray Digital Workplace
NQ3LHL	Scanned	Sealed, case notated, then scanned with Epson V700 at 1200 & 2400dpi
	Mideo	Images uploaded into secure "Mideo" LIMS latent print files
NTAJAH	Photography	light source: Crime Scope 475 nm, orange filter
NXW43J	Photography	
PJE3XJ	Photography	One print developed with 1,2-Indanedione, photographed with Nikon D700 with Coherent Laser and 549nm barrier filter
PJVEE3	Photography	Nikon 60mm micro lens on tripod set on TIFF w/scale. Scale labeled w/report #, date, item #, initials & serial #.
PLKZGL	Photography	Photography was done after DFO.
PRBV9X	N/A	
Q9TEGP	Photography	.raw files
QAM4KH	Photography	In-Zn - Using 515 wavelength (Mini Crime Scope)
	Photography	Ninhydrin - Ambient Light
QDNK6M	Photography	Nikon D90, AF MiCRO NIKKOR 60mm
QHFFWY	Photography	Photographed latent print with a metric scale while using an orange lens filter on camera.
QRKA67	Photography	After Indanedione w/Crime Scope and orange filter @515 wavelength

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
	Photography	After Ninhydrin
QU87FH	none	
QY2ZDJ	Photography	Nikon D2X w/Orange Filter @515 wavelength (MCS)
R2AFKP	Scanning Repackaged and sealed	digital
R6P3XU	No friction ridges present.	If friction ridge impressions had been present, they would have been preserved with scaled photographs and/or scans.
RNKFTM	Photography	Latent print designated on evidence and captured with scale
RPCJF3	Photography	
RRY9L2	Photography	Saved into secure photo vault
RYHCVN	Photography	Photography was used to preserve the ridge detail observed and image was loaded to the [Laboratory] Digital Imaging Server.
T8RZ9M	Photography	
TBU29K	Photography	Foster+Freeman DCS-4
TCNPM9	none	
TETGFL	Photography	Camera/Lens #3
TKEAT8	Photography	photography in the dark, with cyan light 500nm and orange filter
U63QGF	Photography	After DFO and after Ninhydrin
U7V8L3	None	
UCJUG9	Photography	Photographed results on 6/27/16 and 6/30/16
UDTW6R	Photography	Server/CDR

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
UENE8T	Photography	
UGUZWE	Photography	to record any positive or improved development between processes
UGXXCQ	Photography	Capture (DFO mark) on DCS4 using fluorescent lightsource (549 filter)
VFCB88	Photography	
VQURYE	Photography	Nikon D2X w/orange filter; MCS @ 515
W42ZJG	Digital Photography	F-16 @ 6 sec. Orange filter / laser 532nm saved as JPG/RAW files
WALRDB	Photography	
WPGHNR	Photography	
X7KCT8	Photography	Used a fixed wavelength (532 nm) laser for lighting and an orange filter after processing with DFO
X7M2ZP	Photography	Photgraphed item before processing and after processing
XCKZ2X	Photography	Nikon D3 w/Mini Crime Scope @515 wavelength; orange filter lens
XHETH9	Photography	After Indanedione-ZnCl, with Laser and orange filter
XVZ8L8	Photography	
XWC7EV	None	
XWVQM9	Scanning	Epson scanner - 1200 dpi
Y9MWWX	None	
YCM8PC	Photography Scanning	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
YM4RA9	Photos	RAW/TIFF format
YVZMCD	photocopy	5/26: prior to any chemical process
	Photography	5/31: no ridge detail present
	Photography	6/16: photographed to attempt to adjust contrast and gain ridge detail
Z9G2PW	None	
ZACWKE	Photography	
ZCZWTN	Photography	Latent print labeled 1L3 photographed after DFO processing utilizing an ALS at 510nm and an orange filter
ZELA2D	Photography	before, between and after development methods
ZMK4RD	None	No latents developed
ZNB8GE	Scanning	photocopy (there was nothing developed)
ZVUR6C	Photography	Foster & Freeman DCS4-System
ZYQGKX	Photography	A photograph of the fingermark was conducted (DCS4 System) after IND/ZnCl2 treatment
	Safe packaging and storage	
ZZMWWV	Photography	Nikon D810; saved as .tif; uploaded to ADAMS

Response Summary

Participants: 264

Methods Utilized

Lifting	1
Photography	148
Scanning	17

**Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
244GGP	Photography	Nikon D810, ADAMS
2EJBU4	Photography	Used direct reflection lighting to capture image at Vis. stage F16 shutter speed 1/10 sec.
	Photography	Used direct reflection lighting to capture image at CA stage F16 shutter speed 1/100 sec.
	Photography	At the LASER stage F29 shutter speed 1/6 sec.
2GTRZA	Photography	Photography was used between methods used.
	Lifting	Tape (after first powder dusting). White mikrosil (after the second powder dusting).
2JTNC3	Photography	tether, side lighting
32VZRD	Photography	
36VBND	Photography	Fingerprint photographed at every stage of research
37QUPE	Photography	VIS; CA;
38WCNB	Digital Photography	1:1
3CCCWF	Photography	No filter for Visible, CA or Powder. Bounce lighting.
	Photography	RAY: Filter Promaster Orange YA2. Light source: Rofin Polilight with 450nm attachment.
3L3TRC	Photography	Visual Examination and Basic Yellow 40: Latent print recoverd in section D,
3R6HE6	Photography	
43JJ2V	Scanning	scan of latent lift card- 24-bit color, 1200 dpe resolution, .tif file
44E34W	Photography	
498YU9	Photography	Photographed visual print before fuming and after fuming
4BEGQJ	Photography	After visual examination.
	Photography	After BY-40.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
4C8MG6	Photography	The material was photographed before examination, the detected fingerprint in section D was photographed between the methods
4TTXVW	Photograph	After CAE fuming with fiber optic lights (white) in RAW format
	Photograph	After R6G used laser 532 nm / orange barrier filter, in RAW format
64C767	Photography	
	Photography	
	Photography	
6RYEQP	Vis	Photographed
	Cyano / Rhodamine 6G application	documented still visible (same quality as vis)
	Laser	Photographed
6TAEN6	Photography	For documentation purposes only - taken after Visual, CAE, Powder, and R6G
6TB4VM	Photography	Nikon D800 camera, ADAMS software
6U6U22	Photography	digital
	Lifting	took two lifts
6UM4PW	Photography	
6YF8JZ	Photography	Nikon D40
	Lifting	Clear tape, black card
6ZTL6N	Photography	photographed with scale
786MU6	Photo	Photograph after every step using white light after visaul inspection and CNA. After BY: lightsource 430-470nm and yellow filter.
79KFXZ	Photography	
7E86KV	Tape Lift	Clear tape on white Lift Card

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
7GCT37	Photography	
	Lifting	
7J2YHW	Photography	Captured digital image post cyanoacrylate using Nikon D800 in RAW format.
7MJVV9	Photography	Nikon D3100 -w/ and w/o a standard unit of measure and w/ a 1:1 adaptor
	Lifting	lifted w/ lifting tape and placed on a white backing/lift card
7WJJM6	Photographed	Cyanoacrylate fuming: white light. Ardrox: Ultraviolet and forensic light (475 nm)
7WN4B9	Tape Lift	Used tape over print, then lifted the tape and rubbed over surface. Placed tape onto fingerprint card.
87BP9W	Photography	digital format, RAW
	Latent Lift	tape lift on lift card.
89B3LN	Photography	400 - 700 nm
89FDQ8	Digital Camera Nikon D300	60mm lens, F22, Manual mode, ISO 200, Life size 5 + 2 orange with graph (F1)
	Carefull handling/ Lift	Correct handling and packaging/ if unable to photograph + unmoveable then Tape lift, gel lift
8CGH3R	Photography	Pictures taken under visible light and fluorescent examination
8DMFJA	Photography	VIS; CA; RAM (Wavelength: CSS, Filter: Orange)
8H2E93	Photography	used DCS-4 system. visual was photographed using white light. CA was photographed using green and white light. BY was photographed using blue light with orange filter.
8PLGDJ	Lifting	Print was lifted with fingerprint tape and placed on latent print card
8UYEK7	Photography	
8VQHA8	Photography	digital

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
8XUL94	Photography	Prints were photographed by our forensic photographer before and after CNA development.
	Lifting	The print was also successfully lifted with print tape, after adding magnetic powder, to the print. The final print is the photograph of the CNA developed print, which had the best quality.
94FNKK	Photography	
94VJWY	Photography	After Visual Examination
	Photography	After CNA
	Lifting	Microsil, white, after powder dusting
	Photography	After Microsil
	Photography	After BY40
99AK66	Photography	
9CBZP9	Photography	After Visual Examination - under white light
	Photography	After Cyanoacrylate Fuming - under white light
	Photography	After Basic Yellow 40 - using an ultraviolet lamp under yellow colored bandpass filter
9FRVKQ	Photography	Nikon D3000/ Oblique Flash for lighting
	Lifting	Remco Lift Tape/Clear plastic lift back
9JQ8GQ	Photo	DCS-3, Manual
9JWJ32	Photography	Camera/Lens2 (see metadata), oblique, bounced and direct lighting
	Packaging	original packaging, sealed, initialed and dated
9KLPHR	Photography	
9TFX3H	Lifting	lift in black powder with tape on white card
	Photography	DCS-4 after dye stain and ALS
9TJHT8	Photography	RAW format with a surface to sensor distance of no more than 0.49 m. Forensic light source used.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
9UUKE7	Photography	
9VKM47	Photography	Visual, diffused lighting photography, 1 image
	Photography	CA, diffused lighting photography, 1 image
	Photography	Powder, direct lighting photography, 1 image
	Photography	RAY, direct lighting photography, Rofin polilight Flare Plus2, 450nm filter with orange barrier filter, 1 image
9WJTML	Photography	Photographed item after Cyanoacrylate fuming; then again after RAM at 535nm with CrimeScope
9XENG6	Photography	
A6783W	Photography	Camera2/lens 2, reflective Visible: overhead lighting, one image saved to temp folder
	Photography	CA: Camera2/lens 2, LED light
	Photography	BP: Camera2/lens 2, tented overhead lighting
	Photography	RAY: Camera2/lens 2, Rofin Polilight Flare 450nm orange YA2 filter
ABVQ6R	Photograph	Photographed - Visible print and treated print
	Lift Card	Lifted print from item and place onto Lift Card - Documented info
AD2YMJ	Photography	
	Lifting	
AJADFG	Digital Photography	
AJC3KD	Photography	White Light
ANXRP3	Photography	digital, copy stand, 1000 ppi or greater, stored secure drive/server
APXZ92	Photography	After visual exam
	Photography	After R6G w/Mini Crime Scope @515 wavelength
ARW3K3	Photography	digital, copy stand, 1000 ppi or greater, stored secure drive/server

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
B278FK	Lifted Print with tape and place on card.	
B8BW4K	Photography	electronically stored in ADAMS
BBDW4H	Photography	Darkfield illumination
	Lifting	Tape lift mounted on lift card
BKHGCY	Photography	
BNDB9Z	Photography	
BPAC4B	Photography	Digital Photograph taken, preserved on CD-R & Server
	Lifting	Lifted with card
	Photography	Digital Photograph taken, preserved on CD-R & Server
BPTZL7	Photography	Digital image to preserve quality of print at time observed.
	Packaging	Packaged separate and sealed with evidence tamper tape.
BRV6UK	Photography	
	Lifting	
BYE4T6	Photography	Nikon D300 camera, lens 3, oblique and bounce lighting
	Photography	RAY: using Crime Lite ML2 at 420-470nm and orange filter
BYJLR4	Photography	Reflective and bounced light, 2 images
C3ERML	Digital Photography	5.0 RTV, Compact Disc
C6HM8N	Photography	Digital Photography
	Lifting	One latent lift.
CFZ8QK	None	
CGVPTL	Digital Photography	One photo @ visual examination with oblique light by flashlight One photo after cyanoacrylate ester fuming

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Lift Tape / Lift Card	One lift was collected after powdering. Tape was placed on mirror, lifted, and placed on a backing card.
CH8LXQ	Photography	The evidence was photographed with the RUVIS system
	Photography	The evidence was also photographed after dye stain with the polilight set to 415nm and an orange filter was used.
CQLBXK	None	
CWAQRX	Photography	Digital Capturing System (DCS-4), Visual: green light at oblique angle, Cyanoacrylate: green light at oblique angle
D39WGK	Photography	Photoed at visual, super glue, Ardrox and Rhodamine
D6DKYV	Lifting	Not enough powder applied, latent print developed was very faint with no visible ridge detail.
D7RRKD	Lifting	Applied clear lifitng tape and lifted print
D84QEL	Photography	
DGB7LU	Photography	photographed using KSI
DP3NXG	Photography	During each step, due to positive results on visual
	Lifting	Tape lift onto white backing card
DTJBBM	Lifting	USING LIFTING TAPE, COVERED LATENT PRINT. AFTER PHOTOS SECURED LIFT TAPE ON A LATENT PRINT CARD.
	Photography	DIGITAL PHOTOS TAKEN AND UPLOADED INTO LIMS SYSTEM.
E4KWDE	Photography	
E8GKT2	Photography	Camera3/Lens3 used. Visual print photographed on 6/21/16 diffused direct lighting.
	Photography	CA print photographed on 6/21/16 diffused direct LED lighting.
	Photography	RAY print photographed on 6/29/16 Rofin Polilight Flare+ with 450nm filter. Promaster orange YA2 filter.
E9EQBF	Photography	Fujifilm IS Pro DSLR

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
EAKMRX	Photography	Would have been photographed after each step, since the prints where clear after each step.
ECRXAZ	Photography	digital
EGLR82	Photography	Visual - 1 photo; CA - 2 photos; Powder - 1 photo; RAY - 3 photos
EJQU8X	Photography	Print was photographed with and without a scale and 1:1 lens
	Lifting	Print was lifted and applied to a backing card.
EQXMTV	Photography	Direct lighting
EUCWPT	Photography	
EVM7VP	Photography	
EVQNTN	Photography	Used oblique lighting, used Nikon camera Control Pro for viewing; processed using Photoshop procedure
EXCHLH	Photography	Visual exam and cyanoacrylate with visual/side lighting, dyestain with Bright Beam laser (532nm, orange filter)
F6BGKB	Photography	ADAMS-FORAY: photography (visual exam and super glue)
F7476R	Photography	Visual: digital copy stand camera, overhead room lighting
	Photography	CA: Digital copy stand camera, Polilight white filter, bounce lighting
	Photography	Black powder: digial copy stand camera, oblique lighting small LED flash light
	Photography	RAY: digital copy stand camera, Polilight 450nm blue filter, orange barrier
F7ZH9T	Photography	A photo of the print was taken in digital format and saved it. Then the photo is treated in order to clearly identify the print.
FBUC7U	Photography	
FBZULY	Photography	One shot through the mirror adaptor.
FFQ97Y	Photography	Digital - Nikon D300

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
FKFFDU	Photography	After visual examination, CNA and Basic Yellow
FQ9K7X	Photography	
FRHVCU	Photography	Orange filter
FUNVJ2	Photography	VIS; CA; RAM (Wavelength: 455 nm, Filter: Orange)
FVZFYA	Photograph on CD	Photo, calibrated & authenticated in ADAMS, burnt to CD
	Tape Lifts	2 tape lifts, put in envelope
FZDVT9	Photography	digital capture in white light using Episcopic Coaxial illumination Accessory
G3ZULW	Photography	Nikon D300; White light, Laser/curved filter
	Tape-Lifting	Tape preserved on white card backing
G4TMGF	None	
G642VW	Photography	photographed
	Lifting	lifted print with tape and placed on backing card
G8B6C7	Optical Detection	Latent Print Photography
	Cyanoacrylat	latent print photography
G8TYDF	None	
GDGMPD	Tape Lift	Developed print was tape lifted and preserved on print card for Latent Examination
GGKAPW	Clear Lift Tape/Latent Lift Card	Lifted LPV in Quadrant D with clear lift tape & placed on labeled latent lift card. Resealed item 2 in original evidence envelope. Sealed latent lift card in evidence bag.
GLQ8UU	Photography	One photograph taken after eaach of the following steps: Visual, CAE, Powder, R6G
GUJH7B	Photography	Nikon D800
	ADAMS	Authenticated Digital Asset Management System

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
GVE29C	Photography	general location of latent showing quadrant developed in
	Lifting	placed onto white lift card
GWCC2U	Digital Photography	Nikon D7000 w/macro lens - files stored as jpg & nef
GZDRLX	Photography	photographed with Nikon D5300 camera
	Lifting	lifted print with tape and placed same on a backing card
H7UBCV	Photography	Nikon - D3300
HDG2XQ	Lifting	lifted with tape and placed on latent card on 06-13-16 at 0022
HJEW9B	Photography	Digitally captured the developed latent using a digital camera with band pass filter and UV light.
HLKDNT	Lifting	Usable detail obtained from tape lift.
	Scanning	Tape lift scanned and enlargement of developed impression printed for case file. This impression is suitable for comparison.
HM2AFT	Digital Photography	Nikon D80 - macro lens JPEG fine
HM4YMB	Photography	
HPLT9X	Photo	Camera Nikon D800e lens AF Nikkor 105mm illuminator Polilight PL500 with evidence scale
HVDNZA	Photography	Nikon D810 w strong white light source
	Photography with ALS	ALS @ 515nm with orange filter
HW42WU	Lifting	Gelatine lifter
	Photography	
J4KKLR	Lifting	Tape lift placed on lift card. Recorded details of lacation on back of card along with case information.
J8K99N	Photography	The fingerprint was photographed at every stage of research.
JBJJ4N	Lifting	Gellifters

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Photography	
JDVRHV	Photography	With Laser at 532 nm with orange filter.
JE6U7F	Digital Photography	
JXETDU	Photography	Captured with Nikon D810 before processing, after CAE and after dyestain with Laser #1 @ 532nm with orange barrier filter
	Lifting	Clear Lift Tape on Clear Backed Lift Cards
	Scanning	Lifts were scanned with Epson V700 Photo Scanner
K34T6V	Photography	White lighting
	Photography	Rofin polilight flare Plus 2 and orange 450nm filter
K3N4RP	Photography	Settings: timeautomatic, F11, 50 mm objective. Photography was used between methods used.
	Lifting	White microsil (used after carbonpowder).
K42XMA	Photography	
K6ADUF	Photography (digital imaging)	Visual & CAE: Tungsten lights. R6G: Laser (532 nm) & orange filter
KA9X62	Photography	DCS4 capture system used with correct light source to photograph ridge detail at visual examination
	Photography	DCS4 capture system used with correct light source to photograph ridge detail at super glue examination
	Photography	DCS4 capture system used with correct light source to photograph ridge detail at BY40 examination
KMRACU	Photography	Photographs were taken prior to processing.
	Lifting	Clear lifting tape
	Photography	Additional magna powder was applied after lifting tape and additional photographs were taken.
KRKE4D	Digital Photography	
KUUJG3	Checking of effectiveness	test fingermark left on the plastic bag

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
KV7YB3	Photography	Mini Crime Scope - White Light
KX9Y8U	Photography	Digital; TIFF format
KZXCPC	Photography	Digital photography
KZZ2U9	Photography	digital photos, macro, tiff & jpeg, using ALS open/white light @ oblique angle
	Lifting	lift card, lift tape
L7M3V8	Photography	Photo
L9P6JN	Photography	One taken after visual exam and all chemical/powder processing steps
L9RVP7	Photography	Nikon D700
	ADAMS	Automated Digital Asset Management System
LAJQCE	Photography	fingerprint photographed at every stage of research
LBU6QV	Photography	VIS;
LDJYGP	Photography	raw file photo with scale (L1) - photographed L1 after visual exam (oblique lighting), CA (oblique lighting), R6G (laser light & orange filter)
LGZYKQ	Photography	
	Lifting	Black gelatin lifter
LHTFPD	Photography	UV light - DCS4 (Foster and Freeman)
LPDHVU	Photography	digital
LQMNB4	Lifting	Clear lifting tape, placed on a white backer
M4TZ3N	Photography	photographs taken using RUVIS - ridge detail observed in quadrant D
	Lifting	lift obtained after Superglue and powder - ridge detail observed in quadrant D

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Photography	photographs taken using the TRacer Laser after R6G - ridge detail observed in quadrant D
M96H9R	Photography	Canon EOS 60D, 100 mm lens.
MFKM9J	Photography	Photographed print with white light after the visual exam, CA fuming and powder dusting processing steps. The print was also photographed after the dye stain at 530nm with a Tiffen red 23A filter.
MTR9ZP	Photography	Low angle oblique lighting
	Lifting	Frosted tape
MWBYUL	Photography	After visual examination
	Photography	After powder dusting
MZTP8P	Photography	
N3RHKK	Lifting	Standard tape
N4M2LL	Photography	Prints observed on all processes. Nikon camera attached to camera stand. Camera2/Lens2. Images stored digitally.
	Photography	Ray photography with Rofin Polilight Flare light source and orange filter
N7D6D8	Photography	
NABNGQ	Photography	Visible print: white light 45 degrees to lens
NDBC3M	Photography	
NGVPW4	Photography	Nikon D810, ADAMS Foray Digital Workplace

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
NJ28VY	Lifting	A disposable fiberglass brush was used to gently apply a small amount of dual contrast regular dusting powder to the surface. Once the impression was developed, I used a feather brush to remove any loose particles from the latent. Next, clear lifting tape was used. The tape was gently placed on the impression and care was taken to apply pressure to the tape to remove as many bubbles as possible. The latent was then lifted by gently removing the tape and then placed onto a white latent lift card, being careful to apply pressure to remove bubbles from between the tape and the card. The card was labeled with the necessary information on the back, then placed into a yellow envelope to be transferred to comparisons.
	Photography	The latent was photographed, using the AFIS camera and was saved into Folder #166 in the Crime Lab Shared Folder and in Justice Trax.
NQ3LHL	Lift	Placed on white booking card, using "Remco" latent print lifting tape & case notated
NTAJAH	Lifting	After powdering, with black footprint lifter
	Photography	Directly from the footprint lifter
NXW43J	Lifting	
PATYQJ	Photography	
	Lifting	
PHJKWH	Photography	Digital photography with RUVIS image
PJE3XJ	Photography	One print photographed with Nikon D700, once under oblique lighting prior to processing, once under oblique lighting after Cyanoacrylate Fuming, and once with Coherent Laser and 549nm barrier filter
PJVEE3	Photography	Nikon w/60mm micro lens on tripod in TIFF w/scale. Made a cone around the lens.
PLKZGL	Photography	Photography between methods used.
PRBV9X	N/A	
PYRCYM	Photography	after visual
	Photography	after cyanoacrylate fuming
	Photography	after Rhodamine 6G with the ALS

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Photography	after powdering
	Lifting	after powdering
	Photography	photographed lift
Q9TEGP	Photography	.raw images
QAM4KH	Photography	Photographed after Safe Fume Chamber and Powder with white light; Photographed after R6G with 515 wavelength
QDNK6M	Photography	Nikon D90, AF MiCRO NIKKOR 60mm
QGKWVX	Photography	Photographed with & without scale
	Lifting	Latent print lifted & placed on a latent card. The evidence was repackaged and placed into the evidence storage locker.
QHFFWY	Photography	Took photos of powdered print with a metric scale.
	Lifting	Lifted print with lifting tape after photography.
QRKA67	Photography	After Rhodamine 6G w/Crime Scope @515 wavelength and orange filter
QU87FH	Photograph	Nikon D810
QUV39K	Photographs	Photo developed friction ridge detail
	Bi-Chromatic Powder	(2) Latent lift cards containing friction ridge detail were collected
QY2ZDJ	Photography	Nikon D2X - Mini Crime Scope @515 wavelength
R2AFKP	Photography	digital
	Repackaged and sealed	
R6P3XU	Photography	Scaled photo with ambient and oblique lighting taken prior to further processing.
	Lifting	After black powder was applied, friction ridge impression was lited with tape and placed on white card.
R7JT2N	Photography	Axial lighting for visual and CA, alternate light source with orange filter for RAY

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
R8BVN4	digital imaging LED + UV light Gel Lifter	the developed latent print (D) was preserved by digital imaging at light resolution capturing
RAH8PD	Photographed Lift	Nikon D40 Clear tape, black background card
RJPGKJ	Photography	Nikon D300 digital camera, TIFF file
RNKFTM	Photography	Latent Print designated on evidence and captured with scale
RPCJF3	Photography	
RRY9L2	Photography	with orange filter, saved into secure photo vault
RYHCVN	Photography	Photography was used to preserve the ridge detail observed and the image was loaded to the [Laboratory] Digital Imaging Server.
T8RZ9M	Photography Lifting	
T9NGJY	Photography	DCS-4
TBU29K	Photography	Foster+Freeman DCS-4
TCNPM9	Photography	Impressions photographed in RAW format. Impressions enhanced using Photoshop
TETGFL	Photography	Camera/Lens3, Visual, CA Black Powder, Ray
TFNZGN	Photography	digital
TKEAT8	Photography	photography with white light
TKFAPZ	Photography	
TLBQ4J	Photography	Nikon D200 (RAW); FSIS

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
	Adobe Photoshop CS6	Digital image processing to remove any color and creat grayscale composite sheet for file
TPQF9D	Photography	LED bounce lighting
U63QGF	Photography	After visual, after Cyanoacrylate and after BY40
U7V8L3	None	
UCJUG9	Photography	Collected photographs after each Method
	Lifting	Collected lifts after Powder Dusting
UDTW6R	Photography	Server/CDR
	Lifting	Lift card as evidence.
UENE8T	Photography	
	Lifting	Latent lift card
UGUZWE	Photography	to record any positive or improved development between processes
UGXXCQ	Photography	Capture (visual mark) on DCS4 using white ring light and polariser
	Photography	Capture (SG mark) on DCS4 using white crime lite
	Photography	Capture on DCS4 using Fluorecesnt light source max 476nm
UKVKRL	Photography	Photo Evidence Scale
UWRWFD	Photography	Using Krime Site Imaging system, photo (M-80) taken of developed print
UZQ9BD	Photography	
V79VPF	Photography	Nikon D300 digital camera
VFCB88	Photography	
VQURYE	Photography	Nikon D2X w/orange filer; MCS @ 515 wavelength

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
W2C4ZC	Photography	
W42ZJG	Digital Photography	F-16 @ 125 sec. saved as JPG/RAW files
	Clear Hinge Lifter	Scanned as transparency - saved as TIFF image @ 1000 PPI
WALRDB	Photography	
WFTLMR	Photography	
WHDBRJ	Photography	VIS; CA; Ardrox (Wavelength: 445nm, Filter: Yellow)
WPGHNR	Photography	
X7KCT8	Photography	Photographed prior to processing (after initial visual examination) using side lighting
	Photography	Photographed using a fixed wavelength (532 nm) laser for lighting and an orange filter after dye staining
X7M2ZP	Photography	Photographed ridge detail without and with scale
	Lifting	Lifted with tape and placed onto a backing card
XCKZ2X	Photography	Nikon D3, Mini Crime Scope @515 wavelength w/orange filter lens
XGK3CT	Photography	DSC-4
	Lifting	tape, paper card
XHETH9	Photography	Initial - room light, Alternate Light Source - 535nm with orange filter; Cyanoacrylate - room light; R6G - Laser and orange filter
XV6K8H	Photography	FLS-450nm/orange filter
	Lifting	
XVZ8L8	Photography	
XWC7EV	None	
XWVQM9	Photography	Canon 5D Mark II - >1000 ppi
	Lifting	White lift card & 3M tape

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
Y3JPGU	Photography	DCS-4 camera, before processing, and after each stage of processing
	Lifting	Placed onto card stock
Y9MWWX	None	
YBTUCE	Photography	
YCM8PC	Photography	
YH9XC8	Photography	This was done after initial visual exam as well as after CA fuming.
	Lifting	After black powder print was lifted and placed on white lift card.
YM4RA9	1:1 photos	RAW/TIFF formats
	Latent Lift	tape on white backer
YNXFUP	Photograph with scale	TIFF compression photo'd after visual, CA, and MBD steps
	Gelatin Lifter	Black magnetic powder detail lifted w/ gelatin lifter
YVZMCD	Photography	5/26
	Lifting	5/26
	Photography	5/31
Z2WDZF	Photography	VIS; Ardrox (Wavelength: 415nm, Filter: Yellow)
Z9G2PW	None	
ZACWKE	Photography	
ZB8FLG	Photography	VIS; CA; Ardrox (Wavelength: 350nm, Filter: Yellow)
ZCZWTN	Photography	Latent print labeled 2L1 photographed during visual examination with an LED flashlight. 2L1 then re-photographed during inherent luminescence exam utilizing an ALS at 510nm and an orange filter. 2L1 also re-photographed after dye staining with Rhodamine 6G utilizing an ALS at 510nm and an orange filter.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
ZELA2D	Photography	
ZMK4RD	Photograph	MP-4 Camera stand, Nikon D3000 60mm lens - various lighting + Flash
ZNB8GE	Scanning	GLScan
	Photography	
ZNEQ73	Photography (prior to processing)	Used a Nikon SLR digital camera in Manual Mode, F-22. I then calibrated, enhanced (Photoshop CS4), saved and created a composite sheet to be printed out.
	Lifted	I lifted the print, placed on lift card, scan it at 12000 ppi & placed on composite sheet with the photographs
ZTLKYD	Photography	Photographed visible ridge detail and/or enhanced ridge detail after each processing technique that resulted in enhancement of the print. A wide aperture was used to avoid a "double-tap" effect of the print on the mirrored surface. Orange filter was used when the article was photographed under Laser.
ZVUR6C	Photography	Foster & Freeman DCS4 system
ZYQGKX	Photography	A photograph of the fingermark was conducted (DCS4 System) after visual examination
	Safe packaging and storage	
ZZMWWV	Photography	Nikon D810; saved as .tif; uploaded to ADAMS

Response Summary

Participants: 264

Methods Utilized

Lifting	74
Photography	276
Scanning	4

**Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
244GGP	Photography	Nikon D810, ADAMS
2EJBU4	Photography	F16 shutter speed 1.5
2GTRZA	Photography	Photography between methods used.
2JTNC3	Photography	tether- side lighting on plastic window at visual exam and tether with laser and orange filter after 1, 2 Indandione
32VZRD	Photography	
36VBND	Photography	Fingerprint photographed at every stage of research
37QUPE	Photography	Ardrox (Wavelength: 415 nm, Filter: Yellow)
38WCNB	Digital Photography	1:1
	Digital Scanner	1000 dpi
3CCCWF	Photography	No filter for Visible, CA. Direct reflection lighting Promaster.
	Photography	RAY: Filter Promaster Orange YA2 lighting: Rofin Polilight with 450nm attachment.
	Scanning	Epson V600. Set at 1200 DPI.
3L3TRC	Photography	Visual Examination, Powder Dusting and Ninhydrin: Latent print recovered in section A
3R6HE6	Photography	
43JJ2V	Scanning	plastic window portion was secured to a black latent lift card. 24-bit color, 1200 dbi resolution, .tif file
44E34W	Photography	
498YU9	Photography	Photographed print on window before processing and after powder processing
4BEGQJ	Photography	Photography after visual.
	Photography	Photography after use of powder.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
4C8MG6	Photography	The material was photographed before examination, the detected fingerprint in section D was photographed in between the methods
4TTXVW	Photograph	After IND - Zncl, used laser 532 nm / orange barrier filter in RAW format
	Photograph	W/ fiber optic lights of Black Mag Powder on clear plastic window
64C767	Photography	
	Photography	
6RYEQP	Cyano	photographed developed ridge detail on window
	DFO/R6G	photographed ridge detail- no development w/nin w/ NOVEC
6TAEN6	Photography	For documentation purposes - After visual, CAE, powder, In-Zn, Ninhydrin, and R6G
6TB4VM	Photography	Nikon D800 and D700 cameras, ADAMS software
6U6U22	Photography	digital
6UM4PW	Photography	
6YF8JZ	Photography	
6ZTL6N	Photography	photographed with scale
786MU6	Photo	Photograph after visual inspection using white light. The same light for CNA. BY40 lightsource 430-470nm/ yellow filter. DFO lightsource 500-550nm/orange red filter.
79KFXZ	Photography	
7E86KV	Digital Photography	
7GCT37	Photography	
	Lifting	
7J2YHW	Photography	Photographed latent print in quadrant A using Nikon D800 in RAW format.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
7MJVV9	Photography	Nikon D3100 w/ and w/o a standard unit of measure and a 1:1 adaptor
	Lifting	applied lifting tape to the latent and taped the window to a white backing card. Did not lift latent, applied to backing card
7WJJM6	Photographed	Cyanoacrylate fuming: white light. Ardrox: Ultraviolet and forensic light (475 nm). 1,2 Indanedione Zinc Chloride: Forensic Light (475 nm). Ninhydrin and Physical Developer: White light
7WN4B9	n/a	
87BP9W	Photography	digital format, RAW
89B3LN	Photography	400 - 700 nm
89FDQ8	Digital Camera Nikon D300	60mm Lense, F22, Manual Mode, ISO 200 life size 5+2 orange graphs (F3 + F4)
	Handling/Lift	Careful + correct handling + packaging/ if unable to photograph (F3) then pull Tape/ gel Lift
8CGH3R	Photography	pictures teaken under visible light and fluorescent examination
8DMFJA	Photography	RAM (Wavelength: 350nm, Filter: None)
8H2E93	Photography	Used DCS-4 system. Visual photographed using white light. CA photographed using white light. DFO photographed using green light with orange filter. BY photographed using blue light with orange filter.
8PLGDJ	Photography	Photographed print with scale
	Lifting	Lifted print with white gel lift
8UYEK7	Photography	
8VQHA8	Photography	digital
8XUL94	Photography	Prints were photographed by our forensic photographer before and after development of CNA and Ninhydrin.
94FNKK	Photography	Photographed after each powder application
94VJWY	Photography	After visual examination

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
	Photography	After CNA
	Lifting	Microsil white, after Powder Dusting
	Photography	After Microsil
	Photography	After BY 40
99AK66	Photography	
9CBZP9	Photography	After Visual Examination - under white light (the upper portion latent print)
	Photography	After DFO - in alternate light source at 505 nm using a orange colored bandpass filter (the central portion of latent print)
	Photography	After Powder Dusting - under white light (all latent print)
9FRVKQ	Photography	Nikon D3000/Oblique Flash for lighting
	Lifting	Remco Lift Tape/Clear plastic lift back
9JQ8GQ	Photo	DCS-3, Manual
9JWJ32	Photography	Camera/Lens2, see metadata; direct, oblique transmitted, transmitted lighting
	Scanning	Scanner 7, see metadata; Direct, oblique transmitted, transmitted lighting
	Packaging	Original packaging, sealed, initialed and dated.
9KLPHR	Photography	
9TFX3H	Lifting	tape with white card
	Photography	DCS-4
9TJHT8	Photography	RAW format with surface to sensor distance no greater than 0.49 m. Forensic light source used.
9UUKE7	Photography	
9VKM47	Photography	Digital, CA, oblique transmitted lighting, 1 image
	Scanning	Digital, Powder, direct lighting using scanner, 1 image
	Photography	Digital, RAY, direct lighting photography, 1 image, Rofin Polilight Flare Plus 2 (450nm) filter with orange lens

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
	Scanning	Digital, Ninhydrin, direct lighting using scanner, 1 image
9WJTML	Photography	Photographed item after Cyanoacrylate fuming; then again after RAM at 515nm with CrimeScope
9XENG6	Photography	
A6783W	Photography	Visible: Nikon D300, reflective overhead lighting, 2 images
	Photography	CA: Camera2/Lens2 reflective overhead lighting, 1 image
	Photography	BP: Camera2/Lens2 overhead lighting 1 image
	Photography	RAY: Camera2/Lens2, Rofin Polilight Flare, 450nm YA2 orange filter, 1 image
ABVQ6R	Photographed	Photographed visible print
	Lift Card	Lift print from item and place onto lift card
AD2YMJ	Photography	
AJADFG	Digital Photography	
AJC3KD	Photography	White Light
ANXRP3	Photography	digital, copy stand, 1000 ppi or greater, stored secure drive/server
APXZ92	Photography	Visual - White Light
	Photography	Indanedione - Mini Crime Scope @ 515 wavelength
	Photography	Powder - White Light
ARW3K3	Photography	digital, copy stand, 1000 ppi or greater, stored secure drive/server
B278FK	Photography	with 505 nm ALS and orange filter
B8BW4K	Photography	Image stored in ADAMS
BBDW4H	Photography	Darkfield illumination
BKHGCY	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
BNDB9Z	Photography	
BPAC4B	Photography	Digital Photograph, preserved on CD-R & Server
BPTZL7	Photography	Digital image to preserve quality of print at time observed
	Packaging	Packaged separate and sealed with evidence tamper tape.
BRV6UK	Photography	
	Lifting	
BYE4T6	Photography	Nikon D300 Camera Lens 3, oblique and bounce lighting
BYJLR4	Photography	Visual Exam: Direct light, 1 image
	Photography	Ninhydrin: Direct light, 1 image
	Photography	Ardrox: Blue light, 2 images
C3ERML	Digital Photography	5.0 RTV, Compact Disc
C6HM8N	Photography	Digital Photography
CFZ8QK	None	
CGVPTL	Digital Photography	A photo at the following steps: Powder, Androx w/ UV, Rhodamine w/ laser w/ orange filter, DFO w/ laser w/ orange filter, and Zinc Chloride w/ the ALS.
CH8LXQ	Photography	The evidence was photographed with RUVIS
	Photography	The evidence was also photographed after Indanedione with an orange filter and the polilight set to 505nm
CQLBXK	None	
CWAQRX	Photography	Digital Capturing System (DCS-4), Visual: paddle light, Cyanoacrylate: green light at oblique angle, DFO: green light with orange filter, Dye stain (Rhodamine 6G): green light with orange filter
D39WGK	Photography	Super Glue, visual, Ardrox, Rhodamine, Powder, DFO

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
D6DKYV	Photography	Used Macro lens
	Scanning	Images for(+) & (-) controls kept at photo lab
D7RRKD	Photography	Using Foray a photograph was taken to capture latent print
D84QEL	Photography	
DGB7LU	Photography	photographed using KSI
	Lifting	lifted using black powder on white card
DP3NXG	Photography	Photographed after each step, due to positive results from first visual
DTJBBM	Lifting	USING LIFTING TAPE, COVERED LATENT PRINT. AFTER PHOTOS SECURED LIFT TAPE ON A LATENT PRINT CARD.
	Photography	DIGITAL PHOTOS TAKEN AND UPLOADED INTO LIMS SYSTEM.
E4KWDE	Photography	
E8GKT2	Photography	Camera3/Lens3 for CA prints on 6/21/16 with oblique transmitted lighting, 2 images
	Photography	Camera3/Lens3 for RAY prints on 6/29/16 with Rofin Polilight Flare+ with 450nm filter and orange YA2 camera filter, 2 images.
	Scanning	Scanner 13 used for documentation of print observed with Magnetic Powder on 6/29/16, 1 image.
E9EQBF	Photography	Fujifilm IS Pro DSLR
EAKMRX	Photography	Would have been photographed after visual examination, fuming, and after treated with powder dusting.
ECRXAZ	Photography	digital
EGLR82	Separation	Removed both windows for proper processing methods
	Photography	CA, 1 photo
	Scanning	Magnetic Powder, 1 scan
	Photography	RAY, 1 photo

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
EJQU8X	Photography	Photographed print in quadrant A
	Tape	Applied tape over print to preserve print
EQXMTV	Photography	Blue/green light w/orange filter
EUCWPT	Photography	
EVM7VP	Photography	
EVQNTN	Photography	Used oblique lighting, used Nikon camera Control Pro for viewing, processed using Photoshop procedure
EXCHLH	Photography	Visual side lighting for magnetic powder, Bright Beam laser (532nm, orange filter) for Indandione
F6BGKB	Scanning	ADAMS-FORAY: scanner - windowed portion of envelope; scanner (Nin Lab A in ADAMS) - paper portion of envelope
F7476R	Scanning	Black powder: Window only
	Photography	Digital copy stand camera, Polilight 450nm blue filter, orange barrier, window only
F7ZH9T	Photography	A photo of the print was taken in digital format and saved it. Then the photo is treated in order to clearly identify the print.
FBUC7U	Photography	
	Lifting	
FBZULY	Photography	Window with Cyanoacrylate and envelope with ninhydrin.
FFQ97Y	Photography	Nikon D300
	Scanning	Flatbed scanner
FKFFDU	Photography	After CNA and Basic Yellow
FQ9K7X	Photography	photography or scanning depends on the material
	Scanning	
FRHVCU	Photography	Orange filter

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
FUNVJ2	Photography	VIS; CA; Ardrox (Wavelength: 415nm, Filter: Yellow)
FVZFYA	None	No latent print found.
FZDVT9	Photography	digital capture in white light
G3ZULW	Photography	Nikon D300, White light incandescent light, laser/curver filter
G4TMGF	none	
G642VW	Photography	photographed
G8B6C7	DFO	Latent print photographed & cutting the plastic window
G8TYDF	None	
GDGMPD	Photographs	Evidence photographed and copy attached in case file as working copy
GGKAPW	7/07/16- Photographed item 3, Quadrant A & LPV with & without a scale.	Department issued digital camera - Nikon D80
	7/07/16- Clear Lift Tape / Latent Lift Card	Lifted LPV in quadrant A with clear lift tape & place on labeled latent lift card.
	7/07/16- Piece of clear tape	Placed over window in quadrant A to protect window during chemical processing.
	7/11/16- Heatsealed item 3	Inside clear plastic & resealed inside original evidence envelope with piece of cardboard.
	7/07/16- Sealed Latent Lift Card	In evidence bag.
	7/11/16 Sealed photo card	In evidence bag.
GLQ8UU	Photography	Photo after each of the following: Visual, CAE, In-Zn, Nin, Powder, R6G
	Scanning	One image after Ninhydrin (1200 dpi)
GUJH7B	Photography	Nikon D800
	ADAMS	Authenticated Digital Asset Management System
GVE29C	Photography	DCS-4 with scale

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
	Photography	Canon raw image with scale
GWCC2U	digital photography	Nikon D7000 w/macro lens - files stored as jpg & nef
GZDRLX	Photography	photographed print with scale
H7UBCV	Photography	Nikon - D3300
HDG2XQ	Photography	Photographed results on 06-13-16 at 0058 & 0100 (2 photographs)
	Photography	Photographed results on 06-18-16 at 0046, 0047, & 0048 (3 photographs)
HJEW9B	Photography	Digitally captured the developed latent on the plastic window using a digital camera with a band pass filter and UV light.
HLKDNT	Lifting	Gel lift of impression from plastic window in quadrant A, and also portion on envelope. The same area was lifted with clear tape.
	Scanning	Gel lift was scanned. Impression was deemed suitable for comparison.
HM2AFT	Photography	Nikon D80 macro lens JPEG fine
HM4YMB	Photography	
HPLT9X	Photo	Camera Nikon D800e lens AF Nikkor 105mm with evidence scale
HVDNZA	Photography	Nikon D810 (strong white light)
	Photography	Nikon D810 (ALS @ 515nm with orange filter)
HW42WU	Photography	
J4KKLR	Lifting	Tape lift of magnetic powder ridge detail placed on lift card. Recorded details of locaton on back of card along with case informaton.
	Scanning	Used scanner to record additional detail from ninhydrin application & Adobe photoshop to enhance ridge detail (detail that was not only on the window area, but also on the paper area in the same quadrant).

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
J8K99N	Photography	The fingerprint was photographed when it achieved the ability to view it in its entirety.
JBJJ4N	Photography	
JDVRHV	Photography	With laser at 532 nm and orange filter.
JE6U7F	Digital Photography	
JXETDU	Photography	Captured with D810, after Indanedione, CAE and R6G application with Laser #1 and orange barrier filter
K34T6V	Photography	Whitelight, transmitted light, Rofin Polilight Flare Plus 2 and 450nm orange filter
K3N4RP	Photography	Settings: timeautomatic, F11, 50 mm objective. Photography was used between methods used.
	Lifting	White microsil (used after powder dusting on the plastic part).
K42XMA	Photography	
K6ADUF	Photography (digital imaging)	Powder: Tungsten lights
KA9X62	Photography	DCS4 capture system used with correct light source to photograph ridge detail at visual examination
	Photography	DCS4 capture system used with correct light source to photograph ridge detail at superglue examination
	Photography	DCS4 capture system used with correct light source to photograph ridge detail at DFO examination
KMRACU	Lifting	Lift tape was used on the window and the envelope.
	Visual	No prints were visualized
KRKE4D	Digital photography	
KUUJG3	Checking of effectiveness	test strip with amino acids test fingermark left on the plastic bag
KV7YB3	Photography	Mini Crime Scope - White Light
KX9Y8U	Photography	Digital; TIFF format

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
KZXCPC	Photography	Digital photography
KZZ2U9	Photography	digital photos, macro, tiff and jpeg
	Lifting	lift tape
L7M3V8	Photography	photo
L9P6JN	Photography	One taken after each chemical or powder processing step
L9RVP7	Photography	Nikon D700
	ADAMS	Automated Digital Asset Management System
LAJQCE	Photography	fingerprint photographed at every stage of research
LBU6QV	Photography	CA; RAM (Wavelength: 445nm, Filter: Yellow)
LDJYGP	Photography	raw file digital photograph with scale of latent print in section A (L3a-IND-Zn under laser and orange filter and L3b-Rhodamine 6G under laser and orange filter)
LGZYKQ	Photography	
	Lifting	Black gelatin lift
LHTFPD	Photography	UV or white light - DCS4 (Foster and Freeman)
LPDHVU	Photography	digital
	Scanning	digital
LQMNB4	Photography	Latent print photographed using Foray and Digital Camera
M4TZ3N	Photography	DFO and TRacer Laser were used to photograph the ridge detail observed in quadrant A
M96H9R	Photography	Canon EOS 60D, 100 mm lens.
MFKM9J	Photography	Photographed print with white light after the visual exam, CA fuming, powder dusting and Oil Red O processing steps. The print was also photographed after the dye stain at 505nm with a Tiffen red 23A filter.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
MTR9ZP	Photography	6/29/16 white card inserted in window prior to photo
MWBYUL	Photography	After cyanoacrylate fuming
	Photography	After dye stain
MZTP8P	Photography	
N3RHKK	Photography	1:1 comparison photo
	Scanning	EPSON Photo V700
N4M2LL	Photography	After CA, Powder, RAY - Nikon camera attached to camera stand, Camera2/Lens2 - Images stored digitally, 1000 resolution
	Photography	RAY: Rofin Polilight Flare light source and orange filter
	Scanning	Ninhydrin: Epson Flatbed scanner - 1200 resolution
N7D6D8	Photography	
NABNGQ	Photography	Visible print- window: transmitted light- 470 nm
	Photography	Recaptured after cyano: oblique white light
	Photography	Ninhydrin direct light / Cyano transmitted light captured simultaneously
	Photography	MRM-10: 450nm with orange barrier filter
NDBC3M	Photography	
NGVPW4	Photography	Nikon D810, ADAMS Foray Digital Workplace
NJ28VY	Photography	The latent print was photographed using the AFIS camera. The photo was saved, then a copy was transferred to a DVD. The digital image was also placed into Folder #166 in the Lab Shared Folder and in Justice Trax.
	Tape	Clear lifting tape was placed over the latent print to protect it from handling while inside the yellow evidence envelope.
NQ3LHL	scanned	Sealed, case notated, then scanned with Epson V700 at 1200 & 2400 dpi
	Mideo	Images uploaded into secure "Mideo" LIMS latent print files

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
NTAJAH	Photography	After powdering and after Ninhydrin
NXW43J	Photography	
PATYQJ	Photography	
	Lifting	
PHJKWH	Photography	Digital imaging with RUVIS technology
	Photography	Natural light after dust (both window and paper developed)
PJE3XJ	Photography	One print developed with Rhodamine 6G, photographed with Nikon D700 with Coherent Laser and 549nm barrier filter
PJVEE3	Photography	Nikon 60 mm micro lens on tripod in TIFF w/scale. Scale labeled w/pertinent information.
PLKZGL	Photography	Photography between methods used.
PRBV9X	N/A	
PYRCYM	Photography	after cyanoacrylate fuming
	Photography	after Rhodamine 6G with ALS
	Photography	after powdering
	Lifting	after powdering
	Photography	photographed lift
Q9TEGP	Photography	.raw
QAM4KH	Photography	Photographed after In-Zn and R6G at 515 Wavelength, Ninhydrin photographed with White Light
QDNK6M	Photography	Nikon D90, AF MiCRO NIKKOR 60mm
QHFFWY	Photography	Placed a piece of white paper in the envelope behind the plastic window to enhance the powder developed latent print. Took photos of the latent print with a metric scale.
QRKA67	Photography	After - Magna powder and R6G w/Crime Scope @515 wavelength

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
QU87FH	Photograph	Nikon D810
QUV39K	Bi-Chromatic Powder	(1) Latent lift card containing friction ridge detail was collected
	Photographs	Photo developed friction ridge detail
QY2ZDJ	Photography	NikonD2X - Ambient Light (powder)
R2AFKP	Scanning	digital
	Photography	digital
	Repackaged and sealed	
R6P3XU	Photography	Scaled photograph taken of latent print using ambient and oblique lighting.
	Preserved with tape	Latent print preserved in place by placing clear lifting tape over same.
R7JT2N	Scanning	digital, envelope
	Photography	digital, bounced lighting for visual and CA, alternate light source with orange filter for RAY on window
R8BVN4	Digital imaging	the developed latent print (a) was preserved by digital imaging at high resolution capturing
	LED + UV light	
	Gel Lifter	
RAH8PD	Photographed	Nikon D40
	Lift	Clear tape, black background card
RJPGKJ	Photography	Nikon D300 digital camera, TIFF Files
	Scanning	Digital Epson Perfection V600 photo scanner, TIFF files
	Photography	Nikon D300 digital camera, TIFF Files
	Scanning	Digital Epson Perfection V600 photo scanner, TIFF files
RNKFTM	Photography	Latent prints designated on evidence and captured with scale
RPCJF3	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
RRY9L2	Photography	saved into a secure photo valut
	Scanning	saved into a secure photo valut
RYHCVN	Photography	Photography was used to preserve the ridge detail observed and image was loaded to the [Laboratory] Digital Imaging Server.
T8RZ9M	Photography	
T9NGJY	Photography	DCS-4
TBU29K	Photography	Foster+Freeman DCS-4 system
TCNPM9	Photography	Impressions photographed in RAW format Impressions enhanced using photoshop
	Lift Card	
TETGFL	Photography	Digital, Camera/Lens3
TFNZGN	Photography	digital
	Scanning	digital
TKEAT8	Photography	photography before and after cyanoacrylate fuming, and photography after 1.2-indanedione in the dark with cyan light 500nm and orange filter
TKFAPZ	Photography	
TLBQ4J	Photography	Nikon D200 (RAW); FSIS
	Adobe Photoshop CS6	Digital image processing to remove any color and create grayscale composite sheet for file
TPQF9D	Photography	Direct reflection at 45 degree angle for visual and CA
	Photography	450nm light and orange filter for RAY photos
U63QGF	Photography	After Cyanoacrylate and after BY40.
U7V8L3	None	
UCJUG9	Photography	Photographed Results after CA Fuming, Powder, and 1,2-IND

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
UDTW6R	Photography	Server/CDR
UENE8T	Photography	
	Lifting	
UGUZWE	Photography	to record any positive or improved development between processes
UGXXCQ	Photography	Capture (SG mark) on DCS4 using White crime lite
	Photography	Capture gel lift on DCS4 using ring light and polariser
	Photography	Capture (Fluorescent powder mark) on DCS4 (476nm)
UKVKRL	Photography	Photo Evidence Scale
UWRWFD	Photography	Plastic Window: Using Krime Site Imaging system, photo (M-80) taken of developed print.
UZQ9BD	Photography	
V79VPF	Photography	digital
VFCB88	Photography	
VQURYE	Photography	Nikon D2X w/orange filter; MCS @515 wavelength
W2C4ZC	Photography	
W42ZJG	Digital Photography	F-16 @ 1/40 sec. Saved as JPG/RAW files
WALRDB	Photography	
WFTLMR	Photography	
WHDBRJ	Photography	CA; RAM (Wavelength: 415nm, Filter: Yellow)
WPGHNR	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
X7KCT8	Photography	Used side lighting and black backer behind window of envelope after cyanoacrylate fuming
	Photography	Used a fixed wavelength (532 nm) laser for lighting and an orange filter after DFO and dye stain
X7M2ZP	Photography	Photgraphed the impression without and with a scale
XCKZ2X	Photography	Nikon D3; Mini Crime Scope @515 wavelength w/orange filter lens
	Scanning	Epson Expression 10000XL after powder
XGK3CT	Photography	DCS-4
XHETH9	Photography	Room light with all processes; Adobe Photoshop CC 2015 to enhance one image
XV6K8H	Scanning	
	Photography	FLS - 450 nm/orange filter
XVZ8L8	Photography	
XWC7EV	None	
XWVQM9	Photography	Canon 5D Mark II - >1000 ppi
Y3JPGU	Photography	DCS-4
	Lifting	Placed onto card stock
Y9MWWX	None	
YBTUCE	Photography	
YCM8PC	Photography	
	Scanning	
	Lifting	Hinge lift
YH9XC8	Photography	This was done at initial visual examination, after item was CA fumed, as well as, after black powder.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
YM4RA9	1:1 photos	RAW and TIFF format
	Latent Lift	tape on white backer
YNXFUP	Photograph with scale	TIFF compression - photo'd after black magnetic powder application
	Gelatin Lifter	Same procedure as item 2
YVZMCD	photocopy	5/26
	Photography	5/26: of magnetic powder print
	Photography	5/31: of magnetic powder and ninydrin print
Z2WDZF	Photography	CA; Ardrox (Wavelength: 415nm, Filter: Yellow)
Z9G2PW	None	
ZACWKE	Photography	
ZB8FLG	Photography	ALS (475nm); CA; Ardrox (Wavelength: 415nm, Filter: Yellow)
ZCZWTN	Photography	Latent print labeled 3L2 photographed after cyanoacrylate fuming (visible on plastic portion only) utilizing an LED flashlight and fluorescent light source. 3L2 was re-photographed after processing with DFO utilizing an ALS at 510nm and an orange filter (visible on both the plastic and paper portions of envelope). L2 was then re-photographed after dye staining with Rhodamine 6G utilizing an ALS at 510nm and an orange filter (only plastic window processed with R6G).
ZELA2D	Photography	
ZMK4RD	Photography	MP4 - Camera stand - Nikon D3000 60 mm Lens
ZNB8GE	Lifting	gel lift and GLScan
	Scanning	flat bed
ZNEQ73	Photography (prior to processing)	Used a Nikon SLR camera in Manual mode, F-18. I calibrated, enhanced (Photohop CS4), saved, and created a composite sheet to be printed out.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
	Scanner	I then scanned at 1200 ppi the envelope Quad A and the images were placed on the composite sheet with the photographs
ZTLKYD	Photography	Photographed visible ridge detail and/or enhanced ridge detail after each processing technique that resulted in enhancement to the print. Prior to physical processing, direct lighting was utilized to preserve ridge detail on plastic window that was visible. After applying magnetic powder, the print was visible across both substrates and photographed without utilizing any special photography techniques.
ZVUR6C	Photography	FOSTER & FREEMAN DCS4 SYSTEM
ZYQGKX	Application of IND/ZnCl2 with a pipette on the paper area	In order not to alter the fingermark revealed with Lumicyano Powder on the window
	Photography	Photographs of the fingermark were conducted (DCS4 System) after = - Lumicyano Powder (visible reflection) and IND/ZnCl2
	Safe packaging and storage	
ZZMWWV	Photography	Nikon D810; saved as .tif; uploaded to ADAMS

Response Summary

Participants: 264

Methods Utilized

Lifting	31
Photography	280
Scanning	31

**Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.

First-Level Detail Findings

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
244GGP	N/A	N/A
2EJBU4	No	N/A
2GTRZA	No	
2JTNC3	Yes	Whorl
32VZRD	No	
36VBND	No	
37QUPE	No	
38WCNB	Yes	Loop
3CCCWF	No	
3L3TRC	No	
3R6HE6	Yes	Whorl
43JJ2V	N/A	N/A
44E34W	N/A	N/A
498YU9	N/A	N/A
4BEGQJ	Yes	Whorl
4C8MG6	No	
4R3RF7	N/A	N/A
4TTXVW	Yes	Whorl
64C767	No	N/A
6RYEQP	Yes	Whorl
6TAEN6	No	N/A
6TB4VM	N/A	N/A
6U6U22	No	
6UM4PW	No	
6YF8JZ	No	
6ZTL6N	Yes	Whorl
747WGJ	No	

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
786MU6	No	
79KFXZ	Yes	Whorl
7E86KV	N/A	N/A
7GCT37	N/A	N/A
7J2YHW	No	N/A
7MJVV9	No	N/A
7WJJM6	Yes	Whorl
7WN4B9	N/A	N/A
87BP9W	Yes	Whorl
89FDQ8	Yes	Whorl
8CGH3R	Yes	Whorl
8DMFJA	No	
8H2E93	Yes	Whorl
8PLGDJ	N/A	N/A
8UYEK7	N/A	N/A
8VQHA8	N/A	N/A
8XTGKZ	No	N/A
8XUL94	No	
94FNKK	Yes	N/A
94VJWY	No	
99AK66	No	N/A
9CBZP9	Yes	Whorl
9FRVKQ	N/A	N/A
9JQ8GQ	Yes	Whorl
9JWJ32	N/A	N/A
9KLPHR	Yes	Whorl
9TFX3H	No	N/A
9TJHT8	No	N/A

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
9UUKE7	N/A	
9VKM47	N/A	N/A
9WJTML	No	
9XENG6	Yes	Whorl
A6783W	No	
ABVQ6R	Yes	N/A
AD2YMJ	Yes	Whorl
AJADFG	Yes	Whorl
AJC3KD	Yes	Whorl
ANXRP3	N/A	N/A
APXZ92	Yes	N/A
ARW3K3	N/A	N/A
B278FK	N/A	N/A
B8BW4K	N/A	N/A
BBDW4H	N/A	N/A
BKHGCY	N/A	N/A
BL6TVH	No	
BNDB9Z	N/A	N/A
BPAC4B	N/A	N/A
BPTZL7	N/A	N/A
BRV6UK	No	
BYE4T6	N/A	N/A
BYJLR4	N/A	N/A
C3ERML	Yes	Whorl
C6HM8N	No	
CFZ8QK	No	N/A
CGVPTL	No	N/A
CH8LXQ	Yes	Whorl

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
CQLBXK	N/A	N/A
CWAQRX	Yes	Whorl
D39WGK	Yes	Whorl
D6DKYV	N/A	N/A
D7RRKD	No	
D84QEL	Yes	Whorl
DGB7LU	No	
DP3NXG	N/A	N/A
DTJBBM	N/A	N/A
E4KWDE	No	
E8GKT2	N/A	N/A
E9EQBF	N/A	N/A
EAKMRX	N/A	N/A
ECRXAZ	N/A	N/A
EGLR82	N/A	N/A
EJQU8X	No	N/A
EKLBJU	Yes	Whorl
EQXMTV	No	
EUCWPT	Yes	Whorl
EVM7VP	Yes	Whorl
EVQNTN	No	N/A
EXCHLH	Yes	Whorl
F6BGKB	No	
F7476R	No	
F7ZH9T	No	N/A
FBUC7U	No	
FBZULY	No	N/A
FFQ97Y	N/A	N/A

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
FKFFDU	N/A	N/A
FQ9K7X	No	N/A
FRHVCU	Yes	N/A
FUNVJ2	No	
FVZFYA	N/A	N/A
FZDVT9	No	
G3ZULW	N/A	N/A
G4TMGF	Yes	Whorl
G642VW	N/A	N/A
G8B6C7	Yes	Whorl
G8TYDF	Yes	Whorl
GDGMPD	No	N/A
GGKAPW	N/A	N/A
GLQ8UU	Yes	Whorl
GUJH7B	N/A	N/A
GVE29C	No	N/A
GWCC2U	Yes	N/A
GZDRLX	No	
H7UBCV	N/A	N/A
HDG2XQ	N/A	N/A
HJEW9B	No	
HLKDNT	No	N/A
HM2AFT	Yes	Whorl
HM4YMB	No	
HPLT9X	Yes	Whorl
HVDNZA	Yes	Whorl
HW42WU	N/A	N/A
J4KKLR	N/A	N/A

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
J8K99N	No	
JBJJ4N	No	
JDVRHV	Yes	Whorl
JE6U7F	Yes	Whorl
JT294N	No	
JXETDU	Yes	Whorl
K34T6V	N/A	N/A
K3N4RP	No	
K42XMA	Yes	Whorl
K6ADUF	No	
KA9X62	Yes	Whorl
KMRACU	N/A	N/A
KRKE4D	Yes	Whorl
KUUJG3	Yes	Whorl
KV7YB3	Yes	Whorl
KX9Y8U	Yes	Whorl
KZXCPC	Yes	Whorl
KZZ2U9	No	N/A
L7M3V8	No	
L9P6JN	Yes	Whorl
L9RVP7	N/A	N/A
LAJQCE	No	
LBU6QV	No	
LDJYGP	Yes	Whorl
LGZYKQ	No	
LHTFPD	Yes	Whorl
LPDHVU	N/A	N/A
LQMNB4	No	

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
M4TZ3N	Yes	Whorl
M96H9R	Yes	Whorl
MFKM9J	Yes	
MTR9ZP	N/A	N/A
MWBYUL	N/A	N/A
MZTP8P	No	N/A
N3RHKK	N/A	N/A
N4M2LL	N/A	N/A
N7D6D8	No	
NABNGQ	No	N/A
NDBC3M	N/A	N/A
NGVPW4	N/A	N/A
NJ28VY	No	
NQ3LHL	No	N/A
NTAJAH	N/A	N/A
NXW43J	No	
PATYQJ	No	
PHJKWH	No	
PJE3XJ	Yes	Whorl
PJVEE3	Yes	Whorl
PLKZGL	Yes	Loop
PRBV9X	Yes	Whorl
PYRCYM	No	
Q9TEGP	Yes	Whorl
QAM4KH	Yes	N/A
QDNK6M	Yes	Whorl
QGKWVX	No	N/A
QHFFWY	Yes	Whorl

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
QRKA67	Yes	N/A
QU87FH	No	N/A
QUV39K	No	N/A
QY2ZDJ	Yes	N/A
R2AFKP	N/A	N/A
R6P3XU	No	N/A
R7JT2N	N/A	N/A
R8BVN4	No	
RAH8PD	No	N/A
RJPGKJ	N/A	N/A
RNKFTM	Yes	Whorl
RPCJF3	No	
RRY9L2	No	
RYHCVN	No	N/A
T8RZ9M	N/A	N/A
T9NGJY	No	N/A
TBU29K	N/A	N/A
TCNPM9	No	N/A
TETGFL	N/A	N/A
TFNZGN	N/A	N/A
TKEAT8	Yes	Whorl
TKFAPZ	N/A	N/A
TLBQ4J	No	N/A
TPQF9D	No	N/A
U7V8L3	No	
UCJUG9	Yes	Whorl
UDTW6R	N/A	N/A
UENE8T	No	N/A

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
UGUZWE	Yes	Whorl
UGXXCQ	N/A	N/A
UKVKRL	No	
UWRWFD	No	
UZQ9BD	No	N/A
V79VPF	N/A	N/A
VFCB88	Yes	Whorl
VQURYE	Yes	Whorl
W2C4ZC	N/A	N/A
W42ZJG	Yes	Whorl
WALRDB	N/A	N/A
WFTLMR	No	
WHDBRJ	No	
WPGHNR	No	
X7KCT8	Yes	Whorl
X7M2ZP	No	N/A
X7M9ZW	Yes	N/A
XCKZ2X	Yes	Whorl
XGK3CT	No	N/A
XHETH9	Yes	Whorl
XV6K8H	N/A	N/A
XVZ8L8	Yes	Whorl
XWC7EV	No	N/A
XWVQM9	No	
Y3JPGU	No	N/A
Y9MWWX	Yes	N/A
YBTUCE	No	
YCM8PC	Yes	

TABLE 4 - Item 1

WebCode	First Level Detail?	Identified Pattern?
YH9XC8	No	
YM4RA9	No	N/A
YNXFUP	N/A	N/A
YVZMCD	N/A	N/A
Z2WDZF	No	
Z9G2PW	Yes	Whorl
ZACWKE	No	
ZB8FLG	No	
ZCZWTN	Yes	Whorl
ZELA2D	No	
ZMK4RD	No	
ZNB8GE	No	N/A
ZNEQ73	No	
ZTLKYD	No	
ZVUR6C	N/A	N/A
ZYQGKX	Yes	Whorl
ZZMWWV	N/A	N/A

Findings Summary

Total Participants: 270

1st Level	Total
Arch	0
Loop	2
Whorl	70
No	108
N/A	76

*NOTE: These numbers may not add up to the total # of participants, as not all who found first level detail could determine one specific pattern type.

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
244GGP	N/A	N/A
2EJBU4	Yes	Loop
2GTRZA	N/A	N/A
2JTNC3	Yes	Loop
32VZRD	Yes	Loop
36VBND	Yes	Loop
37QUPE	Yes	Loop
38WCNB	Yes	Loop
3CCCWF	Yes	Loop
3L3TRC	Yes	Loop
3R6HE6	Yes	Loop
43JJ2V	N/A	N/A
44E34W	N/A	N/A
498YU9	N/A	N/A
4BEGQJ	Yes	Loop
4C8MG6	Yes	Loop
4TTXVW	Yes	Loop
64C767	Yes	Loop
6RYEQP	Yes	Loop
6TAEN6	Yes	Loop
6TB4VM	N/A	N/A
6U6U22	Yes	Loop
6UM4PW	Yes	Loop
6YF8JZ	Yes	Loop
6ZTL6N	Yes	Loop
747WGJ	Yes	Loop
786MU6	Yes	Loop
79KFXZ	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
7E86KV	N/A	Whorl
7GCT37	N/A	N/A
7J2YHW	Yes	Loop
7MJVV9	Yes	Loop
7WJJM6	Yes	Loop
7WN4B9	Yes	Loop
87BP9W	Yes	Loop
89B3LN	Yes	Arch
89FDQ8	Yes	Loop
8CGH3R	Yes	Loop
8DMFJA	Yes	Loop
8H2E93	Yes	Loop
8PLGDJ	N/A	N/A
8UYEK7	N/A	N/A
8VQHA8	N/A	N/A
8XTGKZ	Yes	Loop
8XUL94	Yes	Loop
94FNKK	Yes	Loop
94VJWY	Yes	Loop
99AK66	Yes	Loop
9CBZP9	Yes	Loop
9FRVKQ	N/A	N/A
9JQ8GQ	Yes	Loop
9JWJ32	N/A	N/A
9KLPHR	Yes	Loop
9TFX3H	Yes	Loop
9TJHT8	Yes	Loop
9UUKE7	N/A	

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
9VKM47	N/A	N/A
9WJTML	Yes	Loop
9XENG6	Yes	Loop
A6783W	Yes	Loop
ABVQ6R	Yes	Loop
AD2YMJ	Yes	Loop
AJADFG	Yes	Loop
AJC3KD	Yes	Loop
ANXRP3	N/A	N/A
APXZ92	Yes	Loop
ARW3K3	N/A	N/A
B278FK	N/A	N/A
B8BW4K	N/A	N/A
BBDW4H	N/A	N/A
BKHGCY	N/A	N/A
BL6TVH	Yes	Whorl
BNDB9Z	N/A	N/A
BPAC4B	N/A	N/A
BPTZL7	N/A	N/A
BRV6UK	Yes	Loop
BYE4T6	N/A	N/A
BYJLR4	N/A	N/A
C3ERML	Yes	Loop
C6HM8N	Yes	Loop
CFZ8QK	Yes	Loop
CGVPTL	Yes	Loop
CH8LXQ	Yes	Loop
CQLBXK	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
CWAQRX	Yes	Loop
D39WGK	Yes	Loop
D6DKYV	N/A	N/A
D7RRKD	Yes	Loop
D84QEL	Yes	Loop
DGB7LU	Yes	Loop
DP3NXG	N/A	N/A
DTJBBM	N/A	N/A
E4KWDE	Yes	Loop
E8GKT2	N/A	N/A
E9EQBF	N/A	N/A
EAKMRX	N/A	N/A
ECRXAZ	N/A	N/A
EGLR82	N/A	N/A
EJQU8X	Yes	Loop
EKLBJU	Yes	Loop
EQXMTV	Yes	Loop
EUCWPT	Yes	Loop
EVM7VP	Yes	Loop
EVQNTN	Yes	Loop
EXCHLH	Yes	Loop
F6BGKB	Yes	Loop
F7476R	Yes	Loop
F7ZH9T	Yes	Loop
FBUC7U	Yes	Loop
FBZULY	Yes	Loop
FFQ97Y	N/A	N/A
FKFFDU	N/A	N/A

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
FQ9K7X	Yes	N/A
FRHVCU	Yes	Loop
FUNVJ2	Yes	Loop
FVZFYA	N/A	N/A
FZDVT9	Yes	Loop
G3ZULW	N/A	N/A
G4TMGF	Yes	Loop
G642VW	N/A	N/A
G8B6C7	Yes	Loop
G8TYDF	Yes	Loop
GDGMPD	Yes	Loop
GGKAPW	N/A	N/A
GLQ8UU	Yes	Loop
GUJH7B	N/A	N/A
GVE29C	Yes	Loop
GWCC2U	Yes	Loop
GZDRLX	Yes	Loop
H7UBCV	N/A	N/A
HDG2XQ	N/A	N/A
HJEW9B	Yes	Loop
HLKDNT	Yes	Loop
HM2AFT	Yes	Loop
HM4YMB	Yes	Loop
HPLT9X	Yes	Loop
HVDNZA	Yes	Loop
HW42WU	N/A	N/A
J4KKLR	N/A	N/A
J8K99N	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
JBJJ4N	Yes	Loop
JDVRHV	Yes	Loop
JE6U7F	Yes	Loop
JT294N	Yes	Loop
JXETDU	Yes	Loop
K34T6V	N/A	N/A
K3N4RP	Yes	Loop
K42XMA	Yes	Loop
K6ADUF	Yes	Loop
KA9X62	Yes	Loop
KMRACU	N/A	N/A
KRKE4D	Yes	Loop
KUUJG3	Yes	Loop
KV7YB3	Yes	Loop
KX9Y8U	Yes	Loop
KZXCPC	Yes	Loop
KZZ2U9	Yes	Loop
L7M3V8	Yes	Loop
L9P6JN	Yes	Loop
L9RVP7	N/A	N/A
LAJQCE	Yes	Loop
LBU6QV	Yes	Loop
LDJYGP	Yes	Loop
LGZYKQ	Yes	Loop
LHTFPD	Yes	Loop
LPDHVU	N/A	N/A
LQMNB4	Yes	Loop
M4TZ3N	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
M96H9R	Yes	Loop
MFKM9J	Yes	Loop
MTR9ZP	N/A	N/A
MWBYUL	N/A	N/A
MZTP8P	Yes	Loop
N3RHKK	N/A	N/A
N4M2LL	N/A	N/A
N7D6D8	Yes	Loop
NABNGQ	Yes	Loop
NDBC3M	N/A	N/A
NGVPW4	N/A	N/A
NJ28VY	Yes	Loop
NQ3LHL	Yes	Loop
NTAJAH	N/A	N/A
NXW43J	Yes	Loop
PATYQJ	Yes	Loop
PHJKWH	Yes	Loop
PJE3XJ	Yes	Loop
PJVEE3	Yes	Loop
PLKZGL	Yes	Loop
PRBV9X	Yes	Loop
PYRCYM	Yes	Loop
Q9TEGP	Yes	Loop
QAM4KH	Yes	Loop
QDNK6M	Yes	Loop
QGKWVX	N/A	N/A
QHFFWY	Yes	Loop
QRKA67	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
QU87FH	Yes	Loop
QUV39K	Yes	Loop
QY2ZDJ	Yes	Loop
R2AFKP	N/A	N/A
R6P3XU	Yes	Loop
R7JT2N	N/A	N/A
R8BVN4	Yes	Loop
RAH8PD	Yes	Loop
RJPGKJ	N/A	N/A
RNKFTM	Yes	Loop
RPCJF3	Yes	Loop
RRY9L2	Yes	Loop
RYHCVN	Yes	Loop
T8RZ9M	N/A	N/A
T9NGJY	Yes	Loop
TBU29K	N/A	N/A
TCNPM9	Yes	Loop
TETGFL	N/A	N/A
TFNZGN	N/A	N/A
TKEAT8	Yes	Loop
TKFAPZ	Yes	Loop
TLBQ4J	Yes	Loop
TPQF9D	Yes	Loop
U7V8L3	Yes	Loop
UCJUG9	Yes	Loop
UDTW6R	N/A	N/A
UENE8T	Yes	Loop
UGUZWE	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
UGXXCQ	N/A	N/A
UKVKRL	Yes	Loop
UWRWFD	Yes	Loop
UZQ9BD	Yes	Loop
V79VPF	N/A	N/A
VFCB88	Yes	Loop
VQURYE	Yes	Loop
W2C4ZC	N/A	N/A
W42ZJG	Yes	Loop
WALRDB	N/A	N/A
WFTLMR	Yes	Loop
WHDBRJ	Yes	Loop
WPGHNR	Yes	Loop
X7KCT8	Yes	Loop
X7M2ZP	Yes	Loop
X7M9ZW	Yes	Loop
XCKZ2X	Yes	Loop
XGK3CT	Yes	Loop
XHETH9	Yes	Loop
XV6K8H	N/A	N/A
XVZ8L8	Yes	Loop
XWC7EV	Yes	Loop
XWVQM9	Yes	Loop
Y3JPGU	Yes	Loop
Y9MWWX	Yes	Loop
YBTUCE	Yes	Loop
YCM8PC	Yes	Loop
YH9XC8	Yes	Loop

TABLE 4 - Item 2

WebCode	First Level Detail?	Identified Pattern?
YM4RA9	Yes	Loop
YNXFUP	N/A	N/A
YVZMCD	N/A	N/A
Z2WDZF	Yes	Loop
Z9G2PW	Yes	Loop
ZACWKE	Yes	Loop
ZB8FLG	Yes	Loop
ZCZWTN	Yes	Loop
ZELA2D	Yes	Loop
ZMK4RD	Yes	Loop
ZNB8GE	Yes	Loop
ZNEQ73	Yes	Loop
ZTLKYD	Yes	Loop
ZVUR6C	N/A	N/A
ZYQGKX	Yes	Loop
ZZMWWV	N/A	N/A

Findings Summary Total Participants: 270

1st Level	Total
Arch	1
Loop	191
Whorl	1
No	0
N/A	74

*NOTE: These numbers may not add up to the total # of participants, as not all who found first level detail could determine one specific pattern type.

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
244GGP	N/A	N/A
2EJBU4	No	N/A
2GTRZA	N/A	N/A
2JTNC3	Yes	Whorl
32VZRD	Yes	Whorl
36VBND	Yes	Whorl
37QUPE	Yes	N/A
38WCNB	Yes	Whorl
3CCCWF	Yes	Whorl
3L3TRC	Yes	Whorl
3R6HE6	Yes	N/A
43JJ2V	N/A	N/A
44E34W	N/A	N/A
498YU9	N/A	N/A
4BEGQJ	Yes	Whorl
4C8MG6	Yes	Whorl
4TTXVW	Yes	Whorl
64C767	Yes	Whorl
6RYEQP	Yes	Whorl
6TAEN6	Yes	Whorl
6TB4VM	N/A	N/A
6U6U22	No	
6UM4PW	Yes	Whorl
6YF8JZ	Yes	Whorl
6ZTL6N	Yes	Whorl
747WGJ	Yes	Whorl
786MU6	No	
79KFXZ	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
7E86KV	N/A	N/A
7GCT37	N/A	N/A
7J2YHW	Yes	Whorl
7MJVV9	Yes	Whorl
7WJJM6	Yes	Whorl
7WN4B9	N/A	N/A
87BP9W	Yes	Whorl
89B3LN	Yes	Whorl
89FDQ8	Yes	Loop, Whorl
8CGH3R	No	
8DMFJA	Yes	N/A
8H2E93	Yes	Whorl
8PLGDJ	N/A	N/A
8UYEK7	N/A	N/A
8VQHA8	N/A	N/A
8XTGKZ	Yes	Whorl
8XUL94	Yes	Whorl
94FNKK	Yes	Whorl
94VJWY	Yes	Whorl
99AK66	Yes	Whorl
9CBZP9	Yes	Whorl
9FRVKQ	N/A	N/A
9JQ8GQ	Yes	Whorl
9JWJ32	N/A	N/A
9KLPHR	Yes	Whorl
9TFX3H	Yes	Whorl
9TJHT8	No	N/A
9UUKE7	N/A	

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
9VKM47	N/A	N/A
9WJTML	No	
9XENG6	Yes	Whorl
A6783W	Yes	N/A
ABVQ6R	Yes	Whorl
AD2YMJ	No	
AJADFG	Yes	Whorl
AJC3KD	Yes	Whorl
ANXRP3	N/A	N/A
APXZ92	Yes	Whorl
ARW3K3	N/A	N/A
B278FK	N/A	N/A
B8BW4K	N/A	N/A
BBDW4H	N/A	N/A
BKHGCY	N/A	N/A
BL6TVH	Yes	Loop
BNDB9Z	N/A	N/A
BPAC4B	N/A	N/A
BPTZL7	N/A	N/A
BRV6UK	Yes	Whorl
BYE4T6	N/A	N/A
BYJLR4	N/A	N/A
C3ERML	Yes	Whorl
C6HM8N	Yes	Whorl
CFZ8QK	Yes	N/A
CGVPTL	Yes	Whorl
CH8LXQ	Yes	Whorl
CQLBXK	N/A	N/A

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
CWAQRX	Yes	Whorl
D39WGK	Yes	Whorl
D6DKYV	N/A	N/A
D7RRKD	Yes	Whorl
D84QEL	Yes	N/A
DGB7LU	Yes	Whorl
DP3NXG	N/A	N/A
DTJBBM	N/A	N/A
E4KWDE	Yes	Whorl
E8GKT2	N/A	N/A
E9EQBF	N/A	N/A
EAKMRX	N/A	N/A
ECRXAZ	N/A	N/A
EGLR82	N/A	N/A
EJQU8X	Yes	Whorl
EKLBJU	No	
EQXMTV	No	
EUCWPT	Yes	Whorl
EVM7VP	No	
EVQNTN	Yes	Whorl
EXCHLH	Yes	Whorl
F6BGKB	Yes	Whorl
F7476R	Yes	
F7ZH9T	Yes	Whorl
FBUC7U	Yes	Whorl
FBZULY	No	N/A
FFQ97Y	N/A	N/A
FKFFDU	N/A	N/A

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
FQ9K7X	Yes	N/A
FRHVCU	Yes	Whorl
FUNVJ2	Yes	N/A
FVZFYA	N/A	N/A
FZDVT9	Yes	Whorl
G3ZULW	N/A	N/A
G4TMGF	Yes	Whorl
G642VW	N/A	N/A
G8B6C7	Yes	Whorl
G8TYDF	Yes	N/A
GDGMPD	No	N/A
GGKAPW	N/A	N/A
GLQ8UU	Yes	Whorl
GUJH7B	N/A	N/A
GVE29C	Yes	Whorl
GWCC2U	Yes	Whorl
GZDRLX	Yes	Whorl
H7UBCV	N/A	N/A
HDG2XQ	N/A	N/A
HJEW9B	Yes	
HLKDNT	Yes	Whorl
HM2AFT	Yes	Whorl
HM4YMB	Yes	Whorl
HPLT9X	Yes	Whorl
HVDNZA	Yes	Whorl
HW42WU	N/A	N/A
J4KKLR	N/A	N/A
J8K99N	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
JBJJ4N	Yes	Whorl
JDVRHV	Yes	Whorl
JE6U7F	Yes	Whorl
JT294N	Yes	Whorl
JXETDU	Yes	Whorl
K34T6V	N/A	N/A
K3N4RP	Yes	Whorl
K42XMA	Yes/No	Whorl
K6ADUF	Yes	Whorl
KA9X62	Yes	N/A
KMRACU	N/A	N/A
KRKE4D	Yes	Whorl
KUUJG3	Yes	Whorl
KV7YB3	Yes	Whorl
KX9Y8U	Yes	Whorl
KZXCPC	Yes	Whorl
KZZ2U9	Yes	Whorl
L7M3V8	Yes	Whorl
L9P6JN	Yes	N/A
L9RVP7	N/A	N/A
LAJQCE	Yes	Whorl
LBU6QV	Yes	N/A
LDJYGP	Yes	Whorl
LGZYKQ	Yes	Whorl
LHTFPD	Yes	Whorl
LPDHVU	N/A	N/A
LQMNB4	Yes	Whorl
M4TZ3N	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
M96H9R	Yes	Whorl
MFKM9J	Yes	Whorl
MTR9ZP	N/A	N/A
MWBYUL	N/A	N/A
MZTP8P	No	N/A
N3RHKK	N/A	N/A
N4M2LL	N/A	N/A
N7D6D8	Yes	Whorl
NABNGQ	No	N/A
NDBC3M	N/A	N/A
NGVPW4	N/A	N/A
NJ28VY	Yes	Whorl
NQ3LHL	Yes	Whorl
NTAJAH	N/A	N/A
NXW43J	Yes	Whorl
PATYQJ	Yes	
PHJKWH	Yes	Whorl
PJE3XJ	No	
PJVEE3	Yes	Whorl
PLKZGL	Yes	Whorl
PRBV9X	Yes	Whorl
PYRCYM	Yes	
Q9TEGP	Yes	N/A
QAM4KH	Yes	N/A
QDNK6M	Yes	Whorl
QGKWVX	No	N/A
QHFFWY	Yes	Whorl
QRKA67	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
QU87FH	Yes	Whorl
QUV39K	Yes	Whorl
QY2ZDJ	Yes	Whorl
R2AFKP	N/A	N/A
R6P3XU	Yes	Whorl
R7JT2N	N/A	N/A
R8BVN4	Yes	Whorl
RAH8PD	Yes	
RJPGKJ	N/A	N/A
RNKFTM	Yes	Whorl
RPCJF3	Yes	Whorl
RRY9L2	Yes	Whorl
RYHCVN	Yes	Whorl
T8RZ9M	N/A	N/A
T9NGJY	Yes	Whorl
TBU29K	N/A	N/A
TCNPM9	Yes	Whorl
TETGFL	N/A	N/A
TFNZGN	N/A	N/A
TKEAT8	Yes	Whorl
TKFAPZ	Yes	N/A
TLBQ4J	Yes	Whorl
TPQF9D	No	N/A
U7V8L3	Yes	Whorl
UCJUG9	Yes	Whorl
UDTW6R	N/A	N/A
UENE8T	Yes	Whorl
UGUZWE	Yes	Whorl

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
UGXXCQ	N/A	N/A
UKVKRL	Yes	Whorl
UWRWFD	Yes	Whorl
UZQ9BD	Yes	Whorl
V79VPF	N/A	N/A
VFCB88	Yes	Whorl
VQURYE	Yes	Whorl
W2C4ZC	N/A	N/A
W42ZJG	Yes	Arch
WALRDB	N/A	N/A
WFTLMR	No	
WHDBRJ	No	
WPGHNR	Yes	Whorl
X7KCT8	Yes	Whorl
X7M2ZP	Yes	Whorl
X7M9ZW	Yes	Whorl
XCKZ2X	Yes	Whorl
XGK3CT	Yes	Whorl
XHETH9	Yes	
XV6K8H	N/A	N/A
XVZ8L8	Yes	N/A
XWC7EV	Yes	N/A
XWVQM9	No	
Y3JPGU	Yes	Whorl
Y9MWWX	Yes	Whorl
YBTUCE	Yes	Whorl
YCM8PC	Yes	
YH9XC8	No	

TABLE 4 - Item 3

WebCode	First Level Detail?	Identified Pattern?
YM4RA9	Yes	Whorl
YNXFUP	N/A	N/A
YVZMCD	N/A	N/A
Z2WDZF	No	
Z9G2PW	Yes	N/A
ZACWKE	Yes	Whorl
ZB8FLG	Yes	Whorl
ZCZWTN	Yes	Whorl
ZELA2D	Yes	
ZMK4RD	Yes	Whorl
ZNB8GE	Yes	N/A
ZNEQ73	Yes	Whorl
ZTLKYD	Yes	Whorl
ZVUR6C	N/A	N/A
ZYQGKX	Yes	Whorl
ZZMWWV	N/A	N/A

Findings Summary Total Participants: 270

1st Level	Total
Arch	1
Loop	2
Whorl	141
No	22
N/A	75

*NOTE: These numbers may not add up to the total # of participants, as not all who found first level detail could determine one specific pattern type.

Additional Comments

TABLE 5

WebCode	Additional Comments
2EJBU4	Item 1: Ridge detail was found in the 1, 2 IND stage however it was not sufficient to preserve. Item 3: Not enough detail was discovered to determine the pattern.
2GTRZA	We´d like the test to be sent out earlier in the year to avoid summer vacations.
32VZRD	Item 1: Stain recovered in quadrant A
3CCCWF	Item 002 was separated to facilitate photography. Item 003: Cellophane window was removed after photography of CA prints to facilitate processing. For Item 1-6.), I was unable to uncheck N/A after accidently clicking the radial button. There should be no marks for 1-6.
3L3TRC	Item 1: We used our available certified methods for porous material; DFO, Ninhydrin and Physical Developer. The method Indandione has not yet been certified at [Laboratory], otherwise it would probably had been a suitable method for this type of material. Item 2: The latent print was recovered by Visual Examination and after Cyanoacrylate fuming and Basic Yellow 40 treatment. No examination has been done after Cyanoacrylate fuming only.
44E34W	Pattern determination not made at this laboratory for court purposes.
64C767	Every examination starts with a visual examination with several lightsources
6TAEN6	Item 1 - No ridge detail was developed throughout the processing steps; therefore, no print/pattern type was recovered. Test print was processed with Items of evidence.
6U6U22	For Item 3, the FRD was above the core therefore pattern determination was not made. However the FRD was suitable for comparison and captured using photography.
747WGJ	Item #1 - no ridge structure developed at all. Ninhydrin positive and negative controls functioned as expected.
7WJJM6	Attached an annex with photos. [Could not reproduce for report] [From Table 2 - Development Methods, Item 3: "1,2-Indanedone Zinc Chloride, Ninhydrin Petrolium Eter, Physical Developer: These three processes are applied only to the paper of the envelope"]
87BP9W	Item 1 - Quadrant "A" latent was faint with broken ridge details.
89FDQ8	F3 + F4 in fact are two segments of one FP left on two different surface of item 3. Half was on the upper window (F3) + half on the envelope adjacent to the window (F3). Initially F3 wasn't clear if it was whorl or loop also F4 on its own looks like whorl or loop but when looked closely it was found that it is in fact one FP with whorl pattern. Develope FP Images can be provided if requested. [From Table 4 - First-Level Detail Findings, Item 2: "Loop, with right slope"]
8CGH3R	the print developed on Item 3 is valuable for comparison, anyway.
8UYEK7	Item #1 was processed using RTX and Ninhydrin. After being processed, only three (3) individual purple dots developed in Quadrant A and some purple appeared on the back of Item #1. In my opinion those three (3) individual dots were not enough to state that a print was developed. Item #1 was photographed to show no development.
8XUL94	No seals was broken when received. The test was performed by [Name]
94VJWY	On Item 1 (manila envelope) we could see a very faint mark in section A. After developing by DFO we could see some dots of fluorescense in section A, but not recognized as a fingerprint. When using the developing methods Cyanoacrylate Fuming, Ninhydrin and DFO we always start by developing a test print, ensuring that the liquids and instruments is working.

TABLE 5

WebCode	Additional Comments
9CBZP9	On Item 1 and Item 3 after application ninhydrin was not observed latent prints.
9FRVKQ	LOT #'s: Cyanoacrylate 051115GPA, Sirchie "HI-FI"silk black powder 011516GPA, Faurot "Chemist Gray" powder 051115GPA, Ninhydrin 022316GPA
9JQ8GQ	Fingerprints were very easy to observe and develop. Chemical development of fingerprint left on mirror wasn't necessary and it was conducted in purpose of demonstration of our methods.
9JWJ32	Item 1 = V(-), N(+), PD(-) A. Item 2 = V(+), CA(+), MP(+), RAY(+) D. Item 3 = V(-), N(+), PD(-) A. Item 3.1 = V(+), CA(+), MP(+), RAY(+) A.
9KLPHR	Item 1 = double loop (classified whorl [2 deltas] in our department) observed with 1,2 indanedione/ZnCl2 but not visible with nihydrine. Item 2 = right loop observed with coaxial incident (optical detection) or lumicyanoacrylate CST. Item 3 = whorl observed in same times with lumicyano CST on window (first part of fingerprint) and 1,2 indanedione on paper (second part of fingerprint).
9TJHT8	All photographic documentation performed for the purpose of comparative analysis was done with a Canon 5D DSLR, RAW format, using a Canon 100 mm lens with a surface to sensor distance no greater than 0.49 meters.
A6783W	Item 3: tip-pattern not able to be determined.
ABVQ6R	Observed additional print development on back of item No. 2 - mirror compact.
AD2YMJ	Item 3 - windowed mailer envelope - upper part of finger mark - no core and delta(s)
AJC3KD	Test prints were processed with Items of evidence.
ANXRP3	Images of latent prints were captured with digital photography on each step of the process.
APXZ92	Item 1 - Ridge detail present, pattern type not discernible. Test print was processed with Items of evidence.
BBDW4H	Test print results for all processing steps were positive
BKHGCY	The methods that´s in the scope of our accreditation was used during this test. If we were accredited for DFO we would have used it before the ninhydrin on item 1 and 3 (not the plastic windows).
BL6TVH	After DFO processing we could see weak fingerprint in section A of item 1. But we couldn't make sure what pattern it was.
C3ERML	Specialize Processing Techniques: Silver Nitrate, Gentian Violet, Sticky side powder, wetwop, titanium dioxide, Amid Blk, LeucoCrystal Violet, Small particle reagent, Wet print, Sudan Blk, MRM, RAM, RTX, SPR, Iodine spray, MEK, MBD, Alternative sticky side powder.
C6HM8N	Test prints were ran using the Ninhydrin that was used on Items 1 and 3. Test prints were placed on a white piece of paper and a manila coin envelope. Same processing procedures were used on test prints that were used in Items 1 and 3. Both test print items were positive for latent print development and this was documented with scanned images of test items. The Silver nitrate was also test printed using a manila coin envelope. Test prints were positive on manila envelope using the silver nitrate. Test prints of silver nitrate was documented using scanned image. The envelope in Item 1 was photographed before and after processing procedures. No Latent Prints were developed/visible on Item 1.
CFZ8QK	Item 3 - Unable to determine pattern
CGVPTL	There doesn't seem to be enough room to write out chemicals used. And it is not clear how specific we need to be in the "Method Specific Information" section. [From Table 4 - First-Level Detail Findings, Item 1: "Appears to maybe be a whorl, but not clear, ridges are spotty."]

TABLE 5

WebCode	Additional Comments
CQLBXK	Item 1 (manila envelope): Unable to determine the pattern type with confidence, but would guess it to be a small whorl. Item 3 (windowed envelope): Unable to determine the pattern type with confidence, but would guess it to be a large whorl.
D7RRKD	Item 1 was processed independently within our latent print unit and 2 examiners developed no ridge structure at all and one examiner developed some ridge structure on the edge of quadrant A. Not sure if that ridge structure was intentional.
D84QEL	The pre-washing of the item 2 was problematic. Indeed, parasit background was observed by cyano fumigation. So, the best mark was photographied during the visual examination.
DGB7LU	Item 1 - very little to no visible ninhydrin reaction, no ridges present
DP3NXG	Due to the complexity of non-porous and porous surfaces on item #3, I deviated from standard processing protocol to prevent destruction of either surface. Standard process for non-porous would've been visual, cyanoacrylate and Ardrox. But Ardrox would've interfered with the porous. Magnetic powder was not an option for the non-porous, due to the possible destruction of the porous surface as well. Therefor the visual exam with a Laser was preferred and resulted with ridge detail for both surfaces.
E4KWDE	Latent print on item 1 was very faint after processing. Outer 2 or 3 ridges visible, but pattern was not determined.
EKLBJU	All fluorescence examination was with Polilight PL 500
EUCWPT	More effective process: Item 1- DFO (to first level details) Item 2- Visual examination (to third level details) Item 3- Black magnetic powders (to third level details non porous surface and to second level details porous surface. Unexpectedly DFO does not give good results on porous surface (on fingerprint previously developed by powders)
EVQNTN	Item No. 1 have a visible reaction on Ninhydrin process on Quadrant A but latent print is not identifiable print, because of amino acid latent prints are dotted information
F7476R	3-6.) First level detail was recovered on Item 3, but no pattern could be determined (tip only); this was not an option to select (Ardrox).
F7ZH9T	In sample 1, we discovered a print between quadrant B and D. It was deemed poor quality and lacked enough surface impression to registrer quality print. In reference to simple 3, a window mailer envelope was discovered a print wich is located on quadrant A. However the print was divided between two surfaces, the plastic window and the paper surface subsecuently. We decided to employ two differents treatments in order to procedure the prints integrity. A control sample was taken with each sample to check the capability of the treatments.
FKFFDU	The fingerprint on Item 1 was barley visible after DFO (only fragments) and was still weak after Ninhydrin developement. The fingerprint on Item 2 could be seen visually before developement with chemicals. After treating it with chemicals it was smudged and lost details. The fingerprint on Item 3 was developed after Cyanoacrylate. When treating the envelope with DFO and Ninhydrin no prints could be seen. The print developed with Cyanoacrylate became visible again after Basic Yellow.
FRHVCU	Item 1 - Ridge detail noted, insufficient to determine pattern type. Test print was processed with Items of evidence.
G8TYDF	For Item 3, The window portion was removed after SGF and continued with the non-porous processing sequence. The envelope continued with the porous processing sequence. For the prints developed on the window and the envelope, I was unable to determine a pattern type.
GLQ8UU	Test prints were used at all chemical processing steps.

TABLE 5

WebCode	Additional Comments
GWCC2U	The area of ridge detail developed in section A of Item #1 appears consistent with a whorl but unable to definitively discern pattern type.
HJEW9B	All test prints were positive- Cyanoacrylate fuming, R6G, DFO, Nin, laser. Note on Item 1-6: No latents developed. Note on Item 3-6: Tip. Therefore, cannot determine if Arch, Loop or Whorl.
HM4YMB	Item 1 - Very faint reaction in Quadrant A. Unable to determine a pattern.
HPLT9X	1)Before examinations of latent Print Processing on items nr 1, 2, 3 were performed traces on similar types of surfaces to test the method and choose appropriate method and obtain positive resutes. 2) Item 3 windowed envelope - the latent print was developed partly on the envelope and partly on the window.
J8K99N	During the tests we use the following equipment: megaMAXX III made by Sirchie - it's a kit of LED lights sources that emit light in a controlled spectrum centered at the labeled wavelenght 395-625 nm and white. vacum chamber VAC200 made by Sirchie - it's a kit used to cyanokarylate fuming.
JE6U7F	The mirror and manila envelope had other possible ridge detail
K34T6V	Item 002 - Phototag for mag. powder has incorrect photo tag item number (photos 1486 & 1487). They are labeled "Item 003A" and should be labeled "Item 002".
K3N4RP	Item 3: on the plastic part of item 3 the second level of details was seen. The rest of the print was weaker on the paper part of item 3.
K42XMA	Item 3: Two latent were recovered.
K6ADUF	Saw RD in Quadrant A after IND-Zn but not enough RD suitable for documentation. RD = ridge detail
KA9X62	ITEM 3 could not determine pattern as no delta's present. possibly a whorl however could not confirm.
KV7YB3	Test prints utilized for each chemical/physical processing step.
L7M3V8	Item 1 had a positive reaction in quadrant C, test strip for ninhydrin was positive to .01%. No visible ridge detail in any quadrant of envelope.
L9P6JN	Item 3 - Ridge detail noted/developed was above the core, no pattern type discernible. Test print was processed with Items of evidence.
L9RVP7	On Item #1, there was faint ridge detail developed (no value) with DFO in quadrant "A" (photograph taken). After the Ninhydrin process, no ridge detail had developed.
LDJYGP	All chemicals (IND-Zn, NIN-test prints on butcher paper and manila envelope, R6G-test print CA treated on glass slide) used to process the items of evidence were tested prior to use on evidence or concurrently (CA-test print on glass slide). Visual exam is not a processing or development method, but serves as the first step prior to any chemical or powder processing. Often the photograph of the visible latent print prior to any processing is the best capture to be used for comparison. Information requested under "Method-specific information (ex. temperature, processing time)" and method of preservation is disjointed. It should all be part of one table of information related to each method. The space given to type in method and method specific information only allows string text. This makes it difficult to self-audit, since you will only see the final product when it is printed out.
LGZYKQ	Ridge detail was not enhanced with ninhydrin on Item #3, but oblique lighting visualized the ridge detail on the paper so that the pattern could be determined.
LQMNB4	For Item 1, ridge structure was on very edge of front of quadrant A and ridge structure was also noted on back of quadrant A as well.
M4TZ3N	I am not sure what type of standard CTS is using to make their test prints on paper items but it does not

TABLE 5

WebCode	Additional Comments
	react well to our standard development methods. I routinely utilize either DFO or Indanedione prior to Ninhydrin, so I am able to develop the test prints. But using a fluorescent technique is not required or common practice within my section; had I only used Ninhydrin to process the items, I would not have any ridge detail to show.
MFKM9J	For Item 1 (a manila envelope) - a small amount of faint Level 1 ridge detail was only observed after the item was processed with DFO. No pattern type could be determined. Additional processing techniques were unsuccessful at developing additional detail. The ridge detail observed after DFO was insufficient for further analysis per my training and experience as well as per our division's sufficiency guidelines. All the standards for each processing technique used on Item 1 worked as expected.
MTR9ZP	Item 1 - poor quality print
MWBYUL	For item number 1, a very faint pattern were seen in section number A.
MZTP8P	Based on my experience, I would have expected to have seen some friction ridge detail on Exhibit 3 on the portion of paper adjacent to the envelope window where the top half of a latent fingerprint was developed.
N3RHKK	Prints developed on Item A was very faint
NABNGQ	Item 1: There was a slight color shift visible in quadrant A after steam when viewed under white light and magnification, but not enough was present to even consider it a positive ninhydrin reaction. Item 3: The core area of the print in quadrant A on the windowed mailer was present on the paper portion in ninhydrin but was extremely faint and did not develop adequate level 1 detail. Visible detail and detail developed in MRM-10 on the window contained level 1, 2 and 3 detail. I don't know if the porous items we have received on this test and others were intended to be successful with amino acid processes or were expected to receive results with other processes we do not currently have validated. If amino acid results were expected, may I suggest using Sirchie's "Latent Print Standards Pad" SKU LPSP200. If amino acid results were not the goal, please disregard this suggestion. Thank you.
NGVPW4	Although there was no print developed on Item#1, some ridge detail was observed in quadrant A after development with DFO. Ridge detail was determined to not be of value.
NQ3LHL	The friction ridge detail developed on "Item 1" was not suitable for flow or pattern determinations.
NTAJAH	This test was done By [Province] Police Department´s Crime Scene Unit. Because of this we didn't make detail/pattern determinations (no training).
PHJKWH	Item 1: Extremely slight color reaction in quadrant A. No visible latent print ridge / markings developed. Waited over time with no development occurring.
PYRCYM	3-6 First level detail (ridge flow) was present; however, a pattern type could not be determined. The ridge flow was indicative of being above the core area.
Q9TEGP	For Item 3 only the tip or the finger was developed. Could not distinguish pattern type.
QAM4KH	Item 1 - Level 1 detail, but no visible pattern type. Itme 3 - Level 1 detail, but area visible was above the core, no pattern type. Test prints were processed with Items of evidence.
QRKA67	Item 1 - Ridge detail present, insufficient to determine pattern type. Test prints were processed with items of evidence.
QU87FH	Item #1 had almost no development with DFO or Ninhydrin. Ridge detail was developed in quadrants A, B, and D and on back flap in gum glue. Item #3 had very little development with DFO and Ninhydrin. The amino acid stamp pad being used is giving low grade development.
QY2ZDJ	Item 1 - Ridge detail present, insufficient to determine pattern type. Test print was processed with Items of evidence.

TABLE 5

WebCode	Additional Comments
RAH8PD	[From Table 4 - First-Level Detail Findings, Item 3: "Upper pad of finger above core; pattern not discernible."]
RJPGKJ	Cellophane windows of item 003 were removed after processing with fingerprint powder, prior to Ninhydrin and PD processing of the paper envelope and (separate) RAY processing of the windows.
RPCJF3	The marks found on the paper (Item 1 & Item 3) were not strong enough to be correctly identified.
TCNPM9	Item No. 1 - Minimal Ninhydrin reaction in Quadrant A. Test print for each item and process. All passed.
TFNZGN	Item 3, a print was recovered on the cellophane window and the porous envelope portion in Quadrant A.
TKFAPZ	Item one did show very faint indication of a possible latent print in square A. However at this low recovery level I decided to mark it as "None". Item three only showed the tip of a latent fingerprint which makes it impossible to decide if the print was a arch, loop or whorl.
TLBQ4J	The potential development in Quadrant A on item 1 did not have any discernible friction ridge detail; only faint spots of a Ruhemann's purple reaction were present. Traditionally the FSIS is used for glossy, non-porous surfaces; however, it has been noted that, in some instances, it is successful in visualizing friction ridge detail on porous surfaces as well. Due to this finding it was also used to examine items 1 and 3, both porous items.
U63QGF	The print on Item 1 was barely visible after DFO and not identifiable. It was barely visible after two runs with Ninhydrin and not identifiable. The print on Item 2 was visible from the beginning and identifiable. After Cyanoacrylate it was still visible and identifiable but after BY40 it almost disappeared. The print on the window on Item 3 became visible after Cyanoacrylate and was identifiable. No prints became visible with DFO or Ninhydrin and the print on the window disappeared but became visible again after BY40.
U7V8L3	Please note that the latent print detected on Item 1 did have ridges present, but there was not sufficient clarity to determine if the pattern was a whorl or a loop.
UGXXCQ	Control samples were used alongside the exhibits for Superglue, Dye, DFO, Nin and Fluorescent Powder, all samples were positive.
UKVKRL	1) Latent print on the item nr 3 (windowed envelope) was developed partly on the window and partly on the envelope. 2) All chemicals used during latent print processing on items nr: 1,2,3 were tested on similar types of surfaces with positive results.
UWRWFD	Item 1: Very faint reaction noted in Quadrant A; Question 1-6: N/A selected by mistake - NOTHING should be selected; could not deselect answer. Item 2: Print developed in Quadrant D. Item 3: Partial print developed on plastic window; additional detail developed on paper with powder in Quadrant A.
UZQ9BD	For Item 1- A faint, spotty, purple color change was observed within quadrant A; however, this area did not present with defined characteristics consistent with friction ridge skin.
VQURYE	Test prints were created and processed contemporaneously with evidence. Documentation photographs were retained in the case record.
W2C4ZC	Items were examined as a standard case according to our lab procedures as there was no case information to dictate otherwise. As a standard case one treatment was applied to each item, other than item 3 as this was made up of 2 different substrate/material types. Detail and pattern determinations are not made by our laboratory staff, this is done later by a fingerprint bureau.
W42ZJG	For pattern type you should also include tip or palm and specific palm region. *See attached photo for explanation of answer 3-6. [From attached photo: "Answer 3-6: Arch was selected base on what is available for review. However the impression is better described as a tip. The complete core is not

TABLE 5

WebCode	Additional Comments
	available for interpretation. You should have an answer of insufficient detail for pattern interpretation and a photo of the developed pattern submitted for your review."] [From Table 4 - First-Level Detail Findings, Item 3: "Tip (sufficient pattern area not available to be 100% positive of pattern type)"]
WPGHNR	1,2-Indandedione, superglue and RUVIS were all quality tested prior to using on evidence. All had positive QC results
X7M9ZW	Pattern type for Item 1 was not clear enough to make a determination.
XCKZ2X	Test print processed with Items of evidence.
XHETH9	For Item 3, 3-6) "If first level detail was recovered, what pattern was identified?": Friction ridge detail on Item 3 appears to be a fingerprint tip, and the top of the core of either a loop or whorl; however, at this time it is unclear which.
XWC7EV	I was unable to determine the pattern type for Item 3.
XWVQM9	Item 3: Friction ridge detail was developed in quadrant A on the window of the envelope. Due to having only the top portion of a fingerprint, however, pattern type could not be determined.
Y3JPGU	I was unable to develop any prints on Item 1
Y9MWWX	Friction Ridges were developed on Item 1. However, unable to tell pattern type.
YCM8PC	Sections 1.6 and 3.6, no boxes could be checked as ridge detail developed but not enough to identify the pattern. There were no options for this type of result.
YH9XC8	For Item 3 put no for first level detail recovered because although detail was recovered cannot determine pattern since I only have the tip area.
YM4RA9	Interested in knowing how CTS is certain all exams are produced: specifically, the deposition of the matrix and the preservation of the "latent" impressions. Additionally, how many latent labs send evidence for DNA testing; thus, reducing the types of processes available. How can CTS ensure consistency?
Z9G2PW	Unable to determine pattern type for Item 3 -- tip portion above core
ZCZWTN	Item 3 (windowed envelope) contained a latent print which was positioned on both the plastic window and paper portion of envelope. In order to process the plastic window areas with dye stains and the paper areas with physical developer, the plastic was removed from the envelope only after the print was able to be fully captured after DFO processing.
ZELA2D	Visual examination before, between and after using the development methods. photographing before, between and after using the delvelopment methods.
ZMK4RD	No visible FRD or Ruhemann's purple on item 1. Item 3 - on the right edge of window the top of an impression was developed - unable to determine pattern type until - envelope treated with Indanedione revealed the portion of the envelope to be a whorl
ZNB8GE	Only the upper half of the print was developed in item 3. The part of the print on the envelope window in section A developed with cyanoacrylate fuming and was lifted with a gel lift. The area on the paper directly adjacent to the window did not develop clearly enough to discern the pattern of the fingerprint. Ridge flow observed with the faint development suggests a whorl so I would therefore start with that pattern while searching.
ZTLKYD	No friction ridge detail was observed on the manila envelope (Item 1) after processing with ninhydrin, nor 1,2-indanedione. Department procedure is to photograph porous articles prior to processing. Additional photographs were taken after each of the above porous processing techniques to demonstrate that no prints were developed and that the article itself, with all markings present, was not

TABLE 5

WebCode	Additional Comments
	compromised. Although the mirror compact (Item 2) was dusted with magnetic powder after CA fuming and dye staining it, photographs and a lift were not taken/ collected because the print was not enhanced. The photographs taken of the print on the mirror after visualizing it and CA fuming/ dye staining were of much better quality and served as the better preservation method.
ZVUR6C	Print from Item 2 almost completely washed away during dye stain processing, print also appeared "Fuzzy" after CA fuming.
ZYQGKX	Item 2 = the quality of the fingermark was better after visual examination, relative to that after superglue fuming (fuzziness, lower detection of minutiae). Item 3 = the IND/ZnCl2 treatment led to the detection of the "second part" of the fingermark (= not revealed by Lumicyano Powder), wich was not the case of the ninhydrin treatment (only few ridges). This enabled to classify the fingermark.

Appendix: Data Sheet

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Collaborative Testing Services ~ Forensic Testing Program

Test No. 16-5190: Latent Print Processing

DATA MUST BE RECEIVED BY *July 18, 2016* TO BE INCLUDED IN THE REPORT

Participant Code: WebCode:

Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB and A2LA. Please select one of the following statements to ensure your data is handled appropriately.

☐ This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA.
(Accreditation Release section on the last page must be completed and submitted.)

☐ This participant's data is NOT intended for submission to ASCLD/LAB, ANAB or A2LA.

Scenario:

During the week of 13 March 2016, three items of evidence were recovered from a crime scene. Police have requested that you process each item of evidence for latent prints.

Instructions:

All item packaging has been labeled with a CTS item number and each item divided into four quadrants or sections, which have been indicated as A-D. A single latent print has been deposited in one of these areas for each item. Only those areas within the A-D labeled sections need to be processed.

Items Submitted (Sample Pack LAP1):

Item 1: One manila envelope, divided into quadrants A-D.

Item 2: One dual mirrored compact, divided into sections A-D.

Item 3: One windowed mailer envelope, divided into quadrants A-D.

Please inspect your sample sets upon receipt. If the tape seal on any of your individual items is broken, please contact CTS for replacement samples.

For each item, in which quadrant or section (A, B, C, D) was the latent print recovered?

*Please indicate only the single letter of your determined location; further explanation may be provided in the Additional Comments. If no print is recovered, please enter "None". **Responses such as "N/A", "-", "No Result" are unacceptable.***

Item 1 _____

Item 2 _____

Item 3 _____

Please return all pages of this data sheet.

Participant Code:
WebCode:

Results for Item 1:

One manila envelope, divided into quadrants A-D.

1-1.) Date Received: _____ **1-2.) Date(s) Analyzed:** _____

1-3.) What method(s) of development were used during your examination?

Method (please list in order)	Method-specific information (ex. temperature, processing time)

1-4.) What method(s) of preservation were used, if any, following latent print development?

Method (please list in order)	Method-specific information

(If additional space is needed, copy this page and attach in the appropriate place within the data sheet.)

1-5.) Was first level detail recovered?
If you are not trained to make detail/pattern determinations, please select "N/A".

☐ Yes ☐ No ☐ N/A

1-6.) If first level detail was recovered, what pattern was identified?
If you are not trained to make detail/pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ☐ N/A

Please return all pages of this data sheet.

Participant Code:
WebCode:

Results for Item 2:

One dual mirrored compact, divided into sections A-D.

2-1.) Date Received: _____ **2-2.) Date(s) Analyzed:** _____

2-3.) What method(s) of development were used during your examination?

Method (please list in order)	Method-specific information (ex. temperature, processing time)

2-4.) What method(s) of preservation were used, if any, following latent print development?

Method (please list in order)	Method-specific information

(If additional space is needed, copy this page and attach in the appropriate place within the data sheet.)

2-5.) Was first level detail recovered?
If you are not trained to make detail/pattern determinations, please select "N/A".

☐ Yes ☐ No ☐ N/A

2-6.) If first level detail was recovered, what pattern was identified?
If you are not trained to make detail/pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ☐ N/A

Please return all pages of this data sheet.

Participant Code:
WebCode:

Results for Item 3:

One windowed mailer envelope, divided into quadrants A-D.

3-1.) Date Received: _____ **3-2.) Date(s) Analyzed:** _____

3-3.) What method(s) of development were used during your examination?

Method (please list in order)	Method-specific information (ex. temperature, processing time)

3-4.) What method(s) of preservation were used, if any, following latent print development?

Method (please list in order)	Method-specific information

(If additional space is needed, copy this page and attach in the appropriate place within the data sheet.)

3-5.) Was first level detail recovered?
If you are not trained to make detail/pattern determinations, please select "N/A".

☐ Yes ☐ No ☐ N/A

3-6.) If first level detail was recovered, what pattern was identified?
If you are not trained to make detail/pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ☐ N/A

Please return all pages of this data sheet.

Participant Code:
WebCode:

Additional Comments

Additional Questions (optional)

1.) List the most common items of evidence your laboratory routinely processes for latent prints.
(Ex. plastic bags, paper documents, etc.)

2.) List the most common development method used in your laboratory for nonporous surfaces. What approximate percentage of casework items are processed this way?

3.) List the most common development method used in your laboratory for porous surfaces. What approximate percentage of casework items are processed this way?

Return Instructions: Data must be received via online data entry, fax (please include a cover sheet), or mail by *July 18, 2016* to be included in the report. Emailed data sheets are not accepted.

Participant Code:

ONLINE DATA ENTRY: www.cts-portal.com

FAX: +1-571-434-1937

MAIL: Collaborative Testing Services, Inc.
P.O. Box 650820
Sterling, VA 20165-0820 USA

QUESTIONS?
TEL: +1-571-434-1925 (8 am - 4:30 pm EST)
EMAIL: forensics@cts-interlab.com
www.ctsforensics.com

Please return all pages of this data sheet.

Collaborative Testing Services ~ Forensic Testing Program

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code: WebCode:

for Test No. **16-5190: Latent Print Processing**

This release page must be completed and received by ***July 18, 2016*** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

Have the laboratory's designated individual complete the following steps
only if your laboratory is accredited in this testing/calibration discipline
by one or more of the following Accreditation Bodies.

Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory

ASCLD/LAB Certificate No. _____

ANAB Certificate No. _____

A2LA Certificate No. _____

Step 2: Complete the Laboratory Identifying Information in its entirety

Signature and Title _____

Laboratory Name _____

Location (City/State) _____

Accreditation Release

Return Instructions

Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.

Questions? Contact us 8 am-4:30 pm EST
Telephone: +1-571-434-1925
email: forensics@cts-interlab.com

Please return all pages of this data sheet.

